



**United Nations Environment Programme
Regional Office for Latin America and the Caribbean**

PROGRAMA DE LAS NACIONES UNIDAS PARA EL MEDIO AMBIENTE
PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT
PROGRAMA DAS NAÇOES UNIDAS PARA O MEIO AMBIENTE

**Fourteenth Meeting of the Forum of Ministers of
the Environment of Latin America and the Caribbean**

**Panama City, Panama
20 to 25 November 2003**

Distribution:

Limited

UNEP/LAC-IGWG.XIV/Inf.5

Thursday 9, October 2003

Original: English

A. PREPARATORY MEETING OF EXPERTS
20TH TO 21ST NOVEMBER 2003

Water Resources Management in Latin America and the Caribbean

This information package on *“Water Resources Management in Latin America and the Caribbean”* is a contribution of the Inter-Agency Technical Committee (ITC) to the Fourteenth Meeting of the Forum of Ministers of the Environment of Latin America and the Caribbean (Panama, Panama; 20 to 25 November 2003).

The World Bank has coordinated the activities of preparation of this document. Inputs have been received from the Governments of Brazil, Cuba, Mexico, Saint Lucia and Uruguay, as well as from the Inter-American Development Bank (IADB), the Economic Commission for Latin America and the Caribbean (ECLAC), the United Nations Environment Programme (UNEP) and the UNDP/GEF Regional Unit.

I. Background

1. In the Latin American and Caribbean region, water is of vital importance to development. Despite possessing 30% of the world's water resources, the distribution of population with respect to these water resources is highly irregular or inequitable. Large segments of the population live in areas where water –when it exists– is either scarce or polluted.
2. In the region's large urban centers, the lack of appropriate sanitation services has resulted in tremendous health problems for the poorest population, in addition to increasing vulnerability to natural disasters such as landslides and flooding.
3. Water supply, sanitation and water management are, assuredly, important for the entire world, and as such have become a part of the Millennium Objectives. The Heads of State and Government convened at the United Nations 2000 meeting committed –upon adopting the Millennium Objectives– to reduce by half the proportion of world population without access to drinking water or basic sanitation services, and to do so by the year 2015.
4. Leaders of Latin America and the Caribbean have recognized the gravity of this situation, and water management has become the focal point of government programs in all countries throughout the region, in addition to historically being one of the budgetary items in greatest demand. In some countries, such as Mexico, water management has been catalogued as a matter of national security.
5. Consequently, the protection and appropriate management of water resources and sanitation has been included as a high priority agenda item at the Latin American and Caribbean Initiative for Sustainable Development (LACI), one of the regional initiatives adopted by the Johannesburg Plan of Action. This topic is now one of the crosscutting themes in LACI affairs, given its influence on the alleviation of poverty, environmental protection, health, and the struggle to attain economic growth.
6. Water and sanitation have been at the heart of other fora and global agreements, emerging as the most discussed topic and one of the only ones through which quantifiable, important goals have been met. Among these, we underscore the following:

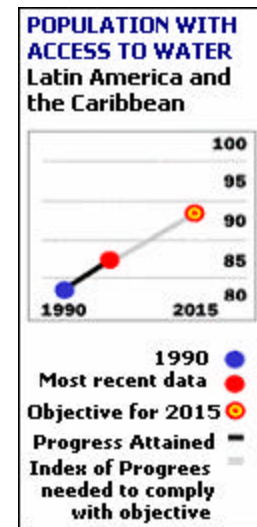
A. World Water Forum

7. The First World Water Forum (WWF) took place in Marrakech, Morocco, in 1997; the second one in The Hague, Netherlands, in 2000; the third in the cities of Kyoto, Osaka and Shiga, Japan, in 2003. These events took place thanks to the initiative and organization of the World Water Council, an international organization that groups together international agencies, the press, governments, non-governmental organizations, academic institutions and private entities. At these events, the most significant topics on the worldwide water agenda are analyzed, with the idea of seeking joint solutions through international cooperation. During the Third World Water Forum, March 19th was devoted exclusively to the Latin American and Caribbean Region.

B. Objectives of the Millennium

8. Objective #10 of the millennium development is to reduce by 50% the number of people without sustainable access to drinking water; this, to be accomplished by 2015, is a monumental task. Particularly so if we consider the levels of investment and the size of the reforms that are deemed necessary to achieve the objective. During the World Summit on Sustainable Development in Johannesburg, the providing of sanitation services was added to the objective.

9. In the region, only 86% of the population now has access to a source of drinking water, and only 49% has sanitation services; on the other hand, only 13% of municipal wastewater receives some kind of treatment before being discharged into a receiving body of water.



C. Monterrey Consensus

10. The Monterrey Consensus reaffirmed the commitment of the international community to sustainable development, of which water related topics are key elements. Participating countries confirmed the need to encourage the adoption of appropriate regulatory frameworks. In few themes is this need as important as it is in the issue of water and its own regulatory framework.

D. Johannesburg Summit

11. Water and sanitation were the most pertinent topics throughout the Sustainable Development Summit held in Johannesburg in 2002. Regrettably, countries attending managed to solidify very few agreements in most fields; however, in the case of water, the results were staggering. The objective of the millennium was reaffirmed: to supply drinking water to an additional half-billion people by the year 2015. A similar objective was added for sanitation services, for an additional 1.2 billion people in the same timeframe.

12. In like manner, important initiatives were launched to promote a comprehensive focus on the management of water resources and watersheds, as is true of the following initiatives: H2O, Hilltops to Oceans, GPA/UNEP and FreshCo, Freshwater and Coastal Waters, UCC Water/UNEP, launched through the water portal in Johannesburg.

13. Follow-up to the commitments adopted in Johannesburg, especially in the topic of water and sanitation, will be provided at the Twelfth Session of the Commission on Sustainable Development (CSD).

E. Latin American and Caribbean Initiative on Sustainable Development

14. In that same tenor, the Latin American and Caribbean Initiative –adopted at the Johannesburg Summit by the representatives of the countries of the region– (LACI) identified water resource management as guiding object #2, with the following subdivisions: (i) Water Supply; (ii) Watershed Management; Management of marine-coast and related resources; and (iii) improved quality of groundwater.

II. General information on the sector and its relevance for the environmental agenda of Latin America and the Caribbean

15. Even though the Latin American and Caribbean Region (LAC) is rich in renewable water resources, accounting for over 30% the world's water resources, these resources are distributed in a highly irregular manner. A great part of these resources is found in Amazonia –Peru, Colombia and Brazil; Amazonia, however, has low population density. Conversely, there are arid and semi-arid regions (such as central and northern Mexico) where a great part of the population lives, the driving force of the country's economic activity; this population suffers a constant scarcity of water in terms of quality and quantity both. The three water basins in LAC (Gulf of Mexico, Southern Atlantic Basin and the River Plate Basin), cover 25% of the territory, supply 40% of the population, and nonetheless possess only 10 % of the water resources in the region.

16. The water and sanitation deficit in the region has been recognized within the Development Objectives for the Millennium, where it was agreed that the number of persons in the world without access to a safe source of water or sanitation services would be reduced by fifty percent. At present, despite the fact that 86% of the region's population has access to a source of drinking water, only 49% has access to sanitation services. It is estimated that close to 150 of the nearly 510 million inhabitants of the region do not have access to any safe source of water at all, and nearly 250 million do not receive sewerage services. In Brazil, for example, only 20% of wastewater receives treatment, whereas the rest is dumped into a nearby body of water. Less than 13% of Municipal Wastewater in the region is treated before disposal in a river, lake or ocean.

17. In the institutional arena, the LAC region has undergone major transformations in water issues. During the first half of the twentieth century the rule was that water supply was left in the hands of private operators; this trend changed to public control from the sixties until the nineties, at which time private operators once again took over, though to a lesser degree. There are now 60 million people in the region who are customers of private operators; the public sector handles 320 million people. The desirable transformation is toward private operations, though under careful government regulations, within a regulatory framework and through intelligent and effective institutional arrangements to ensure service for users and protect the investment of the private sector. This will enable the integrated management of resources and guarantee the conservation of the environmental quality of our water systems and their biodiversity.

18. The Caribbean islands have a low availability of water, and some of the populated areas are very limited in this resource. In places like the Dutch Antilles, the only water available is rainwater, for there are no rivers, and the groundwater has high levels of saline intrusion. If we add to the foregoing the great population density in some of the islands, we can readily see how alarming certain cases are. For this reason desalinizing plants have played an important role in some countries such as Antigua and Barbuda, the Bahamas and Barbados.

19. Mexico faces serious water supply problems. Of the country's 654 aquifers, 97 are over-exploited; these supply nearly 50% of the country's water demand. Additionally, another 17 groundwater aquifers show evidence of saline intrusion in varying degrees. In the north of the country –where an overwhelming proportion of the country's economic activity takes place– the climate is semi-arid, with scarcity of water, in some cases very serious.

20. Brazil, the largest country in the region, is so vast in expansion that there is a broad array of water related problems. In the north of the country, in the Amazonian region, water is abundant and, generally speaking, not very polluted. The drawback is that this is the least populated region in the country. The northeast is the poorest region in the country, and in this region the dearth of water has reached dramatic proportions, particularly in the region known as the Polygon of Drought. In the great urban centers to the south, the problem that the population faces is related much more to water pollution than to scarcity.

21. The major water-related problem in Central America has to do with vulnerability to natural disasters, as was the case with Hurricane Mitch in Honduras and Nicaragua in 1998. In addition to taking 7,000 lives, the approximate cost was close to one billion dollars, nearly 20% of the GDP of those countries.

22. More than one third of the population of Central America is lacking in water supply and sanitation, whereas nearly half of the population obtains its water from natural primary sources, often polluted.

23. As regards the environment, the wealth of water resources in LAC is reflected in its natural resources and the environmental services that these provide. One of the challenges in protecting the environment and health of water tables is to implement integral management systems that will incorporate the ecological expense of maintaining forests, wetlands, lagoon systems and coastal estuaries, in addition to seeking the manner in which to record the environmental services provided by said ecosystems through appropriate economic instruments in such a way that the value of maintaining the health of these ecosystems can be appreciated. Some examples:

24. Natural forests cover 47% of the total surface area of the region; 95% of this area (approximately 852 million hectares) is tropical, and is located in Central America, the Caribbean and the South American sub-tropics. The remainder of the resources covers some 43 million hectares, and is located in temperate South America, primarily Argentina, Chile and Uruguay.

25. The septentrional basin of the Amazon and the Guyana region are home to the largest expanse of virgin forest in the world.

26. The largest and most productive estuaries in the world are located in the region, with the major ones being those associated to the rivers Amazon and Plate on the Atlantic Coast, and the Guayaquil and Fonseca on the Pacific Coast.

27. The reefs of the Caribbean and adjacent waters comprise around 12% of the world total. The coast of Belize is fronted by the second largest coral reef in the world.

28. The water off the coast of Chile and Peru is home to one of the five largest fishing grounds in the world, with water off the coast of Argentina and Uruguay showing the most rapid growth in the world.

III. Impact of the problem at the environmental, social and economic levels; challenges the region faces

29. Patterns for access to water are a reflection, among other factors, of the pervasive inequity problems in the region; the overwhelming majority of people who do not receive water and sewerage services are poor. This inequity is reflected in access, price and quality of the services received as well. It is not surprising that the poorest 5% of the population accounts for 40% in sanitation coverage, whereas the richest 5% reaches almost 100%. The poor of the region, in general terms, receive

less water, of lower quality, and still they pay much more dearly for that water. In the slums of many cities, water consumption takes up a sizeable chunk of the family budget (20% in Port au Prince, Haiti).

30. Water-related problems vary a great deal from urban to rural environments. The largest part of the poor population, 70%, lives in urban settlements; however, the degree and nature of that poverty is very different to that of rural areas, where the poverty experienced is much more intense.

31. In the cities of the region 13% of the population has no access to sanitation services, whereas 7% has no access to a source of drinking water. The lack of access to a safe source of water and to sanitation services, together with high population density, generates immense public health problems. In developing nations –where less than 10% of wastewater is treated– diarrhea is one of the primary causes of infant mortality, showing disproportionately high rates in the poor population of these countries. Vector-related disease, such as malaria, also increases in sites containing stagnant wastewater. In the most densely populated areas, where the poorest sectors of society reside, the effect of this lack of water and sanitation is reflected not only in health and in family income, but also in increased vulnerability to natural phenomena such as flooding and landslides.

32. In rural zones, where 25% of the population lives, the problem is much more related to scarcity of water. Of the population of these zones, 39% has no access to a source of drinking water, whereas 52% has no access to sanitation services. In the semi-arid region of the northeast of Brazil (the semi-arid region with the highest population density in the world), this scarcity has generated terrible conditions of poverty, making of this area the largest poor zone of the continent.

33. The disposal of more than 87% of Municipal Wastewater in rivers, lakes, and seas create serious damage to aquatic ecosystems and implies a significant impact to public health; the enormous lack of minimum facilities for the disposal of wastewater contributes significantly to the deterioration of underground water systems, rivers and coastal environments, especially those bodies that have become receptacles for all kinds of waste. A very large proportion of the bodies of water close to cities suffer pollution in varying degrees, sometimes severe. In Mexico, the Advisory Board on Water recognizes that 95% of the country's rivers show some degree of pollution, and has declared the firm intention of treating 50% of Municipal Wastewater by the year 2006.

34. Agriculture and industry are major consumers of water in the region. The inefficient technology in the use of water that still prevails generates a high degree of waste and discharges in both point sources and non-point sources, producing high rates of agro-chemical pollution and industrial waste dumped into rivers, lakes and table waters, thus reducing the potential for aquatic habitats and water as a resource.

35. The inappropriate use of agricultural and irrigation technologies, together with the erosion produced by other factors has generated a loss of fertile soil in large areas of LAC, such as the municipality of Guaymas, Sonora, in Mexico.

36. Over 80% of alterations in the marine and coastal zone in the world are caused by land-based activities; of this percentage, a significant part is due to the disposal of low quality wastewater or to diverted flows of water that feed into estuaries and coastal wetlands. This situation is no different in the LAC region; that is why the integral management of water basins and coastal zones must be fostered.

37. As regards the small island nations of the Caribbean, it is particularly important to promote the concept of insular management systems, including the development and implementation of harmonized environmental procedures that contribute to reducing pollution in fragile areas and resources.

IV. Options for action

38. When bearing in mind the prospects and challenges that the region is facing, it is important for regional authorities to focus on actions in the following areas:

- i) Assessment of water resources;
- ii) Increase of institutional capacity for water management;
- iii) Water and poverty;
- iv) Water and sanitation;
- v) Changes in unsustainable consumption and production patterns involving the use of water;
- vi) Water and human settlements.
 - a) It is important to continue improving interagency and inter-institutional coordination in the region, particularly in the topic of water resources. We must continue to seek resources for the implementation of Pilot Projects and the dissemination of lessons learned from these, increasing horizontal cooperation within the region.
 - b) As regards sanitation, the cost of not acting is much higher in the mid and long term. Deficiencies in infrastructure and the application of appropriate technologies for municipal wastewater management are well above 85%. It is to that same degree that we must face this challenge, not only through traditional technologies but also through alternate, efficient technologies.
 - c) The protection of aquatic habitats, wetlands, coastal lagoon ecosystems and ocean ecosystems should also be encouraged through an integrated focus encompassing basins all the way through coastal and ocean zones; if not, we will only be squandering our resources. If the ecological volume of flow of water in ecosystems is not respected, then we will not be able to partake of the environmental services that they provide, much less maximize on the use of the live resources they provide.
 - d) Hence, it is imperative to safeguard the economy and attain food sufficiency for many countries of the region, and to substantially improve technologies in agricultural irrigation and industrial use, as well as utilize agro-chemicals more efficiently. These measures would reduce the consumption and discharge of pollutants.
 - e) We must support a movement toward better administration of water in the region through promoting: participation, efficiency, equity, effectiveness, openness, transparency, responsibility, congruence, and integral, ethical, sustainable management. It is important to move forward in institutional design and legal frameworks that will facilitate this better administration, not only at the national level, but also at the sub-regional level as regards shared watersheds and the management of these by two or more countries.

- f) The search for and promotion of methods and practices that will avert or decrease saline intrusion in water tables in the coastal zone, particularly the Caribbean islands, is a pressing task if we are to satisfy the water needs of domestic consumption in many of these island nations. We must promote modern desalinization technologies.
- g) The legal frameworks must be revised, and in some cases reformed, changing the sectoral focus to more integrated management, bearing in mind the multiple uses of the resource by all the different sectors: agriculture, industry, energy, domestic consumption, recreational use, fishing and aquaculture. The volume of water flow required by the ecosystems must be respected if these are to maintain their functions and productivity. This will ensure that we can continue to benefit from water resources and services.
- h) The most successful institutional arrangements are those that effectively combine a series of instruments such as regulations, quotas, rights and incentives. The effectiveness of this combination depends, of course, on the institutional capacity of each country to guarantee compliance of its legal framework and the property rights of such an important resource. The countries of the region must find the best combination for their specific realities.

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Annexes

Annex I Inventory

This annex presents an update of activities planned or underway, as reported by the respective agencies of the Inter-Agency Technical Committee, in response to requests of countries of the region. It aims at indicating trends, main lines of work or gaps to be taken into consideration by the Forum of Ministers during the formulation process of its Regional Plan of Action 2004-2005.

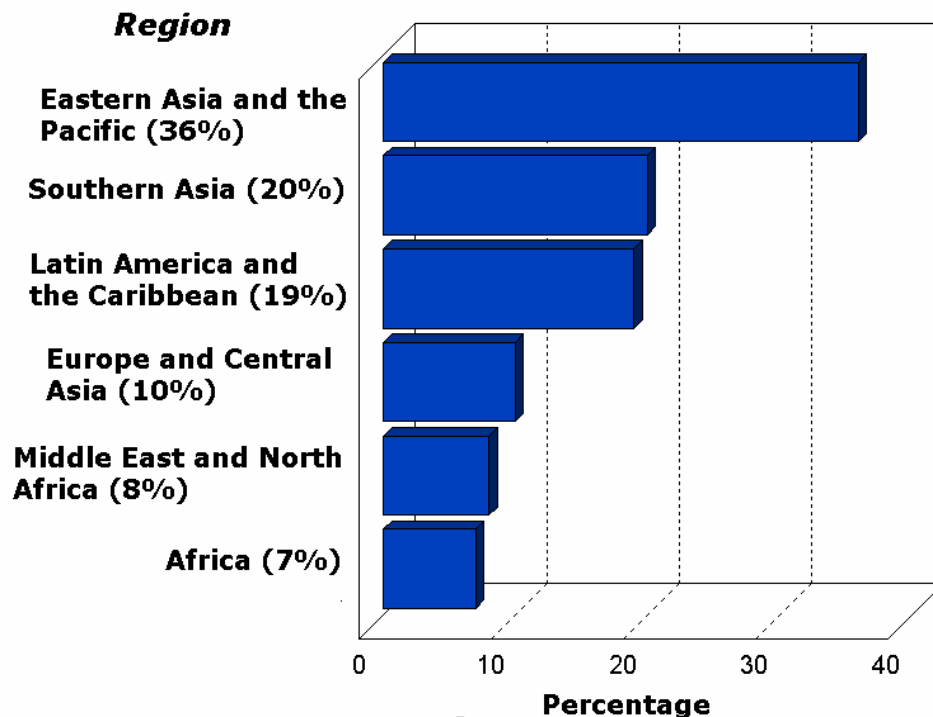
The World Bank
(WB)



A. Activities underway or planned by various agencies (state of the art)

1. At present the World Bank has taken on firm commitments to finance water supply projects in the total amount of US \$ 20 billion for the entire world. Of this figure nearly US \$ 4.8 billion will be allocated to providing water supply and sanitation services in urban areas, some US \$ 1.7 billion for the same purpose in rural areas, nearly US \$ 5.4 billion to irrigation and wastewater disposal services, another US \$ 1.7 billion to hydroelectric energy and approximately US \$ 3 million to water-related environmental projects.

**World Bank Loans for water supply projects
(Distribution by regions)**

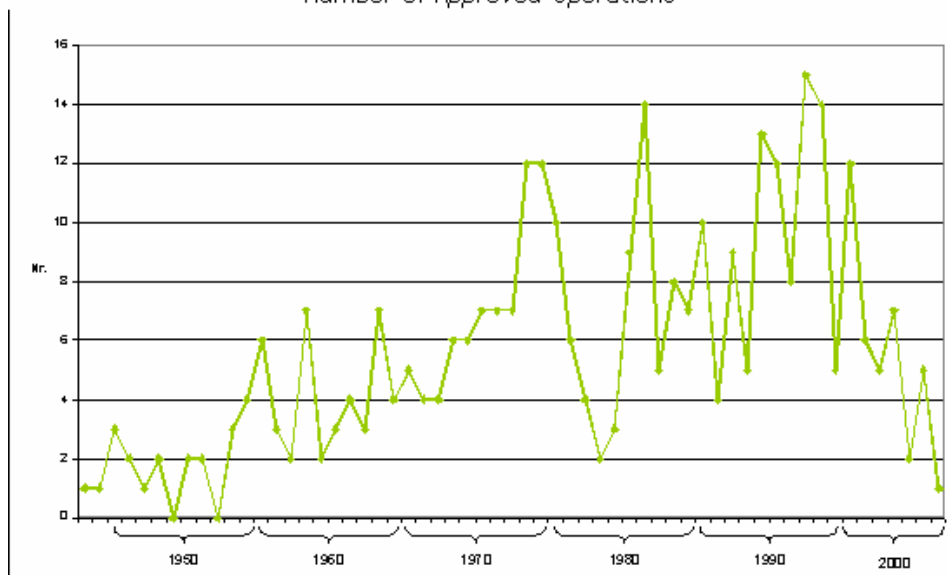


2. Thirteen governments of the LAC region are receiving assistance in the total amount of US \$ 3 billion. The objective of these projects is to improve the quality of life, health and environmental conditions through providing sustainable services, in addition to supporting actions designed to expand access to drinking water and sewerage services to the poor through partnerships between the government, the private sector and community organizations.

3. An example of collaboration between the World Bank and the countries of the region in this matter can be found in Bogotá, Colombia, in the area known as *Minuto de Dios* (God's Minute), where the Salitre River used to regularly overflow during the rainy season and flood households with wastewater. Every year hundreds of children were taken mortally ill with diarrhea, enteritis, and other gastrointestinal diseases, due to poor sanitary conditions. There is now a new system of sewerage discharge at a cost of \$32.3 million that has changed the lives of half a million people in Minuto de Dios and similar districts. Special canals take the wastewater to safe places and new embankments deter flooding. The old, foul areas have been replaced by bicycle paths and walkways bordered by trees and parks.

4. During the previous decade, the World Bank decided to work with other stakeholders to help in dealing with Brazil's two major challenges as regards water management: the scarcity of drinking water and the lack of sanitation services. While millions of poor in the northeast of Brazil lived on land scorched by years of drought, Brazilians in industrialized and urban areas, particularly in the southeastern reaches of the country, had to live with unhealthy environmental conditions resulting from water pollution. Between 1991 and 1994, the World Bank approved credits in the total amount of \$2 billion to support the government of Brazil in its water-related activities. As a result of these actions, the number of people who now have access to a reliable source of clean water has increased by 30% in rural areas as compared to the 1986 figure. For this same period of time the percentage of people with access to reliable sources of drinking water in urban areas has risen to 96%. A total of over 1.3 million people have received the benefits of water projects financed by the Bank during the last 16 years.

Total Water Projects
Number of Approved Operations



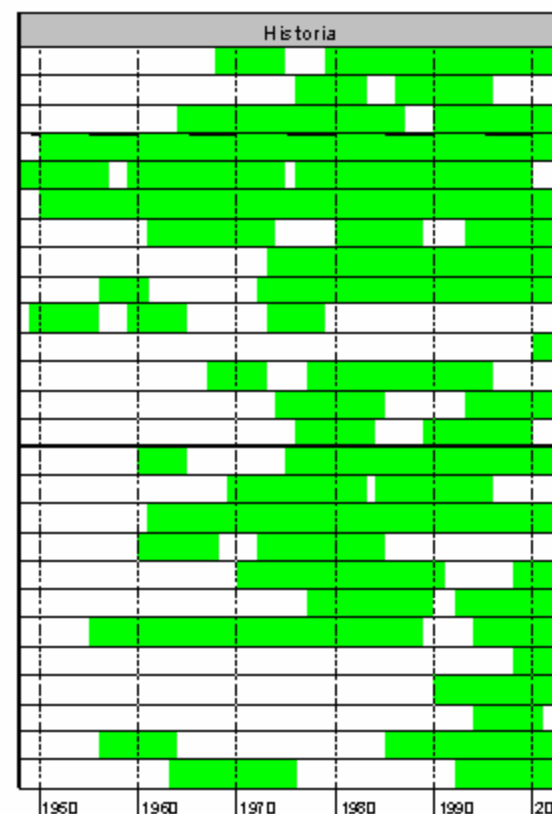
5. In Paraguay, Panama, Peru and Ecuador, the Bank is supporting various projects to provide drinking water to rural regions. As concerns pollution and the quality of water, in Brazil important progress has been made in cleaning large bodies of water and improving the conditions of the *favelas* (slums), given that the latter are a source of considerable pollution. Moreover, there are initiatives underway in this last country and in Argentina to improve flood management and sewerage systems.

6. One of the more recent World Bank projects executed with GEF (Global Environment Facility) funds is the Project for the Guarani Aquifer System. This system is shared by Brazil, Argentina, Paraguay and Uruguay; cooperation among the four countries –designed to protect and sustainably manage the System– is an example of unprecedented regional cooperation in matters of water. The Guarani is one of the largest water systems in the world, occupying a surface equivalent to Spain, France and Portugal together. The objective of the project is for the countries comprising this System to sustainably manage and integrate the work.

B. WATER-RELATED WORLD BANK OPERATIONS IN LATIN AMERICA AND THE CARIBBEAN

Water Projects (Water and Sanitation, Irrigation, Drainage, Hydroelectric Plants, etc.)

| Country | # Operac. | Cantidad (\$ M) ¹¹ | per capita \$ acc ²¹ | 1er Año | Último | # Años | % tiemp. ²¹ |
|---------------------|-----------|-------------------------------|---------------------------------|---------|--------|--------|------------------------|
| Argentina | 18 | 1549.1 | 33.51 | 1968 | 2011 | 40 | 91% |
| Bahamas | 2 | 20.0 | 66.01 | 1976 | 1995 | 17 | 85% |
| Bolivia | 12 | 189.6 | 21.45 | 1964 | 2002 | 36 | 92% |
| Brasil | 85 | 6411.8 | 29.13 | 1950 | 2010 | 61 | 100% |
| Chile | 12 | 586.3 | 28.68 | 1948 | 2010 | 55 | 87% |
| Colombia | 48 | 1994.8 | 43.11 | 1950 | 2007 | 58 | 100% |
| Costa Rica | 5 | 94.8 | 23.01 | 1961 | 2003 | 33 | 77% |
| Rep. Dominicana | 8 | 304.0 | 20.27 | 1973 | 2008 | 36 | 100% |
| Ecuador | 15 | 391.0 | 26.80 | 1956 | 2009 | 43 | 80% |
| El Salvador | 4 | 46.6 | 7.43 | 1949 | 1978 | 19 | 63% |
| Grenada | 1 | 10.1 | 20.61 | 2000 | 2004 | 5 | 100% |
| Guatemala | 4 | 165.0 | 14.49 | 1967 | 1995 | 25 | 86% |
| Guyana | 5 | 74.4 | 59.39 | 1974 | 2005 | 24 | 75% |
| Haiti | 3 | 36.6 | 4.60 | 1976 | 1999 | 19 | 79% |
| Honduras | 10 | 272.3 | 39.74 | 1960 | 2006 | 42 | 89% |
| Jamaica | 4 | 34.1 | 12.95 | 1969 | 1995 | 26 | 96% |
| Mexico | 40 | 5506.5 | 45.75 | 1961 | 2008 | 48 | 100% |
| Nicaragua | 7 | 41.8 | 8.24 | 1960 | 1984 | 21 | 84% |
| Panamá | 7 | 191.3 | 64.76 | 1970 | 2003 | 27 | 79% |
| Paraguay | 6 | 177.3 | 23.59 | 1977 | 2003 | 25 | 93% |
| Peru | 16 | 792.4 | 23.36 | 1955 | 2008 | 49 | 91% |
| St. Kitts and Nevis | 1 | 3.9 | 47.73 | 1998 | 2003 | 6 | 100% |
| St. Lucia | 4 | 21.6 | 102.56 | 1990 | 2005 | 16 | 100% |
| Trinidad and Tobago | 2 | 31.3 | 24.06 | 1994 | 2000 | 7 | 100% |
| Uruguay | 7 | 207.0 | 38.77 | 1956 | 2010 | 34 | 62% |
| Venezuela | 7 | 305.0 | 10.42 | 1963 | 2004 | 26 | 62% |
| Total | 333 | 19458.7 | 31.42 | 1948 | 2011 | 64 | 100% |



¹¹ Incluye Proyectos en preparación

²¹ Cantidades Implementadas en 2000 (est.)

³¹ Indica cuan permanente fue la relación con el Banco; 100% significa sin Interrupción.

C. World Bank Portfolio

| Active Loans: | FY | USD (M \$) |
|--|------|----------------|
| 6L GEF Latin America Guarani Aquifer Project | 2002 | 13.4 |
| 6O GEF OECS Ship Waste Management Project | 1995 | 12.5 |
| Argentina GEF Marine Pollution Prevention | 2001 | 8.35 |
| Argentina Water Sector Reform | 1999 | 30 |
| Belize Roads and Municipal Drainage Project (supplemental) | 2001 | 2 |
| Brazil Bahia Water Resources | 1998 | 51 |
| Brazil Bahia Wetland Management Project (GEF-MSP) | 2000 | 0.9 |
| Brazil CAIXA Water Sector Modernization Project | 2003 | 75 |
| Brazil Ceará Urban Development and Water Resources | 1995 | 140 |
| Brazil Ceará Water Pilot (SIM) | 1997 | 9.6 |
| Brazil Ceará Water Resources PROGERIRH | 2000 | 136 |
| Brazil Espírito Santo Water Project | 1994 | 154 |
| Brazil Federal Water Management | 1998 | 198 |
| Brazil Water Quality and Pollution Control Project | 1993 | 245 |
| Central America GEF Mesoamerican Barrier Reef System | 2001 | 11 |
| Colombia Cartagena Water Supply & Sewerage | 2000 | 85 |
| Colombia Natural Resources Management | 1994 | 39 |
| Colombia Santa Fe Water Supply and Sewerage Project I | 1996 | 145 |
| Colombia Water Sector Reform | 2002 | 40 |
| Dominican Republic Irrigated Land and Watershed Project | 1995 | 28 |
| Ecuador Rural Water Supply | 2001 | 32 |
| Guyana Water Supply Technical Assistance | 1994 | 17.5 |
| Honduras Sustainable Coastal Tourism Project (LIL) | 2002 | 5 |
| Mexico On-Farm and Minor Irrigation Networks Improvement | 1994 | 200 |
| Mexico Second Water Supply and Sanitation | 1994 | 350 |
| Mexico Water Resources Management | 1996 | 146.5 |
| Paraguay Asuncion Sewerage | 1995 | 46.5 |
| Paraguay Water Supply | 1993 | 23 |
| Peru Lima Water Rehabilitation and Management Project | 1995 | 150 |
| Peru National Rural Water Supply | 2003 | 50 |
| St. Lucia Water Sector Reform | 2002 | 2.6 |
| TOTAL | | 2,446.8 |

| Active Studies and Technical Assistance: | FY | USD (M\$) |
|--|-----------|------------------|
| Argentina Water and Sewerage Strategy Update (Non-Lend TA) | 2002 | Tech. Ass. |
| Argentina Water Resource Management | 2000 | ESW |
| Bolivia Water and Sanitation | 1994 | ESW |
| Brazil Irrigation Modernization | 2000 | ESW |
| Brazil Water Privatization Study | 2000 | ESW |
| Costa Rica Water Supply Study | 1993 | ESW |
| Mexico Water Sector Strategy | 2000 | ESW |

| Loans in Preparation: | FY | USD (M \$) |
|--|-----------|-------------------|
| Argentina Drainage Infrastructure Management | 2005 | 100 |
| Argentina Water Sector II (APL) | 2007 | 40 |
| Argentina Watershed Management | 2005 | 35 |
| Brazil Amazonia Integrated Health, Water and Sanitation | 2005 | 75 |
| Brazil Bahia Integrated Urban Dev. | 2005 | 96 |
| Brazil Federal Water Resources Management Project (PROAGUA 2) II | 2007 | 200 |
| Brazil GEF Amazon Basin & Aquatic Project | 2005 | 5 |
| Brazil GEF Coastal Zone Management | 2006 | 10 |
| Brazil Integrated Water Management and Basic Services | 2005 | 250 |
| Brazil Paraiba do Sul Pilot Project – Integrated Water Resources | 2007 | 25 |
| Brazil Rio Grande do Norte Water Resources Management | 2005 | 50 |
| Brazil Water Sector Modernization Project (BNDES) | 2008 | 30 |
| Colombia Water, Sanitation and Wastewater Mgmt. | 2005 | 125 |
| Costa Rica Water and Sanitation Sector Management | 2005 | 60 |
| Dominican Republic Water and Sanitation in Tourist Areas | 2006 | 120 |
| Ecuador Water Resource Management | 2008 | 20 |
| Mexico Irrigation & Drainage Modernization Project | 2004 | 300 |
| Mexico Water Resources Management Project II | 2005 | 100 |
| Mexico Water & Sanitation Modernization | 2004 | 100 |
| Panama Canal Watershed Management | 2005 | 11.1 |
| Uruguay Maritime – Coastal Contamination Project (GEF) | 2005 | 5 |
| TOTAL | | 1,757 |

| Studies and Technical Assistance in Preparation: | FY | USD (M \$) |
|---|-----------|-------------------|
| Argentina Rural Infrastructure | 2004 | ESW |
| Bolivia Urban Water and Sanitation | 2005 | ESW |

D. Insertion in the Forum and LACI work plan, in keeping with the crosscutting nature of the matter

7. Topics related to the management of water resources, in addition to being one of the direct areas of interest of the Forum of Ministers, will have an indirect effect on nearly all others.

8. Water is an essential aspect of any economic development initiative. Its proper or improper management and/or distribution will have an effect on many facets of human life.

9. Following are some of the ways in which the issue of water resource management is related to other topics of the Forum's agenda:

- a) *Biological Diversity*, The pollution of aquatic environments exerts great pressure on the biodiversity that lives in these environments. In light of the lack of adequate drainage services, for example, much of the waste emitted by large urban concentrations will end up in bodies of water. The same is true in the case of a lack of appropriate regulatory frameworks for the disposal of industrial waste.
- b) *Vulnerability, Human Settlements and Sustainable Cities*, Along the same lines as the foregoing paragraph, quite often large sectors of a city's population are living in poverty and in addition do not have access to drinking water or sanitation services
- c) *Social Issues*, Including Health, Inequity and Poverty. Over 60% of deaths caused by poor environmental quality stem from water (pathogens and pollutants)
- d) *Economic Aspects*, Including Competitiveness, Trade, Consumption Patterns and Energy
- e) *Institutional Aspects*

E. Trends, main lines of work, and/or gaps in diagnoses, situational analyses, creation of capacities, preparation of negotiators, etc.

10. The World Bank LAC region group on water and sanitation works to improve the quality of life, health and environment in the region through providing the population with sustainable services. The challenge consists in increasing the supply of quality services provided while at the same time guaranteeing that these services are efficient, reasonably priced and sustainable, all within the framework of public policy and private incentives to protect the poor and care for the environment.

11. Historically speaking, the Bank has been involved in many privatization efforts in the region, seeking to transform the role of national governments from being operators to becoming effective regulators of the sector. The emphasis now resides in consolidating these transformations by helping the countries to create effective regulations for the sector, thus avoiding monopoly-oriented behavior, ensuring the quality of the service, protecting the environment and ensuring equity in access to resources for the most vulnerable population.

12. The backbone of the Bank's sectoral strategy –institutional and regulatory reform– helps the economies of the region to reduce the levels of public spending and fiscal deficit. Through focusing on improving the quality of the regulation and administration of the quality of water and its levels of pollutants, we simultaneously reduce environmental deterioration. Lastly, as we fine-tune the design of the interventions, we ensure that the beneficiaries are precisely the most vulnerable sectors of society.

F. Thematic Priorities

a) Modernization of the sector and regulatory reform

13. The level of impact on water resources has increased immensely, to the degree that Latin America has become more urbanized and developed. The goal of the World Bank is to improve the performance of suppliers and raise it to international levels of excellence. The World Bank helps governments (i) to develop strategies to modernize the sector; (ii) by providing incentives to competitiveness (iii) to establish a legal and regulatory framework; and (iv) to promote the development of the private sector.

b) Sustainable water supply and sanitation for the poor

14. The Bank helps governments to develop appropriate policies for the urban poor and rural communities, focusing on families whose income is below US\$ 1.50 per person per day. In Brazil, Peru and Colombia, the Bank spearheaded the development of engineering standards, efficient technologies and experiences in community mobilization as key tools to improve the sustainable supply of water, sanitation services, drainage and the management of solid waste for the most vulnerable population.

15. The Bank has also worked closely with water projects in Paraguay, Bolivia, Venezuela and Ecuador. These efforts are frequently undertaken in coordination with the UNEP-World Bank Program on Water and Sanitation, under the sponsorship of various bilateral agencies and the Bank.

c) Management of the quality of water and pollution control

16. The Bank has promoted the creation of agencies to manage watersheds, in collaboration with various entities that include local governments; these agencies handle a combination of related activities such as water extraction, surcharges for disposal, economic incentives and registration systems for users and polluters. Setting up these agencies is a highly complex undertaking from the technical and political standpoint. Nevertheless, once established, they are very effective in improving the quality of water and mobilizing financial resources and investments.

d) Management of flooding and drainage

17. The problems arising from drainage and water-related emergencies have increased considerably over the last few years due to climate change and changes in the patterns of land use. The Bank has developed a solid practice in this area of emerging water infrastructure through its relationship to flooding and drainage projects in Argentina and Brazil. These projects encompass a broad spectrum of themes, ranging from the installation of regional systems and the use of watersheds for hydro-meteorological data collection and analyses through the design and construction of civil protection, sewerage infrastructure and floods.

United Nations
Environment Programme



18. The UNEP Regional Office for Latin America and the Caribbean has increased its cooperation actions since June of 2001, in coordination with the Office for Coordination of the Global Plan of Action for the Protection of the Marine Environment from land-Based

Sources and Activities (GPA), in particular as refers to the Strategic Action Plan for Municipal Wastewater (SAP).

A. Regional Meetings

19. The region has carried out important meetings for the implementation of this Plan.

- a) The first meeting was the Regional Cooperation Workshop for Innovative Action, held at Ocho Rios, Jamaica, February 19 – 21, 2001;
- b) The second was the Latin American Workshop on the Management of Municipal Wastewater, held in Mexico City, September 10 – 12, 2001. The GPA and SAP were introduced there, and this led to the production of the document “Municipal Wastewater as Land-based Sources of Pollution in the Marine and Coastal Environment of the Latin American and Caribbean Region”.
- c) In November of 2001 the First Intergovernmental Review Meeting of the GPA was held in Montreal, Canada. At this meeting the Work Program through the year 2006 was presented; the Caribbean was shown in this Work Program to be a priority region, and the SAP implementation was of equal importance. The results of the workshops held in the region were presented.

20. UNEP has made considerable progress in coordination with other agencies involved in the theme, and is convinced that coordinated actions produce a much greater effect and effectiveness than do isolated actions.

21. That is why in the year 2002 UNEP took part jointly with the CWWA –Caribbean Water and Wastewater Association, ECLAC, the Inter-American Association for Sanitary and Environmental Engineering, the Organization of American States, the Panamerican Health Organization and the World Health Organization in signing the Declaration of the Inter-American Water Day, on October 28, 2002. Since that time UNEP has increasingly sought closer coordination with regional agencies and institutions.

22. In 2003 the Second Regional Workshop on the Management of Municipal Wastewater, Mexico City, June 10-11. This was a joint endeavor undertaken by UNEP/ROLAC, UNEP/Caribbean Environmental Program, UNEP/GPA and CEPIS/PAHO/WHO (CEPIS: The Pan American Center for Sanitary Engineering and Environmental Sciences). The objectives of this workshop were to review and update the level of implementation of the SAP in the region, review the current situation concerning practices in the management of municipal wastewater, and select pilot projects for implementation, together with other actions for the 2003-2006 period. Within the workshop, priorities designated within LACI were also discussed; these are in full harmony to those identified through SAP in the matter of wastewater management. A Portfolio of Pilot Projects was also established; these are to be promoted among the SAP/GPA donors and others. A group of these will be selected for immediate implementation, to be supported by the Coordination Office of the GPA in The Hague. A document titled “Recommendations for Decision-Making on Basic Sanitation and Municipal Wastewater” was drafted and presented in English for comments during the last workshop held in June of this year. Work is being completed on a document called “Analysis of Different Indicators Related to the Problem of Water in Latin America and the Caribbean”; it is currently undergoing final review. ROLAC has participated actively with PAHO and the OAS on the Initiative for Health and the Environment for the Americas (HEMA), whose priority objectives are water for human consumption and sanitation services. A set of pilot projects has been drafted; three of these focus on the issue of water. Of these, an assessment of the cost of the necessary investments in Latin America to satisfy needs in terms of municipal wastewater treatment is of considerable importance.

23. ROLAC recently has worked in coordination with the Dams and Development Project (DDP-UNEP) and is attempting to support the promotion of national dialogues concerning dams in Mexico and Brazil. Apparently the proposal for National Dialogue has been enthusiastically received by Mexico, and we expect arrangements for its implementation to begin soon.

24. The Regional Unit for Coordination for the Caribbean Environmental Programme in Jamaica (UNEP) has carried out important actions to reduce the discharge of wastewater into coastal watersheds and zone in the Caribbean. It is important to mention the relevance of the Aruba Protocol on Land-based Sources of Marine Pollution, which is undergoing the ratification process.

B. Projects

25. There are 7 UNEP/GEF projects underway in the region at present:

- a) Integrated Watershed Management Program for the Pantanal and Upper Paraguay River Basin (Brazil)
- b) Integrated Management of Land-Based Activities in Sao Francisco Basin (Brazil)
- c) Strategic Action Program for the Binational Basin of the Bermejo River (Regional Argentina)
- d) Implementation of the Strategic Action Programme for Bermejo River Binational Basin: Phase II. (Regional Argentina-Bolivia)
- e) Integrated Watershed and Coastal Area Management in the Small Island Developing States of the Caribbean (Regional)
- f) Strategic Action Program for the Binational Basin of the Bermejo River (Bolivia)
- g) Formulation of a Strategic Action Program for the Integrated Management of Water Resources and the Sustainable Development of the San Juan River Basin and its Coastal Zone.

26. The three LAC Regional Seas programs are: the Wider Caribbean Region, The South Pacific Region and the Northeast Pacific Region; they all have the same primary priority, which is to deal with land-based sources of pollution, particularly as concerns municipal wastewater. The GIWA Program (Global International Waters Assessment) has developed assessments for prioritizing the actions of at least three subregions of LAC.

27. The UNEP Caribbean Environment Programme/Regional Co-ordinating Unit (UNEP/CAR-RCU) is currently implementing with the Governments of Colombia, Costa Rica, Nicaragua and Panama, the GEF Project "Reducing pesticide run-off to the Caribbean Seas (1999-2005)". The objective of this project is the protection of the Caribbean marine environment by reducing the use of (and reliance on) pesticides in agricultural activities through the development of national plans; as its main outputs are the preparation of national reports to form basis for the national action programmes (NAPs), the preparation of a regional report for regional cooperation and the development of institutional infrastructure.



28. The role of the Inter-American Development Bank (IDB) in the management of water resources can be divided into activities handled by three different types of instruments:

- a) loans
- b) technical cooperation, and
- c) training events and seminars

29. The Bank's loan portfolio and technical cooperation for the 2003-2005 period is greater than US\$ 3 billion and US\$ 9 million, respectively (see charts below). Because it reflects the needs of the countries, and given that priorities differ among the countries, the portfolio includes an array of activities designed for different sectors. Despite this –and in answer to the demand of the countries and the results of events and international declarations such as the Millennium Declaration, the World Summit on Sustainable Development, and the Third World Forum on Water– the Bank's activities have primarily focused on the drinking water sector and sanitation, watershed management and some minor activities in irrigation and hydroelectric power (small works financed by the Bank's private sector department). The emphasis of the operations continues to be the institutional, legal, policy and regulatory development of the countries and building infrastructure.

30. Through programs such as the one that the IDB has undertaken with the Netherlands for the Management of Water Resources, the Bank is fostering the concept of integrated management of water resources as an instrument to achieve better management of water resources. Thus, the improvement of technical capacity of the professionals in the Region is being stressed. In the coming years the Bank will work on training activities in the Region for the integrated management of water resources, watersheds and the quality of water. Through these training efforts the Bank expects to develop institutional capacity –still weak at present– thus contributing to the improved management of the resources.

31. The same program will promote the preparation of national strategies for the integrated management of water resources and national plans of action to support the countries in meeting the millennium goals for drinking water and sanitation.

32. In follow-up to the recommendations emerging from the report on Financing Water Resources, prepared by the Panel on Water Infrastructure, led by Mr. Michel Camdessus, the countries of the region will receive support for the development and implementation of financial instruments designed to promote investment in water resources.

33. In order to discuss the obstacles that hinder a greater volume of investment in drinking water and sanitation, and therefore be in a position to comply with the goals of the millennium, the IDB is organizing four conferences. The first of these will be held in Washington, D.C. on November 10 and 11. The second will be held in Panama toward the end of November. The third is to be held at the end of February 2004 in Barbados, and the last one is to be held in an as yet undesignated South American country.

A. LOANS IN PREPARATION

| Loans – Water Resources | | | |
|-------------------------|----------------|--|------------------------|
| # Proj. | Country | Title | Amount |
| BA0037 | Barbados | Sewerage for the East Coast | \$40,000,000 |
| BO0223 | Bolivia | Investment Program for Municipal Drainage System | \$20,000,000 |
| BR0266 | Brazil | New Irrigation Model | \$90,000,000 |
| BR0317 | Brazil | Sanitation Bahía de Guanabara | \$350,000,000 |
| BR0321 | Brazil | Environmental Recovery Guaíba Watershed | \$100,000,000 |
| BR0324 | Brazil | Sanitation Program for Ceará | \$100,000,000 |
| BR0338 | Brazil | Tiete 3 | \$150,000,000 |
| BR0370 | Brazil | Hydroelectric Plant Campos Novos | \$75,000,000 |
| BR0380 | Brazil | Sanitation Ceara 3 | \$72,000,000 |
| BR0390 | Brazil | Environmental Sanitation of Porto Alegre | \$75,000,000 |
| CH0171 | Chile | Desalinization Project Antofogasta | \$8,000,000 |
| CO0250 | Colombia | National Water Plan | \$60,000,000 |
| CO0267 | Colombia | Environmental Sanitation Bogota | \$50,000,000 |
| CR0149 | Costa Rica | Investment Prog. Public Service Companies | \$30,000,000 |
| CR0150 | Costa Rica | Regional Prog. Sust. Dev. Binacional Sixaola Basin | \$10,000,000 |
| CR0159 | Costa Rica | Multiphase Program for Aqueducts and Sewerage | \$30,000,000 |
| ES0133 | El Salvador | Integrated Management Solution Bajo Río Lempa | \$8,000,000 |
| GU0066 | Guatemala | Management of Sanitation Lago Amatitlán | \$21,000,000 |
| GU0150 | Guatemala | Investment Program for Drinking Water | \$50,000,000 |
| HA0039 | Haiti | Sanitation Reform Sector III | \$40,000,000 |
| HO0174 | Honduras | Supplementary Investment Water and Sanitation | \$14,000,000 |
| JA0106 | Jamaica | National Irrigation Program | \$16,000,000 |
| JA0114 | Jamaica | Rehabilitation of Drinking Water in Kingston | \$40,000,000 |
| ME0174 | Mexico | Supply and Management of Water in the ZMVM | \$690,000,000 |
| ME0212 | Mexico | Water and Sanitation in Rural Zones II | \$300,000,000 |
| ME0251 | Mexico | Modernization and Reform of Water Sector | \$200,000,000 |
| ME0253 | Mexico | Demonstration Project; Drinking Water and Sanitation | \$10,000,000 |
| NI0152 | Nicaragua | Municipal Environm. Prog. & Watershed Management | \$10,000,000 |
| PE0142 | Peru | Program to Support Sanitation Sector | \$50,000,000 |
| PN0062 | Panama | Sanitation Project Panama City | \$100,000,000 |
| PN0139 | Panama | Priority Activities in Watersheds | \$5,000,000 |
| PN0155 | Panama | Hydroelectric Project Bonyic | \$10,000,000 |
| PR1001 | Paraguay | Program Sanitation and Quality Services | \$29,000,000 |
| TT0048 | Trin. & Tobago | Drinking Water and Sanitation | \$44,000,000 |
| VE0079 | Venezuela | Control of Water Level Lago Valencia | \$100,000,000 |
| VE0124 | Venezuela | Irrigation and Sanitation of Land | \$100,000,000 |
| VE0131 | Venezuela | Re-ordering of Drinking Water Sector | \$25,000,000 |
| TOTAL | | | \$3,122,000,000 |

B. TECHNICAL COOPERATION IN PREPARATION

| Technical Cooperation – Water Resources | | |
|---|---|--------------------|
| Country | Title | Amount |
| Bolivia | Master Plan for Drainage in La Paz | \$750,000 |
| Brazil | Design of Nat. Sanitation Policy Guides | \$140,000 |
| Brazil | Strategic Plan Ríos Araguaia-Tocantins Watershed | \$960,000 |
| Costa Rica | National Strategy for Water Resources | \$265,000 |
| Ecuador | Hydroelectric Project Toachi-Pilaton | \$700,000 |
| El Salvador | Master Plan for Water Resources | \$600,000 |
| Guatemala | Sanitation and Management Program Cuenca Amatitlán | \$748,000 |
| Guatemala | Management of Priority Watersheds | \$400,000 |
| Honduras | Tegucigalpa: PSP in Water and Sanitation | \$500,000 |
| Honduras | Drinking Water and Sanitation | \$66,000 |
| Mexico | Support Execution of ME0179 Project | \$700,000 |
| Panama | Design of Sanitation Project for the Panama Bay | \$1,500,000 |
| Peru | Develop. of Tariff Framework for Drinking Water and Sanitation Sector | \$125,000 |
| Peru | SMEs in Drinking Water and Sanitation | \$181,000 |
| Regional | Financing of Drinking Water Projects | \$100,000 |
| Regional | Investment Project for Water and Sanitation | \$450,000 |
| Regional | Integral Management of Water Resources and Governance | \$400,000 |
| Regional | Water Resources in Central America | \$552,500 |
| Dom. Rep. | Management of Watersheds and Coastal Zones | \$319,000 |
| | TOTAL | \$9,456,500 |



34. There are 7 UNDP/GEF projects in varying stages underway in the region:

| Country | Title | FY | US\$ | Status | Description |
|---|--|------|---------|---|--|
| BARBADOS-RLA (BAR, CUB, JAM, MEX and VEN) | Sustainable Management of the Shared Marine Resources of the Caribbean Large Marine Ecosystem and Adjacent Regions | 2005 | 10.000 | PDF under implementation. Full project to be presented in 2005. | The goal of this project is sustainable management of the shared living marine resources of the Caribbean LME and adjacent areas through an integrated management approach. The project is focused on aligning institutions on the national and regional scales to sustainably manage near-shore and deep water fisheries and related habitat of the LME, including the development and use of a knowledge base to support institutional decision-making. |
| GUATEMALA | Rural Indigenous Communities and Mitigation of Disaster: the Micro- Basin Approach to the Polochic Valley | 2000 | \$0.025 | | The project will establish effective method(s) for disaster mitigation which will support the long-term conservation of biodiversity of the region. This will be achieved by demonstrating alternatives to current practices leading to land degradation and contamination of the transboundary waters of the Gulf of Honduras, raising awareness and supporting sustainable socio-economic development of the communities in the project area. The project will catalyze widespread adoption of comprehensive ecosystem management interventions that integrate ecological, economic, and social goals to achieve multiple and cross-cutting local, national, and global benefits. |
| MEXICO-RLA | Gulf of Mexico Programme | 2005 | 8.000 | PDF B approved. Full project to be presented in 2005. | The objective of this proposed project is to enhance national regional efforts to move towards sustainable integrated management of the environment and resources of the Gulf of Mexico Large Marine Ecosystem (GOMLME). The first step in this process, will be strengthening of a mechanism for regional co-operation; review of the existing knowledge of the status and threats to the GOMLME and development of a Strategic Action Program (SAP) of legal, policy and institutional reforms and investments, to address both these threats to ecosystem sustainability and the gaps in knowledge essential to the sustainable management of the ecosystem. |
| Regional | Integrating Watershed and Coastal Area Management in Small Island Developing States of the Caribbean | 2004 | 6.000 | Joint UNEP- UNDP Project. PDF B under implementation. Full project to be presented in 2004. | The objective of the Full Project will be to strengthen the capacity of the participating countries to implement an integrated approach to the management of watersheds and coastal areas (IWCAM). The long-term goal is to enhance the capacity of the countries to plan and manage their aquatic resources and ecosystems on a sustainable basis. The project recognises the integrated and interlinked nature of watersheds and coastal areas in small islands and aims to develop a more sectorally-coordinated management approach, both at the national and the regional level, with a strong emphasis on an expanded role for all stakeholders within a participatory management framework. |

| Country | Title | FY | US\$ | Status | Description |
|-------------------------|--|------|---------|---|---|
| Regional (Peru & Chile) | Humboldt Current LME | 2004 | 8.000 | Joint UNIDO-UNDP Project. PDF B under implementation. Full project to be presented in 2004. | The objective of the project to be developed under the Block B GEF grant is to enhance national and regional efforts to move towards sustainable integrated management of the Humboldt Current Large Marine Ecosystem (HCLME). The first step in the process will be the establishment of a mechanism for regional co-operation, a review of the existing knowledge of the status and threats to the HCLME and the development of a Transboundary Diagnostic Analysis (TDA) and a preliminary Strategic Action Programme (SAP) to address both these threats and the gaps in knowledge essential to the sustainable management of the ecosystem. In addition to assisting in the development of the TDA/SAP, the project is expected to focus on the strengthening of effective consultation, co-ordination and monitoring mechanisms, the development of institutional capacity, the continued brokering and coordination of donor support and the direct support of some of the priority activities identified in the SAP. |
| CUBA | Planning and Management of Heavily Contaminated Bays and Coastal Areas of the Wider Caribbean | 2002 | \$4.038 | | The project will implement demonstrations/pilot projects to test innovative technical, management, legislative and educational approaches for reducing the input of priority international waters contaminants, the nutrients nitrogen and phosphorus, to Havana Bay and the adjacent Wider Caribbean. It will further strengthen and/or help create new institutions responsible for the rehabilitation and sustainable management of the two bays. The project supports the mandate of the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, particularly Article 7, Pollution from Land-based Sources, and Article 13, Scientific and Technical Co-operation, as well as the new Land-Based Sources Protocol currently in preparation. |
| URUGUAY-RLA (ARG, URU) | Environmental Protection of the Rio de la Plata and its Maritime Front: Pollution Prevention and Control and Habitat Restoration | 1999 | \$6.010 | | The Frente Marítimo and the Rio de la Plata constitute the fluvial and marine environment that receives the waters flowing from the vast Rio de la Plata Basin to the Atlantic Ocean. This hydrographical system embraces over 3.100.000 km ² in Argentina, Bolivia, Brazil, Paraguay and Uruguay. It is the most developed basin in South America in terms of agriculture, livestock raising and industry activity as well as the second largest hydrographical system overall. The population is estimated at thirty million inhabitants. In recognition of these circumstances, the five countries signed the Rio de la Plata Basin Treaty, wherein they agreed to join efforts to promote the harmonious development and physical integration of the complex river system. The project aims to help the governments of Uruguay and Argentina strengthen institutional capacities and develop a strategic action programme for the protection and rehabilitation of the Rio de la Plata and its Maritime Front. The project will finalize a Transboundary Diagnostic Analysis and prepare a Strategic Action Programme. |

Economic Commission for
Latin America and the Caribbean (ECLAC)



35. The work of ECLAC in water resources is designed to contribute to the sustainable development of natural resources and their related goods and services for the countries of the region. This thematic area is part of the Division on Natural Resources and Infrastructure.

36. The lines of work comprise aspects such as the conservation and sustainable use of freshwater; private participation and regulation of public services based on natural resources; international and regional legal aspects for the management of natural resources. The focus of the Division's work on the objectives of human development entails the design of strategies for the management of natural resources and the regulation of public services companies so that they will consider the objectives of equity. In like manner, the Division focuses its activities on systems that will maximize on the role of governments, local communities and the participation of principal groups.

37. The countries of the region are modifying their systems for the legislation and management of water; governments are transferring public companies to the private sector; regulation will play an important role in the search for greater equity. The recovery of dynamic balance in deteriorated watersheds, lake and rivers, as well as finding a way to increase safety in light of extreme natural phenomena, are considered priorities.

38. The evolution of international negotiations that involve natural resources of interest at a regional level demands that technical input be provided for the countries both during the negotiation stage as well as for the subsequent application of instruments agreed on.

39. ECLAC's water department is in great demand for consultation on behalf of the governments, public and mixed companies, and international organizations.

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