

INTERNATIONAL NEWS



**International
Office
for Water**

N° 9 - December 2001 - January 2002
English version

10 years
10 events

**INBO is mobilizing
International Network
of Basin Organizations**

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BRAZIL
Integrated Management
of Rio Jiquiriçá

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in Central and Eastern Europe**

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“CEMCAS” is opening

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**International
Portal for Water
Managers**

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1992



**French National Information
and Documentation Center for Water**

1993



**Gdansk Water Foundation
Poland**

1994



**International Network
of Basin Organizations
INBO**

1995



**Mexican Training Center
for Water Professions
CEMCAS**

1996



**Euro-Mediterranean Conference
of Marseilles**

1997



**“Pre-accession”
Twinning Agreements
in Central and Eastern Europe**

1998



**Paris International
Conference**

1999



**French National Training Center
for Water Professions
CNFME**

2000



**Sabarmati River
Basin Management - India**

2001



**Irtysh River
Basin Management
Russia - Kazakhstan**

International Office for Water has existed for

1



years



The National Training Center for Water Professions (CNFME) of Limoges - La Souterraine is continuously reshaping its catalogue of training courses to become closer to the water professionals' concerns and cover the "water cycle" more thoroughly.

We offer now more than 175 training programs. This means that more than 300 training courses are planned for 2002, with the addition of complementary topics such as drilling, safety and river maintenance, and new training programs on European regulatory changes or on specific needs expressed by public and private operators.

Therefore, as concerns the national and municipal drinking water supply and sanitation utilities:

- new educational units for **drinking water treatment include the treatment of pesticides and micropollutants**,
- a unit is entirely devoted to the **control and maintenance of sanitation systems**,
- **design and maintenance of boreholes** are available for the first time in the 2002 catalogue,
- **safety** is now an important concern for managers of facilities and utilities, as regards the following:
 - the handling of chemicals,
 - signs on building sites,
 - protection of personnel and of the public.



Information

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175 TRAINING COURSES IN THE CATALOGUE



The training offer on **wastewater treatment** has been complemented with a training course on the "**operation of extensive wastewater treatment plants**" which follows the module on the design of facilities already available in 2001.

Finally, the International Office for Water provides training solutions suited to the **industries using water in their manufacturing process and having to treat their polluting discharges**.

The CNFME catalogue is ISO 9001 certified regarding the quality of the services provided, as it is based on the wide experience and the educational and technical creativity of the 25 permanent instructors and of our specialists' network.

In order to enable the operators to be trained in a familiar environment, just as they would be at their work, and their managers to view

technical concepts, **the CNFME benefits now from unique educational tools on more than 20,000 m². These are topical industrial units** (drinking water production, water supply, leak detection, the laying of pipes, sanitation systems and their control, self-monitoring and analysis, maintenance, electromechanical and pumping units, treatment of domestic and industrial effluents).

With a view to meet the planning requirements of water and sanitation utilities and industry needs, the CNFME can meet specific demands from employers with "tailor-made" training modules with

clearly defined objectives and a precise definition of the contents, levels and dates. This enables the trainees to acquire real "professional" skills.

All these courses are carried out in French, but also in English and Spanish, either at the CNFME in France or abroad on the premises of the partner organizations.



France : The National Water Data Network

STANDARDIZED ACCESS TO WATER DATA

In France, the National Water Data Network (RNDE) has been created to implement a consistent information system which provides easy access to the existing data.

Today it gathers:

 **The Ministry of Regional Planning and the Environment**

 **The Ministry of Health**

 **The 6 Water Agencies**

 **The Higher Council for Fisheries**

 **The French Institute for the Environment**

 **IFREMER**

 **METEO-FRANCE**

 **Electricity of France**

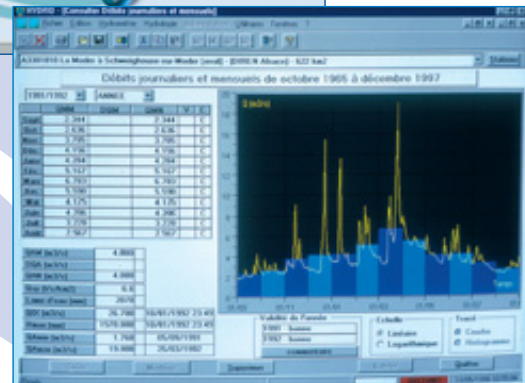
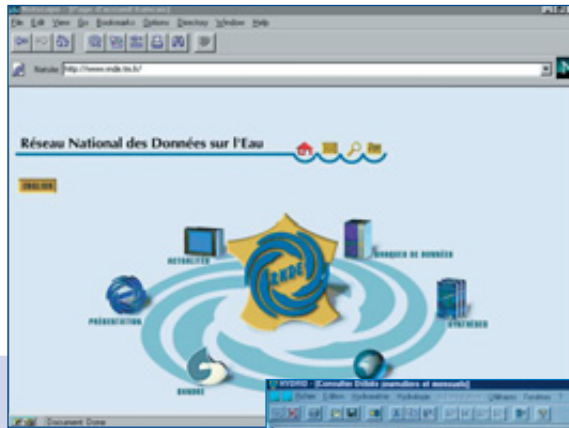
 **The Research Center for Geology and Mines**

 **The International Office for Water**

The International Office for Water manages the project and develops national tools such as the National Data Reference Center for Water (SANDRE), which defines standards, nomenclatures and joint exchange formats adopted by all the partners, or the National Water Data Base (BNDE).

The National Server:
<http://www.rnde.tm.fr>
provides access to all the national products prepared by the RNDE, such as **the national bulletin on the hydrological situation.**

Modern techniques for processing data are based on **geographic information systems** that allow the introduction of localization references and the presentation of results with maps.



THE ECONOMIC ASPECTS OF THE EUROPEAN FRAMEWORK DIRECTIVE

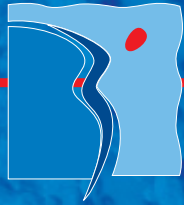
Compliance with the Framework-Directive requirement of integrating economic aspects into the management plans implies a significant methodological task and data gathering. With this purpose in mind, the RNDE created two working groups dealing with "economic aspects".

The first group, led by IFEN, focuses on cost recovery in large economic sectors (domestic, industry, agriculture).

The mandate of the second group, led by the Ministry of the Environment and the Seine-Normandy Water Agency, is to define a methodology for economic analysis when preparing management plans and corresponding measurement programs.

 **Information**
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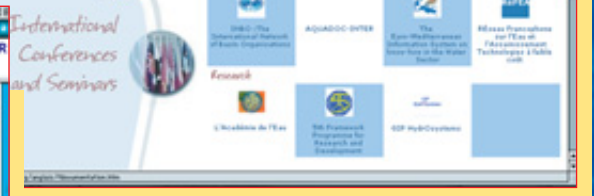
The French National Information and Documentation Center for Water



IOWater on the Web

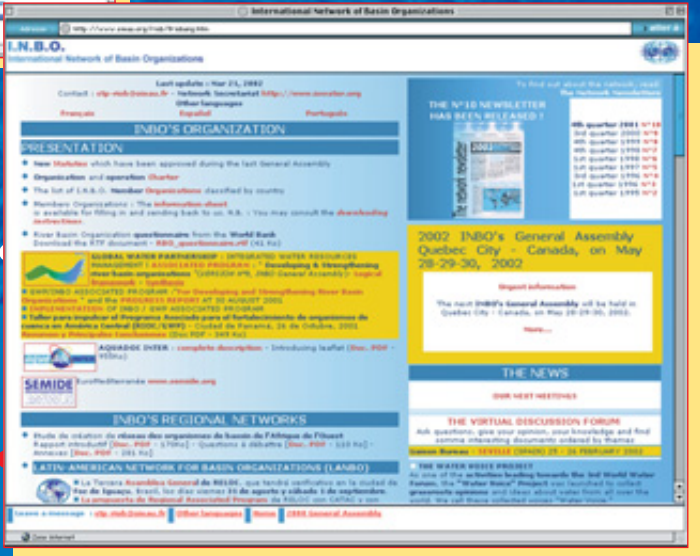
Be introduced to our Activities and our Databases

International
Office
for Water



<http://www.iowater.org>

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Advice to Municipalities

WATER UTILITIES

Measurement of performances and regulation



More than 100 representatives from local authorities, public administrations, water supply and sanitation utilities, consumers' associations, and many specialists from foreign countries participated in a conference, organized in Montpellier, France, on 17 and 18 September by the International Office for Water and the GEA laboratory of ENGREF - under the aegis of the Ministry of Regional Planning and the Environment.

Contrary to other public service networks (electricity, telecoms), the regulation for water and sanitation does not aim to allow a transition from national monopoly, created for historical reasons, to a competition market. Indeed, water is a true natural monopoly and the client will never be able to choose among several operators, unless any technological revolution.

As recourse to competition is impossible, regulation aims to obtain a fair price for the service provided and to ensure that the tasks of general interest are taken into account.

Indeed, such a stake as service quality in the broader sense (i.e. including the immediate providing of services to the clients but also other aspects like the sustainability of the service, public health, environmental protection), is a major component of public service providing.

At present, the local authorities, in charge of this service providing, throughout the world, are seriously lacking available tools for them to put operators into competition and more generally to master the management of their service providing.

In such a context, the regulation of water supply and sanitation utilities is becoming a present day problem as em-

phasized by the creation, in France, of an Upper Council for Public Water Supply and Sanitation Utilities.

Experiments carried out in several countries have shown that regulation can rely on the dissemination of information. Survey publishing and benchmarking (comparison of a series of indica-



tors) are powerful means to influence the public or private operators' decisions and to improve the service provided.

Efficient regulation does not require strong law enforcement or penalties.

The cases of England, France, Portugal, Lithuania, the United States and Argentina were presented.

The task of the regulator is jeopardized when there is confusion between the role of the regulator, the delegator and the delegatee.

What is happening in France?

The National Federation of Contracting Authorities and Public Companies emphasized the interest of local authorities in the publication of national statistics on the quality performance of service providing. They often resort to outside assistance to define the indicators which would enable them to dialogue with the operators and the users.

An experiment was presented by the ENGREF laboratory for water and sanitation management (GEA). It consists in developing a panel of performance indicators shared by local authorities.

These indicators can be the basis for a more constructive dialogue with the operator, whatever the management method approach used.

By permitting comparisons, the indicators also allow competition between the utilities.

In order to produce relevant information, the operator will probably have to adapt its internal work organization, especially if he wishes a better follow-up and to quantify the level of the "quality of the service provided" to his clients and users of the service.

However, these adaptations, which were dealt with by Jean-Louis Lermierie on behalf of IOWater, are a hindrance to the use of indicators. On the contrary, they will lead to continuous improvement and increased efficiency.

At last, it is better to organize the existing information than create

an entirely new one...

Encouraging initiatives, carried out in France by some local authorities (the Evry Community of agglomerations and the Group of the six western townships presented by Nantes) in cooperation with their own operator, already show the benefit of implementing such an undertaking.

This conference was followed by a day of discussions among French and foreign specialists.

With such a new vision, the Municipal Water Utility of Limoges and the RESE (Water Utility of Charente-Maritime Department) defined with the International Office for Water a technical assistance assignment for introducing and implementing such a system of performance indicators.

Let's be reminded that IOWater is working in partnership with BCEOM on several projects for the implementation of regulation systems, such as in Bolivia and Nicaragua for instance.



Information

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For developing and strengthening river basin organizations:

INBO/GWP ASSOCIATED PROGRAM

Four main outputs are expected

➤ Output 1

Mobilization of professional support capacities in existing basin organizations

Purpose

To promote the setting-up and development of new basin organizations and assist with their management options.

To help, on request, making progress in this long process of discussion, reflection, dialogue and decision-making undertaken at the level of river basins, or at the national or regional level.

These teams may be broadened to experts from international organizations.

Proposed services

- Assistance with the implementation of institutional reforms,
- Initiation of pilot projects,
- Support to several countries sharing a transboundary river basin,
- Design of monitoring networks and databases,
- Training of personnel from basin organizations,

- Assisting new basin organizations with the setting-up of technical teams,
- Formation of partnerships and establishment of institutional mechanisms allowing an equitable citizens' participation in decision-making and activities of basin organizations.

➤ Output 2

Synthesis of available knowledge and know-how

Purpose

To collect and analyze actual practices in order to generate ideas and recommendations, and to promote practical guidelines for putting integrated river basin management into practice.

To promote the initiation of pilot projects and implementation of institutional reforms in interested countries.

Proposed services

- Evaluating the performance of the different systems,
- Contributing to the improvement of knowledge and know-how in the area of basin organizations and IWRM,

- Making available a set of common, easily accessible and measurable performance indicators, in a typological form,
- Training on good practices.

➤ Output 3

Twinning between existing, future or pilot basin organizations

Purpose

To allow direct cooperation for stimulating and supporting water management at river basin level.

Proposed services

- Direct exchanges of experiences between twin basin organizations,
- Regional and international promotion,
- Exchange of decision-makers and technicians.

➤ Output 4



The networking of water documentation systems (see page 28)

Program implementation

The International Network of Basin Organizations (INBO) and the Global Water Partnership (GWP) have initiated an "Associated Program" (AP) for the creation and development of Basin Organizations.

This "ASSOCIATED PROGRAM" must contribute to "Integrated Water Resource Management" which GWP is promoting in all regions of the world through its network of "Regional Technical Advisory Committees" (RTACs).

At global level, the "ASSOCIATED PROGRAM" is steered by the Coordination Committee.

For each large region, a specific steering is jointly carried out by the Latin American Network of Basin Organizations (LANBO) or the Central and Eastern European Network of Basin Organizations (CEENBO) and by the corresponding GWP RTACs.

As regards technical aspects, the Permanent Technical Secretariats of INBO in Paris, of LANBO in Mexico (for Latin America) and of CEENBO in Romania and the GWP Secretariat in Stockholm will provide assistance.

The Brazilian Network of Basin Organizations (REBOB) will play a particular role in directing and assisting the Brazilian members.

Today, all organizations interested in integrated water resource management at the river basin level have to mobilize themselves to propose their projects, should those correspond to the four objectives of the "ASSOCIATED PROGRAM".

The objective is to present an operational program to be approved by INBO General Assembly to be held in Quebec (Quebec Province - Canada) from 28 to 30 May 2002.

It is well specified that:

- the "ASSOCIATED PROGRAM" has no credits by itself but projects included in this program may be easier to present for possible financing to the interested bi and multilateral cooperation agencies;
- the "ASSOCIATED PROGRAM" is selective. It does not aim to deal with all aspects of water resource management but only with the organization of basins and is limited to the projects corresponding to the four above objectives.

There might be a lot of other ways to deal efficiently with water management, but, in this case, the corresponding projects will then depend on other cooperation programs that may be also supported by GWP.

In particular, projects dealing with research on river basins or environmental training addressing the population will only be eligible in so far as they can be integrated as a component of more global projects or action plans.

The "ASSOCIATED PROGRAM" is also open to all. Although it primarily addresses the member organizations or observers of INBO, LANBO or CEENBO, any other organization may present projects, when these projects deal with our four objectives ... with the hope that this organization will think about joining our networks within the liberal framework defined by our new statutes.

It is obvious that there is no typical project model to be promoted. To the contrary, the "ASSOCIATED PROGRAM" aims to foster all initiatives adapted to the widely different local, national or regional situations observed in the field.

Basin Organizations

At first, it might be only possible to identify the organizations that can be project executors and define the main lines of their future action plans. It should be kept in mind that the "ASSOCIATED PROGRAM" is a priori a three-year plan and that effective actions could be gradually defined.

It is recommended that projects or action plans should not be too specific, but, on the contrary, they should be strongly representative with a multi-year prospect while contributing to regional integration in which they could serve as an example and be the basis for mobilization purpose.



**Next INBO
General Assembly
will be held
in Quebec from
28 to 30 May 2002**

The goal of the "ASSOCIATED PROGRAM" is to support all initiatives for the organization of Integrated Water Resource Management at the river basin, lake and aquifer level, whether national or shared. It also aims to develop many experiments to reconcile economic growth, social equity, environmental conservation, water protection and participation of the Civil Society.

Program coordination and management

The International Network of Basin Organizations (INBO) is responsible for coordinating and managing the "ASSOCIATED PROGRAM". The program overall management is entrusted to:

➤ **A Coordination Committee**, made up of the members of INBO Liaison Bureau and GWP representatives (in particular the Presidents of the Regional Technical Advisory Councils - RTACs concerned), of representatives of bi and multilateral cooperation agencies, funding all or part of the actions, and of those of large international organizations supporting initiatives focusing on **Integrated Water Resource Management at the level of river basins**;

➤ **A Technical Unit** which gathers INBO, LANBO and CEENBO Permanent Technical Secretariats, specialists from GWP RTACs and experts from different countries or organizations interested in supporting the "ASSOCIATED PROGRAM".

All GWP initiatives rely on a close interaction between GWPs' regional TACS and future Regional Water Partnerships to ensure adequacy between the services provided by the "ASSOCIATED PROGRAM" and the real needs observed. The "ASSOCIATED PROGRAM" relies on a strong dialogue.



UNITED NATIONS The World Water Assessment Program

The World Water Assessment Program (WWAP) is a joint effort by 23 United Nations agencies to develop the tools and skills needed to achieve a better understanding of those basic processes, management practices and policies that will help improve the supply and quality of global freshwater resources. It was established in 2000 with a small secretariat housed in the Division of Water Sciences of UNESCO in Paris.

WWAP is one of the many initiatives being taken in the follow-up to the Rio Earth Summit (UNCED), held in 1992. An integrated approach to management, respect for river basins and watersheds as the natural hydrological unit, and policies designed to take account of full-cost pricing and stakeholder needs and expectations are all important components.

The first priority of the WWAP is to evaluate the state of freshwater resources and ecosystems in the world. This evaluation exercise should be seen within the context of Progress in implementation of Chapter 18 of Agenda 21. The introductory section of the Report will examine human water stewardship, defined as "that complex aggregation of policies, legislation,

social programs, economic approaches and management strategies by which society seeks to achieve the goals of water sustainability". A section will present the methodologies, modeling tools and data sources being used to develop indicators of water-related stress. Finally, a series of pilot case studies will be presented: the Seine-Normandy basin in France, Tokyo Area (Japan), Bangkok (Thailand), Sri Lanka and San Francisco Bay in the United States, with many others being considered.

Also part of WWAP's mandate is the responsibility to measure progress made ten years after RIO, to identify gaps in meeting these challenges, and to assist countries in developing local capacity to evaluate and improve their own water management policies and practices. As the primary beneficiaries of the process, many governments have already indicated their eagerness to participate in the assessment process and have designated national focal points to coordinate activities.

The results of the assessment will be presented in the World Water Development Report (WWDR), to be published at regular intervals as part of an

on-going process. The first edition will review developments since the Earth Summit of 1992 and assess progress towards meeting targets in the following ten areas: Meeting basic needs; Securing the food supply; Protecting ecosystems; Valuing water; Managing risk; Sharing water resources; Providing water for energy; Providing water for industry; Ensuring the knowledge base; Managing water wisely.

The first World Water Development Report will be released during the Third World Water Forum, to be held in Kyoto, Japan, in March 2003. A WWAP website may be consulted at: **www.unesco.org/water/wwap**

IOWater as INBO Permanent Technical Secretariat has been involved in the writing of the chapter "Sharing water resources" of the report.



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“TO THE SOURCES OF THE BLUE GOLD” A water-related trip across the five continents

Peggy FREY, 25 years old, journalist, and Gwenaëlle BRON, also 25 years old, photographer, decided to start a water-related professional trip throughout the world.

Both graduated from Strasbourg School of Journalism, they met on the environmental topic. Why water? This decision is the outcome of personal interests, each of them having already worked on this topic (Peggy published a book on drinking water supply, Gwenaëlle presented humanitarian reports and environmental issues in the World Exhibition of Hannover).

TV reporting, website, articles in periodicals, institutional films will be the result of this adventure, planned from January 2002 to August 2003.

IOWater sponsors the project of these two globe-trotters.

INTERNATIONAL CONFERENCE “Water in the mountains: Integrated management of upper river basins” Megeve - 5-6 September 2002

This conference will present the problems encountered in the area of “water in the mountains” and especially in the management of upper river basins. It will take place on 5 and 6 September 2002 in Megeve as part of the International Year for Mountains.

The proposed workshops and topics are as follows:

- Protection of the resource and control of natural hazards,
- Degradation of upper basins, water quality and ecosystems,
- Specific water management problems in tourist resorts,
- Water development for tourism in the mountains: water-related sports in mountains (rafting, canyoning, etc.), angling,
- Water and animal husbandry in mountains,
- Approach to integrated management of upper basins: modeling and tools.

The partners

The Alpine Economic Societies of Savoy, the EEG of animal husbandry and forestry in mountains, the General Council of Upper Savoy, the SEDs of Upper Savoy and Atlantic Pyrenees, the Megeve municipality, the University of Savoy, the GRAIE (Group of research on water) the Rhone-Alps Region, the Water Agency, IOWater (International Office for Water) and the International Network of Basin Organizations (IN-BO), EDF; ONF, RTM, the national association of elected officials in mountains, the Ministry of Agriculture and the Ministry of the Environment, the mountain networks, Europe, FAO, etc.



Information

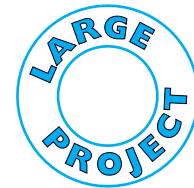
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Asia

KAZAKHSTAN AND RUSSIA



Transboundary management of the Irtysh River Basin

After the Ministry of Natural Resources of the Russian Federation, the Ministry of Natural Resources and Environmental Protection of Kazakhstan and the French Development Agency signed, last year, an agreement protocol, dealing with the transboundary management of the Irtysh river basin, a group (gathering the International Office for Water,

SAFEGE and ANTEA) was entrusted with the implementation of the French part of this project, financed by the French Fund for Global Environment (FFEM), for about 1 Million Euros.

The national Russian and Kazakh specialists, who will compose the project steering committee and the Irtysh sub-commission, and the “focal points” of each country were designated during a tripartite meeting, held in Pavlodar (Kazakhstan) on 13 April 2001.

This enabled the project to start. Owing to the climate characteristics of this region, this project will last three years with six to seven-month periods.

This is the logical continuation of the “study program for the improvement of water quality in the Irtysh river basin in Kazakhstan”, implemented in 1999-2000 and

financed by FASEP (see “International News” n°8). In this project, the IOWater – ANTEA - SAFEGE group assists both States with the design and implementation of tools for water resource management in the international basin, of a basin integrated information system, complemented by the development of a hydrological model. It will allow the formulation and follow-up of a joint policy and of programs for improving the Irtysh water quality and the management of available resources.

The expected results will be particularly useful for many other transboundary rivers flowing between Russia and Kazakhstan (Ural, Tobol, Ishim), and between Russia and China (Amur).

Each Party also plans to make efforts for convincing China to become involved in the project as soon as possible, as the upper Irtysh river basin also concerns this country.



The Irtysh River

Integrated management of the Sabarmati River Basin



The Sabarmati River

This pilot project is in line with the objective of the Government of India to develop a new water management model suited to the local situation and based on a River Basin approach.

The Governments of India and France have been cooperating about this issue for the last ten years. The seminar, held in New Delhi in December 1996, defined the bases of the project.

The Federal Government of India and the interested State Governments proposed some Pilot River Basins, but the Sabarmati River was selected because of its great economic dynamism in the various industrial and agricultural sectors, which should facilitate an active users' participation, and of its quantitative and qualitative water issues, generating competition among the various uses and justifying the development of water committees.

Between 1995 and 1998, the International Office for Water (as representative of the French Ministry of the Environment) and the Narmada Water Resources & Water Supply Department held several meetings to present the French experience and discuss the basic principles of integrated water resource management. A first "Integrated Plan for the Sabarmati River Basin" was formulated in 1996.

In 1998, IOWater and the Narmada Water Resources Department signed a Memorandum of Understanding, identifying various cooperation activities to undertake.

This program, financed by the French Ministry of Economy and Finance (FASEP), was initiated at the end of 1999 and developed in 2000 – 2001. It mainly consisted in:

- setting up a River Basin Information System to develop accurate and updated knowledge of water resources, uses and pollution in order to monitor the impact of the new programs to be implemented;
- formulating proposals for institutional, economic and legal changes;
- preparing a priority action program, based on a technical and economic feasibility study.

Above all, it concerned the identification of all the public institutions and other stakeholders (such as NGOs, private companies, etc.) involved in water management and evaluate their different projects and activities. This coordination effort was a prerequisite to the building of an integrated water management system for the Sabarmati River Basin.

Outcome

The project included three phases, from April 2000 to April 2001:

- 1 The first part was completed in August 2000. The aim was the structuring of the pilot River Basin Information System: organization of the gathering of existing data, information and studies, identification of existing data sources and bases, data exchange procedures, a geographic information system. It also enabled the assessment of the situation, the identification of the main problems and existing projects. The various topics scrutinized were: water resources (surface water, groundwater; quantity and quality issues), irrigation (infrastructures, policies).
- 2 Phase 2 dealt with the creation of a River Basin Committee, the definition of its role and mission, the development of the first tools of the River Basin Information System, the analysis of gaps and a proposal for appropriate measures. Different kinds of field visits were organized (municipalities, industries, etc.) and completed by appropriate data collection in order to design a comprehensive picture of water supply and sanitation in the basin.
- 3 Started in March 2001 with the preparation of the long-term master plan, the third step included the organization of meetings with the different stakeholders to discuss the various scenarios and the choice of a Priority Action Program.

Institutional and financial reforms are clearly felt as being key challenges for the development of the Indian water sector. The means required are significant.

The Project outcome and findings were submitted to the people in charge of the water sector in the Gujarat and Central Governments. This report is being studied to determine the future actions to undertake (preparation of a new water law using the existing texts, the setting-up of a river basin information system, the development of drinking water supply and sewerage systems, water saving in agriculture, protection of the environment and of groundwater in particular, etc.). The Gujarat authorities have expressed their wish for a second phase of the project.



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CHAD

The new national master plan for water supply and sanitation

Chad is recovering from too long a civil war and its economy is highly revived by the new oil exploitation.

Programs, dealing with water supply and hygiene promotion, followed each others:

- The International Water Decade in 1985,
- The Plan "CHAD towards the future" and the Geneva Round Table III in 1990,
- The Orientation Plan "Preparation of CHAD for the challenges of the 21st century" in 1997,
- The Geneva Round Table IV in 1998.

Rural water supply has greatly improved with the digging of thousands of new water wells and with hundreds of self-managed installations.

Today, one can be optimistic as the bases of a new institutional organization have been established:

- ❖ The Water Act was passed in January 2000,
- ❖ Decentralization has started and obstacles have been identified,
- ❖ The STEE, main water utility of the country, has started changes to become an efficient tool for operation management.

Within such a context, the formulation of a new Master Plan for Water Supply and Sanitation, financed by UNDP, was the opportunity to:

- ➔ Prioritize the new financial resources for the most vital projects (health for instance);
- ➔ Use the successful experiments, rural water supply and sanitation committees being the most obvious;
- ➔ Involve all the small Chadian local enterprises.

IOWater contributed to the formulation of the urban component.

All IOWater activities on:
www.iowater.org

KENYA

Human Resources Development

The technical assistance to the Kenyan Ministry of the Environment and Natural Resources, which started in 1995 for developing human resources, thanks to funds from the French Ministry for Foreign Affairs, is now ending.

With IOWater's help, this project allowed many training activities to take place in the District Water Offices (DWOs) and in the Ministry itself with the creation of a Human Resources Development Unit.

The results obtained throughout the project were analyzed and presented during a seminar organized in Nairobi on 21 June 2001. The set-up of two decentralized financing funds is planned: the Study and Training Fund (STF) to

allow the financing of the training of DWOs' personnel and the Fund for Educational Projects (FEP) for financing the instructors of KEWI (Kenyan Water Institute).

Due to the on-going State reforms and the planned transfer of knowledge, it is now necessary to strengthen KEWI's capabilities and provide support so that KEWI can gradually achieve financial autonomy and manage a national training policy (inventory of what does exist, market survey, selection of the training topics and of the educational installations, etc.) defined in the first cooperation phase.

WATER UTILITY PARTNERSHIP

An efficient conference

The Water Utility Partnership (WUP) studied the progress made in the project "Institutional Reforms in Africa", financed by France and the World Bank, during the conference held in Kampala from 26 February to 2 March 2001. It gathered the representatives of 34 African countries (15 French-speaking, 18 English-speaking and 1 Portuguese-speaking), of 9 donor countries of Europe, North America and Asia, of the World Bank, of the United Nations Programs and of the African Development Banks (ADB and DBSA).

The main conclusions were as follows:

- 1 Political mobilization is essential to have progress made in the reforms of the water sector, especially to recover costs from the State, everywhere the main client of the water suppliers;
- 2 Supplying underprivileged people must always remain the main target;
- 3 Not much enthusiasm was raised by the English complete privatization process: there are still doubts about the effectiveness of the regulator;
- 4 Concerns about sanitation were clearly expressed in Africa for the first time.

On proposal of IOWater, operator chosen by the WUP, a first sub-project consists in improving the management of utilities by sharing the management knowledge of African companies and administrations of the water sector, coming from 5 pilot countries (Cameroon, Ivory Coast, Mozambique, Republic of South Africa, Tanzania). About thirty professionals were approached to provide data for a specialized documentary base, first step of a future "Unit for the Observation and Evaluation of Institutional Reforms".





Latin America

BOLIVIA

Drinking water supply and sanitation utilities: new quality standards

The International Office for Water and BCEOM were involved in the Bolivian "Program for the Development of a Regulatory Framework in the Drinking Water Supply and Sanitation Sector", financed by the Inter-American Development Bank (IADB). They assisted with the preparation of standards and technical guidelines for the management of utilities.

Using an assessment of the regulatory situation at the Bolivian national level and at the international level (France, the United States, Peru), the following standards and technical guidelines were drawn up:

- Quality of water intended for human consumption,
- Discharges of industrial wastewater into the sewerage system,
- Standardized measurement of drinking and wastewater,
- Conditions for drinking water supply,
- Unaccounted-for-water - macro and micro measurements,
- Metering system, billing and recovery,
- Information of the users and management of claims.

VENEZUELA

A national professional training system

The work carried out in 1999 and 2000 by the International Office for Water on behalf of HIDROVEN, thanks to the support of the French Embassy and of the Inter-American Development Bank, included the drawing up of a proposal for the creation of a training center for water professions ("Centro de Mejoramiento para el Personal del Agua y Saneamiento").

The studies have defined the institutional, legal, technical, financial and educational framework, which would allow this center to exist. It could be located near the pumping station N° 21 of the Caracas drinking water supply utility.

MEXICO

Water information needed in Mexico

In Mexico, water has an essential role in development.

The Government wants to develop the direct participation of the various stakeholders, intervening in water resource development and management, by involving them in the decision-making processes which affect water quality, availability and conservation.

Therefore, the Mexican National Water Commission (CNA) undertook to widely reform this sector. Among other things, this implies the creation and development of Councils and Commissions for river basins, sub-basins and aquifers.

These river basin organizations, made up of representatives from federal, State and municipal authorities and of the various water users, enable dialogue, planning and discussions on the problems, which arise from the sharing of water resources between the various users.

This decentralized participation implies that these river basin organizations have rapidly access to the information needed to make appropriate decisions.

In order to meet these needs, the Rules of Organization and Operation of these river basin councils plan that they can rely on Water Information and Dialogue Centers (CICAs).

Within the framework of these CICAs' creation, IOWater introduced the French experience in water data management and carried out an experts' assignment, thanks to a joint financing

from the French Ministry for Foreign Affairs and CNA, with funds from WMO (World Meteorological Organization).

The purpose of this assignment was to assist with the coordination of the River Basin Councils (CBCs) and with the Rural Program Unit (RPU) of CNA, during the design and formulation of a project which would enable the institutional development of an information system for integrated water resource management and for the organization and setting-up of a water information and dialogue center; in order to gradually develop and reinforce the river basin councils and their auxiliary groups.

This assignment included:

- A reflection on the status of the current information systems as compared to the future CICAs, during meetings with the CNA departments, State administrations and municipalities concerned;
- The preparation of a methodological guide for the setting-up of these information centers;
- The proposal of pilot program for launching two experimental information centers, one at Pachuca in Hidalgo State and the other in Torreon in Coahuila State.

Reorganization of the drinking water supply and sanitation sector

Year 2000 was a turning point in the reorganization of the Venezuelan drinking water supply and sanitation sector.

The International Office for Water undertook an in-depth study of the draft Law on Service Providing.

Decentralization, the management of utilities at the municipal level and the participation of the private sector should gradually develop in Venezuela. It is obvious that these new arrangements will not be easy to implement. This will require a phase of awareness raising, communication and training of local stakeholders.

HIDROVEN is particularly interested in the field implementation by executives from local authorities.

Dr. Pierre-Guy Morani, "Alpes Maritimes" County Council member, Mayor of Gilette and President of SIEVI (Inter-municipal Syndicate of the Esteron and lower Var), and also administrator of IOWater, participated in the regional seminar on water management, which took place in Caracas on 16 November 2000.



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Latin America

BRAZIL

The Nordeste is mobilizing

In partnership with SOGREA and CONCREMAT, the International Office for Water intervened in 2001 in a project financed by the World Bank. This project aims to modernize **THE INSTITUTIONAL ORGANIZATION OF THE CEARA STATE** as concerns water resource management. Although there are some similarities with the overall objectives of the project carried out in the Parana State in 1999/2000 (see article next page), the geographical, climatic, socioeconomic and cultural context of Ceara is clearly very different.

This diversity makes Brazil wealth.

Ceara State is part of the Nordeste and characterizes the difficulties encountered in water management, in terms of quality and quantity, and in the ecosystem overall balance. The strong awareness and political will that the Local Authorities have shown these last few years will enable them to mobilize the resources to find original and suited solutions.

A Training Center for Water Professions

With the support of the Brazilian Secretariat for Water Resources - Ministry of the Environment - and of the French Embassy in Brazil, IOWater, in liaison with the Federal University of Brasilia, continued, in 2001, the feasibility study for the creation of a **Brazilian Training Center for Water Professions**.

It focused on the viability of a body, under Brazilian law, which would have two purposes:

- **An administrative one:** It would address the federal civil servants of the Brazilian States to promote the implementation of the law of January 1997 which, in particular, established the principle of integrated water resource management at the level of river basins.
- **A technical one:** It would enable all professionals of the Brazilian water sector to benefit from practical continuing training in all sectors of water supply and sanitation, of industry or irrigation, regarding the design of infrastructures, operation and maintenance and the management of utilities.

SNIRH – National Information System on Water Resources

Brazil has an undeniable culture and know-how in water resource management.

After being a forerunner in quantitative management, mainly focusing on hydropower generation (water law of 1934), Brazil formulated an environmental policy at the beginning of the 1990s, which included water quality monitoring and management.

The 1997 law defined the last trends of the Brazilian policy on water resources, focusing on an integrated basin approach, while a law, passed in July 2000, enabled the creation of a new federal body in charge of water resource management at the national level: the ANA - National Water Agency.

Another core characteristic of water resource management in Brazil is linked to the distribution of administrative responsibilities, as defined in the "Federal Constitution of October 1988" which differentiates State watercourses, thus managed by the States (this concerns the watercourses or tributaries which start and end in the same State) from federal watercourses (international watercourses or rivers crossing several Brazilian States). A state watercourse may flow into a federal watercourse, and vice versa. This leads to the overlapping of management responsibilities between the Federal and State administrations.

Owing to this overlapping of responsibilities in water resource management, a good organization of the exchanges of data and information, needed for integrated water resource management, between the various organizations concerned, is critical.

Aware of the importance of setting up a consistent water information system at the national level, the Brazilian Government, in its 1997 law, established the SNIRH - National Water Resource Information System, as being one of the main tools for implementing the National Policy. In accordance with a resolution, passed by the National Water Resource Council in September 2000, ANA is now in charge of organizing this information system.

Within the bilateral French-Brazilian cooperation program, the French Ministry for Foreign Affairs entrusted IOWater with the study of the possibilities of a specific cooperation on water data management.

In order to meet this request, 2 assignments were undertaken by Mr. Haener in November and December 2000 to study the current situation at the federal level and at the level of five States – Bahia, Ceara, Goias, Minas-Gerais, Federal District of Brasilia- out of the 28 Brazilian States.

In addition to the analysis of the legislative and institutional aspects which have an impact on data management, the findings of this study emphasized the following:

- 1 In Brazil, there are a lot of organizations involved, at various levels, in data gathering and management. Each of these organizations develops its own management tools (databases/geographic information systems/web server).
- 2 There is not yet, either at the federal level or at the level of the visited States, any common language for exchanging data between the administrations concerned:
 - No common and comprehensive structuring (metadata) of data on water resource status (quantity and quality), on uses (water abstraction and pollution) and on the factors which intervene in water resource management (investments, regulations...);
 - No common coding at the national level, with the exception of specific cases;
 - No standard format for data exchanges.
- 3 There is a high demand for common data exchange procedures, especially at the level of the States and of the many local utilities which are now setting up their own water information system.

The continuation of the bilateral French-Brazilian cooperation program in 2001 allowed the analysis of future cooperation possibilities, in coordination with the executives of ANA and SRH, and the organization of future exchanges of experience on water data management between France and Brazil.

From One Continent to Another

BAHIA

Rio Jiquiriçá Valley

The Bahia State Authority of Water Resources intends to start levying taxes on water abstractions and pollution, applied to raw water in a first step.

This will require the creation of a State Fund for Water Resources and a Bahia Water Resource Company (mixed enterprise), responsible for managing the funds and allocating aid. The funds will be centralized at State level and 85% of them redistributed among the basins, to help the underprivileged basins in particular, for studies and investments, 15% being devoted to operating costs.

It was difficult to estimate the budget available for Jiquiriçá Valley in such a context. **The International Office for Water was thus requested to design an original model to quickly progress towards integrated water resource management with financial simulations taking as an assumption that the Intermunicipal Consortium of the Jiquiriçá Valley (CIVJ) could have some own resources by applying the user-pays principle.**

The objective would be to guarantee the sustainability of CIVJ present and future actions, through the development of an action plan at the river basin level, the coordination of water management in the basin and the mobilization of a user association, etc., while integrating them into the Bahia legal and institutional context and in the ongoing reform process. A political support from the State authorities would obviously be essential to develop such a scenario.



The potential financing sources would be the municipalities and the users; citizens, agro-food industries and farms, EMBASA (Bahia water and sanitation utility), although knowing that all these funds could not all be mobilized at the same time.

A first approach allowed the estimating of a total tax amount next to 900,000 R\$. This amount cannot directly finance sanitation facilities, but would nevertheless enable:

- the change of the Intermunicipal Consortium of the Jiquiriçá Valley (CIVJ) into a permanent organization which could coordinate policy on water resource management in the valley and become the preferred contact for the State administration;
- joint work with mayors and users (citizens, farmers, the civil society, etc.);
- the creation of a user association to strengthen collective decision-making with a possible basin committee in the medium term of which the CIVJ would be the secretariat;
- the updating of the basin management plan, strategic tool which provides an overall vision of resources and uses and which seeks balance by involving all the users;
- the development of technical work, and strategic studies and tools supporting decision-making (an information system for instance, etc.).

Above all, this would increase the credibility of the Jiquiriçá Valley Consortium and would facilitate aid from the State, federal and international organizations that will have to support its activities.

The studies will go on in 2002 with the secondment for a year in Bahia of a permanent member of IOWater staff.

PARANA

State Water Resource Management System

The outcomes of the project, financed by the World Bank, in which the International Office for Water participates under the leadership of the Brazilian company Cobrape and in partnership with Sogreah, were interesting and promising for the Brazilian context.

Indeed, this project led to the definition of a **State Water Resource Management System (SEGRH)**, based on River Basin Committees at the regional level, ensuring the participation of federal, state and municipal governments, the civil society and water users (that is to say, all agents directly interfering with water bodies through water collection or effluent discharge).

These **Basin Committees** rely on Decentralized Executive Units, recognized by the Federal Government as being the **"Water Agencies"** planned for in the Law 9.433 of 1997, which recommends the creation of user associations and of intermunicipal consortiums.

Seeking broader strategic concerns and possible settlement of dispute between adjoining river basins, the creation of a **National Water Resource Council** is planned for.

The SEGRH will focus on issues considered of "common interest" to several municipalities or which are strategically important to the State (i.e. regional issues): water availability and water resource protection, flood control, joint disposal of domestic or industrial solid or liquid waste, among others. These problems will be solved at the regional level thanks to joint efforts of the State Government, municipalities and other public and private enterprises intervening in the water resource sector.

Its exemplary nature is already showing in the Convention signed in September 2001 by the Federal Water Agency (Agência Nacional de Aguas) and the Parana State so that the latter can implement the integrated management of the territory including the Upper Rio Iguaçú and Rio Ribeira basins, which correspond to the Metropolitan Region of Curitiba.



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LIFE 99

Control of non-point pollution in 6 European countries

Within the LIFE 1999 Program, the International Office for Water has proposed to the European Commission to study the efficiency of policies for the prevention and control of non-point and dispersed pollution of surface water and to compare the approaches of 6 member-countries: Germany, the Walloon part of Belgium, France, the Netherlands, Sweden and the United Kingdom.

This project, amounting to 600,000 Euros, was implemented with the participation of F&N UMWELT-Consult (Germany), the Walloon Ministry of the Environment (Belgium), RIZA (the Netherlands), the Water Research Center (United Kingdom) and IVL (Sweden) under IOWater leadership.

The study consisted of inventories, analyses and comparisons between the policies relative to the prevention, abatement and control of non-point and dispersed pollution. Inventories were carried out on a sample of the national territory of each country with representative river basins: the Meuse

river basin, because of its international character involving 4 out of the 6 partner countries, and 3 other basins: the Wye in Great Britain, the Leine in Germany and the Svärtan in Sweden. The national policies have also been considered for all territories.

This study, which had started in November 1999, lasted 18 months.

It dealt with 7 non-point or point pollution sources:

- agriculture (pesticides, mineral and organic fertilizers, sludge spreading)
- discharges from private properties (on-site sanitation in particular),
- unconnected activities (activities which are not covered by the IPPC directive and not connected to a sewer system),
- transport infrastructures through run-off,
- historical pollution (former industrial sites, old landfills),

- atmospheric pollution through dust deposits,
- and scattered toxic wastes.

The survey findings and bibliographical research led to 42 inventories: one per topic in each country.

National data were processed for each topic and led to 7 topical reports which present the analysis resulting from these national documents.

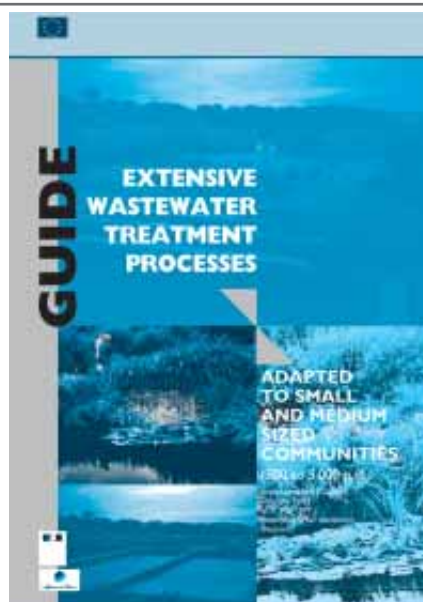
The final report summarizes this work and presents recommendations applicable to all European countries. These recommendations, illustrated by case studies, were discussed during a seminar held at the Futuroscope of Poitiers in November 2000. It gathered specialists and politicians from the 6 countries concerned with this topic.

A CD-ROM, available since July 2001 at IOWater, presents the conclusions of this study.

EXTENSIVE WASTEWATER TREATMENT PROCESSES ADAPTED TO SMALL AND MEDIUM SIZED TOWNS

Publishing of a guide

By definition, the extensive processes used for the treatment of urban wastewater require larger surface areas than the usual intensive treatment developed by big cities. The investment costs per population-equivalent of these two kinds of process are of the same order of magnitude. However, the operating conditions of extensive processes are lighter and more flexible. These techniques require a smaller and less specialized work force than intensive processes. They are particularly well suited to small and medium towns (between 2,000 and 10,000 population-equivalents according to the "Urban Wastewater" Directive). Thus, the European Commission, the Water Agencies and the Ministry of Regional Planning and the Environment thought advisable to publish a guide on these processes.



The International Office for Water (IOWater) wrote this guide, in collaboration with CEMAGREF and various European partners.

After a reminder of the standards, with which small and medium towns have to comply, and a quick introduction to the different intensive processes, the following extensive techniques are described:

Systems with fixed cultures:

- Infiltration-percolation;
- Vertical filter;
- Horizontal filter.

Systems with free cultures:

- Natural lagooning;
- Lagooning with macrophytes
- Aerated lagooning;

Mixed systems.

Various case studies end the report.

This guide is being published in the 8 following European languages: English, French, German, Italian, Spanish, Greek, Dutch and Portuguese.

CONTINENTAL DIAGONAL REGIONS

Guidelines for better water management

Conflicts of uses between the upstream and downstream regions penalize the "river basin heads" which suffer from the decisions made in the plains for their development: for instance, the replenishment of low flow or the protection against floods usually have an impact on the development of water-related tourism in the "upstream areas", reforestation policies interfere with the conservation of wetlands, etc.

IOWater and the Junta of Extremadura (Spain) have thus proposed to the European Union, within its INTERREG IIC Program, to draw up guidelines for improving water management in the continental diagonal regions (Limousin, Auvergne, Midi-Pyrénées, all regions of Spain and Portugal). Its aim is to improve the relations between the upstream and downstream regions and allow the policies for water and land use to be consistent with a sustainable development logic in these regions.

The project was implemented in three steps:

① **An assessment** of the "river basin upstream/downstream" relations, involving about fifteen water stakeholders who had different interests, depending on their geographic origin (upstream or downstream territories). The interactions between land uses were outlined as well as the different understanding of each others, and the innovating initiatives carried out in the "Massif Central" and "Extremadura" regions. The interactions between the upstream and downstream parts of a basin may be divided into three groups:

■ **An inter-dependency** between water quantity and quality from upstream to downstream and therefore in the sharing of water resources,

■ **An asset** for the development of the territories, crossed by a water course, with some notions of physical and human links, the unicity of the river...

■ **Constraints** and obligations with interference between cultural and economic groups, the occurrence of conflicts, or, to the contrary, the lack of relations between these territories.

② **Preparation of recommendations for better water management** which reconciles the development of the upstream and downstream regions. These recommendations, incorporated into a guide, have several objectives:

● recommending orientations for developing the resources of a same river basin,

- organizing a comprehensive water management which reconciles the different interests,
- defining an innovative approach to the solving of conflicts about uses, which would take water management into account in sectoral policies and make consistent policies relative to water and land use.

Eight sets of recommendations came out of this assessment, which tried to give some answers to the following questions: How to optimize resource sharing? How to reinforce assets? How to change constraints into understood and accepted obligations?

R1 : Improving knowledge: multi-disciplinarity,

R2 : Adapting existing structures and tools,

R3 : Creating new tools,

R4 : Training, informing, communicating,

R5 : Developing dialogue, mediation,

R6 : Creating new "common cause" financial principles,

R7 : Evaluating actions and programs,

R8 : Rethinking political choices with a sustainable development logic.

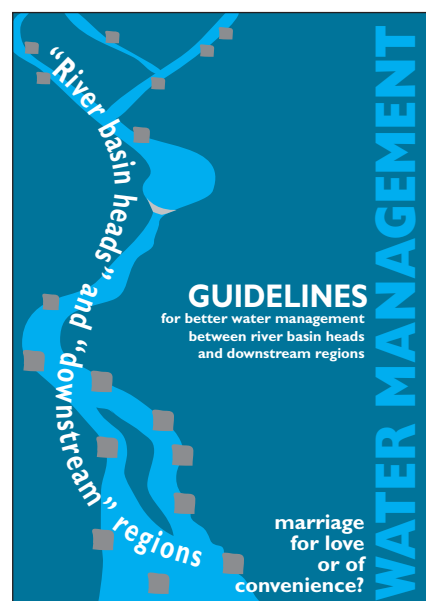
③ **Dissemination of the guidelines:**

➔ **A seminar** on the "continental diagonal", addressing the stakeholders in water management (representatives from local authorities, users, administrations, river basin organizations, scientists...), was organized in Limoges on 24 September 2001 to discuss the draft guidelines.

➔ **An Internet site** was created with the purpose of informing water stakeholders about this initiative and of offering the opportunity of consulting the guidelines, enriched by the debates of the seminar, held on 24 September:

<http://www.oieau.fr/amont-aval>

All IOWater activities on:
www.iowater.org



"AQUALINGUA" 150 water-related diagrams on-line with legends in 15 languages

The objective of this Leonardo da Vinci project, launched in November 2001, is to have about 150 diagrams related to the water sector (treatment of drinking water and wastewater, river management, risk management, etc.) on line on the IOWater server. They will be translated into 15 languages: 9 languages of the European Union and 6 Central European languages.

For each diagram, legends will thus be translated and directly available on the website in the language selected by the user. Each word will be linked to a sentence, always in the same language, that will enable the user to find the word in its context with an electronically linked audio file.

This project is implemented with 17 partners of the European Union and Central Europe. The Federgasaqua company (Italy) will be responsible for promoting the project products with the cooperation of IOWater, main AQUALINGUA coordinator.

This project will end in June 2003.



Information

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Europe

THE EUROPEAN TOPIC CENTER ON WATER

The European Environmental Agency (EEA) decided to entrust, for a renewable 3-year period, its "European Topic Center on Water" (ETC-WAT) to the consortium led by the English WRc of which IOWater is the French correspondent in liaison with IFREMER.

The "European Topic Center on Water" was created in 2001 by merging its Topic Center on Inland Water and the Topic Center on Marine and Coastal Environment. This merger allows the study of the whole water cycle. This new center is one of the five Agency's topic centers whose purpose is to provide assistance to the agency with the production of reliable and comparable information on the environment in Europe and, more specifically, in the 24 EEA member countries.

The work program chosen is closely related to the EEA objectives, among which the will of getting involved in the set up and evaluation of environmental policies and in the enlargement to the Eastern European countries. It includes two main tasks:

- an integrated approach, in line with sustainable development,
- an information system and all its components.

"Eurowaternet" and "Waterbase"

"Eurowaternet", a network for monitoring inland water, will include coastal and marine waters and be extended to Eastern Europe to constitute a sole European network. Data issued from previous work on freshwater and marine waters, and the data currently collected are gathered into a "Water database", which will soon be available on the Web.

Yearly summary indicators

The Topic Center has selected about sixty indicators meeting 7 sets of questions on water policy. Their updating will lead to the publishing of a yearly report on the status of water resources in Europe.

Emissions in water

IOWater is in charge of developing the "emissions" component of the "Eurowaternet". It most specially includes a methodological approach. IOWater is thus involved in the various European groups working on emission inventories. This work is in line with the IPPC Directive and the EPER, and with the "pressures" component of the Framework Directive.



The following partners compose the consortium:

- AWW (Austria),
- CEDEX (Spain),
- ENEA (Italy),
- IFREMER (France),
- IMGW (Poland),
- NCMR (Greece),
- NERI (Denmark),
- NIVA (Norway),
- IOWater (France),
- Vituki Consult (Hungary),
- WRc (England).



From One Continent to Another

THE EDEN-IW PROJECT

Towards a global Environmental Data Exchange Network

The International Office for Water is involved in the EDEN-IW project, selected by the DG XIII for its 5th FPRD.

EDEN

The EDEN (Environmental Data Exchange Network) project is a joint initiative of the EEA, the US EPA and the US Departments of Defense and Energy.

It aims to provide better access to environmental data, by relying on technological innovations experimented in the United States as regards heterogeneous databases.

The objective of EDEN-IW

The project deals with access to information on inland water.

It aims to:

- develop a service for accessing heterogeneous local and national databases. It addresses European and national administrations and organizations, and possibly a broader public,
- test the innovative technologies used for knowledge engineering ("intelligent agents").

It consists in building a system, based on multilingual glossaries and thesauruses used in a Web-type environment on the EEA's EIONET network, in order to:

- offer the user the possibility of asking his/her question without any idea of the contents and localization of the databases,
- interpret the user's question, adapt it to the structure of the different databases concerned and address it to these bases,
- gather and summarize the results thus obtained.

The EDEN-IW structure

The project is managed by the JRC in Ispra. It gathers the following partners:

- ➔ The National Environmental Research Institute (NERI), Denmark,
- ➔ European Dynamics S.A. (ED), Greece,
- ➔ The International Office for Water (IOWater), France,
- ➔ Consiglio Nazionale delle Ricerche (CNR), Italy,
- ➔ Queen Mary and Westfield College (QMWC), UK.

In addition to the JRC, two organizations are taking care of the technological aspects: QMWC provides the "intelligent" engine, and ED provides the EEA's EIONET structure.

The NERI and IOWater are involved in water-related aspects. They are making an inventory of the users' expectations and analyzing the European databases which will be experimented by adapting the thesauruses and nomenclatures to the project.

Finally, the CNR deals with environmental nomenclatures, as it already directs the work on the GEMET European thesaurus.

A group of users is involved in the project. It includes the EEA and ETC/WAT, the Italian Ministry of the Environment, the US EPA and Departments of Defense and Energy. This group may be extended to other users willing to intervene in the project. Contacts are being made with the English EA and UNEP.

The project will last 36 months with a subsidy of 2.4 million euros from the European Commission and the French Ministry of the Environment, as concerns France.

The tasks of the International Office for Water

IOWater, like NERI, provides the link with the technological aspects of the project and with the users by:

- ❖ assessing the users' needs (which kinds of question should be expected in the system),
- ❖ making an inventory of and analyzing the databases which will be involved in the experiment (initially the BNDE and 4 other bases, including the EEA's Waterbase),
- ❖ analyzing the thesauruses, glossaries, nomenclatures of the water-related terms used in the different countries and implementing the interfaces with these tools,
- ❖ testing the tools developed by the project,
- ❖ reporting on the project to the users.

The advantage of the project

This project gives an opportunity to:

- ◆ participate in an EEA-supported project in accordance with its information access policy,
- ◆ promote the multilingual water-related thesaurus developed by IOWater, the Ministry of the Environment and the French Water Agencies,
- ◆ promote the SANDRE normative work,
- ◆ extend the RNDE to Europe through its bases (BNDE),
- ◆ incorporate the new ISO standards for the description of metadata,
- ◆ test new technologies concerning the access to Web databases and also to introduce the XML standard which is the future data exchange format of the SANDRE,
- ◆ contact various European organizations within the 5th FPRD.



**Next INBO
General Assembly
will be held
in Quebec from
28 to 30 May 2002**



Information

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HUNGARY AND ROMANIA

Transboundary pollution

Recent accidental pollution occurrences, that affected a transboundary river between Romania and Hungary, have emphasized the need to strengthen cooperation between the two countries as regards all river basin management aspects.

The project consists in exchanging experiences between France, Romania and Hungary. It deals with the Crisuri river, for which an experimental Basin Committee was created in 1999 for the Romanian part, within the PHARE-Partnership program, financed by the European Commission and the French Ministry for Foreign Affairs.

Its objective is to formulate a joint work program for the bodies of both countries in charge of water management at the level of this pilot river basin. This program mainly deals with the following:

- **Reinforcement of the warning systems** for accidental pollution and the improvement of policies for the prevention against industrial pollution;
- Study of the existing tools for integrated water resource management and procedures for the formulation of a **management plan for the transboundary pilot basin**, within the implementation of the European Framework Directive;
- **Organization of data exchanges** and standardization of analytical methods;
- **Information of executives of local authorities** on their role in the basin management;
- **Public access to the information.**

This international project is jointly financed by the French Ministries for Foreign Affairs and of Regional Planning and the Environment. It includes French experts' assignments and different tripartite meetings in the three countries, in order to assess the situation and exchange experiences.

Beyond this first stage, an international project has been planned, based on the terms of references under preparation.

RUSSIA

The Volga - a pilot basin

Regrouped in a consortium, BCEOM - project leader, VERSeau and IOWater have been executing for a year now a project financed by the European Commission (TACIS). This project aims to provide the bases for the institutional reforms required to implement integrated water resource management, directly inspired from the European models. Its test area is the Volga, and more particularly its tributary the Oka (sub-basin on which the supply and effluents of Moscow depend).

The setting-up of a planning unit and of a dialogue structure for this sub-basin is now imminent.

The tasks of the Russian "Basin water management units" (BVUs) are changing. These organizations are becoming, among other things, the executive agencies which will have to produce the information to facilitate decision-making at the river basin council level.

During this project, IOWater especially studied the creation of an information system for the "BVUs".

The "BVU" Planning Department will particularly be in charge of organizing the information system for integrated water management at the basin level.

In order to organize the production of useful information, the "BVU" will have to combine, on the one hand, information related to the pressure on water resources with, on the other hand, information related to the status of water resources.

Thus, in a first step, the "BVU" information system will have to deal with the following main data:

- Water bodies and hydraulic installation characteristics,
- Surface water (quantity/quality) and meteorological data,

- Groundwater (quantity/quality) data,
- Water users' and water polluters' characteristics,
- Abstractions, uses and discharges in the river basin.

In Russia, like in most countries of the world, the collection and management of this information is scattered through various organizations, which themselves depend on various state bodies (federal executive bodies in the case of Russia), each one having its own procedures for data collection and management

Within the framework of the TACIS ENVRUS9801 project, the support to the development of the "BVU" information system began with a "Data flow institutional analysis". It aimed to study the existing information flows and the possibilities of their use and up-grading with the purpose of providing the "BVU" Planning Department with a guaranteed access to the necessary information.

At first, IOWater analyzed the existing situation (the legislative, institutional and organizational environment).

In the light of the data flow schemes produced, it appeared that the "BVUs" have presently no access to a lot of data that they will need for correctly fulfilling their water planning tasks.

It is why the study report concluded with recommendations for the organization, at institutional level, of the "BVU" access to the data necessary for producing the information expected at the basin level.

Navigation on the Volga



SLOVENIA

Priority to training

Within the process of accession to the European Union, Slovenia has committed itself to transpose and implement the community water directives.

This involves that the legislation and regulations comply with the directives and that the utilities and organizational methods are modernized, together with the set up of new infrastructures.

The water sector is especially encountering difficulties in its operation and organization. The training of its personnel is becoming a strategic challenge of prime importance to effectively implement the European directives.

It was deemed necessary to reinforce the personnel's professional qualification, with training plans on the scale of the enterprises themselves or of the whole nation, and facilitate their adaptation to:

- the very fast changing technologies in the water-related professions,
- the increasing complexity of the systems and techniques required to adapt to the new standards,
- the new obligations, in terms of service provided to the users.

Consequently, the Slovenian authorities are planning the creation of a training center for water professions and, to this purpose, have requested France to undertake a feasibility study.

Jointly financed by the French Ministries for Foreign Affairs, of Regional Planning and the Environment and by the Slovenian Government, the feasibility study, which started at the end of 2000, includes three components:

- 1 The analysis of the main parameters, in order to determine the types of personnel and assess their training needs for each technical topic and each function, together with the malfunction encountered by water companies in their management, operation and business;
- 2 The inventory of existing training structures, of their means and current practices;
- 3 A proposal on the prospects for the creation and operation of the future Slovenian training center.

The Slovenian Ministry of the Environment and Regional Planning will thus have a precise assessment of the training needs in the water and sanitation sector and an appraisal of the training center project.

A study tour took place in France. It enabled the presentation of the function and operation of the National Training Center for Water Profession (CNFME) of Limoges-La Souterraine and the assessment of the new training needs, related to the implementation of the European directives.

KOSOVO

Establishing an integrated water policy

The Department of Agriculture, Forestry and Rural Development (DAFRD) of Kosovo has prepared, in liaison with the other Departments concerned: Local Administrations, Environmental Protection, Health, Reconstruction and Public Utilities, Trade and Industry, an analysis of concerted and integrated management within a water management policy in Kosovo. The bilateral and multilateral donors were also involved in the preparation of this document.

The Interdepartmental Group has identified the problems and drawn up a proposal for the setting-up of suited institutions for concerted water management in Kosovo.

The output of this assignment led to a two-day workshop which took place in Pristina on 30 and 31 August 2001.

The workshop, entitled "Use of water resources and development of a water strategy in Kosovo" dealt with five significant topics (data, demand and availability, quality and environmental protection, institutional aspects, laws and regulations). It allowed the definition of orientations and recommendations to support and clarify the current trends and face priority needs.

Mr. Joël Mancel, Director at IOWater and FFE member, participated in this seminar upon the request of the French Ministries for Foreign Affairs and Regional Planning and the Environment.

There were two decisions made:

- **The creation of 2 basin organizations,**
- **The implementing of an institutional framework and the creation of a "Water Resources Department" at central level.**

The intermediate level between the central and local levels (local authorities, associations and farmers, etc) will have to be particularly taken care of. The following points will be especially reviewed:

- Role and tasks of a basin organization,
- Its integration into the overall institutional framework of Kosovo,
- Its organization: representative participation of municipalities, of the different groups of users, of the administrations,
- Processes used to implement a management plan, in accordance with the European Water Framework Directive; possible specific provisions for sub-basins will be studied,
- Methods for financing and operation.

France, in liaison with the DAFRD, the Interdepartmental Group and Finland which will analyze the institutional framework, will make tangible proposals for the organization and structure of two basin organizations adapted to the Kosovar context.

System for managing data and information in the water sector

Efficient decision-making in water resource management requires available access to relevant and reliable information to meet the decision-makers' needs.

In the case of Kosovo, either at the level of provinces or river basins, the information needed (identification of water resources, description of monitoring networks, data on the quantitative and qualitative status of available resources, characteristics of the "polluters/users", of their water discharges and abstractions, etc.), is dispersed, non homogeneous and some times lacking.

It is thus necessary to study the opportunities for establishing a suited organizational and technical framework to produce and disseminate the information expected by decision-makers and users.

The French experience brought by IOWater, FFE member, will deal with:

- ❖ **The identification of the legislative texts related to water data management,** the main institutions concerned with water resource management in the current system and in the planned institutional framework with an analysis of their tasks in water data management, the main data producers and managers of water information systems;
- ❖ **The analysis of the main data flows** between operators and of the main results expected from the water information systems to be developed;
- ❖ **The definition of priority equipment.**

The French experts' reflection on these priority topics will be carried out in close collaboration with the Kosovar Authorities, the UNMIK (United Nations Mission in Kosovo) and with the teams of the European Reconstruction Agency and of the World Bank.



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Reminder of the context

The twinning process consists in providing the Central and Eastern European countries, which are candidates to becoming members of the European Union, with all the technical and administrative knowledge they require to include in their national law all the legislative and regulatory texts already passed and applied by the 15 current Member States.

Institutional capacity building through twinning between counterpart Eastern and Western administrations, is one of the priorities of the European Commission's PHARE program.

This multi-year comprehensive cooperation aims at providing each candidate country with the efficient and operational organization required to fulfill its future community obligations.

A twinning agreement is thus signed by the candidate Country and the member State. It defines the expected outputs of the project, the responsibilities of each party, the implementation methods to achieve the result and their cost.

When several Member States are concerned, one of them is the project leader and signs the agreement on behalf of the others.

The following cooperation methods are planned for each twinning arrangement:

- the long-term and full-time secondment of civil servants (Pre-Accession Advisers) from Member States in the candidate countries,
- short assignments carried out by specialists in each directive in the Countries concerned,
- practical training courses in the Member States' administrations and organizations concerned for experts from the candidate countries participating in the transposition phase,
- training of personnel who will have to operate the new systems in their respective countries, and particularly training of trainers.

Regarding the preparation and implementation of twinning agreements relative to the water sector, the International Office for Water is intervening as an operator of the French Ministry of Regional Planning and the Environment (MRPE).

BULGARIA

The twinning project, started by the Bulgarian Ministry of the Environment and Water with a group, led by Germany, with Austria and France, is now ending. The International Office for Water was in charge of urban wastewater and dangerous substances:

- regulations for the implementation of the Bulgarian water law, passed by the Parliament in July 1999,
- procedures for discharge authorizations,
- emission limits, discharge standards and quality objectives for the receiving waters,
- information and training.

Fourteen working groups were created. Each group aimed to prepare a regulation for the implementation of the new Bulgarian water law. Most regulations have already been published in the Official Bulletin of the Bulgarian Republic or are being reviewed.

The International Office for Water especially dealt with the translation into Bulgarian of the NORBER software, implemented by the Loire-Brittany Water Agency for the evaluation of the quality objectives for the receiving environment, and of its manual for use.

With the help of the Loire-Brittany Water Agency, two training courses for trainers (two days each) were organized on the use of NORBER:

- The first one, addressing the staff of the water department and of the Bulgarian Environmental Agency was implemented by the central administration of the Ministry of the Environment and Water in Sofia.
- The second one, intended for all regional departments of the Ministry, took place at the regional Inspectorate for the Environment of Veliko Tarnovo.

The Bulgarian Ministry of the Environment and Water has also selected the French proposal, drawn up by the International Office for Water, for the 1999 and 2000 twinning arrangements.

The aim of the 1999 twinning arrangement is to set up the 4 Basin Authorities planned for in the water law.

The 2000 twinning arrangement is implemented by a group of Member States, led by France which is in charge of the following components: bathing waters, fish and oyster farming, and dangerous substances. It also involves Germany, responsible for the drinking water supply component.

A kit introducing the French experience

With a view to introducing executives of each candidate country concerned to the experience acquired in France, it was deemed necessary to prepare, in French and English languages, an educational kit describing the provisions in French law for the adaptation of each Directive and emphasizing the experience acquired and the results obtained when implementing them.

With the financial support of the French Ministry of Regional Planning and the Environment, IOWater has thus written a set of texts and transparencies on the main Directives dealt with in twinning projects:

- Directive 91/271/EEC relative to urban wastewater;
- Directive 91/676/EEC concerning pollution caused by nitrates from agricultural sources;

- Directives 76/464/EEC and 80/68/EEC on dangerous substances;
- Directive n° 2000/60/EC of 23 October 2000, establishing a framework for a community policy in the water sector;

The case of the new Framework Directive is obviously dealt with, but is limited to the presentation of its main provisions and the methods for implementation planned for in the French context, especially in the new draft water law which has just been approved by the Ministers' Council.

All IOWater activities on:
www.iowater.org

Pre-Accession Twinning

ESTONIA

Wide decentralization

All local responsibilities have been entrusted to the municipalities, which have been authorized to recover their own financial resources.

All water supply and sanitation utilities have become companies, the capital of which is entirely (100%) in the hand of municipalities. These municipalities may sell their shares to private groups (it is the case of Tallinn City).

Water management is subjected to texts, which are close to the European directives. The water law, which is in the process of being passed, takes up all their main provisions: water management integrates all water uses at the level of river basins, it is widely decentralized and it establishes the "polluter-user pays" principle.

Financial resources have to be found: will households and industries be able to follow up? Discussions are developing on the reasonableness of a yearly 10 to 20% increase in the water taxes per m³; when 20 to 30% of the invoices are unpaid and when several of the new water companies encounter financial problems.

A specialized assignment, whose aim was to study the possibilities of maintaining this pace, was entrusted to IOWater, especially with the goal of gathering the resources needed to rehabilitate the degraded environment of the industrial areas in the North.

The twinning arrangement, whose objective was to support the transposition and implementation of all water

directives in Estonia, was led by Sweden and took 15 months up to its completion in April 2001.

Assignments of specialists from the French Ministry of Regional Planning and the Environment; the common bureau of the Water Agencies in Brussels, the Loire-Brittany Water Agency and of IOWater, enabled the study of the institutional organization of water management in Estonia, of the economic and financial mechanisms in force, of the commitments made with a prospect of accessing the European Union, and of the measures to be taken for implementing the Framework Directive.

Mr. Zbigniew Sobocinski, Director of the Gdansk Water Foundation, carried out an assessment of the training needs.

Delegations from the Estonian Ministry of the Environment came to France to be introduced to the French experience in river basin management and to the reforms, required by the Framework Directive, to be implemented in France.

The project ended with a visit of Mr. Marko Tuurmann, Water Director, who went to the French Ministry of Regional Planning and the Environment, to the Loire-Brittany Water Agency and to IOWater. This visit enabled him to complete the exchange of experience on the different aspects of integrated water resource management and to lay the foundations for future cooperation.

HUNGARY

The International Office for Water (IOWater) was entrusted by the French Ministry of Regional Planning and the Environment with the twinning water component relative to dangerous substances, which is the responsibility of the Hungarian Ministry of the Environment.

The activities dealt with:

- The introduction to the French methods used for authorizing discharges,
- The study of the Hungarian approach to the control of industrial pollution and of the discharges of dangerous substances, of the existing data and of the proposed transposition texts,
- The formulation of a strategy for controlling industrial pollution and the preparation of discharge permits,
- Proposal of a method for assessing and measuring the discharges of dangerous substances,
- Exchanges of experience on river quality objectives and on Quality Assessment Systems.

CZECH REPUBLIC

The twinning project is executed by the Water Protection Department of the Czech Ministry of the Environment, from one part, and by a group of Member Countries, led by Great Britain with Austria and France, from the other.

Activities started in September 2000, after the Pre-Accession adviser, Mr. James Hunt, came into function. They will end in April 2002.

The project deals with the implementation of four directives in the Czech Republic:

- 1 Directive 76/464/EEC on pollution caused by certain dangerous substances,

- 2 Directive 80/68/EEC relative to groundwater protection,
- 3 Directive 98/83/EEC relative to the quality of water intended for human consumption,
- 4 Directive 91/676/EEC on water protection against pollution caused by nitrates from agricultural sources.

The International Office for Water is responsible for the component related to the "nitrates" directive in liaison with the Czech Ministry of Agriculture. It includes:

- The formulation of draft regulations and technical procedures,
- The delimitation of vulnerable zones,

- The preparation of codes for good agricultural practices and of the corresponding action plans
- Training and information programs.

The corresponding activities started at the beginning of 2001.



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France was project leader for the twinning agreement, signed in September 1999 with the Polish Ministry of the Environment. The overall management of the project was entrusted to ADEME.

As regards the water component, activities were led by the Pre-Accession Adviser seconded in Warsaw, Ms. Marie-Claire Domont, expert from the Adour-Garonne Water Agency, under the responsibility of Mr. Bernard Kaczmarek, representative of the French Water Agencies in Brussels. (he also intervenes as a specialist in the Framework Directive) and Ms. Josiane Mongellaz, who was in charge of the implementation of short-term assignments and training programs on behalf of IOWater.

During the first year, the project mainly dealt with the transposition of the European directives on wastewater, nitrates, dangerous substances and of the Framework Directive, with a study of the existing Polish legislation and of its compatibility with the community requirements. It included an introduction to the French and European experience in their implementation during French experts' assignments in Poland and study tours of Polish public servants in France.

With the preparation of transposition management sheets, defining the changes to be brought and enabling an inter-ministerial coordination of the text preparation, the Polish party took into account the conclusions of the experts' assignments and changed its draft law and its draft national regulations.

The draft water law was examined several times by parliamentary commissions and the law passed in July 2001.

Another significant component of this twinning arrangement concerned the experiment carried out by the Polish party in the pilot Narew river basin, in order to prepare a management plan for the implementation of the Framework-Directive.

This pilot Narew river basin, the longest Vistula tributary, whose spring is located in Belarus, covers a surface area of about 27,000 km² in the Polish Territory which ends at the confluence with its main tributary (the Bug river) at the Ukrainian border.

An assignment, carried out in September 2000 by Mr. Lucien Sormail (Adour-Garonne Water Agency) and Ms Josiane Mongellaz, enabled this experiment to start with the formulation of a one-year action plan. This plans included the following steps:

- The nomination of the Polish team in charge of the project: under the supervision of the Ministry of the Environment, the Warsaw RZGW was entrusted with the management of this experiment, especially its Deputy Manager, Mr. Jurek Zielinski, with a team of 5 part-time specialists;
- The creation of various commissions for dialogue and decision-making, especially the Narew Commission, composed of 45 representatives coming (in equal number) from local authorities, users and the administration, an Arbitration Commission, composed of 5 representatives of the Narew Commission, and a Technical Steering Committee at the national level;
- The writing of an inventory document, outlining the challenges and priority problems at the level of the pilot basin: this study was submitted to the Technical Steering Committee for validation,
- The organization of 3 Narew Commission meetings. The inventory of the basin was then presented and a debate took place on the challenges, priority problems and the methods of consulting the general public. The Arbitration Commission then wrote the documents, formulated and defined the priority issues to be studied;
- The formulation of a draft monitoring program: Due to the time

constraints, the proposal only dealt with one of the priority issues: the limiting of discharges in areas with significant groundwater pollution;

- Cost estimate of the proposed measures and financial mechanisms to be considered for investments: its conclusions were submitted to the 2nd Narew Commission meeting at the end of June 2001;
- Training activities were carried out. They were intended for elected representatives from the local authorities and technical executives in charge of sanitation utilities in the pilot basin. Their organization was entrusted to the Gdansk Water Foundation, which has now 5 years of experience in training on water professions in Poland.

This pilot experiment aimed to test the methods and procedures enabling the formulation of future river basin management plans in accordance with the Framework-Directive.

The Adour-Garonne Agency provided a precious support in the implementation of this experiment by participating in the meeting work and discussions and in the result analysis.

Two Polish delegations were also welcomed in Toulouse and Bordeaux in 2000.

A third study tour took place in July 2001. It dealt with the implementation of the Framework Directive. The delegation, made up of representatives from the Ministries concerned with water management and from all the Polish RZGWs, was welcomed at the Ministry of the Environment, the Seine-Normandy Water Agency and the Rhine-Meuse Water Agency.

Gdansk old harbor



Topic: Pre-Accession Twinning

ROMANIA

At the end of 1999, the French Ministry of Regional Planning and the Environment (MRPE) and the Romanian Ministry of Water, Forestry and Environmental Protection signed a 21-month twinning agreement, within the framework of the PHARE institutional support program, for acquiring the community experience.



Denis Besozzi, expert from the Rhine-Meuse Water Agency, became Pre-Accession Adviser in Bucharest in December 1999.

Josiane Mongellaz of the International Office for Water managed the project.

As regards the Romanian part, the new Secretary of State for Water, Mr. Florin Stadiu, was nominated project manager after the changes which took place in the government at the end of 2000.

The first year of the twinning arrangement dealt with the transposition of the European Directives, relative to nitrates, wastewater, dangerous substances and groundwater, and of the Framework-Directive, with a study of the existing Romanian legislation (mainly the water law of 1996 and its implementation decrees) and of its compatibility with the community requirements.

The study showed that the recent water law was taking into account the main current community orientations, only some adjustments were needed to transpose the Framework Directive.

The transposition of the other directives was done through governmental decisions. Additional adjustments, relative to the dangerous substances, were provided by the IPPC law.

An inter-ministerial working group, created by the Romanian Ministry at the end of 1999, greatly facilitated work progress by helping in the formulation of a transposition strategy and with a debate on the texts under preparation.

The transposition texts of the directive on nitrates were published in the "Official Monitor" in October 2000, and the transposition text of the directive on wastewaters is being circulated in the ministries for a last validation.

The end of 2000 was marked by a study tour in France of the main executives from the Ministry and Apele Romane. The

delegation went to the Rhine-Meuse Water Agency for an introduction to the French experience in river basin management and to the field implementation of the European Directives.

Meetings at the MRPE and IO-Water completed this introduction and examined the pro-

gress made in France in transposing the Framework-Directive.

for implementing the directive relative to dangerous substances,

- Presentation of a method and a simulation tool for assessing the impact of urban and industrial discharges on river quality; training of representatives from 11 branches of Apele Romane in charge of preparing technical guidelines for the issuing of discharge authorizations,
- Analysis of the current water data management system; proposals for improving public information; preparation of river basin management schemes and reporting to the European Commission,
- A pilot experiment, carried out in the Siret river basin, concerned the Framework-Directive in order to test the public information process and the study of the management scheme by a river basin committee.



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In 2001, activities mainly focused on the implementation of the various directives:

- Designation of a working group in charge of delimiting vulnerable zones in accordance with the nitrates directive,
- Dissemination of a questionnaire for analyzing the existing infrastructures previous to the preparation of an implementation program, and estimating the cost for implementing the directive on wastewater,
- Analysis of the processes used for inspecting industries and for authorizing discharges and proposals for improving the current system



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Europe / Twinning ooo

SLOVENIA

This twinning, led by Austria, in which France is responsible for the water component, was executed over 15 months and completed in April 2001.

This project, managed by Ms. J. Mongelaz of IOWater, mainly dealt with the transposition and implementation of the Framework-Directive. It included different components:

- An introduction, made by Mr. J. Sironneau (MRPE), of the new French draft law and its provisions for taking into account the Framework-Directive requirements,
- A study of the current Slovenian water management in order to determine malfunctions and the improvements needed, and of the economic and financial mechanisms in force and their efficiency in financing water policy,

- An experiment, carried out on the Kamniska-Bistritca pilot river basin, located North-East from Ljubljana, aimed to test a method for preparing a management plan and effectively implementing measures which involve water stakeholders (elected representatives, users) in decision-making, financing and implementation. The network monitoring the river water quality was studied and the different scenarios tested with the NORBER software, together with a presentation of a method for economic analysis.

In January 2001, a Slovenian delegation, made of the main executives of the Ministry involved in the transposition of the Framework-Directive, visited France. This was an important step in the project. Mr. Méta Gorisek, adviser to the Government and project manager, Ms Gabriéla Grcar, who became

Deputy Secretary of State for Water and Mr. Gerard Goëdl, long-term Austrian specialist, participated in the visit.

The Loire-Brittany Water Agency brought a significant support to this twinning: Jean-Louis Beseme, Director of the Agency, carried out an assignment in Slovenia and met the delegation in Orleans.

Gilbert Naturale, Agency Delegate in Clermond-Ferrand, was heavily involved in the experiment on the pilot river basin together with Messrs. L.C. Oudin and X. Bourrain (water quality monitoring) and T. Davy (economic component).

The project conclusions were presented to the new Secretary of State for the Environment, Mr. Tauzès, and to the Delegation of the European Commission during a conclusion meeting on 25 April 2001.



The Mediterranean

ALGERIA

Assistance to the River Basin Agencies

The 2001 program, which continued the actions implemented in 1999 and 2000, included the 4 following main lines:

- 1 Data: assistance with the development of tools for the processing of information and for the creation of an Algerian water register,
- 2 Information, documentation and communication on water,
- 3 The new water professions, for which the engineers' basic training is not always well adapted, with immersion in the French Water Agencies,
- 4 The master plans, with an analysis of the methods used for implementing a program of financial aid to the water users of the basins.

These activities were carried out in November and December 2001, either at IOWater, as regards training and technical assistance, or with an immersion in 3 French Water Agencies: Adour-Garonne, Loire-Brittany and Rhone-Mediterranean-Corsica. They concerned executives and the managers of the agencies.

The data-related activities enabled the participants to get information on the work of the National Data Reference Center for Water (SANDRE) and of the System for assessing the quality of the aquatic environments (SEQ-Eau), on the functions of Mapinfo software (generation of topical maps and SQL queries) as well as on the organization and mechanisms used for the operation of the National Water Data Network (see p. 3).

The methodology, to be used for setting up a documentation base, included 4 main steps: field definition, entry sheet, display format, table for field selection. The trainees created a pilot database and learned to use search engines, data sorting, the drawing up of a dictionary with its parameters and indexing tools. They also acquired a methodological approach to documentation techniques to be used in the collection and processing of information.

At the end of this training program, the participants knew about the operating of a documentation center, the organization of the information, the installation on a computer of the cds-isis documentation software, the creation of a

database (structure definition, entry, display and search for information).

The Directors of the Algerian Agencies particularly appreciated the training specialized in the communication and planning for the formulation of master plans which are indeed priority topics in the assignments given to the River Basin Agencies (ABH).

Future assistance prospects were also thought of. They might be part of a multi-year plan extended to the whole Algerian water sector, especially to the "Algérienne des Eaux" (Algerian Water Company) and the National Sanitation Board.



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2002-2005: A NEW ACTION PLAN



The European Commission's representative and the General Directors for Water or their representatives from Algeria, Austria, Cyprus, Egypt, Germany, France, Israel, Italy, Jordan, Lebanon, Luxembourg, Malta, Morocco, the Netherlands, Portugal, Spain, Sweden, Tunisia, Turkey and the Palestinian Authority participated in the meeting of the Euro-Mediterranean Information System on the Know-how in the Water Sector -EMWIS- in Madrid on 12 and 13 November 2001. They especially emphasized that water had been considered a priority in the declaration adopted in Barcelona in November 1995 and was confirmed as being one of the six priority topics of the economic cooperation in the Euro-Mediterranean region during the conference gathering the Ministers for Foreign Affairs in Stuttgart in April 1999.

Owing to the declarations of the Ministerial Conferences of Marseilles (November 1996) and Turin (October 1999) which emphasized the importance of EMWIS as a strategic tool for exchanging information in support of the Priority Action Plan for water, and account taken of EMWIS mid-progress report on its first phase (planned for 1999 - 2002) and of the viability study in the medium and long terms, the participants agreed to the following:

1 **EMWIS progress report after two years (1999-2001) is highly positive** and shows that this tool meets a real need and a strong demand of all partners in compliance with the decisions made during the ministerial conferences of Marseilles (1996) and Turin (1999). The Directors reaffirmed the sustainability of EMWIS which should have the means necessary to continue its action in the long-term.

2 **Approval of a new four-year program for 2002-2005 to continue the first phase.** It would include the following terms:

➔ **Continuing the operational implementation and the strengthening of the National Focal Points and of the Technical Unit and the development of the following new activities:**

- Strengthening of the NFPs by way of technical support and assistance with the finding of additional financial resources,
- Directing and operating the information systems to maintain and improve the services offered by EMWIS according to current events and technological advances,
- Extension of new services based on the users' expectations and on an analysis of their interests,
- Development of means for promoting the system,
- Development of topical activities which will lead to the organization of events and electronic forums based on syntheses.
- Dissemination of specific information on the MEDA-Water program of the European Union to act as a reference and dialogue system addressing the stakeholders concerned of the Euro-Mediterranean partnership,
- Continuing having contacts with the other international initiatives, especially with INBO, in order to coordinate activities and the development of joint actions;

➔ **Defining the conditions for financing this four-year program (2002-2005), amount presently estimated at about 5,200 Million Euros, to continue the current arrangements and structure:**

- The activities of EMWIS-TU, especially regarding regional coordination, support and technical assistance to the NFPs,
 - Assistance to the Euro-Mediterranean countries with the activities of their National Focal Points.
- 3 **The General Directors or their representatives proposed to renew EMWIS steering bodies for a new 4-year period, starting from July 2002:**
- ◆ The following countries: Algeria, Cyprus, France, Italy, Jordan, Malta, Morocco, Spain and the Palestinian Authority will compose the **Steering Committee**. Spain will fulfil the task of chairmanship and Cyprus the vice-chairmanship.
 - ◆ Morocco will be **Chairman** of the Coordination Committee and Malta the vice-chairman.

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<http://www.emwis.org>



The “CEMCAS” (Centro Mexicano de Capacitación en Agua y Saneamiento) is built at the foot of the Popocatepetl, on the banks of the Texcoco Lake, between Mexico City and the international airport.

It is training about 3,000 Mexican and Central American trainees each year, using the educational concept of continuing training under real working conditions, developed by the International Office for Water in its National Training Center for Water Professions (CNFME) in Limoges - La Souterriane (France).

After the success of the Gdansk Water Foundation - GFW - Poland (1,000 trainees each year), the Mexican “CEMCAS” project, the first in Latin America, is in line with the priority strategy of the International Office for Water to assist with the building and development of training capacities, aiming to improve the skills of employees of water utilities worldwide.

This training center, built with the support of the French-Mexican cooperation, aims at covering the entire Central American region. It associates the National Water Commission (CNA) with six important Mexican public partners involved in the sectors of water and public works and a group of French companies, gathered under the aegis of the French Embassy in Mexico (PEE) with an impulse from VIVENDI Environment and ONDEO-Suez around the International Office for Water in charge of the technical engineering and educational tasks.



“CEMCAS” is a non-profit making foundation under Mexican law. It gathers nine founder members: The National Water Commission, the French Embassy in Mexico, the International Office for Water (IOWater), the Federal State Secretariat for Employment and Social Affairs, the Mexican Institute of Water Technology and other Mexican partners, the National Chamber of Consulting Firms, the National Association of Water and Sanitation Enterprises, the Mexican Chamber of Industry and Construction, The National Chamber of Processing Industry.

We remind that it was during the visit to France, on 6 October 1997, of the President of the United States of Mexico, Mr. Ernesto Zedillo, that the Mexican Minister of Finance signed an agreement with his French counterpart to finance this project with a French grant for the technical and educational engineering provided by the International Office for Water.

The building of the Training Center on the bank of Texcoco Lake, on the outskirts of Mexico City and close to the future wastewater treatment plant planned for the Federal District, began in November 1998, on the occasion of the visit to Mexico of the President of France, Mr. Jacques Chirac.

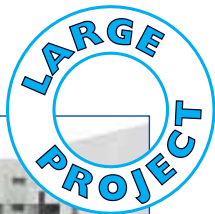
The investment amounts to 9.0 Million Euros.

The French contribution is as follows:

- a grant from the Treasury (Ministry of Economy and Finance)
- assistance to the technical and educational management team provided, in a first step, by an engineer seconded by VIVENDI Environment,

The "CEMCAS" is opening

AN TRAINING CENTER FOR WATER PROFESSIONS



- **payment of training required by the two French groups of VIVENDI Environment and ONDEO-Suez**, especially for their personnel working in the Federal District of Mexico and in Mexican towns such as Aguascalientes or Puebla,
- **a grant for materials and equipment** provided by the French partner specialized companies.

"CEMCAS" has educational and administrative buildings covering 1000 m² together with eight technical workshops, designed by IOWater, which reproduce in real size all installations required by drinking water supply and sanitation utilities.

"CEMCAS" can implement a complete range of practical training courses for continuing training, in all the technical areas of drinking water supply and sanitation, in terms of both design of facilities and operation, maintenance and management of utilities.



It can train trainees from all professional categories in the water sector, employees from the National Water Commission (CNA), from the water utilities of the Federal District of Mexico and large Mexican cities, from Mexican, French or other companies in the sector, working in Mexico or in the neighboring countries in Central America (engineering, equipment, public works, water supply, wastewater treatment, etc.).

In 2001, the Mexican administrative, logistics and educational teams attended intensive training at IOWater (CNFME of Limoges – La Souterraine) which enabled them to start the first training courses out of the 29 priority training programs.

This project is original as it involved the creation of a technical unit, gathering all the equipment and material actually used or being installed in Mexican municipal water utilities in order **to develop active educational methods, setting the trainees under real working conditions.**

The Training Center will thus have drinking water clarification and treatment units, a laboratory, some pumping units, a pilot unit for leak detection in drinking water supply systems, a unit for training on the laying of mains and, of course, all devices necessary for automation and remote control.

It is also equipped with a pilot wastewater treatment plant and sanitation-related facilities, a workshop with a "drainage system"...

The first 29 priority training courses can now be organized in Texcoco in Spanish. **In the long term, the catalogue will include 176 specialized courses of 3 to 4 days each and billed 3,000 pesos per trainee on the average.**

The financial resources of the center, when full development is achieved, will come from the sale of its training programs, billed at cost price and in pesos.



COMISION NACIONAL DEL AGUA

29 Priority Courses

- Leak detection in drinking water supply systems:
 - strategy and organization,
 - methods and equipment,
- Detection of underground networks,
- Reading and interpretation of network plans,
- Physico-chemical and bacteriological analyses of drinking water,
- Maintenance of pumping stations,
- Safety of operating eclectic equipment,
- Disinfecting with chlorine,
- Measurements,
- Relations with users,
- Wastewater treatment by activated sludge:
 - sizing of plants,
 - operation and maintenance of wastewater treatment plants,
 - measurements and diagnostics.



Information

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International and multilingual portal for water managers

ON THE INTERNET

<http://www.aquadocinter.org>

THE **aqu@doc INTER** PROJECT CONSISTS IN BUILDING A GLOBAL NETWORK OF NATIONAL WATER INFORMATION CENTERS, OFFERING EASY, UNIFIED AND MULTILINGUAL ACCESS (IN FRENCH, ENGLISH, SPANISH, PORTUGUESE, EASTERN EUROPEAN LANGUAGES, ETC.), THROUGH A COMMON PORTAL ON THE INTERNET, TO THE DOCUMENTATION, EXPERIENCES AND EXPERTS' KNOWLEDGE AVAILABLE IN ALL THE PARTNER COUNTRIES, ESPECIALLY THOSE PARTICIPATING IN THE INTERNATIONAL NETWORK OF BASIN ORGANIZATIONS (INBO).



is one of the components of INBO/GWP Associated Program

A WORLDWIDE FOCUS

The project is gradually developing in:

- **Europe** (France, Hungary, Poland, Czech Republic, Romania, etc.)
- **Latin America** (Brazil, Colombia, Mexico, etc.)
- **the Mediterranean**, its development is achieved through the **Euro-Mediterranean Water Information System (EMWIS)**. The latter was launched during the Marseilles Euro-Mediterranean Water Conference (November 1996). It involves the 15 countries of the European Union and the 12 Mediterranean partner countries, signatory of Barcelona convention.

A NETWORK OF PARTNERS

The Internet enables to depart from usual centralized documentation bases, now replaced by open information systems, supplied by partner networks.

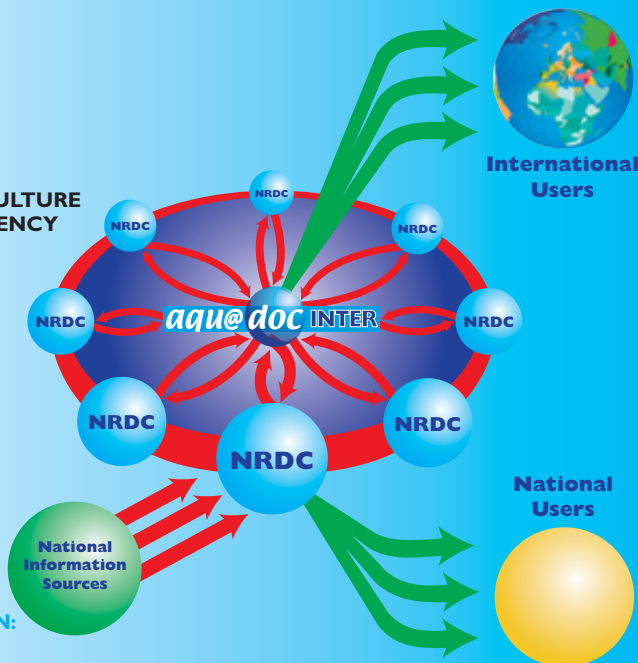
Thus **Aqu@docINTER** relies, in each country, on national focal points, called **National Relay Documentation Centers - NRDCs**.

These **NRDCs** gather information in their respective country. They check, organize and make this information available according to the project specifications and an organizational framework. This enables access to this information by all the users of each country and of the world through a common server on the Internet.



THE PILOT COUNTRIES

- HUNGARY:**
VITUKI
- POLAND:**
IMGW
- ROMANIA:**
APELE ROMANE
- CZECH REPUBLIC:**
MINISTRY OF AGRICULTURE
POVODI-MORAVI AGENCY
- FRANCE:**
INTERNATIONAL OFFICE FOR WATER
- BRAZIL:**
NATIONAL WATER AGENCY - ANA
- MEXICO:**
NATIONAL WATER COMMISSION
- COLOMBIA:**
CAR OF CUNDINAMARCA
- THE MEDITERRANEAN:**
EMWIS



A GLOBAL INFORMATION SYSTEM

Aqu@docINTER provides access to inventoried and selected information on Integrated Water Resource Management in each partner country. This information focuses on:

- Institutional organization, legal and regulatory texts,
- Water economics (investments, price and costs of services, fiscal aspects, users-polluters-pay principle, ...),
- Technologies for resource protection and use, organization of monitoring systems, ...
- References on the administrations and organizations involved in the sector;
- Lists of experts, of information and documentation centers, of specialized training institutes, etc.



Information

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