Strategy for Coastal and Marine Resources Management in Latin America and the Caribbean

Bank Strategy Paper

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ABBREVIATIONS

AMLC	Association of Marine Laboratories of the Caribbean
CARICOMP	Caribbean Coastal Marine Productivity
CEPAL	Comisión Económica para América Latina y El Caribe
CESI	Committee for Environmental and Social Impact
CSD	Commission on Sustainable Development
EEZ	Exclusive Economic Zone
ENSO	El Niño-Southern Oscillation
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information System
GNP	Gross Net Product
GRT	Gross Registered Tonnage
ICM	Integrated Coastal Management
IDB	Inter-American Development Bank
IOCARIBE	Intergovernmental Oceanographic Commission's
	Regional Commission for the Caribbean and Adjacent Areas
MIF	Multilateral Investment Fund
MSY	Maximum Sustainable Yield
NGOs	Non-Governmental Organizations
NOAA	National Oceanic and Atmospheric Administration
OECD	Organization for Economic Cooperation and Development
OEO	Operations Evaluation Office
OLDEPESCA	Organización Latinoamericana de Desarrollo Pesquero
SEA	Strategic Environmental Assessments
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on Law of the Sea
JNCTAD United Nations Conference on Trade and Development	
USAID	United States Agency for International Development
WTTC	World Travel and Tourism Council
ZMT	Terrestrial-Maritime Zone (Mexico)

I. INTRODUCTION

1.1 Latin America and the Caribbean are endowed with a unique and valuable maritime heritage. Several of the world's largest and most productive estuaries occur in the region, such as those found at the mouth of the Amazon and the Rio de la Plata in the Atlantic or the Guayas Gulf and the Gulf of Fonseca in the Pacific. The reef system lying off of Belize is the second largest barrier reef in the world. The waters off Peru and Chile support one of the top five commercial fisheries. The region's industrial ports are the second leading destination for containerized U.S. exports and the Panama canal is a major focus of seaborne trade, providing a vital link between Pacific Rim countries, the Western hemisphere and Europe.

1.2 Although many of these assets have been undervalued in the past, the contribution of coastal and marine areas to the sustainable development of the region is now gaining recognition among coastal states and the public at large. Combined with this increasing appreciation is an emerging awareness of the need to manage coastal and marine resources. This regional interest is expected to increase over the next decades — spurred by new trade opportunities, changing markets, heightened awareness of coastal hazards and fisheries conflicts, and the entry into effect of the United Nations Convention on Law of the Sea (UNCLOS).

1.3 This document presents a coastal and marine resources management strategy for the Inter-American Development Bank (IDB). The strategy provides new directions for Bank activities which significantly affect the coastal zone. Calling for a renewed, more integrated approach, the strategy is intended to bring the Bank's interventions in sectors such as fisheries, tourism, maritime transport and pollution control in line with the objectives of the 8th Capital Replenishment. The principles, elements of innovation and actions which are at the core of the strategy are designed to fill a void in the Bank's current policies in natural resources man-agement.

1.4 Integrated coastal management is presented here as a multi-purpose endeavor aimed at improving the quality of life of communities dependent on coastal resources and helping coastal states attain sustainable development from the headwaters of coastal watersheds to the outer limits of their exclusive economic zone (EEZ). Coastal management is a geographically-specific response which focuses on issues typical of coastal areas - for example, depleted fisheries stocks, declining coastal water quality and conflicts between coastal uses. It combines public participation with techniques such as zoning, monitoring and enforcement to achieve a balance between coastal uses based on a set of widely endorsed objectives for improving living conditions, safeguarding property and protecting coastal ecosystems.

1.5 One of the strategy's objectives is to assist the region in establishing programs for the integrated management of coastal and marine areas tailored to social and economic priorities of coastal states. In doing so, the intent is to promote leadership in coastal management, create opportunities for innovative solutions, link coastal management to other aspects of sustainable development such as water resources management, and foster a genuine commitment towards understanding and managing coastal and marine areas. The Bank initiated studies in 1995 and 1996 to help orient its future activities in the coastal zone, including sub-regional assessments of emerging policy reforms for coastal management, sector reviews in fisheries and tourism and an analysis of lessons learned from past projects. Earlier versions of the strategy were discussed at international meetings in 1996 and 1997, reviewed internally and submitted to peer review.

1.6 The strategy begins with an overview of the region's coastal and marine resources and trends in their use (Section II). Emerging policy reforms the region are introduced along with the shortcomings of traditional approaches. The Bank's own experience in financing coastal infrastructure, marine fisheries

is examined in Section III. The core of the strategy is presented in Sections IV, V, and VI where actions and initial support for implementation are recommended in line with basic objectives and widely accepted principles for managing coastal and marine resources.

II. THE CHALLENGE OF SUSTAINABLE DEVELOPMENT IN THE COASTAL ZONE

2.1 Scope

2.1 The boundaries of coastal regions encompass the coastline itself, namely the physical transition between land and sea, the adjacent terrestrial systems that affect the sea, and marine ecosystems affected by their proximity to land.

2.2 This definition implies boundaries that (a) include those areas and activities within watersheds that significantly affect the coast, and (b) extend seaward to the edge of the continental shelf or the Exclusive Economic Zone (EEZ) (GESAMP, 1997; Clark, 1996). As such, coastal areas encompass resources and ecosystems lying at the land-sea interface such as river deltas, wetlands, beaches and dunes, lagoons, estuaries, coral reefs and offshore embankments. For the purposes of the Bank strategy, "coastal zone" and "coastal and marine areas" are used interchangeably to refer to both terrestrial and marine components.

2.3 Several countries have enacted legislation which sets aside a narrow strip (usually between 20 to 200m) landward of the shoreline (or mean high tide) as public or state jurisdiction. In practice however, the boundaries of existing coastal management programs tend to be defined by the issues being addressed and, therefore, change as programs evolve.

2.4 The delimitation of maritime boundaries is an important element of State sovereignty (United Nations Office for Ocean Affairs and the Law of the Sea, 1995). Several countries have adopted legislation dealing with such matters as the delimitation of their maritime boundaries between States with opposite or adjacent coasts.

2.5 The region's coastal zone represents a vast amount of territory regardless of the definition used. In total, the coastal zone stretches for 64,000 km and

encompasses 16 million km² of maritime territory. Given this scope, coastal states now have expanded responsibilities for sustainable development.

2.2 Ecological setting

2.6 Oceans are often mistaken as homogeneous water masses with few distinguishing features other than water temperature and depth. In fact, the ocean masses that surround Latin America and the Caribbean add significantly to the region's diversity and productivity. Features such as currents, the extent of the shelf, dynamics of the shore, banks, reefs and estuaries provide the backdrop for economic development along the coast. For the purposes of this strategy, it is useful to divide the Region into four marine and coastal regions as follows: (a) South Western Atlantic; (b) Wider Caribbean; (c) South Eastern Pacific; and (d) Central Pacific. These four marine regions regroup the countries of Latin America and the Caribbean into geographic units linked by ocean currents, sediment transport and other chemical cycles. Understanding these geographic units is a first step towards a more sustainable approach to coastal development.

2.3 Historical perspective

2.7 Ocean uses and maritime access have been at the heart of this hemisphere's economic and political development, from the colonial era and the early scientific expeditions to today's expanding seaborne trade and offshore mineral production. The last century has witnessed an important transition from the concept of freedom of access associated with the oceans' abundance to the new rules of the Law of the Sea which lay the foundation for "managed oceans" at both the national and international levels (Pontecorvo, 1986).

2.8 Latin American countries contributed significantly to this transition, most notably in 1947 when Chile made a claim of jurisdiction over a maritime area extending 200 nautical miles from its coast. This was followed closely by similar claims made by Peru and Ecuador. These developments led to the Santiago Declaration on the Maritime Zone in 1952 which was the first Latin American multilateral instrument to endorse and spell out the claims already made by Chile, Ecuador and Peru to rights over a 200-mile maritime zone. The Permanent South Pacific Commission was also created at that time to help meet the objectives of the Santiago Declaration which, in many ways, heralded the ba-sic themes for the United Nations Conferences on Law of the Sea, starting in 1958 and culminating with UNCLOS which was opened for signature on December 10, 1982 at Montego Bay, Jamaica (Mawdsley, 1986).

2.9 Parallel with this transition, Latin American and Caribbean governments have faced increasing challenges within national and international seas, ranging from collapsing fisheries in the Pacific, maritime disputes in the southwest Atlantic to shipping casualties, spills and inter-island fisheries disputes in the Wider Caribbean. These events led to the recognition that oceans are an integral part of sustainable development at UNCED in 1992 and that the intensification of ocean uses in the next decades will dictate an adjustment in public sector roles. Latin American and Caribbean countries have since taken steps to put in place sub-regional mechanisms to manage ocean systems that are open and often shared among several jurisdictions.

2.10 During the 1960's and 1970's, the Bank played a pioneering role in financing fisheries development and infrastructure which were to have an impact on the economies of Chile, Peru and Mexico for example. In addition, the Bank financed the Region's first international tourism resorts along the coasts of Mexico and the Dominican Republic and much of the basic sanitation infrastructure in coastal cities such as Rio de Janeiro and Montevideo, thus bringing about a profound change in the coastal landscape. More recently, the Bank has helped national and local governments prevent coastal erosion (in Barbados and Guyana), establish marine protected areas (in Honduras and Brazil), restore marine water quality and mangroves (in Trinidad and Tobago and Ecuador). Given this experience and recent events, there are now timely opportunities for the IDB to be integral part of the region-wide transition towards managed coasts and oceans.

2.4 Economic and social importance

2.11 The region's coastal zone and resources represent strategic assets for the Bank's borrowing member countries. Many are now seeking private investments in coastal tourism, mariculture and maritime transport, viewing them as offering promising opportunities for the diversification and integration of their economies. Trends in coastal dependent sectors and demographics are transforming the region's coastal areas.

Population

2.12 Nearly 75 percent of the region's inhabitants now live in cities, and 60 of the largest 77 cities are coastal. Many of these cities are growing at rates faster than the national average. Consequently, as Latin America becomes more urban, it is also becoming much more coastal (Hinrichsen, 1997).

2.13 Coastal areas in Latin America and the Caribbean have a unique cultural and social profile tied to their history. For instance, the Atlantic coast of Nicaragua, Honduras, Costa Rica and Panama were initially developed by groups of African descent that have a long-standing tradition of artisanal fisheries and trade with other parts of the Caribbean (Cowater International Inc., 1997). Many indigenous communities such as the Garifuna in Central America and the Kuna in Panama have traditionally depended on coastal resources for their livelihood and cultural integrity.

Fisheries

2.14 One of the main characteristics of the region's fisheries sector is its heterogeneity in scale of operation, as well as in technology, distribution, target

species and value. In most countries, the sector is structured around artisanal or small-scale operations which contribute to the local food supply and income of rural coastal communities and the more developed industrial sector aimed primarily at export markets. Fisheries provide employment for approximately one million fishers, of which about 90 percent are in the small scale sector (Aguero, 1996).

2.15 Each fishery faces distinct problems in terms of sustainability and each offers certain opportunities for future development. Some problems, such as the condition of open access and the need for im-proved management, are common to all fisheries (Christy, 1996). For example, highly migratory species such as tunas offer opportunities for development but require attention in the international arena in terms of both markets and the need for multilateral and international agreements. The shoaling pelagic species (such as anchovy and sardine) face a different set of problems in the market place due to the high sensitivity to prices of substitute products, such as other forms of feed for poultry and aquaculture production. In addition, these fisheries experience severe fluctuations in biomass resulting from changes in natural conditions. Unlike the other fisheries which tend to be of interest to only a few states, small-scale inshore fisheries are of importance for all coastal states of the region. These fisheries are important for the Bank's attention because of their contribution to the food supply in rural areas, their social values and their vulnerability to environmental degradation in coastal areas.

2.16 In terms of volume of catch, the marine fisheries of the Region are dominated by the catches of Peru and Chile. Together, these two states took over 14 million tons in 1993 - or almost 80% of the total catch of Latin America and the Caribbean. The total regional catch for the same period was about 20 million tons, contributing approximately 20 percent of the world's total catch (Christy, 1996).

2.17 The main markets for regional fishery prod-ucts are Japan and the United States followed by European countries. Chile and Peru export most of their fresh and frozen fish and meals to these markets. Central American countries and Ecuador target U.S. markets, mainly lobster and shrimp. Caribbean fisheries tend to be radically different in that per capita consumption is high. Local fisheries are almost entirely artisanal in nature, with part of the catch dedicated to the tourism market.

2.18 Although total catch for the states of the Region (excluding Chile and Peru) did not increase significantly during the past decade, there was a shift from the low valued shoaling pelagic species to the higher valued species used for human consumption.

2.19 The fishing fleet of Latin America has been increasing at an annual rate of 5 percent over the last decade. Even allowing for the open ship registers of Panama and Honduras, there has been a significant increase in the number of large vessels from an estimated total of 2,238 vessels with a tonnage exceeding 100 gross registered tonnage (GRT) in 1985 compared to 3,156 in 1995. This expansion has meant that excess fishing capacity is now an issue (FAO, 1997).

2.20 The overall economic importance of fisheries varies considerably from one country to another. Some countries like Peru, Chile, Argentina, Uruguay, Ecuador, Mexico and Panama among others, obtain considerable economic benefits in the form of foreign exchange, extracting and exporting fishery products. Others, like most countries of Central America, derive important social and cul-tural benefits from fishery activities, as a source of food and employment and a way of life to many coastal communities. Furthermore, fishery resources in general, but more so in tropical waters, where diversity is greater, are important components of coastal marine ecosystems and biodiversity and therefore, their value transcends political boundaries.

Mariculture

2.21 The importance of mariculture in Latin America is relatively small when compared to other tropical regions such as southeast Asia. Its importance is growing nonetheless in countries such as Ecuador where a significant shrimp mariculture industry has developed mostly in mangrove converted areas and salt ponds. Latin America produced 21.6% of world farm shrimp production in 1995 (FAO, 1996), with much of that production attributed to Ecuador and, to a lesser extent, Honduras, Panama and Nicaragua.

Tourism

2.22 Tourism accounts on average for about 12 percent of GDP in Latin America and the Caribbean. Coastal areas historically have served as the region's main tourist destinations such as the beaches of Mexico, the Dominican Republic, the Bahamas, Barbados, Jamaica, Brazil and Uruguay. There are also more recent coastal destinations aimed at the booming ecotourism market such as the offshore keys of Belize and the Galapagos in Ecuador.

2.23 According to the World Tourism Organization, arrivals of international tourists to Latin America grew several times faster than the world average in 1994 (Huescar and Luhrman, 1995). Tourism in this region is predicted to grow yearly by 5 to 7 percent through the year 2000.

2.24 Tourism already represents a major source of foreign exchange for most of the Caribbean, for countries such as Costa Rica, Belize, Guatemala and Panama in Central America and for Uruguay, Argentina and Mexico. Around 100 million tourists visit the Caribbean annually (all countries including Cuba), contributing about 43 percent of the combined GNP (World Coast Conference, 1993). Tourism provides employment for about 10 million people in Latin America and the Caribbean (WTTC, 1993).

2.25 Tourism investments are a catalyst for land use change in coastal areas. As international markets for new destinations grow so does demand for improved access along scenic coasts which until now had been inaccessible and without services. Improvements in access, energy distribution and communications needed for resort development as well as prospects for employment attract new residents to the coast, often leading to the transformation of traditional fishing villages. These changes trigger rising prices for land, competition for resources such as water and conflicts with sectors such as fisheries. Cruise ship tourism, a market segment that is expanding throughout the Caribbean and Central America, is placing pressure on many destinations that have to handle increasing volumes of ship-borne wastes.

2.26 The growing popularity of Latin America as an ecotourism destination has led to an increased demand for nature-oriented recreation services, improved access and other services in coastal and marine protected areas and their buffer zones (Blackstone Corporation, 1997). Ecotourism, like conventional tourism, creates a need for improved environmental management which often exceeds the capacity of local jurisdictions.

Maritime Transport

2.27 Coastal areas worldwide serve as major transhipment zones for international trade. In this sense, the ports of Latin America and the Caribbean are important nodes in the flow of goods brought into and exported from the Region.

2.28 Port activity is accelerating in all parts of the Region. In 1995, ports in Latin America and the Caribbean surpassed European ports as the second leading destination for containerized U.S. exports with the equivalent of about 1.5 million containers (Journal of Commerce, 1996).

2.29 The ports of Latin America and the Caribbean are another factor contributing to land use change in the coastal zone. Most commodity ports serve as magnets for manufacturing and processing activities, often contributing to both the urbanization and increasing industrial character of coastal areas. Expanding ports and seaborne trade are often accompanied by intensified transportation corridors in coastal areas. Port operations, including maintenance dredging, and the disposal of dredge spoils and shipborne

wastes, are having significant effects on coastal environmental quality. Increasing traffic increases risks from accidental spills, with several coastal segments of the Mexican Gulf coast and the Wider Caribbean considered at high risk. Maritime transport is also a major source of ship-generated marine debris in the Caribbean.

2.5 Issues

2.30 The coastal and marine areas of Latin America and the Caribbean are undergoing a rapid, often drastic transformation. These changes are detected as environmental, social and economic problems which are typical of coastal areas as follows:

- С Land use and resource allocation conflicts in the coastal zone: Because of mas-sive, largely unplanned investments in sectors such as tourism, mariculture, port expansion and industrial facilities, coastal areas in Latin America and the Caribbean are the targets of accelerated land use changes and the conflicts associated with such changes. New activities compete for the same resources upon which coastal communities traditionally depend. In the absence of clear property rights or management, fisheries resources, coastal lands, beaches, mangroves, coral reefs are deplet-ed, encroached upon or overused. These trends add to the conflicts. They contribute to escalating land prices, exposure to co-rruption, the displacement of traditional users and even civil unrest.
- C **Degradation of coastal ecosystems**: Land conversion combined with the expansion of coastal infrastructure is contributing to the degradation of coastal habitats. In a recent regional assessment, 55 percent of the entire mangrove coast of Latin America and the Caribbean was classified as either critical or endangered, 30 percent as vulnerable and only 15 percent as stable (Olson, et al, 1995; Suman, 1994). Coral reefs close to population centers throughout the Caribbean,

Central America and northeast Brazil are showing signs of accelerating deterioration from sedimentation, overfishing, bleaching and disease (Rogers, 1990; Cortes, 1997; Woodley et al, 1997; Maida and Ferreira, 1997).

Depletion of commercial fisheries stocks: Fisheries in Latin America and the Caribbean face mounting problems, including depleted stocks, overcapitalization and plant closures, habitat degradation, illegal practices, non-compliance with management regulations and increasing competition between artisanal and industrial fleets. More than 80 percent of the commercially exploitable stocks in the South western Atlantic and 40 percent in the South eastern Pacific are either fully fished, overfished or depleted (FAO, 1995a). The effects of fisheries bycatch on marine biodiversity and fisheries sustainability are also a growing concern. Given the dependence of the Latin American fisheries sector on foreign markets where demand is strong, pressure on stocks will continue to rise. The recent expansion of aquaculture, which often depends on wild fisheries stocks for seeding (as in the case of farmed shrimp production) is also contributing to pressure on stocks.

Declining coastal water quality from landbased sources: The region's estuaries and bays are among the world's most pro-ductive systems. They are also the receiv-ing waters for large volumes of municipal wastewater discharges combined with urban and agricultural runoff, effluents from coastal aquaculture ponds and other discharges. The sediments, nutrients, organic material and various contaminants which flow into estuaries and bays tend to settle or are diluted with ocean water. However, there are signs this natural dilution capacity is being exceeded by the volumes and concentration levels of effluents. Rising levels of pollution

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in estuaries and bays represent an increasing public health hazard. They affect marine productivity and diversity as well as increase costs for tourism and mariculture.

- С Increasing coastal erosion, flooding and shoreline instability: Coastal flooding, erosion and landslides caused by severe storms present significant risks for the safety and property of coastal residents, with devastating results for those living on small islands or close to low-lying coasts such as in Guyana. Deforestation, dredging and filling, poorly designed coastal structures and illegal sand mining often intensify the risks associated with coastal hazards. In the Caribbean, hurricanes, coral reef degradation and beach erosion are linked in a cycle threatening public health, shorefront properties and tourism. Concerns over coastal hazards will become more prominent in the next decade with better understanding of ocean-atmosphere interactions (e.g., El Niño events) and the effects of global climate change in terms of sea level rise.
- С Impoverishment of coastal communities: The economic dependence of rural, often poor communities on coastal resources and lands is one of the major challenges of coastal management. Rural fishing villages depend on heavily fished inshore stocks for subsistence as well as mangrove wood for firewood and construction materials. Landless people have settled in floodprone coastal areas in Guyana, Honduras, Ecuador and Brazil because these are the only lands available to them for settlement. In those instances, unsustainable use of coastal areas and resources may appear to be the only alternative short of migration to urban areas.

2.31 One unique feature of coastal areas is that these problems are usually cumulative — that is the most serious resource degradation problems have built up gradually as the combined outcome of numerous

actions and small-scale alterations which alone may have had relatively minor impacts. Resource managers worldwide now recognize that these cumulative effects (effects that are either additive or synergistic) represent a major challenge for coastal management (NOAA Coastal Ocean Program, 1995). Cumulative effects are being manifested by an increase in the frequency, extent, and duration of harmful algal blooms in coastal areas, suggesting that human activity has affected the base as well as the top of marine food chains (Vitusek, et al., 1997; Anderson, 1994).

2.32 Fragmented, often overlapping public sector institutions compound the effect of these issues. Inadequate institutional capacity reveals itself in the difficulties faced by government institutions to mitigate the adverse effects of development on coastal areas or to resolve conflicts over the allocation of resources under public jurisdiction such as tidal waters, mangroves and fisheries. The virtual lack of maritime surveillance and enforcement, particularly in remote coastal areas and islands, is a widespread institutional problem and one which has left several locations vulnerable to illegal activities.

2.33 Explicit or hidden subsidies to offshore fisheries, mariculture, tourism, or agriculture, for example, are distorting the economic context for determining resource use. Subsidies in fisheries have been a major reason for overexpansion of the fishing fleet, over fishing, and ultimately, a loss in species abundance and the long-term sustainability of the industry. Subsidized land is an important subsidy for mariculture throughout Latin America. Reforming such perverse incentives provides one of the most cost-effective instruments for promoting coastal conservation, but requires the necessary institutional capacity for successful implementation and enforcement (Southgate and Whitaker, 1994).

2.6 Traditional approaches

2.34 Traditional approaches to coastal and marine areas have emphasized investments in infrastructure, initially from the public sector and increasingly through the private sector.

2.35 In the 1970's, fisheries gained increasing importance for the Region's governments. There were several attempts to develop resources through large scale parastatal enterprises, some of which were supported by the Bank. Since, in some countries, there was a lack of infrastructure for fisheries, it was thought necessary to use public sector agencies to build that production capacity as well as onshore processing and storage facilities. Fishery management policies consistent with this concept were oriented toward increasing extractive activity through one of two approaches: (1) an increase in the number of vessels, or improvements in the gear used to fish traditionally exploited stocks, or both - a process known as intensification of production; or (2) an expansion of the fishing fleet's area of operation to new fishing grounds, or to underexploited stocks, or both - a process known as extensification of production (Christy, 1996). While there were short-term increases in earnings at first, these earnings were not sustained due to overcrowding, stock deterioration and increasing conflicts between artisanal and industrial fisheries.

2.36 In 1993, FAO issued a report on the state of the world's fisheries which underscored the exploitation status of fish stocks and related environmental issues. While it attracted little attention initially, the report and the formulation of several international fisheries agreement in 1994 became the subject of worldwide attention (Williams, 1996b; Safina, 1995; Parfit, 1995). There was broad consensus on the factors that had contributed to depleted fisheries and the pitfalls of traditional approaches to fisheries which emphasized development rather than resource management.

2.37 Traditional approaches to tourism in Latin America and the Caribbean have also raised concerns for sustainable coastal development. In the 1970's, the sector was characterized by large-scale public sector investments in roads, sanitation, energy and communications designed to attract private sector investments in resorts and associated services. Government land was used as a subsidy to attract foreign investments. The emphasis was on centralized, master planning of tourist areas often overlooking the indirect land uses changes that came in the wake of resort development. There was little attention directed at the social or environmental implications of tourism development on local communities. Conflicts between tourism and local fishing communities grew.

2.38 Competition for markets in the US and Europe rose appreciably in the 1980's. Several governments started providing access to credit for private investments in tourism as a means of generating foreign exchange and employment. The orientation towards mass markets continued in Mexico, the Dominican Republic and elsewhere in the Caribbean. The indirect effects of mass tourism on the environment became a growing concern for local governments and tourists alike. Improved air and road access throughout Latin America and the Caribbean opened new destinations which offered the scenic quality and sense of adventure sought by a changing international market. Much like the conventional resorts though, some ecotourism destinations rapidly showed evidence of overuse in the absence of effective policies for maintaining environmental quality and community involvement as well as incentives for compliance with regulations.

2.39 Until recently, much of the discussion in environmental management in Latin America and, to some extent in the Caribbean, have focused on terrestrial environments — spurred in part by international concerns over deforestation. Donor support for policy reforms in natural resources management has been aimed at restructuring former forestry and agricultural departments, also characterized by a land orientation. As a result, the wave of natural resource management and environmental policy reforms which swept Latin America in the late 1980's and early 1990's seldom encompassed fisheries agencies or maritime administrations.

2.40 In summary, traditional sectoral approaches have not been effective in maintaining the productive

value of coastal areas. While the role of public sector ins-titutions in managing coastal and marine resources has gone through major shifts, responsibilities are not well articulated nor have incentives been introduced to ensure that private sector interventions address sustainability.

2.7 Emerging reforms

2.41 The term coastal management came into common use in the early 1970's with passage of the US Coastal Zone Management Act in 1972. Integrated coastal management (ICM) was recommended at the 1992 United Nations Conference on Environment and Development (UNCED) as the framework for responding to both global and national issues posed by the relationships between human society and coastal and marine environments. ICM can be defined simply as (Olsen, in press):

> a continuous and dynamic process that unites government and the community, science and management, sectoral and public interests in preparing and implementing an integrated plan for the protection and development of coastal ecosystems and resources.

2.42 ICM usually focuses on three goals: overcoming sectoral conflicts; preserving the productivity and biological diversity of coastal ecosystems; and promoting an equitable and sustainable allocation of coastal resources (Post and Lundin, 1996). An equitable, transparent process of governance is also central to ICM. Coastal management relies on a variety of techniques to achieve its specific objectives.

2.43 There is an emerging international consensus of the principles and features of effective coastal management (Chua and Fallon Scura, 1992; OECD, 1993; Pernetta and Elder, 1993; Sorensen, 1997). Five principles have a direct bearing on the strategy:

C local and national ownership of the program;C participation in all phases of the program;

- C strategic decision making;
- C integrated approaches and methods; and
- C the precautionary approach to management.

2.44 Above all, it is the integrating feature of coastal management that distinguishes the endeavor from traditional sectoral programs. One dimension of integration are the linkages created between "bottom-up" and "top-down" approaches to resource management and policy reform — a concept referred to as the "two-track" approach (Olsen, misc. years). The two-track approach calls for building capacity both within central government and coastal communities. Both governments and communities are involved in the analysis of development issues and in taking responsible action through intermediary stakeholder organizations.

2.45 Within the last five years, a few countries in Latin America and the Caribbean have started closing the gap between their policies for land and maritime resources. This is particularly true of countries whose economies are closely linked to environmental quality in the coastal zone. Five initiatives have had a significant influence in public policy:

- C Barbados' Coastal Conservation Program;
- C Ecuador's Coastal Resources Management Program;
- C Belize's Coastal Zone Management initiative
- C Brazil's National Coastal Management Program;
- C Costa Rica's Coastal and Marine Program.

2.46 While it is difficult to isolate the factors explaining the continuity of these programs, one key factor appears to be a focus on clearly defined coastal problems. Another key feature is the ability of the program to provide services (information, screening, monitoring) directly related to an important sector of the national economy such as tourism in Barbados or shrimp mariculture in Ecuador. In addition, these programs have demonstrated an ability to evolve from an initial, rather restricted focus towards a more integrated and participatory

approach.

2.47 Countries in Latin America and the Caribbean are at very different stages of evolution towards integrated coastal management. A few countries such as Brazil, Ecuador, Costa Rica and Barbados are into the "second" generation of their national coastal management programs, facing with varying degrees of success the question of financial sustainability. Others are still at the stage of isolated pilot projects, often short-term and with limited longterm effects. 2.48 A commitment towards sustainable development of the Region's coastal and marine resources is emerging (e.g., 8th Coral Reef Congress in Panama; Conference on the Sustainable Management of the Littoral Zone of Rio de la Plata). This heightened awareness is expected to boost the demand for financial and technical assistance in coastal and marine resources management in Latin America and the Caribbean over the next decade.

III. THE BANK'S MANDATE AND EXPERIENCE

3.1 Meeting the mandate

3.1 The Eighth General Increase in the Financial Resources of the IDB explicitly recognizes the need for a new focus in calling for "Support for the conservation and management of the region's maritime resources" (AB-1704, p. 34). One of the objectives is to assist the region in establishing programs for the integrated management of coastal and marine areas tailored to social and economic priorities of coastal states. Much like other integrated approaches to natural resources management, coastal and marine resources management can provide a framework and techniques which enable coastal states to make progress towards achieving their sustainable development objectives in a strategic part of their national territory.

3.2 The number of coastal and marine resources management operations approved by the IDB is still small and limited in geographic scope compared to the projected needs for coastal management in Latin America and the Caribbean. Indeed, there are many priority coastal areas where use conflicts are escalating dramatically due to declining coastal water quality, land speculation for tourism and pressure on fisheries resources, areas such as the Gulfs of Fonseca and Nicoya in Central America, Guayas Gulf and the Galapagos in Ecuador or the State of Bahia in Brazil.

3.3 Other than the experience gained recently with the design of a few projects reviewed below, the Bank is operating in a policy vacuum with regard to coastal and marine resources, both from the standpoint of programming and quality enhancement of projects. The Bank fisheries policy (OP-724) dates back to 1969 and, as shown in previous sections, conditions for fisheries have changed dramatically since that time. The Bank's policy on environment emphasizes environmental impact assessment with no direct references to the marine environment (OP- 703). The Policy on Natural Disasters does refer implicitly to the vulnerability of coastal areas to hurricanes and floods but emphasizes structural solutions such as breakwaters and revetments for disaster prevention in low-lying coastal areas (OP-704).

3.4 Recognizing this void, the Bank initiated the preparation of a strategy for coastal and marine resources management in 1995. The strategy builds on experience gained the last two decades financing marine fisheries development, coastal infrastructure as well as integrated coastal management initiatives.

3.2 Lessons from Bank experience

3.5 The Bank has been providing public sector financing for infrastructure and productive activities in the coastal zone of Latin America and the Caribbean, with the nature of the investments changing considerably in the last two decades.

Investments in marine fisheries development

3.6 As of October 1968, the Bank had financed relatively few projects in the fisheries sector. By the end of 1981 however, the Bank had financed 38 technical cooperations and extended close to \$300 million in loans for 15 projects with a combined total cost of roughly \$720 million. But the Bank's lending for investment projects has been negligible since 1983.

3.7 Most investments financed by the Bank were multi-purpose projects, including construction of vessels, port infrastructure, and provision for marketing and processing facilities. All but two of them provided support for vessel construction or rehabilitation. About half of them provided lines of credit while the other half provided funds to executing agencies for capital investments (Christy, 1996). 3.8 The question of degree of success, or failure, in he Bank's fisheries projects is difficult to assess because of the absence of critical information with regard to the economic effects of the projects. It is possible that some of the early projects providing capital investment in fish harvesting and processing were beneficial to the recipient states. However, the fact that catches declined or rose only slightly in eight out of the eleven projects involving investments in fish harvesting capacity indicates that the record of failure may outweigh that of success (IDB, 1989; Christy, 1996).

3.9 The well-publicized record of failure of public sector loans in marine fisheries development financed by the Bank and other donors, coupled with the recent attention given to the environmental effects of fisheries, partly explain the reduced demand for investments in this sector. In recent fisheries projects submitted for consideration, the Bank has had to address issues overlooked in the past including the environmental effects of by-catch, fisheries and marine biodiversity, and the impacts of effluents from mariculture on coastal water quality.

The Bank's past experience with investments in coastal infrastructure

3.10 Important shifts have taken place in the Bank's tourism investments, most of which have been in coastal areas. Between 1971-1995, the Bank approved a total of US\$1.23 billion in tourism loans and US\$11 million in technical cooperations.

3.11 Although not all financing went to coastal areas, the largest loans supported infrastructure on the coasts of the Caribbean (Dominican Republic), Mexico, Panama, Venezuela, and northeast Brazil. Mexico remained a constant recipient of Bank loans in tourism, with much of the investments supporting the development of the planned resorts of Cancun, Bahias de Huatulco and other Pacific coast resorts (Estevez, 1995). In the 1970's and 1980's, tourism projects consisted mainly of public infrastructure investments in roads, basic sanitation, maritime works, communications and energy distribution designed to attract private sector investments in resorts and related businesses.

3.12 More recent tourism loans reflect the state's changing role in the sector, with the most recent loans including components for land use zoning and setbacks, marine protected areas, the restoration of coral reefs, and community involvement in the sector. Generally, the emphasis has been on addressing the direct environmental impacts of tourism infrastructure using standard mitigation measures combined with institutional strengthening for environmental monitoring.

3.13 The Bank financed only US\$91 million for the rehabilitation of ports and harbors between 1971 and 1995 with an added US\$4.4 in technical cooperations. Projects in the port sector were almost all approved in the early 1970's and most were in the Caribbean, except for a loan approved for Buenos Aires in 1995.

3.14 There are several pending port rehabilitation projects in the 1997-98 pipeline for an estimated total of US\$324 million. Environmental issues raised during preparation have included the effects of dredging and dredge spoil disposal; port safety, handling of hazardous cargo and emergency response; maritime navigation safety; and solid waste disposal.

3.15 Increasingly, the Bank is requiring that loans for some types of coastal infrastructure (mainly ports and tourism) be designed within a broader land use and institutional framework which addresses potential use conflicts, land-based sources of pollution and conserving coastal habitats. This enhanced sectoral management is not without its challenges though, both for the preparation and execution of loans. Some important constraints include: (a) the lack of tradition in using land use planning tools in sectoral development; and (b) limitations in the methods and data available for forecasting the indirect and cumulative impacts of various types of infrastructure on coastal systems. Increasingly, investments in sanitation infrastructure in coastal cities (e.g, Rio de Janeiro, Montevideo, Cartagena) and islands have raised questions concerning ocean disposal of municipal effluents, their cumulative effects on estuaries, and other water bodies that receive the wastewater and how to best maintain acceptable levels of marine water quality with the limited resources available (World Bank, 1996).

Financing integrated coastal management

3.16 In addition to adding coastal management features in the design of infrastructure loans, the Bank has financed coastal management initiatives directly through loans and non-reimbursable technical cooperations. In all, the Bank has approved almost US\$60 million in financing for integrated coastal management since 1993 with approximately US\$90 million in pending operations.

3.17 The Bank approved its first integrated coastal management loan for Ecuador in 1993. Other loans have since been approved for the Bay Islands of Honduras and the Barbados Coastal Conservation Program. In addition, the Bank has supported coastal management activities through technical cooperations and various funds. Requests for assistance since 1993 have been made by countries such as Guyana, Haiti, El Salvador, Panama, Costa Rica, Peru, Argentina and Brazil (see Annex I).

3.18 While each coastal management project financed by the Bank has been tailored to the coastal issues of the project location, they all share some features including:

- C a participatory approach for project design and execution;
- C the mixture of policy reforms (e.g., for sustainable mariculture in Ecuador) along with practical demonstrations in the restoration of coastal habitats, and traditional investments in environmental sanitation;
- C the establishment of a cost-effective baseline of coastal conditions with physical and socioeconomic indicators of change;
- C requiring that investments in coastal infra-

structure be placed within their broader land use context to prevent avoidable inter-sectoral conflicts;

- C formal agreements for cost sharing with local governments, private sector associations, NGOs and financing institutions;
- C the introduction of mechanisms for interagency coordination, negotiation and dispute resolution among competing sectors in the coastal zone;
- C multi-faceted revenue generation measures to ensure the financial sustainability of the program;
- C a robust institutional strengthening component.

3.19 Most of the Bank's experience in integrated coastal management to date has been in the preparation of loans. These programs will surmount various obstacles during implementation, including limited human resources in government and the private sector trained in coastal management. The small coastal units that have been created through Bank investment projects face formidable tasks in resolving conflicts among economic activities and in securing the support of more powerful sectoral agencies such as Fisheries, Tourism and Public Works Departments. A key to success will be the ability to demonstrate that good coastal management yields measurable returns to the national economy in terms such as improved competitiveness (for tourism or shrimp production for example), employment creation or avoided public costs (e.g., for coastal flood control).

3.20 In summary, the Bank's experience in coastalrelated operations clearly points to some necessary changes in the way these projects are identified, designed and monitored to take into account the special character of coastal and marine areas. Marine fisheries operations underscore the urgency of moving from open access regimes to management schemes that restrict access, maximize rents and integrate environmental considerations. Tourism operations have shown that the indirect land use changes associated with large public sector investments in the coastal zone call for more attention to municipal land use planning and zoning at the outset as a means of avoiding conflicts as well as unwanted cumulative effects. The integrated coastal management projects have underscored the need to tailor the scope and objectives of more innovative projects to the existing institutional capacity and human resources of the country.

IV. GOAL, OBJECTIVES AND ELEMENTS OF INNOVATION

4.1 There are unprecedented opportunities for improving the Bank's intervention in coastal and marine areas which can produce major contributions to national economic welfare. These opportunities are derived from the singular challenges facing sustainable development in coastal areas, the lessons learned from the last twenty years, reforms in recent international agreements, and the heightened attention directed at coastal and marine resources.

4.2 These circumstances suggest the need for a distinct strategy to guide the Bank's involvement either through lending, technical assistance or policy dialogue. Coastal and marine resources management represents a relatively new theme for development assistance compared to other more established aspects of natural resources management. Therefore the strategy must help raise awareness of the subject within the Bank and among borrowing member countries. It must help Bank staff in considering the benefits, costs and risks of investments and policy reform that affect coastal areas. As it becomes implemented, the strategy can introduce untapped opportunities for investment, development research, regional integration and partnerships with regional and international organizations.

4.1 Goal and objectives

4.3 The overall goal of the strategy is to improve the quality of life of communities that depend on coastal and marine resources and increase the contribution of these resources to national economic welfare while maintaining the biological diversity and productivity of coastal and marine ecosystems. In working towards this goal, the Bank should orient its actions towards the following specific objectives:

(a) Support the establishment of institutions, programs and policies that will facilitate efficient and equitable allocation of coastal and marine resources, giving consideration to existing and potential uses;

- (b) Create incentives for the effective management and protection of coastal and marine ecosystems, particularly those of regional and national significance;
- (c) Promote strengthened, participatory governance of coastal and marine areas;
- (d) Prevent conflicts and avoidable losses in environmental quality in the Region's coastal and marine areas; and
- (e) Build regional consensus on shared priorities, good practice and responsibilities in meeting the intent of international marine agreements dealing with coastal and marine resources.

4.4 The more immediate, operational objective is to assist the Region in establishing programs for the integrated management of coastal and marine areas tailored to social and economic priorities of coastal states.

4.2 Guiding principles

4.5 The Bank's strategy in coastal and marine resources management recognizes that, to be successful, interventions in coastal and marine areas should strive to comply with some fundamental principles presented below.

Local and national ownership of the process

4.6 Since a coastal management program articulates a nation's goals and policies for a geographically specific region or regions, it is essential that the process by which it is developed and refined is owned by the government and the constituency it represents. Key features of ownership are:

- C government endorsement and involvement in the process;
- C broad stakeholder participation backed by

full disclosure of information and open dialogue among users;

- C sustained support from NGO's and the donor community; and
- C willingness to share in the responsibility and costs of the program.

4.7 Coastal management typically requires decentralization of authority to the local level and acceptance of experiments in governance which can often lead to innovative policies. Hence, ownership of a coastal program has to reside within several constituencies, which themselves represent different sectors dependent on coastal and marine resources.

Participation is an integral part of coastal management

4.8 Coastal management programs must ensure strong public involvement of those who are most affected by the coastal development process. International experience repeatedly demonstrates that programs are successful and sustained only where there are constituencies that are active advocates for improved resource management. This is best accomplished is by making public education and consensusbuilding important components of any initiative. But the responsibility towards participation goes well beyond awareness and extends to creating genuine accountability among all stakeholders. In some instances, effective participation may require formal as well as informal processes for managing conflicts among users. The poorest segments of coastal communities, such as subsistence fishers and other vulnerable groups, will often require communication and participatory approches adapted to their distinct needs.

Maintaining a focus on critical issues

4.9 The importance of maintaining a strategic focus throughout program development and implementation cannot be overstated. This requires spending time defining and confirming problems based on input from resource users, managers, decision makers, the public and scientists. This helps ensure that the program is focused on problems important to stakeholders and that management solutions yield relatively immediate and measurable benefits.

Integrated approaches and methods

4.10 Coastal regions, with their overlapping economic interests competing for the same open access resources, are where integrated approaches are most needed. One dimension is integration between local resource users and national resource management agencies: the so-called "two-track" approach to coastal management (Olsen et al, 1996).

4.11 A second dimension of integration is the combination of good science with governance. The management of complex coastal ecosystems subject to significant human pressures cannot occur in the absence of the best available information, applying the findings of both biophysical and social sciences. Marine sciences help characterize problems over time, distinguishing natural and human-related causes of environmental change. Research efforts uncover how coastal ecosystems respond to change and help test potential restoration techniques. When combined with the results of economic and social research, these efforts contribute to innovative management solutions. With consistent monitoring of quantitative indicators, results can be measured and compared to baseline conditions in order to evaluate the effectiveness of policies. Science-based resource management is thus embedded in the notion of effective coastal management.

4.12 Some coastal management programs have focused too much on science or technical aspects of coastal problems and too little on governance processes. Experience in countries such as Brazil and Belize is confirming that research and technology are of limited value if the institutional context in which they are introduced is not capable of innovation or making "behavioral" changes. In many Latin American countries, marine sciences are simply not being used to solve development issues. According to this principle, the results of science must be communicated effectively, adapted to the policy-making process and its value for management demonstrated.

Precautionary management approach

4.13 The precautionary fisheries management approach is now widely acknowledged as the basic policy for bringing marine fisheries in line with the principle of sustainable development (FAO, 1995a). The concept calls for caution — erring on the side of prevention, in all fisheries activities: research. management and development. The principle recognizes that living marine resources and coastal ecosystems are poorly understood and their responses to human-induced pressures highly uncertain. Understanding of their functioning is likely to require considerable more research. However, the precautionary approach stipulates that the absence of adequate scientific information should not be used as a reason for postponing or failing to take management measures, but rather that States should adopt as soon as possible cautious limits of use which should remain into force until there are sufficient data to assess the impacts of fisheries (and other activities) on long-term sustainability.

4.3 Elements of innovation

4.14 If the strategy is to have its intended impact, it must clearly put forth the new directions which can steer Bank action towards the objectives stated above. These are considered the fundamental elements of change or innovation for guiding Bank activities which affect sustainable development of coastal and marine areas in Latin America and the Caribbean.

C Coastal management as an integrating framework for investment and resource allocation: The Bank will rely on the concepts and practice of integrated coastal management to reinforce the linkages between coastal-dependent sectors and sustainable development. As a first priority, integrated coastal management will be used as a framework to enhance the sustainability of Bank-financed operations in marine fisheries management, mariculture, tourism, port development and, rehabilita-tion and water pollution control in coastal areas. In the most practical sense, this means that coastal-dependent sectors will be analyzed within a broader context, with due consideration of land-sea interactions, the distinct character of coastal communities and their resource dependencies. The Bank will encourage the combined use of applied marine sciences and good governance to reach sound development decisions in coastal Coastal management techniques, areas. including land use planning adapted to local reality and capacity, should be used to enhance Bank financing of all infrastructure in the coastal zone defined broadly as encompassing the land-sea interface, adjacent terrestrial systems that affect the sea and the EEZ. Within this broadly defined coastal zone, special attention will be given to investments located: (a) within the legallydefined coastal zone of a country or boundaries set by the critical resource issues to be resolved; (b) in the immediate watershed of major estuaries and semi-enclosed bays; (c) small islands and archipelagos; and (d) coastal waters. This will be a gradual effort aimed at acquiring an increasingly more integrated view of development, land (and ocean space) and resources in the coastal zone.

 New paradigms for investing in livingmarine resources: The Bank's strategy recognizes that the fundamental issue in marine capture fisheries is that of moving from open to closed access regimes. Associated issues are the need for making decisions on the distribution of wealth; the formulation and implementation of appropriate management measures; the transfer of primary management responsibility to fisher groups; and enforcement of closed access regimes. Through its operations directly aimed at marine fisheries, the Bank will provide

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incentives for a shift in policy from development to management and con-servation, with increasing awareness of the importance and benefits of fisheries management as well as the damaging consequences of excessive investment in open access fisheries. In its operations with po-tential negative impacts in coastal areas, the Bank will require analysis of the costs associated with alterations in fisheries hab-itat, losses in productivity and diversity as a basis for prevention or mitigation.

Consistent with the new standards set in international agreements for responsible fisheries and mariculture, the Bank will work with its borrowing member countries in incorporating environmental considerations into marine resources management with the specific aim of protecting coastal and marine ecosystems and marine biodiversity.

С **Reducing indirect and cumulative impacts** in the coastal zone: Coastal and marine areas invariably serve as the receiving waters for all types of upstream ef-fluents, including sedimentation from de-forestation, freshwater inflow changes and other disruptions in hydrological regimes. Recognizing that environmental assessments have been more effective in mitigating direct effects of projects than their in-direct effects, the Bank will seek refinements in methodologies which allow for adequate consideration of induced or secondary changes on coastal ecosystems and resources. This could include, for example, greater reliance on Strategic Environmental Assessments (SEA) and modeling of water quality changes associated with construction or operation of coastal infrastructure (i.e., ocean outfalls, dredging, water diversions). It will also entail improved analysis of environmental benefits and costs of wa-ter pollution control projects with measurable effects on "downstream ecosystems" such as estuaries and coastal bays. This also calls for more effective pollution management strategies for major coastal cities and industrial areas, where coastal zone and river basin management are integrated with basic sanitation and pollution control (World Bank, 1996). In addition, methods will be developed for understanding cumulative effects (both additive and interactive), analyzing both temporal and spatial dimensions of land use change and environmental quality in the coastal zone.

- C Processes for avoiding and resolving conflicts in the coastal zone: The capacity to resolve resource conflicts is one of the key elements of coastal governance. Recognizing that resource use conflicts in the coastal zone are an important obstacle to sustainable development, the Bank will promote the application of consensus building and dispute resolution processes for achieving multiple use and an equitable allocation of land (and ocean space) and resources in coastal areas.
- С Coastal and ocean governance: Policies, regulations, and institutions aimed at the management of coastal and marine areas lag behind other aspects of natural resources management. This lag reflects a lack of awareness of the region's coastal and marine heritage and its contribution to national economic welfare. As such, there is a generalized, fundamental need to introduce the economic value and issues relating to coastal and marine resources to government agencies, the private sector, non-governmental organizations and throughout Latin America and the Caribbean as a first step towards governance of coastal and ocean areas. The Bank recognizes its unique position to work with its borrowing member countries to foster commitment to the management of these areas within institutions and at levels of decision

closest to resource users. Broad-ranging education and outreach are needed to develop informed constituencies for coastal management. Government institutions, nongovernmental organizations and private sector groups need to agree on how to best share responsibility for coastal management with clear mandates assigned to local, state and national governments within coastal watersheds, in intertidal areas and throughout the EEZ. Small towns as well as large urban centers need to apply municipal land use planning tools to control the impacts of coastal development in near-shore areas. National governments must set clear priorities for the utilization of ocean space for shipping, fisheries, ocean disposal and mineral exploration. And since the Region's ocean areas and resources are often shared by two or more countries the Bank recognizes the need to strengthen cross-border mechanisms for research, information exchange and resource management.

C Innovative solutions for islands: Islands present unique conditions for sustainable development. Nowhere are limits to carrying capacity as apparent as in small islands which face severe constraints in land, water resources, energy, access, biodiversity and productivity. The economies of small island states in particular are highly dependent on these finite resources and most susceptible to coastal processes. Caribbean island states thus have an immediate need for integrated approaches to natural resources management, with coastal management providing that integrating perspective. Even mainland countries with jurisdiction over archipelagos and islands can, in some circumstances, require a decentralized re-source management capacity and policies tailored to an environment and social context which are often very distinct from the mainland. The Bank will focus attention on the specific needs of islands and island jurisdictions, encouraging the dissemination of innovative solutions that are adapted to their scale and context. In this regard, the Bank will work closely with international as well as regional financing institutions such as the Caribbean Development Bank and other organizations active in the Caribbean to promote the dissemination of successful experience in coastal management and to ensure the close coordination needed to avoid duplication, policy conflict and the inefficient use of scarce financial and human resources.

V. STRATEGIC ACTIONS

5.1 The principles and innovative elements that underlie integrated coastal management will require significant adjustments in how the Bank and national governments collaborate. The process of in-ternalizing these adjustments within the Bank, and achieving them in the Region, will take time. Change needs to be introduced incrementally to adapt to human resources and other constraints. The following is a set of actions which will set forth these adjustments. While not necessarily in order of priority, they do represent a logical sequence from initial priority setting to international coordination.

Building consensus on national coastal management priorities

5.2 Coastal management begins with efforts to set priorities for action at the regional, national and local scales. Only a few countries have gone through the initial steps of assessing the state of their coastal zone and establishing national priorities for coastal management. Country-wide efforts to assess trends and set geographically-specific priorities need to be broadened considerably. National assessments require information on baseline indicators, an analysis of trends as well as legal and institutional reviews. These assessments must be accompanied by intense consultation with coastal resource users, including those living in poverty, to confirm trends and agree to priorities in line with social and economic development goals. Assessments serve the double purpose of orienting effort where it is most needed as well as building consensus on a country's most urgent coastal problems. Reliable, comparable data on the status of coastal ecosystems (e.g., estuaries, coral reefs, mangroves), resources (fisheries, water quality) and their socioeconomic value are needed as a basis for setting priorities.

5.3 Because most countries have not gone through the process of articulating priorities linked to economic development, the Bank usually lacks sufficient context for evaluating incoming requests for financial assistance in coastal management and related sectors. Consequently, priority setting can help the Bank be more effective in its own programming.

5.4 Priority setting can be done as part of national coastal management plans or, alternatively, as part of National Environmental Strategies or Physical Development Plans. While the content of these plans will vary to reflect the circumstances of each country, there are components which will indicate the state of preparedness of that country to proceed with a more permanent national coastal management program. These elements are:

- C a statement of goals for coastal management and the midterm (five to ten years) objectives for local coastal management initiatives being contemplated;
- C a set of policies and priorities for action, including a delineation (mapped) of areas for: conservation and restoration; resolution of conflicts; and with development opportunities;
- C demonstration that an adequate governance structure exists to begin implementation;
- C articulation of a development and conservation scenario for the coastal areas in question that identifies the interrelationships and combined impacts of the actions proposed.

5.5 Primary responsibility and ownership of these plans and the process by which they are formulated must reside with government and local stakeholders and not with the Bank. The Bank can help generate interest in national priority setting for coastal management by supporting assessments of emerging coastal issues, the status of major coastal ecosystems and their linkages to poverty and sustainable development.

Supporting innovative local initiatives

5.6 There is undoubtedly a need to continue promoting the evolution of coastal management programs in Latin America and the Caribbean. To do so means supporting initiatives in the field, particularly those that have the greatest chance of contributing to genuine progress towards integrated coastal management and its basic objectives.

5.7 When the Bank considers making an investment in coastal management, it is important that it accurately assess the scale of effort that is most likely to be appropriate. This requires evaluating whether a country's program during the period being contemplated is best categorized as being at the level of demonstration, consolidation or extension, and accurately assessing the capacity of the institutions involved. The best approach is for countries to progress through a sequence that begins with strong local support for action, gradually encompasses larger geographic areas, moves towards further decentralization and involvement of local governments, and addresses more issues. Programs that ignore this sequence usually run into trouble.

5.8 The design and implementation of the Bank's investments in coastal regions must also recognize the time frame required for a coastal management program to evolve from a focus on a few select issues to a broader-based approach balancing the objectives of multiple economic sectors dependent on coastal resources. The Bank, working as a partner with individual governments, non-governmental organizations and private sector associations, must commit to this evolution by sustaining its support through a succession of linked projects and by confronting the issue of financial sustainability of coastal management initiatives.

5.9 Experience teaches that programs flourish when they "learn by doing", often beginning with modest efforts to implement innovative solutions and governance processes during a period that is devoted primarily to planning and capacity building (Olsen et al, 1996). This pilot phase usually serves the valuable purpose of demonstrating the real benefits of coastal management along with its shortcomings. To serve as a demonstration, benefits must be documented, quantified and compared to implementation costs. In this sense, economic evaluations of coastal management initiatives are a powerful tool which the Bank can promote.

Revitalized financing in marine fisheries management and conservation

5.10 The gradual withdrawal of assistance to the marine fisheries sector on the part of the Bank and other financing institutions has overlooked the urgent need for policy reform for sustainable man-agement of living marine resources. As part of this strategy for coastal and marine resources management, the Bank intends to revitalize its support for the management and conservation of living marine resources to: (a) increase their contributions to national economic growth; (b) protect and enhance fishery resources and the ecosystems upon which they depend; (c) create sustainable employment opportunities; and (d) prevent losses in marine environmental quality, productivity and diversity.

5.11 Consistent with the aim of shifting attitudes from development to management and recognizing the damaging consequences of excessive investment in open access fisheries, the Bank will provide its member countries with support in establishing the required institutions and resource allocation regimes for sustainable fisheries management. This will include support for the following types of policy and administrative changes:

- C Support the move from open to closed access regimes and the integration of environmental concerns in fisheries, through policy reform, capacity building and co-management;
- C Acquisition of knowledge about potential economic rents resulting from effective fisheries management as an impetus for the adoption of appropriate measures, including making decisions about the redistribution of

wealth in fisheries by closing access and creating property rights;

- C Removal of subsidies to the fishing industry and facilitating the creation of economic rents through systems of exclusive use rights;
- C Support for the preparation of fishery management plans for specific fisheries;
- C Support for the development of alternative employment opportunities or other incentives to ease the transition out of over- exploited fisheries and to reduce the risk of displacing vulnerable groups such as families dependent on subsistence fisheries; and
- C Strengthening of monitoring and enforcement capability.

There are several kinds of activities appropriate for Bank involvement (Christy, 1996). These logically fall into three sequential steps. The first set of activities is the support or conduct of research to provide information on the benefits of institutional change and the methods for achieving it. The second is the encouragement or provision of support to governments, through technical cooperation projects, that will lead to the necessary transition to closed access regimes. This encompasses Bank operations aimed at strengthening or developing national fisheries management authorities, with the active participation of fishing communities in the context of integrated coastal management.

5.12 Once the appropriate institutions are in effect, there may be opportunities for investment projects in marine fisheries. Investment projects in fisheries will be considered in two distinct phases. The first phase is the present situation where open access conditions still prevail. In this phase, the opportunities for investment projects should be confined to those projects which do not result in increased fishing effort (e.g., fisheries habitat conservation; fisheries reserves) or to projects which help to reduce overcapitalization. Loans will be primarily, though not entirely, to the public sector. In some instances, loans may be directed at helping rural fishing communities prepare for a local economy shifting to-

wards ecotourism. The second phase will occur when countries have established mechanisms for controlling access to fisheries. Once such systems are in effect, the opportunities will be broadened considerably and will include loans to both the public and the private sector.

5.13 The Bank will also provide support towards the integration of environment and social equity in marine fisheries and coastal aquaculture operations. This will include support in the following areas (Williams, 1996a):

- C Strengthening the relationship between national networks of marine protected areas and fisheries productivity;
- C Improving technologies for fisheries habitat restoration and enhancement;
- C Promoting cost-effective solutions and incentives for by-catch reduction;
- C Promoting improved understanding and consideration of traditional dependence on living marine resources for subsistence and cultural identity, including their utilization by indigenous communities;
- C Improved control and treatment of coastal aquaculture effluents.

Strengthening institutional capacity and human capital for integrated coastal management

5.14 Progress towards integrated coastal management in Latin America and the Caribbean calls for innovative institutional arrangements designed to overcome conflicts in coastal resource use, reinforce decentralized decision making, and build partnerships with the private sector. The largest impediment to this progress in the Region is the inadequate supply of skilled professionals and weak institutional capacity in most countries.

5.15 Two kinds of professionals are needed if more effective coastal development and management is to take root in the Region. The first and most numerous are the specialists and scientists who work in coastal-dependent sectors such as marine fisheries, tourism,

port management and marine pollution control. The second, much smaller group, are the professional coastal planners and managers who the skills and knowledge required for conflict resolution, the analysis of coastal issues, formulation of development scenarios, selecting resource and land use allocation techniques, and facilitating participatory planning. Working as a team, coastal managers and specialists trained in coastal management can interpret and communicate complex trends and help local governments with other stakeholders reach land use decisions and select potential solutions to resource degradation problems.

5.16 There are two types of actions that the Bank can take to address human capacity needs. The first is to build into projects short term training and team reviews of experience to enhance skills and abilities of those involved in coastal management programs. Learning-by-doing, bolstered by documentation and dissemination of experience, should be a cornerstone of all coastal management programs in the Region.

5.17 The second is to invest in short-term training in emerging university-based education programs. Formal educational programs are urgently needed to build an indigenous regional capacity in integrated coastal management and related disciplines such as fisheries economics.

5.18 The Bank along with other financing institutions must support capacity building for coastal management not only within government at national, provincial and local levels, but also within NGOs, universities and key private sector groups. The objective should be to build the full range of coastal management services from data collection and analysis, land use planning, community-based management, monitoring and enforcement and education. In addition to strengthening individual institutions, there should be an emphasis on strengthening regional and national networks of resource managers stationed in the field as well as universities, research institutions and laboratories conducting marine sciences with a development focus.

5.19 The Bank will match its coastal management projects to the capacity of institutions responsible for their execution. Providing funds and responsibilities to institutions that exceed their capacity is counterproductive since it usually results in failure, loss of credibility and even the dismantling of what had been a promising but young and inexperienced institution. This means that when considering an investment of Bank resources, the maturity of the existing coastal management program in terms of demonstrated capacity needs to be assessed. Countries will need to demonstrate that certain "threshold" requirements are in place before investments are made. One such requirement should be a basic capacity and commitment to generate revenues, establish fees, or enter into cost sharing agreements to ensure the financial sustainability of coastal management.

5.20 Many countries are now facing the decision of whether to create maritime administrations with a resource management mandate within their Exclusive Economic Zones. The notion of multi-purpose Coast Guard units is still in its infancy in most countries. With increasing concerns over navigational safety, marine pollution control, fisheries management and drug interdiction for example, many countries will be seeking a capacity for cost-effective maritime surveillance and enforcement. A professional and peaceful stance over maritime waters is a key element towards achieving regional integration. The Bank can play an important role in helping countries determine how best to meet future needs for maritime enforcement along these lines.

Applying good practices for sectoral coastal developments

5.21 The Bank will continue to incorporate elements of coastal management into its investments for infrastructure in the coastal zone, including operations in tourism, marine pollution control, port management, coastal agriculture and aquaculture, road rehabilitation and energy production. This integration of coastal management into infrastructure projects will generally involve the following types of activities:

- C Sector-wide analyses of the linkages between coastal trends, public sector policies and performance in coastal-dependent sectors in countries where these sectors make significant contributions to the economy;
- C Documentation of lessons learned and successful cases in enhanced sectoral management as a basis of good practices for investments and public policy reform in sustainable tourism (including ecotourism), fisheries and mariculture management, marine pollution control in the coastal zone, and port operations;
- C Research to improve methodologies for forecasting the indirect and cumulative land use impacts of coastal infrastructure, with special attention to the carrying capacity limitations of islands, estuaries and bays; and
- C Technical assistance to promote greater compliance with international agreements for maritime pollution control, ocean disposal, fisheries management and other ocean uses.

5.22 Concerted efforts will be made to disseminate good practices for coastal-dependent sectors both through the public and private sectors. This could involve technical assistance aimed at updating national regulations (e.g. in marine pollution, management of fisheries) to bring them in line with acceptable standards. It could also entail specialized training and institutional strengthening of regional industry associations for coastal dependent sectors (e.g., regional port and tourism associations). Opportunities also exist to strengthen existing network of coastal cities and ports to promote the exchange of successful experience (CIID, 1997).

5.23 Recognizing the increasing contribution of private sector financing of coastal infrastructure, the Bank will examine the application of economic and

financial incentives to promote compliance with good practices among private operators and businesses. *Developing quantitative indicators of change in the coastal zone*

5.24 The conditions of coastal and marine ecosystems serve as effective indicators of sustainable de-velopment. As receiving waters for upstream effluents, estuaries and bays can provide signals of the degree to which pollution and erosion control measures are working. Coral reefs are highly sensitive to increases in nutrients in coastal marine waters as well as overuse from tourism and fisheries. In a similar manner, small islands often show early signs of stress from poor land use decisions that do not take into account carrying capacity.

5.25 Most countries in Latin America and the Caribbean lack the resources needed to collect data on quantitative indicators of coastal change. A few marine regional monitoring networks are attempting to set up low-cost protocols applied across subregions such as the Wider Caribbean to monitor coral bleaching and disease outbreaks, coastal sedimentation, beach erosion and the encroachment of mangroves. With international cooperation, these regional monitoring networks could offer a cost-effective solution to more systematic use of quantitative indicators in reaching decisions about coastal development. The Bank will cooperate with international, regional and national organizations in developing consensus on quantitative indicators of change in the coastal zone, exploring ways where it can support integrated monitoring networks for key "indicator" systems (estuaries, islands and bays). The Bank will work towards the application of such indicators to monitor its own activities, including the cumulative effects of investments on coastal areas.

Promoting marine sciences and technology with a development focus

5.26 The ability to apply marine sciences for managing coastal and marine resources lags significantly behind management of terrestrial and freshwater systems (Botsford, et al., 1997). This applies throughout Latin America and the Caribbean where, until very recently, marine research depended heavily on science institutes (and scientists) from outside the Region. This lag has had important im-plications for the Region including costly gaps in information for management, unknown economic potential of marine resources and overlooked op-portunities for development.

5.27 The Bank has long recognized the need to promote a regional capacity in science and technology (for example in agriculture) as a factor in development. To date, this support has encompassed marine sciences only on an ad hoc basis without consideration of the needs for coastal and marine resources management. Through existing science and technology support and regional dialogue, the Bank will promote the formulation of research agendas for marine sciences and technology that address development priorities and promote a greater regional capacity.

Partnerships for the implementation of international maritime agreements and regional financial

5.28 Several international and regional maritime agreements have been approved in recent years, many of them with the intent of incorporating coastal and marine areas into the global agenda for sustainable development. These generally fall into the following general categories:

- C Fisheries agreements (e.g., FAO Code for Responsible Fisheries; 1995 UN Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks; Kyoto Declaration on Food Security);
- C Agreements to control maritime pollution (1972 London Dumping Convention; MARPOL 73/78);
- C Agreements to control land-based sources of pollution of the marine environment (1995 Global Program of Action for the Protection of the Marine Environment from Land-based Sources of Pollution);

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 - Agreements to protect marine biodiversity (Jakarta Mandate on Coastal and Marine Biodiversity of the 1992 Convention on Biodiversity; SPAW Protocol).

In addition to the above, several regional 5.29 agreements and treaties such as the Cartagena Convention for the Wider Caribbean, the Inter-American Sea Turtle Protection Agreement, and the Rio de la Plata Treaty (Tratado del Río de la Plata y su Frente Marítimo) also provide guidance on the sustainable use of coastal and marine environments. These agreements along with several bilateral treaties are designed to implement the core provisions of UNCLOS for the protection of the marine environment. They also provide useful frameworks for intraregional cooperation or resolving transnational disputes over resources. Many of the Bank's member countries are signatories of these agreements and some have ratified them. However, few have the resources or have taken the steps to introduce the necessary policy and regulatory changes at the national level to ensure implementation of these agreements.

5.30 The Bank recognizes the need to move forward with the implementation of international and regional maritime agreements, as part of the Region's shared responsibility to protect the world's oceans. Implementation is more likely to occur when a critical mass of countries agree to incorporate the higher, more sustainable standards of performance in their national legislation. The Bank can play a catalytic role in this process by incorporating the spirit of these maritime agreements into own programming and by supporting regional-level studies of progress towards implementation. The Bank will explore opportunities for strategic partnerships aimed at promoting concerted regional-level implementation of international maritime agreements. Priority will be given to marine systems shared by two or more jurisdictions where cross-border arrangements are needed to develop or manage resources and restore marine environmental quality.

Priority themes for the international waters focal area of the Global Environment Facility (GEF)

- C Control of land-based sources of pollution that degrade international waters;
- C Prevention and control of land degradation;
- C Prevention of critical habitat degradation;
- C Control of unsustainable use of m arine living and non-living resources;
- C Control of ship-based sources of pollution.

5.31 The Bank intends to continue coordinating closely with bilateral donors and international organizations supporting coastal management with the specific objectives of: (a) identifying opportunities where funds can be leveraged as additional incentives for integrated coastal management; (b) ensuring consistency in effort towards resolving the Region's priority coastal issues; and (c) making most efficient use of resources. In this regard, the Bank will work with its borrowing member countries to identify project opportunities (or project components) eligible for financing through the "*international waters*" focal area of the Global En-vironment Facility (GEF) (see Box). In addition, the Bank will work with GEF implementing agencies in confirming regional or bilateral priorities and identifying potential projects which could be administered by the IDB.

5.32 Although aimed primarily at terrestrial biodiversity issues, regional and National Environmental Funds are another potential source of financing for coastal and marine biodiversity. The Bank will work with existing funds to ensure that the eligibility criteria and proposal review procedures are sufficiently flexible to encompass coastal and marine issues.

5.33 Maritime industry associations are another potential source of financing for coastal management initiatives — one which has not been explored to date either by the Bank or its borrowing member countries. Experience in the United States, Asia and Europe indicate that shipping and maritime insurance companies, regional tourism organizations and port associations have strong incentives to support improvements that improve maritime safety, control maritime pollution and generally reduce costs associated with deteriorating conditions in coastal and marine areas. The Bank will explore opportunities and potential mechanisms for increasing industry participation in financing coastal management.

VI. STRATEGY IMPLEMENTATION

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6.1 Instruments for mainstreaming

6.1 By implementing the strategy, the Bank intends to gradually incorporate a more integrated approach to its decisions concerning investments in coastal and marine areas. What will this mean for Bank activities? In the first instance, it will mean gaining an institution-wide awareness of where investment decisions can affect the sustainable development of coastal and marine areas. It will also require a sustained effort in building an understanding of the elements of innovation presented earlier in this document throughout various Bank Departments.

6.2 There are excellent opportunities to include coastal management considerations using the following Bank instruments:

С Regional and country programming: In its programming exercises and policy discussions with borrowing member countries and at the regional level, the Bank will need to assess the relevance of coastal and marine resources management for sustainable economic development. Sector studies can be used to examine the relationship between policy reforms in marine fisheries and mariculture, tourism or other coastal-dependent sectors and the status of the coastal zone. The Bank will have to gauge the readiness of governments to consider institutional reform for integrated coastal management or local coastal management initiatives. Special attention should be directed at those countries where coastal-dependent sectors account for significant proportions of foreign revenues for example or GDP. In the longterm, the Bank will increasingly refer to a country's state of the coast as an indicator of sustainable development.

Financing instruments: The Bank has at its disposal a variety of instruments to finance operations for the management and development of coastal and marine resources. For example, the Bank can continue to support coastal management initiatives through public sector investment loans for tourism and port rehabilitation (i.e., promoting the practice "enhanced sectoral management"). Investments for the expansion of coastal transportation corridors, sanitation or for integrated rural development in coastal areas can also include coastal management components where such components can help mitigate the indirect impacts of infrastructure development in coastal rural areas. The Bank will also continue to finance public sector loans for integrated coastal management upon request, with care given to factors such as institutional leadership, capacity and ownership. Similar opportunities for financing coastal management are available through the Bank's Private Sector Department (PRI) and the Inter-American Development Corporation (IIC) which provide loans directly to the private sector for large-scale infrastructure and for small and medium enterprises in all economic sectors.

There are opportunities for promoting strategic partnerships for coastal management by using the various **Technical Cooperations Funds** administered by the Bank. In this regard, the Bank will explore the possibility of supporting involvement of marine science institutes, specialized organizations and centers of excellence in Europe, Japan, Canada and the US as a means of strengthening professional networks for coastal and marine resources management. The Multilateral Investment Fund (MIF) offers com-

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plementary opportunities for financing initiatives aimed at strengthening industry associations and promoting microenterprises in sectors such as ecotourism, fisheries and mariculture, port administration and maritime navigation. Where consistent with other criteria, MIF support should be used to promote application of best practices by the private sector (i.e., through training), sustainable production by microenterprises, and the transfer of clean technology in coastal dependent sectors.

- С Project analysis: Changes are needed in the way public sector loans in tourism, maritime transport, fisheries management, marine pollution control and other investments in the coastal zone are analyzed to take into account competing uses of coastal resources, the need to internalize environmental costs (including those associated with cumulative impacts), and the normative role of government. The Bank will support improvements in project analysis methods to address these changing circumstances. More thorough documentation of economic benefits and costs of existing coastal management loans will play a critical role in improving project analysis methodologies.
- С **Environmental and social impact review:** All Bank projects are reviewed for their potential environmental and social impact. Modified review procedures were introduced in 1997 with the creation of a Committee for Environmental and Social Impact (CESI) and with an intended shift towards a strategic approach to environmental quality enhancement. This updated internal review process offers opportunities to: (a) require that national priorities for coastal and marine resources be examined either as part of country papers or environmental strategies; (b) monitor consistency between coastal infrastructure investments and the main features of coastal management, including a

increased emphasis on regional and land use planning as preventive measures; (c) address in a more systematic manner the indirect impacts of Bank-financed investments on a country's coastal zone; (d) maintain a consistent focus on the special character of islands for sustainable development; and (e) begin to examine cost-effective techniques for monitoring the cumulative impacts of coastal projects in priority areas of the region. Special attention needs to be directed at the issue of compliance with conditions included in EIAs to prevent or mitigate environmental damage in coastal areas.

- Public disclosure procedures: These procedures promote transparency in the project cycle and public dissemination of information on operations financed by the Bank. The procedures also include requirements for consultation with stakeholders during the project review process. Under the right circumstances, application of these procedures can help build ownership of programs. They can also promote the resolution of intersectoral conflicts which is a mainstay of coastal management.
- **Project management and evaluation**: As with other social sectors, coastal management projects need to be managed with flexibility to adapt to emerging issues and social priorities. The flexibility is also needed to accommodate the evolution which has been a key feature in successful programs. But flexibility cannot mean an absence of targets or unclear goals. Instead, projects can be managed with flexibility when the desired results are clear, using indicators as management indicators. However, such an approach will require the development of quantifiable indicators to measure the performance of programs.

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6.2 Initial support for implementation of the strategy

6.3 Implementation of the strategy is a long-term endeavour, one which must follow the pace of reforms for sustainable development within the Region. It is also a responsibility that has to be shared among many Departments of the Bank, its Country Offices and various committees. In this context, the Bank's own limitations in capacity will determine the pace at which innovation can be introduced at least until sufficient learning has taken place internally. Officially declared as the International Year of the Oceans by the United Nations, 1998 offers an unprecedented opportunity to draw attention on ocean related priorities for the Region both within and outside the Bank while also providing momentum for implementing the directions of the strategy.

6.4 To help maintain focus on the strategy's objectives, a set of immediate actions are contemplated for 1998-99. These include a combination of research, regional and national initiatives, investment loans selected as demonstrations, networking and cooperative agreements, training and outreach. These are briefly reviewed below.

С Policy research: The following are strategy-related studies initiated in 1997 or planned for 1998-99: (a) application of conflict prevention and resolution techniques for coastal management with case studies in Honduras and Nicaragua; (b) improving economic analysis approaches for public sector investments in sustainable tourism; (c) the application of municipal land use planning for coastal management in Latin America and the Caribbean; (d) economic analysis of fisheries impacts of El Niño events; (e) review of the long term impacts of sanitation projects on marine water quality; and (f) assessment of sub-regional institutions (e.g. Permanent Commission of the South Pacific, Frente Ma-ritimo) and crossborder arrangements for ocean management. С

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Regional initiatives: The following regional technical cooperations directly related to recommendations in the strategy are planned for approval in 1997-98: (a) Support for the implementation of international fisheries management agreements. This technical cooperation will include research and consultation towards the definition of quantifiable indicators for sustainable fisheries and a study of the effect of international trade on the sustainability of production; (b) Trinational alliance for integrated coastal management of the Gulf of Honduras, Central America; (c) Regional network for estuarine management in Latin America.

National initiatives for capacity building: The following are national requests received for capacity building in coastal management and related sectors under consideration for 1997-98: *REGION I*: Local Coastal Management Initiative for Tamandare-Paripuera, Brazil; *REGION II*: Capacity Building for Coastal Management in Haiti; Coastal Management in El Salvador; Technical Assistance for Maritime Sur-veillance and Enforcement in Costa Rica; *REGION III*: Capacity Building for Shore-zone Management in Guyana.

C Loans in the pipeline: The following investment loans in integrated coastal management or coastal-dependent sectors are under consideration for 1997-98 and will serve as case studies to examine the operational implications of the strategy: *REGION I*: Suape Port Expansion Program, Brazil; *REGION II*: Panama Tourism Support Program; El Salvador Coastal Ma-nagement Program; Costa Rica Protected Area Program; Haiti Environmental Management Program; *REGION III*: Barbados Coastal Conservation (Phase II); Galapagos Environmental Management Program.

- С Dissemination and outreach: Continuing a consultation process started in 1996, a series of presentations on the strategy are planned in the Region as part of major conferences and events, many of which are linked to the 1998 International Year of the Oceans and EXPO'98 in Lisbon where the central theme will be oceans. General public outreach efforts will be continued using the Bank's established media products in cooperation with the Department of External Relations. Periodic updates on strategy-related activities will appear on the SDS/ENV web homepage as well as be submitted to electronic newsletters in the Region.
- C Training of Bank personnel: Since this is a relatively new area for the environmental staff of the Bank, efforts will be directed at building capacity within the Bank through short-term training, technical notes, and improving access to regional information tools for coastal and marine resources management in cooperation with the Bank's

Office of Learning. This will include the preparation of a training module in coastal and marine resources management adapted to the specific needs of Country Office staff overseeing execution of projects in coastal management, tourism, ports and other coastal infrastructure. Projects will be selected for documenting lessons learned and success in execution both in integrated coastal management and coastal-dependent sectors.

C Networking: SDS/ENV will investigate opportunities for new agreements with international and regional institutions with demonstrated expertise in integrated coas-tal management and related sectors. Specialized directories and data bases will be developed for use throughout the Bank to reinforce institutional linkages with existing coastal and marine networks for purposes such as peer review, consultation, and technical assistance.

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ANNEX I <u>APPROVED INTEGRATED COASTAL MANAGEMENT OPERATIONS 1993-1997</u>

COUNTRY	PROJECT TITLE	AMOUNT (TOTAL)	ТҮРЕ
BRAZIL	Community-based marine conservation pro- gram for the Northeast	\$740,000	Non-reimbursable tech- nical cooperation
BRAZIL	Financial sustainability plan for Abrolhos National Marine Park, Bahia	\$150,000	Non-reimbursable technical cooperation
BRAZIL	Coastal Management in Tamandare	\$1,750,000	Non-reimbursable tech- nical cooperation
BARBADOS	Coastal Conservation Program (Phase I)	\$4,500,000	Reimbursable technical cooperation
COLOMBIA	National Environmental Program (Cienaga Grande Component)	N/A	Loan
DOMINICAN REPUBLIC	Parque del Este: Marine Rapid ecological assessment	\$30,000	Non-reimbursable technical cooperation
ECUADOR	Coastal Resources Management Program	\$16,500,000	Loan
ECUADOR	Galapagos Environmental Management Pro- gram: Feasibility study	\$660,000	Non-reimbursable tech- nical cooperation
GUYANA	Shorezone Management Program: Feasibility study	\$700,000	Non-reimbursable tech- nical cooperation
HAITI	Coastal Marine Protection	\$450,000	Non-reimbursable tech- nical cooperation
HONDURAS	Bay Islands Environmental Management Pro- ject	\$23,900,000	Loan
TRINIDAD AND TOBAGO	Tourism Support Program (Tobago Reef and Trinidad North Coast Components)	\$1,500,000	Loan and technical co- operation
LAC REGIONAL	International Coral Reef Congress in Panama	\$300,000	Non-reimbursable technical cooperation
CARIBBEAN REGIONAL	Caribbean information system for coastal and marine resources	\$1,361,000	Non-reimbursable tech- nical cooperation
REGIONAL	Implementation of Fisheries Agreements	\$200,000	Non-reimbursable tech- nical cooperation
REGIONAL	Coastal Zone Management & Environmental Conflicts	\$75,000	Non-reimbursable tech- nical cooperation

COUNTRY	PROJECT TITLE	AMOUNT (TOTAL)	TYPE
BARBADOS	Coastal Zone Management Program - Phase II	\$21,000,000	Loan
BARBADOS	Reform of the Tourism Sector	\$20,000,000	Loan
BARBADOS	Port Rehabilitation and Reform	\$18,500,000	Loan
BRAZIL	Suape Pernambuco Port	\$86,000,000	Loan
BRAZIL	Nobara-Santos-Guaruja Port	\$40,000,000	Loan
BRAZIL	Sepetiba Port Project	\$150,000,000	Loan
BRAZIL	Support Fishing in Alagoas State	\$750,000	Non-reimbursable tech- nical cooperation
COSTA RICA	National Parks and Ecotourism Manage- ment Program	\$25,000,000	Loan
ECUADOR	Environmental Management Galapagos Islands	\$15,000,000	Loan
GUYANA	Coastal Management Program	\$15,000,000	Loan
PANAMA	Support to the Tourism Sector	\$3,500,000	Reimbursable technical cooperation
REGIONAL	Integrated Management of the Gulf of Honduras	\$2,000,000	Non-reimbursable tech- nical cooperation
REGIONAL	Estuarine Management in MERCOSUR	\$800,000	Non-reimbursable tech- nical cooperation
REGIONAL	Travel & Tourism Industry in MERCOSUR	\$1,240,000	Non-reimbursable tech- nical cooperation
TRINIDAD AND TOBAGO	Tourism Development Program	\$30,000,000	Loan

COASTAL MANAGEMENT RELATED PROJECTS IN THE PIPELINE 1997-1999