

Network for Cooperation in Integrated Resource Management for Sustainable Latin America and the Caribbean



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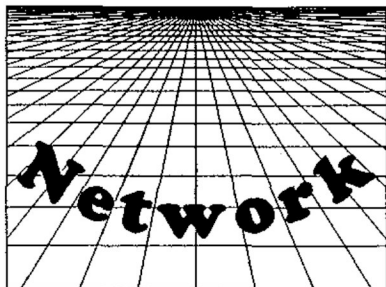
CIRCULAR Nº 1

Santiago de Chile

The Network for Cooperation in Integrated Water Resource Management for Sustainable Development in Latin America and the Caribbean was set up four years ago, and until now it has lacked a convenient mechanism for its members to exchange information. The purpose of the circular is to fill that gap and to bring the image of the Network into sharper focus. It is hoped that the circular will serve not only as a vehicle for disseminating information on activities conducted by ECLAC, but even more importantly as a forum in which participating organizations can share information and ideas on integrated management of water resources.

Member organizations are invited to submit material on activities, both executed and planned, programmes of work, publications, projects and any issues of concern to organizations and individuals involved in the integrated management of water resources.

We look forward to hearing your reactions to this proposal.



What is the Network?

The Network is a technical mechanism composed of organizations and enterprises, whether public, private or autonomous, involved in water resource management in ECLAC member countries. Its purpose is to improve existing capacity for multiple-use

water resource management in all its aspects (institutional, administrative, economic and financial, legal and technological) and the capacity to handle the projects and services associated with multiple-use management through an interchange of know-how and direct cooperation between the members of the Network.

The founding organizations are:

- Centre for Water Resource and Environmental Economics, Legislation and Management (Centro de Economía, Legislación y Administración del Agua y del Ambiente - CELAA), Mendoza, Argentina;
- Inter-American Centre for Environmental and Territorial Research and Development (Centro Interamericano de Desarrollo e Investigación Ambiental y Territorial - CIDIAT);
- Graduate School of Business Administration (Escuela de Administración de Negocios para Graduados - ESAN), Lima, Peru;
- Brazilian School of Public Education (Escola Brasileira de Administração Pública - EBAP), Getulio Vargas Foundation (Fundação Getulio Vargas), Rio de Janeiro, Brazil; and
- Central American Institute of Public Education (Instituto Centroamericano de Administración Pública - ICAP), San José, Costa Rica.

The Network has been established with the help of the ECLAC Environment and Natural Resources Division, which is collaborating with member organizations by providing technical and logistical support.

Since by definition the Network should be a flexible vehicle for the exchange of information, it seemed that it would be highly useful for the members of the Network to be interconnected via electronic mail (our INTERNET address is

tee@eclac.cl). Please send us your electronic mail number so that you can be contacted.

What are the Network's objectives

The general objective of the Network is to promote technical cooperation between organizations in Latin America and the Caribbean in the integrated management of water resources. This objective is in keeping with the recommendations of the Mar del Plata Action Plan adopted by the United Nations Water Conference held at Mar del Plata, Argentina, in 1977.

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Note: This is an abridged version of Circular Nº 1 which was originally published in Spanish in July 1994.

The specific objective of the Network is to promote efficient and effective systems of management in member countries for regulating and handling water resources for multiple uses, thereby ensuring their rational use, conservation, reclamation and protection, harmonizing the needs of man, economic development and the environment. To achieve this objective the Network promotes:

- Training for those involved in multiple-use management of water resources.
- Exchange of information on the subject, with special references to multiple-use water management and water conservation.
- Shared research, both theoretical and applied, on water resource management through multiple-use water systems and agreements between organizations for that purpose.
- Advisory services, through an exchange of experts, to institutions and individuals who are members of the network and request assistance.
- An exchange of written material among members of the Network and the preparation of material specifically for dissemination through the Network.

The specific proposal for the Network is laid out in detail in the preliminary draft of the rules of procedure, which can be requested from the ECLAC Environment and Natural Resources Division.

Who can be a member of the Network?

The Network is made up of academic and research institutions, government agencies and public, private or mixed enterprises involved in water resource regulation or management or in education, training and research related to water resource management in the ECLAC member countries.

The admission of new members should be proposed by the Regional Coordinator and approved by the annual membership meeting.



Agenda 21

The general objective of the Network is to promote technical cooperation between organizations in Latin America and the Caribbean in the integrated management of water resources. This objective is in keeping with the recommendations on integrated water resource management and

development contained in Agenda 21, which came out of the United Nations Conference on Environment and Development. Chapter 18 of Agenda 21 states that the extent to which water resource development contributes to economic productivity and social well-being is not usually appreciated, although all social and economic activities rely heavily on the supply and quality of freshwater. As populations and economic activities grow, many countries are rapidly reaching conditions of water scarcity or facing limits to economic development. The holistic management of freshwater as a finite and vulnerable resource and the integration of sectoral water plans and programmes within the framework of national economic and social policy are of paramount importance for action in the 1990s and beyond.

Integrated water resource management is based on the perception of water as an integral part of the ecosystem, a natural resource and a social and economic good, whose quantity and quality determine the nature of its utilization. To this end, water resources need to be protected, taking into account the functioning of aquatic ecosystems and the perennality of the resource, in order to satisfy and reconcile needs for water in human activities. In developing and using water resources, priority has to be given to the satisfaction of basic needs and the safeguarding of ecosystems. Beyond these requirements, however, water users should be charged appropriately.

Integrated water resource management, including the integration of land- and water-related aspects, should be carried out at the level of the catchment basin or sub-basin. Four principal objectives should be pursued, as follows:

- To promote a dynamic, interactive, iterative and multisectoral approach to water resource management, including the identification and protection of potential sources of freshwater supply, that integrates technological, socio-economic, environmental and human health considerations;
- To plan for the sustainable and rational utilization, protection, conservation and management of water resources based on community needs and priorities within the framework of national economic development policy;
- To design, implement and evaluate projects and programmes that are both economically efficient and socially appropriate within clearly defined

strategies, based on an approach of full public participation, including that of women, youth, indigenous peoples and local communities in water management policy-making and decision-making;

- To identify and strengthen or develop, as required, in particular in developing countries, the appropriate institutional, legal and financial mechanisms to ensure that water policy and its implementation are a catalyst for sustainable social progress and economic growth.

Meetings



Meeting on the effects of climate change

As part of the follow-up activities on the recommendations contained in the Dublin Statement and the Report of the International Conference on Water and the Environment: Development Issues for the 21st Century and in Agenda 21, which came out of the United Nations Conference on Environment and Development, a meeting of the Expert Group responsible for studying the possible effects of climate change on the water resources of Latin America and the Caribbean was held in Santiago, Chile, from 23 to 25 November 1993.

At the meeting, it was emphasized that potential climate change could affect every aspect of water use and constitutes one of the most difficult challenges facing users of water resources in the region. As a result of climate change, many countries could experience serious changes in water availability and quality. The incidence of weather extremes, such as floods and droughts, could increase, resulting in greater frequency and intensity of natural disasters.

The most important impact of climate change would be its effects on the hydrologic cycle and water management systems and, through these, on socio-economic systems. It was thought that the countries of Latin America and the Caribbean might be relatively more vulnerable to global climate change, because a greater percentage of their economic output depended on activities that were climate-sensitive and water-related. Moreover, the lower level of technical

sophistication of many economic and social activities in the countries of the region made them relatively more vulnerable to climate change compared with more developed countries, where such activities were "insulated" to a greater degree from climate change. One could expect the impact of climate change to be greatest in areas of water scarcity, heavy pollution or hazardous weather extremes. The point was made that the countries of the region had a very limited capacity to control and regulate their water resources in comparison with some other regions of the world.

It was observed that many important decisions related to water resources were based on the assumption that past climate data could serve as a reliable guide for the future. If there were strong grounds for believing that the climate would change during the life of hydraulic structures, future engineering design procedures would have to accommodate the expected change in climatic and hydrometeorological conditions over the life of the project.

There were four items on the agenda for discussion: the effects of possible climate changes on the management of water resources in Latin America and the Caribbean, national policy alternatives, recommendations for regional action programmes and other matters. At the meeting, a report was presented on "Climate change and water management in Latin America and the Caribbean". The report analyses the most important potential repercussions of global climate change on water use in the region.

On the basis of the presentations and discussions on the nature of potential climate change and its effect on Latin America and the Caribbean, the experts formulated a series of recommendations for the countries of the region for action that could be taken on the national level. Chief among them were the following:

- To systematically develop and apply sustainable national policies for responding to the effects of climate change;
- To improve the coordination of economic and social activities, since the management of water resources to meet the challenge of climate change depends largely on the structure of the State;
- To promote activities to educate the general public in the correct use of water and its economic importance, disseminate information and encourage public participation;

- To provide financial support to all systems for monitoring and diagnosing the elements of hydrologic and climate cycles and their impact on the various cultural systems;
- To foster research programmes directed at an improved understanding of the relationship between climate change and the intensity of droughts, floods and other extreme phenomena;
- To develop, adopt and apply comparable techniques and methods for joint evaluation of the possible effects of climate change on the water resources of the region;
- To promote the development of methodologies for evaluating the social, economic and environmental consequences of climate change and preventing potential social conflicts by insuring the participation of the various sectors of society.

With respect to regional action programmes, the experts concluded that given the physiographical characteristics of Latin America and the Caribbean, cooperation among the countries of the region was essential, the following being priority areas:

- To prepare a common policy position for the on-going negotiations in the United Nations context;
- To generate uniform and highly reliable and representative hydrometeorological, social and economic information for evaluating the impact of climate change on the region;
- To develop programmes of cooperation on regional and international research projects on climate change, in order to monitor its occurrence, its impact on the hydrological system and its consequences for the economies of Latin America and the Caribbean;
- To extend the scope of research to the great river basins in order to avoid present problems of lack of coordination;
- To strengthen the international centres engaged in research on climate change and social and economic studies;
- To assure coordination among the international organizations concerned with the issue of climate change in the region.

It was recommended that ECLAC should assume leadership in meeting the challenges that climate change posed for the region.

ECLAC presented a proposal for a project to study the effects of climate change in Latin America and the Caribbean.

A summary of the discussions, other information on the meeting and a complete listing of the recommendations made can be found in the "Report on the meeting of the Expert Group responsible for studying the possible effects of climate change on the water resources of Latin America and the Caribbean (Santiago, Chile, 23-15 November 1993)".

Meeting on the Effects of Agenda 21

As part of the follow-up activities on the recommendations contained in the Dublin Statement and in Agenda 21 from the United Nations Conference on Environment and Development, a meeting of the Group of Experts on the effects of Agenda 21 on integrated water resource management in Latin America and the Caribbean was held in Santiago, Chile, from 16 to 18 March 1994. The participants were experts from Argentina, Barbados, Brazil, Chile, Colombia, Costa Rica, Ecuador, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru and Venezuela. Representatives of international and bilateral organizations also attended.

The meeting stressed the importance of water resource management for Latin America and the Caribbean and the role it should play in the region's economic and social development. It was acknowledged that the actions of Governments in pursuance of the goals set in chapter 18 of Agenda 21 must take into account the conditions existing in the different countries, which varied considerably. It was pointed out that the recommendations of Agenda 21 coincided to a large extent with the objectives conceived by ECLAC as part of the plan for changing production patterns while achieving social equity and sustainable development. Despite differences, there were some common trends:

- The decentralization taking place in all the countries studied;
- A definite trend towards self-financing of water-related services;
- A desire to establish a global set of rules for the integral and sustainable management of water resources;
- A growing awareness of environmental problems, which are becoming increasingly critical;
- A clear tendency to have marketable water services help finance the externalities associated with the provision of such services;
- The newly emerging notion of payment for activities that cause pollution as a new source of financing for water management; and

- The increasing perception that water resource management at the river basin level might be the best approach.

Discussion centred around two topics: first, the situation in the countries of the region with regard to the challenges posed by Agenda 21 in relation to water resource management and second, support programmes for government measures adopted at the regional level.

A report entitled "Agenda 21 and integrated water resource management in Latin America and the Caribbean" was presented at the meeting. The report makes some observations on the degree of adhesion or follow-up of the Governments of Latin America and the Caribbean with respect to the agreements in chapter 18 of Agenda 21. It presents the situation as it now stands and describes new management approaches being taken in Argentina, Brazil, Chile, Colombia, Mexico and Venezuela.

As a result of their deliberations, the experts made the following recommendations:

General recommendations on Agenda 21:

The Governments of Latin America and the Caribbean and the international cooperation and financing organizations should be informed that this meeting of experts considers chapter 18 of Agenda 21 an instrument of primary importance for planning future activities in water management. However, the importance of water resources and their interrelation with the environment require that the issue should be viewed in the light of the other chapters of Agenda 21, the Dublin Statement and the recommendations of the International Conference on Water and the Environment: Development Issues for the 21st Century, held in Dublin, Ireland, from 26 to 31 January 1992.

Recommendations to Governments:

General recommendations:

- It should be remembered that inevitably the supply of water per inhabitant will decline, so that water resources by their very nature will continue to give rise to conflicts arising from the water management system.
- The role of the State and the role of individuals in regard to water management should be defined as clearly as possible.

- Agreements should be promoted within the private sector and between the private sector and the relevant political bodies, since this is the most appropriate means of regulating the relations that affect water resources and the environment.
- Water management should be financed with funds derived from the use of water in any form. This should be done without prejudice to the charges already established on other uses of water.
- Administrators and legislators should bear in mind that the general standards protecting individual rights must be stable.
- Recourse to the courts should be available not only for actual damages, but also in situations of potential harm.
- Account should be taken of the internal decentralization policy adopted in each State, which in some cases will allow for direct arrangements with international organizations offering technical and financial assistance.
- The political bodies responsible for drawing up agreements and treaties should be urged to allow the local authorities whose authority or jurisdiction will be affected to participate before or during the negotiating phase.

Recommendations on basic services:

- Self-financing mechanisms should be created for drinking water and sanitation projects. New or expanded water supply projects should include, as essential components, adequate water treatment and the elimination of polluting effluents.
- In cooperation with international organizations, Governments should develop lines of financing designed to meet the drinking water and sanitation needs of the region.
- Priority should be given to measures designed to do eliminate the practice of irrigating vegetables with sewage-contaminated effluents, through source substitution, water treatment, crop restrictions or other means.

Recommendations on integrated river basin management:

- Governments should promote management at the level of each river basin as the key to water administration, encouraging the development of integrated management of basins, which may be shared by the

countries of the region through horizontal cooperation programmes.

- Water development activities should be permanent, not temporary.
- In cooperation with international organizations, Governments should give priority to integrated water management projects.

Recommendations on training and information:

- There should be on-going training and education on water resources and the environment and stability in the employment of trained professionals and technicians.
- In cooperation with international organizations, Governments should promote training activities in the integrated management of water resources and should also train human resources in the management of multisectoral water projects.
- The integration of information systems on water resources should be encouraged, and special consideration should be given to the adoption of the information system development by WHO.

Recommendations on the environment:

- The appropriate government authorities should be urged to give water and environmental legislation the necessary publicity, so that people are generally aware of it.
- Governments should recognize the importance of including in the planning of water projects methods for evaluating their potential environmental impact and should make provisions for environmental monitoring to ensure that the palliative measures that have been planned are carried out.

Recommendations to international organizations:

- They should coordinate their activities in the area of water resources and the environment.
- They should place more emphasis on the transfer of clean technologies and should provide financial support for the execution of plans prepared by national specialists in the subject.
- They should bear in mind the special characteristics of each State - federal or centralized - when directly negotiating financial assistance arrangements.
- In cooperation with Governments and UNESCO, they should work to

strengthen the national committees of the International Hydrological Programme.

- Within the framework of the Network for Cooperation in Integrated Water Resource Management for Sustainable Development in Latin America and the Caribbean, a project should be

developed for presentation to the German Agency for Technical Cooperation (GTZ), a government agency of the Federal Republic of Germany, for holding a seminar on the experiences of river basin administrations in the various countries of Europe.

A summary of the discussions and other information on the meeting can be found in the "Report on the meeting of the Group of Experts on the effects of Agenda 21 on integrated water resource management in Latin America and the Caribbean (Santiago, Chile, 16-18 March 1994)".