

INTERNATIONAL NEWS

N° 8 - 2nd Semester 2000 - English version

www.iowater.org

Water World On Internet

EAUD • C
Easy Access
to 200,000 documents **p. 4**

RIOB / GWP
Developing Basin Organizations
over the World **p. 6**

CENTRAL EUROPE
6 twinning arrangements
for accessing to the European Union **p. 12**

MEXICO - "CEMCAS"
The Mexican Training Center for Water Supply
and Sanitation is opening **p. 26**



**International
Office
for Water**

THE CNFME

THE FRENCH REFERENCE REGARDING PROFESSIONAL TRAINING

The "CNFME" (French National Training Center for Water Professions) offers all professionals in the water sector uniquely suited continuing training.

The 25 permanent trainers and specialists have wide practice and an educational ability recognized by professionals.

The "CNFME" has also at its disposal a network of lecturers selected with the same quality goal in mind.

Both facilities, in Limoges and La Souterraine, are continuously changing to ensure the permanent updating of their training programs and the upgrading of their educational units, as the principle is to train the trainees under actual working conditions.

For instance:

- **the wastewater treatment unit** has now a new layout to include nitrogen and phosphorus removal,
- **the drinking water treatment unit** allows experimentation and control of plate settling, treatment by ozone, chlorine dioxide, etc.
- soon, the "CNFME" will meet training needs relative to micropollutant and pesticides removal, ..., thanks to **a treatment unit using activated carbon.**

Fully computerized facilities provide the managers and people in charge of human resources development in companies, industry, municipal utilities, etc. with improved, more reactive and consistent services regarding the management of trainees (registration, training evaluation, etc.).



The "CNFME" was awarded an ISO 9001 certification from the French Association for Quality Assurance (AF AQ) in 1999 for its training courses proposed in a catalogue.

It is the only French training center certified in this sector.

Catalogues 2001

They present **178 professional continuing training courses** which provide a concrete and adapted solution to the daily problems encountered by the field staff of water services and industry, and a reply to the questions of designers, builders, equipment providers, controllers and managers.



27 new training courses !

Topics concerned:

- ⇒ sanitary protection of drinking water supply systems,
- ⇒ removal of wastewater treatment by-products (sludge, wastes),
- ⇒ on-site sanitation, from definition to control,
- ⇒ watercourse management (maintenance, development, gauging),
- ⇒ corporate management of drinking water supply and sewerage systems,
- ⇒ management of skills: software for human resources assessment.

In addition to the training courses on catalogue, the "CNFME" offers all clients, either French nationals or foreigners, public or private enterprises, total flexibility in adapting its services to their needs, using diagnostics and skill assessment leading to **the organization of tailor-made training courses** and to assistance with educational engineering and training of trainers regarding the design and **setting-up of training centers.**

PROTECTION AGAINST FLOODS



Every year nature reminds us with many deaths and damages that floods remain a major threat.

These disasters have always the same origin:

- significant disturbance in land use: embankments of watercourses, drainage of wetlands, larger and larger surface waterproofing, changes in agricultural practices, deforestation, uncontrolled urbanization, etc.
- an insufficient account taking of exceptional and concomitant meteorological events during project appraisal.
- risk aggravation due to urbanization.

What should be done?

Land use planning should be rethought in view of respecting sites and the environment as the regulations set out these last years request it.

Within such a context and in order to help adopt a consistent approach, **IOWater is proposing an adapted training program:**

- **at the strategic level:** a course on "flood hazards... how should they be taken into account?" provides the bases of a new sound policy for land use planning;
- **at the general level:** "controlling discharges during rainy weather" integrates a qualitative and quantitative approach to storm-water overflowing and its consequences on the receiving environment;
- **at the local level:** the course on "alternative techniques for storm-water drainage" initiates the project designer to the use and sizing of storage basins to compensate surface waterproofing, thanks to the introduction of technical and regulatory rules.

These training courses are based on the newest techniques, the most innovative analyses and reflections while remaining pragmatic and realistic, thanks to the testimonies brought by elected representatives and technicians from communities already committed to such an approach.



Information

Fax : +33 5 55 77 71 15

E-mail : cnfme@oieau.fr

HUMAN RESOURCES MANAGEMENT

Skill assessment

The know-how of the International Office for Water regarding skill assessment is well recognized and appreciated by many Directors of Human Resources (DHR) in France and abroad.

The experience gained by the Limoges-La Souterraine center for more than twenty five years enabled IOWater to strengthen its leadership in this area by developing methodologies specific to the water sector.

IOWater's educational team gained this experience by working for many various companies or organizations which requested assistance with the identification of their personnel skills and the assessment of their suitability to their work. Indeed, all these applicant organizations are facing the problem of missing skills (technicians to be hired) or competence-gap to be filled (training needs).

The educational assessments designed by IOWater are fulfilling these requirements as they can be used to identify department needs and assess individual skills. A multidisciplinary approach is used according to the complexity of the jobs to be fulfilled and to the systems developed.

The skill assessment process, used by IOWater, combines methods experimented in science and education. The starting point deals with the analysis of the assignments and tasks entrusted to the worker(s) and with the preparation of reference systems for the skills to be mastered.

This workstation grid is then compared with that of the personnel: training, experience, abilities; etc. An incomplete superposition means that gaps are to be filled with specific and suitable training.

Educational assessment includes:

- Data gathering (biodata, equipment to be used, hierarchical position, etc.)
- Awareness raising of the agents concerned to enable them "understand" the process.
- An interview with each agent concerned and his/her assessment, of the QCM or other type.
- The identification of missing skills and training needs.
- The definition of training programs and groups to be formed.

Each company, syndicate or community is unique and its skill assessment has to be carried out by specialists.

The "Electricité Service Gironde" (Bordeaux), the Lyons Urban Community recently required such an assessment to be carried out by IOWater.

DRINKING WATER TREATMENT

New educational units

The "CNFME" has two drinking water treatment plants using two different processes. The capacity of each is 500 p.e.

Therefore, when attending training courses, professional trainees can, although they may make mistakes when experimenting, acquire useful know-how on installations similar to theirs:

- The first unit includes an **OTV CLARIBLOC system**, complemented with flow on Neutralite, combined with ozonization and final chlorinating prior to storage.
- The second unit includes a **DEGREMONT PULSATOR system** which is now a new "all inox" apparatus (tanks inclusive) with a nominal capacity of 20 m³/h. Other additional treatments will be combined:
 - Prechlorination with injection of chlorine dioxide,
 - Remineralization with addition of lime and carbon dioxide,
 - Sand filtration,
 - Treatment by activated carbon after ozonization, this carbon filter is mobile and can be connected to the CLARIBLOC unit,
 - Disinfection with chlorine dioxide prior to storage.

This process which was initially intended for training will allow the carrying out of studies and specific applied research on final treatment.

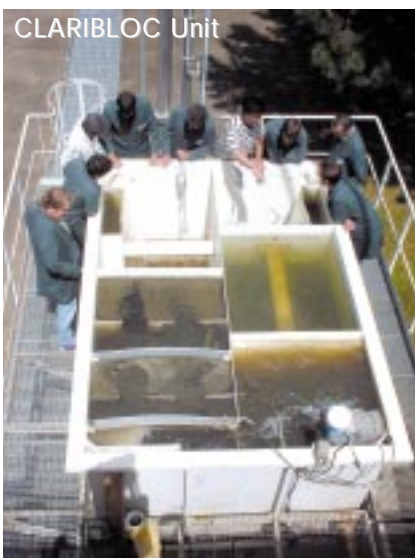


Drinking water treatment plants being currently covered to be less sensitive to meteorological phenomena, the construction of a closed building which isolates the two processes will be completed before the end of this year.

The benefits are as follows:

- calibration reliability especially for final treatment
- training possible all year round

This equipment was built thanks to the support of suppliers (PROMINENT, AGA, DEGREMONT, BUGEAUD SA, CMTS), to the employers' tax and to a subsidy from the RETEX Community program.



"EAUDOC": <http://eaudoc.oieau.fr> 1ST WORLDWIDE DOCUMENTATION ON THE WEB

The International Office for Water has been developing a documentation base on water - "EAUDOC" - since 1950 with the support of the French Ministries of Regional Planning and the Environment, of Health, of Agriculture and Forestry and the six Water Agencies.

This base was soon computerized, then became accessible by Minitel and finally through the Internet.

However, the significant increase in the number of references contained in the base, the introduction of new topics such as economics and regulations, the concern with its operating as a network of documentation bases, the need to reduce updating time and the users' request to benefit from better-performance services led to an indispensable change in the "EAUDOC organization and tools used.

This large project became effective with the opening of the new Eaudoc site in March 2000.

The largest worldwide documentation base solely dealing with water

"EAUDOC" allows on-line access to more than 170,000 bibliographical references corresponding to 200,000 international documents gathered since the 1950s in the different European languages. These documents have been processed in Limoges since 1991 by the **National Water-related Information and Documentation Service (SNIDE)**.

With a view to gain time, the SNIDE signed an agreement with INIST-CNRS to directly incorporate the latter's references.

Every year, **6,000 new references** coming from the 380 most specialised interesting periodicals are enhancing "EAUDOC" base.

A new system

The new "EAUDOC" system has been designed to provide users with just-published documents as soon as possible.

It contains a Workflow device on the Internet which allows the entry of the document descriptive sheet at several levels, from the document initial identification to its analysis by a specialist and includes a validation process before the document becomes available on the Web.

Finally, an on-line order system and payment arrangements adapted to each use provide the requested documents to the users at the earliest opportunity together with a watch over news "EAUDOC-Watch".



A significant investment

Developing the "EAUDOC" portal is one of the components of the project dealing with the setting-up in Limoges of the "International Center for Telematic Resources on Water" (CIRTE), launched within the Massif Central Plan with the financial support of French DATAR (FNADT), the Limousin Region and European Funds. The total investment for "EAUDOC" amounts to 460,000 EUROS.

The new system was developed in Limoges by CISI and ULTIME companies on the basis of specifications provided by IOWater.

The computerized system includes a data server with Oracle 8 and a query server with Verity's search engine SEARCH 97.

"EAUDOC" breaks down into several specialized bases corresponding to its main topics:

"**Techn'EAUDOC**", technological, scientific and technical documentation enhanced with the references from the National Institute for Scientific and Technical Information (INIST/CNRS),

"**Juri'EAUDOC**", 2,200 references on legal texts, comments and French and community statute laws,

"**Eco'EAUDOC**", economic and financial documents,

"**Administ'EAUDOC**", administrative and institutional documentation,

"**FONTAINE**", 10,000 references on documents dealing with the six large French river basins, gathered by the Water Agencies,

"**IPERE**", the permanent inventory of studies and research dealing with water,

"**GRISELI**", "corporate literature" on water.

New services

Further to access to documentation bases, "EAUDOC" offers a whole range of additional services:

News:

- **Today:** daily press review,
- **"Information Eaux":** a monthly documentary periodical,
- **Agenda:** on-coming meetings of water managers,
- **New Web sites:** our selection of useful links.

The Library:

- **Just-published:** the latest publications,
- **"The documents indispensable in a library":** reference texts,
- **A list of the French and international periodicals processed.**

SNIDE products:

- **Studies and summaries** drawn up by IOWater and its partners,
- **"EAUDOC - Watch"**, which allows each user to organize a watch on the latest publications and immediately receive on his/her e-mail a description of the new references which correspond to his/her profile,
- **"The State of the Art":** Specific bibliographic research and drawing up of personalized summaries,
- **Information** coming from "EAUDOC" users and partners: events, on-going work, publications may be directly pointed out on-line.

THE FRENCH NATIONAL WATER DATA NETWORK - "RNDE"

The National Water Data Network (RNDE) gathers the main French organizations generating or managing water data to allow consistent and easy access to their information.

For this purpose, it has been developing the National Water Data Base (BNDE) and a system for standardizing data, the SANDRE, since 1993.

The National Water Data Base offers the Internet users an electronic portal "www.rnde.tm.fr", which allows them wide access to French databases on water:

- **introduction to "RNDE"** and its partners,
- **detailed description of "RNDE" databases,**
- **"SANDRE" outputs** relative to data standardization (data dictionary, reference systems, exchange formats),
- using a cartographic query, **access to the topical data and products of 15,000 monitoring stations** of all types: hydrometry, rainfall gauging, watercourse quality, health-related monitoring, etc.

→ national information summaries:

- the hydrological status bulletin
- status of water contamination by micropollutants
- main industrial discharges.

The SANDRE allows the automatic exchange of data relative to water quality monitoring.

To facilitate and simplify access to data generated by the implementation of regulations on the self-monitoring of sewerage system, **the Ministry of Regional Planning and the Environment** entrusted "SANDRE" with the definition of a computerized exchange format which should be the same for all stakeholders involved (operators, contracting authorities, water policing departments, water agencies, SATESEs, etc.).

This exchange format and its user guide are now available in N° 78, **series of Inter-Agency Studies**: Sanitation systems and wastewater treatment plants: exchange of self-monitoring related data.

This highly effective document includes many examples issued from the wastewater treatment plant of the Grand Roanne district which has been the pilot site used to test this exchange format.



Information

Fax : +33 5 55 11 47 48
E-mail : snide@oieau.fr

www.iowater.org
IOWater Web site

Whether you are a researcher, a student, a contractor, an institutional stakeholder, a water specialist, or you work in an administration or a company, ... you will find all the information available on water on the International Office for Water's web site:

Search for and on-line order of documents, warnings on innovations, information on the water world, lists of studies, education or training centers and available diplomas, continuing training, program of events, specific information on industry and clean technologies, advice to elected representatives, national water data, national and international electronic publications.



WORLD WATER FORUM THE HAGUE

INBO WORKSHOP – 20 MARCH 2000

“Water in Rivers: Developing River Basin Organizations over the World”

RECOMMENDATIONS OF THE WORKSHOP

The participants in the Workshop, organized by the International Network of Basin Organizations during the day devoted to “Water in Rivers” in the WORLD WATER FORUM, on 20 March 2000 in THE HAGUE, formulated the following recommendations:

A sound management of water resources is a prerequisite to ensure quality of life on our planet and sustainable socioeconomic development.

The issues raised are complex and the solutions must at the same time allow for:

- **the contending with natural disasters and risks of erosion, floods or drought, taking into account land and water management,**
- **the reliable meeting of urban and rural populations' requirements** in terms of good quality drinking water, in order to improve hygiene and health and to prevent important outbreaks of disease,
- the reclamation of farmlands and the development of appropriate irrigation systems **to reach food self-sufficiency,**
- **harmoniously developing industry,** energy production, recreational activities and, in some areas, tourism and waterways navigation,
- **preventing and controlling pollution of all kinds and origins,** in order to preserve aquatic ecosystems and more especially, to protect fauna and optimize fish farming for human consumption, while meeting the requirements of various uses and more generally, preserving the biodiversity of the aquatic environment.

All these issues can no longer be approached by sector or localization, nor approached separately. Looking for solutions the objective of which is sustainable water use must associate the national and local authorities together with the users in integrated water resources management which respects the natural environment, and is organized on the scale of river basins.

INBO recommends that:

- ① integrated water resources and environmental management be **organized on the scale of large river basins** in order to meet rightful needs in the best way possible,
- ② **Local Authorities, all the various categories of users and the civil society participate** in the formulation of water policy within river basin committees in particular,
- ③ **Basin Master Plans be formulated** with medium and long term objectives and implemented within Five-Year Priority Action Programs,
- ④ **specific financing systems,** based on the “users-polluters-pay” principle, be developed in order that “water pays for water” with a basin common cause concept.

Cooperation agreements should be signed and formalized between riparian countries regarding large shared rivers, lakes and seas, especially within specific international commissions.

Integrated water resources management implies that comprehensive and permanent information systems are developed at all relevant levels, especially for each national or shared river basin, to acquire better knowledge of the status of water resources and ecosystems, in quality and quantity, of their uses and of the pollution discharged, either point or non-point pollution.

Information and training capacities should be developed for the representatives of local authorities and users to enable them to fully assume the responsibilities and missions assigned to them within the framework of the basin policy.

The International Network of Basin Organizations approved the draft Associated Program prepared to fit in with the “Global Water Partnership”. Its objectives are:

- **to develop permanent relations with the organizations interested** in integrated water resources management at the level of large river basins in order to facilitate exchanges of experience and expertise among them,

- **to facilitate the development of tools for institutional and financial management,** programming, the organization of data bases, models adapted to the needs,
- **to design information and training programs** for local elected officials, the representatives of users and the different actors involved in water management as well as for the executives and staff of the member basin organizations,
- **to encourage education** of the population, the young in particular,
- **to evaluate ongoing actions** and disseminate their results by developing, in particular, a global integrated system for the exchange of documentation among the basin organizations.

INBO draws the attention of governments and bi and multilateral cooperation agencies on the prime importance of using the above principles and means in their programs to ensure sound water management at river basin level which is a prerequisite to the future sustainable development of mankind.

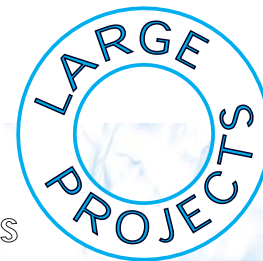
WATER FOR PEACE

On Madeleine ALBRIGHT's initiative, the American State Department organized in **Washington on last 15 and 16 June an informal meeting** gathering diplomats and water specialists from the main national and international donors to exchange information on organizations managing the shared waters of transboundary river basins and aquifers.

The representatives from the USA, the World Bank, UNDP, Germany, Canada, Sweden, Australia and France described in detail the cases of the Middle East, the Nile, the Orange, Limpopo and Zambeze rivers, the Mekong and the Senegal.

Management of shared waters by regional technical organizations is an excellent means to make and maintain contacts even between countries at war. The example of the Mekong

Basin Organizations



AQUADOC-INTER

The European Relay Centers are on-line



Developed within the International Network of Basin Organizations (INBO), "AQUADOC-INTER" aims at exchanging information on Integrated Water Resources Management at the level of river basins (IWRM) between National Relay Documentation Centers (NRDCs), partners in the system.

It concerns a multilingual access to information on the Internet, enabling the exchange of experiences and the establishment of relations between specialists from water administrations and INBO member organizations.

As INBO's Permanent Technical Secretariat, IOWater manages the AQUADOC-INTER project and is the French NRDC.

The software developed by the SNIDE for the National Relay Documentation Centers fulfills all the functions they have to perform.

It allows on-line access to various data:

- documentation references of all NRDCs;
- full-text documents;
- directories of organizations, specialists and establishments involved in water management at the level of a river basin;
- links with interesting web sites.

It is planned for simultaneous and consistent consultation, at least in French and English in a first stage and other languages in a second phase (Spanish, Portuguese and later on Polish, Romanian and Czech languages) of all information found on each NRDC server.

The **AQUADOC-INTER** network also offers other services:

- dissemination lists covering all different useful topics,
- a discussion forum between expert groups and basin organizations.

"AQUADOC-INTER" overall architecture, a template and two CD-Roms with the software needed for the installation of a server in the partner NRDCs were presented during a seminar held from 31 January to 4 February 2000 in Prague.

The IMGW of Krakow (Poland), The Mazaryk Institute of the Ministry of Agriculture in the Czech Republic, the Apele Romane Company (Romania), VITUKI supervised by OVF (Hungary) and the International Office for Water (France), making up the first European experimental group, attended this seminar.

Its objective was to open the system before the end of September, to be operational at least in French and English, for INBO General Assembly to be held in Krakow, and to continue its development towards South America in 2001, with an extension to Spanish and Portuguese languages.



Information

Fax : +331 40 08 01 45

E-mail : stp-riob@oieau.fr

INBO Web Site:
www.iowater.org/riob

International Events



Presentation of the "2025 INBO's Vision"
The Hague - 21 March 2000





"LEONARDO DA VINCI" PROGRAM

Within the "Leonardo Da Vinci" program to support professional training in Europe, the Education General Directorate of the European Commission selected two projects submitted by IOWater:

"Tech'III"

"Tech'III" is a feasibility study for the "Europeanization" of a training program for high level technicians. The training will be based on the University diploma, namely "Operation and maintenance of plants and networks" which is provided by the University and the Institute of Technology of Limoges, and the Ahun Agricultural College in partnership with IOWater.

The European partners involved are from Italy (Hydrocontrol), Germany (BEW) and Romania (CFDPDA) together with the Techware European network as regards results dissemination.

Students will receive this training and carry out practical training in companies located in 2 or 3 different countries to strengthen their knowledge of various contexts and to improve their autonomy and flexibility.



"Limousin'Water"

"Limousin Water" is a project for providing flexibility to young people who are trained in Limoges and La Souterraine to enable them undertake part of their training in other European countries. **15 students from the National School of Engineers of Limoges (ENSIL) are now in Belgium, Greece, Italy, Germany, Poland and the United Kingdom, and a Romanian student in France.**

Some scholarships are still available before mid-2001: should any company be interested, do not hesitate.

LIFE 99

Control of non-point pollution in 6 European countries

The effectiveness of policies for the prevention and control of point and non-point pollution has to be checked in the European Union's countries.

Through its Life 99 Program, the European Commission accepted a proposal for a study aiming at making an inventory of the different measures and incentives taken in 6 member States to control this kind of pollution: Belgium, Germany, the Netherlands, Sweden, the United Kingdom and France.

The study includes the inventory, analysis and comparison of the policies implemented for preventing, reducing and controlling point and non-point pollution and the formulation of recommendations applicable to all European States.

It deals with part of the national territory of each country made up of representative river basins: the Maas river basin which concerns four partner countries and four other river basins in Great Britain, Germany, Sweden and France.

The project, amounting to 600,000 Euros, will last 18 months and is led by the International Office for Water (France) in collaboration with F&N UMWELT (Germany), The Walloon Ministry of

the Environment (Belgium), RIZA (the Netherlands), the Water Research Center (United Kingdom) and IVL (Sweden) and with the support of the French Water Agencies.

Work started in November 1999 and allowed the drawing-up of 10 methodological guides for each type of polluting activity to precisely define the research to be carried out and the methods to be used for analyzing and assessing policies implemented in the six countries.

The survey results and bibliographic analyses will allow the drawing-up of the first national and topical summary reports which will then be discussed in November 2000 during a seminar attended by specialists and political officials concerned with this topic.

Conclusions and converging institutional and technical measures, whose effectiveness is proven to prevent point and non-point pollution, will be presented to the national authorities and public institutions of the six countries and to the European Commission in a second stage to assess the feasibility of their implementation in the field.

The completion report and communication products of this study will be disseminated in May 2001.

"EWRB"

The European Water Regulation Bank on-line on the Net

The European INFO 2000 program, whose purpose is to provide European citizens with access to public information, supports the development of EWRB (European Water Regulation Bank).

The EWRB is an information system on the Internet providing access to full legal and regulatory texts relative to water rights. It concerns French, Spanish, Italian documents in a first phase, then German and English ones in a second phase.

These documents are not only laws, decrees, orders, circular letters, etc. published in the Official Journals of these countries but also statute laws, even doctrines in some cases.

EWRB operating system is based on innovating technologies allowing

instantaneous access to the whole information.

Interactivity is achieved at the level of the query interfaces as the search engine always assists the user by proposing choices to focus his/her questions.

IOWater leads the EWRB project in partnership with the Spanish CEDEX and the PROAQUA (Italy), TEXTEC (Germany) and SYSTAL (France) companies. This project is now in its second stage and aims to establish relations between concepts in each language and draw up glossaries of words and terms which depend on national rights. The completion of this prototype development is planned for February 2001.

THE EUROPEAN TOPIC CENTER FOR INLAND WATERS

The Topic Center for Inland Waters was set up in 1995 by the European Environment Agency to provide assistance in its tasks of producing reliable and comparable information on the environment in Europe.

It consists of a consortium of 8 partners led by the English WRC, and whose French correspondent is IOWater.

EUROWATERNET and WATERBASE

The Topic Center has designed a European network for water monitoring: **EUROWATERNET**. It helps the member States to gradually develop this network.

The **WATERBASE** gathers the data issued from this network and will provide the public with access to the Web.

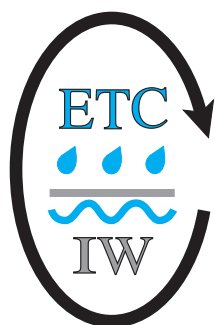
Inventory of polluting discharges

Within this framework, IOWater is in charge of a project whose objective is to better know polluting discharges in water. This project is in line with the IPPC Directive relative to industrial discharges and with the Framework Directive.

New prospects:

The Topic Center's mandate is ending at the end of 2000.

The EEA decided to extend the tasks of the Topic Center to coastal waters and widen research to the partner countries of Central and Eastern Europe.



SWITZERLAND

ALPHA Company and the International Office for Water combine their abilities



The French National Training Center for Water Professions (CNFME) of the International Office for Water and ALPHA Company, environmental techniques, jointly organized a seminar addressing ALPHA's project managers and leaders.

On the initiative of Mr. TRACHSLER (General Manager of ALPHA Company) and Mr. LÜTHI (Head of Department of Romanche, Tessin and French-speaking cantons), this seminar took place from 28 February to 3 March 2000 in NIDAU, at ALPHA headquarters in SWITZERLAND.

ALPHA and the International Office for Water compared and complemented their experiences regarding urban wastewater treatment.

The main topics dealt with were the design and sizing of wastewater treatment plants using activated sludge and bio-filtration.

The French experience of the International Office for Water's training managers regarding the removal of nitrogen and phosphorus was particularly appreciated.

Switzerland is committed to achieve objectives of nitrogen and phosphorus removal in the Rhine river basin and the long-term objective of nitrogen removal could be extended to the whole Swiss territory.

Participants also visited the NEUFCHÂTEL wastewater treatment plant (50,000 population-equivalents), a brand new plant of ALPHA Company.

This collaboration complements the seminars which have been organized for a long time in Switzerland by the International Office for Water on behalf of the Federation of French Speaking Swiss Operators (FES).



Information

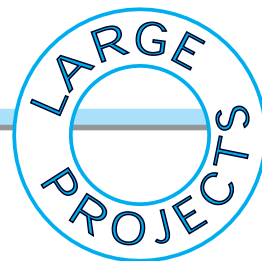
Fax : +33 5 55 35 08 77

E-mail : did@oieau.fr



ROMANIA

A Basin Committee for the Siret River



In Romania, water management is under the responsibility of the Ministry of Water, Forestry and the Environment, General Water Directorate, which entrusted its execution at the national level to an organization which became the National Apele Romane Company (NARC) in 1999.

Management has been executed at the river basin level for a long time. Indeed, the water law passed in 1996 aimed to develop solidarity and users' participation by introducing the principle of creating Basin Committees and a National Water Fund.

In order to assist with the implementation of such a reform, a project, namely "Creation of a Basin Committee for a Concerted Management of Water Resources", was submitted by IOWater and NARC to the European Commission's PHARE-Partnership program and to the French Ministry for Foreign Affairs in 1997.

The choice of the pilot basin was confirmed: the Siret river basin (30,000 km², population of about 3 million inhabitants) which suffers from pollution by domestic and industrial discharges, water shortage, erosion and clogging of reservoirs and flash floods.

The project includes the following phases:

- Assistance with the setting up of the General Secretariat and Basin Committee, including task definition, procedure for nominating the committee's members who would be representative of the water problems encountered in the basin, preparation of meetings, establishment of internal rules and work program, etc.
- The organization of a study tour in France for the General Secretariat and Basin Committee members. This trip aims at presenting the French approach to concerted water resources management at the level of a basin, the operating methods used by basin organizations and having the group meet French counterparts and exchange experiences.
- The updating of the water development and management scheme for the pilot basin and the preparation of a summary document to be submitted to the Basin Committee for advice on general orientations and financing priorities. A procedure for consulting the public should also be established.
- An analysis of the existing pricing and tax system regarding the various water uses, proposals for the development of the user-pays and polluter-pays principles, adaptation of a software for financial balance simulation at the basin level (charges and taxes).
- A training needs assessment: presentation of a method for assessing the needs of the different utilities and formulation of a training plan. Identification of local training resources.
- Purchase of computer and documentary equipment to enable access to updated information and implementation of tools for disseminating this information.
- A national workshop for introducing the experience acquired on the pilot basin. This workshop should gather about 150 participants coming from the 11 basin Directorates and Ministries concerned,...

The project started in February 1999, after the signing of the contract with the European Commission. The missions were carried out by J. Mongellaz, project manager, and IOWater specialists.

Denis Besozzi, an expert from the Rhine-Meuse Water Agency, Pre-Accession Adviser for the twinning between the French and Romanian Ministries in charge of the environment, also participated in the first missions.

During project implementation, three official meetings of the Basin Committee took place :

- The first meeting in December 1999: election of the President and Vice President, approval of internal rules, first evaluation of the development scheme, establishment of the procedure and agenda for public consultation.
- The 2nd at the end of January 2000: drawing up of a list of priority work to be carried out in the Siret basin during the year for submission to the Ministry of the Environment and its taking into account in budget planning.
- The 3rd in April 2000 to present the feedback from public consultation, the conclusions of the assessment of financial mechanisms, the preparation of the Basin Committee advice on the Framework Scheme, the program of the national workshop and actions to be planned for experience sharing.

Following a 1st informal introduction meeting, **the Basin Committee members**, together with the secretariat and the NARC project team **undertook a study tour in France in October 1999**, part of which took place in Paris with meetings with executives from the Ministries of the Environment and IOWater, and part in Metz where they were welcomed by the Rhine-Meuse Water Agency which organized interviews with members of its Board of Directors and Basin Committee.



UKRAINE

The Youjny Bug Basin Committee

By alternating between training and assessment missions in the Ukraine and a seminar in France held with the support of the Rhone-Mediterranean-Corsica Water Agency, this program, after a first phase aiming to raise awareness among the executives of the Ministry for Environmental Protection and Nuclear Safety as well as local representatives from communities and industry, consists of a pilot project for integrated water resources management in the Youjny Bug Basin (Southern Bug). This project is funded by the European Commission's TACIS program and the French Ministry for Foreign Affairs.

Three seminars were held in the basin's main towns: Khmelnytsky, Vinnitza, Nikolaïev. They gathered the stakeholders of future water management: Vodokanals, Industrialists, Representatives from Local and National Assemblies and specialists from the local and national administrations of the Ministry of the Environment. These meetings which gathered more than 150 people, allowed the operational use of the large principles which govern modern river basin management.

Following this training phase, legal advisers of the Ministry of the Environment together with representatives from the Ministers' Cabinet and National Assembly, drew up the draft regulatory texts needed for the setting-up of the Youjny Bug basin committee. This text was submitted to the Ministers' Cabinet at the beginning of year 2000.

The project duration, limited to 1 year, did not allow for establishing the means needed by the Basin Committee to operate.

The Ministry for Environmental Protection and Nuclear Safety is studying the possibility of an additional component to the project.

ALBANIA

Priority for training

Marseilles Water Company and IOWater are working together to set up a training center for water professions in Tirana whose goal would be to assist water utilities with improvement in water supply efficiency.

A joint survey mission was carried out last March. The interest shown by the Ministry of Public Works and Tirana City in this project was confirmed.

The general trend is towards privatization in Albania and this project is in line with such a context. A feasibility study will have to define the technical content and operating and financing methods to be used for such a unit.

International basins of the Bug, Latorica and Uzh rivers:

monitoring water quality

This project, financed by the European Union's TACIS program and amounting to 2 million Euros, started in January 1999.

The objective of the Ministry of Ecology and Natural Resources is to implement the European Directives relative to the management of transboundary rivers and especially water quality monitoring in the Western Bug, Uzh and Latorica basins in order to supply, in the long-term, the border region with good quality water compatible with downstream uses and needs.

Many experts' missions took place to assess the existing situation and propose institutional changes.

The "data management" component is one of the main actions. Several experts' missions were carried out under the responsibility of Paul HAENER, project manager at IOWater, and a computer scientist from IOWater was seconded in Kiev for a 13-month duration.

The main objectives were:

- ① to develop and make an information system operational in the pilot basins to allow water-related data collection and processing;
- ② to contribute to the development of a national information system in the Ukraine and the establishment of procedures for the international exchange of data.

An Access/MapInfo application is now installed in three regional directorates of the Ukrainian Ministry of Ecology. This multilingual application (English and Ukrainian) allows queries and the updating of the collected data relative to:

- the administrative framework
- the bodies of water
- the monitoring stations
- water quantity (water levels, flow) and quality

RUSSIA

The Volga: pilot basin for training and institutional reforms

In Russia, IOWater is currently involved in two projects financed by the European Commission's TACIS program:

- **Strengthening of training capacities in the environment sector in the Volga river basin.** IOWater, in partnership with the Danish consulting firm COWI and SODETEG, enabled Russian trainers to learn about the management of water resources and water supply utilities during a study tour in France in December 1999. They met people from Water Agencies, development companies, private water suppliers, etc.

These first Russian trainers will then be in charge of training other instructors so that they can teach technicians and specialists in the Volga river basin to meet their training needs.

- **Improvement in water resources management in the Russian Federation.** This project, started in February 2000, should provide the basis for the institutional reforms necessary for implementing water resources management directly inspired from the European models.

Gathered in a consortium, BCEOM, project leader, VERSeau and IOWater have a two-year deadline to complete this project which will also take the Volga and more particularly its tributary, the Oka, as a testing zone for pilot implementation.



Seminar for a presentation of the TACIS-Russian project, namely "Water Management in Russia"



Information

Fax : +33 4 93 65 44 02

E-mail : aquacoope@oieau.fr



SIX TWINNINGS TO PROMOTE ACCESSION TO THE EUROPEAN UNION

Reminder of the context

The twinning process involves 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 adopted and applied by the 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 assistance process requires several years of comprehensive cooperation. It aims at providing a candidate country with an efficient and operational organization to fulfill future community obligations in complete safety.

A twinning agreement is thus signed by the candidate country and the Member State. It defines the expected output 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 from Member States in the candidate countries
- short missions carried out by specialists
- training practical courses in the Member States' administrations and organizations concerned for experts from the candidate country participating in the transposition and implementation of the new systems
- training of personnel who will have to operate the new systems, 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 for the **French Ministry of Regional Planning and the Environment (MRPE)**.

BULGARIA

Following the signing of an agreement between the European Commission, the Bulgarian Ministry of the Environment and Water and the Member States group (Germany - group leader - Austria and France), concerning the "1998 twinning", the project activities started in September 1999 with the secondment of the "Pre-Accession Adviser", Mr. Franz ELLERMANN, a German national.

The International Office for Water is in charge of urban wastewaters and dangerous substances:

- regulations for the implementation of the Bulgarian Water Law, adopted by the Parliament in 1999,
- procedures for discharge authorizations,
- emission limits, discharge standards and quality objectives for the receiving environment,
- information and training.

In addition, IOWater is associated with the working groups in charge of preparing a Bulgarian overall strategy and a national plan for the environment.

IOWater activities in Bulgaria started in October 1999 with a first introduction to the overall situation in Bulgaria and to the actions undertaken by the Ministry of the Environment and Water and with an in-depth analysis of the new Bulgarian water law. The French methods used for discharge authorizations were presented in two detailed documents.

Fourteen Bulgarian working groups drew up draft regulations for implementation with the assistance of specialists from the Seine Navigation Department and DRIRE of Nord-Pas-de-Calais

Cooperation also dealt with quality objectives for the receiving environment with specialists from the Loire-Brittany Water Agency, the Ministry of Regional Planning and the Environment and the International Office for Water:

- a software for monitoring discharges should be shortly translated into Bulgarian,
- a "quality" approach was proposed to the Bulgarian network of laboratories analyzing water quality,
- a workshop with the Bulgarian partners took place at the end of March 2000 in Sofia to propose eight orientation programs regarding the Bulgarian water strategy.

ESTONIA

The project led by Sweden aims to assist with the transposition and implementation of all water Directives.

French contribution mainly deals with the river basin management component.

A study tour was organized in July to present water management in France, the role of river basin organizations and the implementation of the main European Directives.

The delegation, led by Mr. Marko Tuurmann, Water Manager, was received by the French Ministry of Regional Planning and the Environment, the Loire-Brittany Water Agency and IOWater.

HUNGARY

The twinning agreement signed by the Hungarian Ministry of the Environment and France, in partnership with Austria, Finland and Germany, was approved by the Commission in May 1999. It covers the areas of wastes, chemicals, air, water and industrial hazards and will last 18 months. The project started in May 2000 with the arrival in Budapest of ADEME's Pre-Accession Adviser, Mrs. Elisabeth Poncelet.

Actions in the water sector deal with the revision of the procedure for discharge authorizations following the implementation of the Directive on dangerous substances, as well as the development of a method for the setting-up of a water quality monitoring network and systems for assessing the ecological quality of water courses.

POLAND

The twinning agreement signed with the Polish Ministry of the Environment deals with water, air, wastes, environmental protection, natural resources management and access to information. This project which will last two years.

France is project leader (ADEME), in partnership with Germany and the United Kingdom. The overall coordination of the "water" component is carried out by Bernard Kaczmarek, representing the French Water Agencies in Brussels, on behalf of the French Ministry of Regional Planning and the Environment. He also intervenes as a specialist regarding the new Framework Directive. Technical assistance with the water component is provided by the International Office for Water.

The project started in November 1999 with the secondment in Warsaw of the Pre-Accession Adviser, Mrs. Marie-Claire Domont, a specialist from the Adour-Garonne Water Agency. It effectively started in a renewed Polish legislative and institutional context, characterized by the submission to the Parliament of the draft water law and by the setting-up of organizations responsible for the management, development and exploitation of the seven sub-basins.

The first missions of French experts dealt with the analysis of the existing Polish legislation and of its compatibility with the requirements of the European Directives involved in this twinning (nitrates, wastewaters, emission of dangerous substances). They also included an introduction to the French and European experience.

They were carried out by Messrs. J. Sironneau, Ph. Jannot, JPh. Deneuvy and C. Valleix from the French Ministries of the Environment and Industry.

The International Office for Water carried out a mission relative to information systems in the water sector, relying on its experience acquired with the French National Water Data Network and with the Topical Center of the European Environment Agency.

A seminar, held in Warsaw on 28 and 29 June, gathered 80 Polish executives concerned with water management at the national and local levels.

F. Casal, Deputy Director for Water, B. Kaczmarek and J. Martinez presented the French expertise, the main lines of the Framework Directive and the work carried out in France to comply with the legislative framework and administrative procedures.

ROMANIA

The Romanian Ministry of Water, Forestry and Environmental Protection retained the French proposal for a twinning agreement in the water sector. The MRPE entrusted the International Office for Water with the implementation of this project, lasting 21 months.

The project leaders are, on the Romanian side, Mrs. MARA, Director General for Water, and on the French side, J. Mongellaz. The Pre-Accession Adviser is Denis Besozzi, specialist from the Rhine-Meuse Water Agency.

The twinning includes the review of strategies for transposing the main Directives, methods and procedures for their implementation, especially at the

- A new water law was passed in 1996, taking into account current community orientations.
- The Government entrusted the National Apele Romane Company (former Apele Romane autonomous public corporation) with the management of water belonging to the State and flood prevention.
- An interministerial "Water Quality" working group was set up at the end of 1999 by the Ministry of Water, Forestry and Environmental Protection to formulate a strategy for transposing community texts.

The assistance provided within this twinning mainly aims at strengthening the capacity of Romanian institutions for them to adapt and implement the European Directives included in the

agreement. Missions were carried out by J. Sironneau, N. Chartier-Touzé and Ph. Jannot from the MRPE, P. Roussel, President of the Board of Directors of the Rhone-Mediterranean-Corsica Water Agency and F. Durand. The French experts analyzed the water law and decrees, either already existing or under preparation, in relation with the Community "acquis" and the Romanian situation regarding urban wastewaters, nitrates from agricultural sources and emission of dangerous substances.



SLOVENIA

The project, led by Mrs. J. Mongellaz, mainly deals with the transposition and implementation of the Framework Directive.

During the first 6 months, it included:

- Mr. J. Sironneau's analysis of the draft water law which is now examined by the Parliament,
- The launching of an experiment in a pilot river basin with the formulation of a management plan and the setting-up of a River Commission gathering elected officials, users and representatives from the administration.

J.L. Beseme, Director of the Loire-Brittany Water Agency, and G. Naturelle, Delegate in Clermont-Ferrand, carried out a mission in July to review the assessment made by the Slovenian team and prepare terms of reference for the study to be undertaken.

level of a river basin, terms for accessing information and training courses.

The project started in December 1999 in a favorable legislative and institutional context:

- Directive 91/676/EEC concerning pollution caused by nitrates from agricultural sources;
- Directives 76/464/EEC and 80/68/EEC on dangerous substances;
- The common draft Directive, approved on 18 July 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.

A kit presenting French Experience

With a view to introducing executives of each 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 MRPE, 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 wastewaters;



Information

Fax : +33 4 93 65 44 02

E-mail : aquacoope@oieau.fr



Central Europe

THE WAWAMAN PROJECT

International remote training program



The WAWAMAN project (WATER and WASTEWATER MANAGEMENT) started in 1998 to assist the Central and Eastern European countries

with the preparation of the executives of their administrations and water supply utilities for accession to the European Union, led to the design of 5 remote training modules, now available on the Internet in 5 languages (English, Polish, Czech, Romanian and Lithuanian), using the usual tools associated with this kind of system : Forums, hyperlinks, quizz, etc.

The program evaluation, carried out in autumn 1999 by the University of Sunderland (England) on behalf of the European Training Foundation confirmed its great success.

It was enough to incite the consortium members: [Gdansk Water Foundation (Poland), (project manager); the Na-

tional Committee of Water Suppliers (Romania), the T.G. Masaryk Institute (Czech Republic); the Engineering Ecology Consultative Technical Center (Lithuania), the Distance Training Center of Gdansk Technical University (Poland), the National Distance Learning Center (France) and the International Office for Water (France)], the initiators of this project, to continue on the same path. Several members are already in the national implementation phase of this distance training system, which the University of Sunderland qualified as follows:

- Materials, Web pages, are highly professional,



- Excellent quality assurance procedures,
- Topics well suited to the context of accession to the European Union.

The organizations involved are now investing on solid and recognized bases in distance training in the water sector in their four respective countries.



Africa

IVORY COAST

A priority: integrated water resources management

A High Water Commission was created in 1996, under the authority of the Prime Minister, to propose an institutional reform of the water sector in Ivory Coast.

The goal of this reform was to provide Ivory Coast with tools for integrated water resources management inspired by the principle of river basin management, separating the role of the water resources manager from that of the various users.

Thus a new Water Code was passed by the Parliament on 23 December 1998 (Law n°98 - 755). It mainly aims at developing and strengthening functions which are currently insufficiently or not at all fulfilled, such as :

- assessment of water resources, in quantity and quality;
- interministerial coordination;
- planning of the whole sector with keeping integrated management in mind;

- dialogue with elected representatives and users;
- water policing (authorizations and notifications for water abstraction, discharges, hydraulic works, control of compliance with regulations);
- contracting authority for infrastructures of common interest;
- international cooperation for the management of transboundary watercourses.

In addition, an incentive economic system should be set up with water charges and aid.

The reform will aim at creating a National Water Authority; with decision-making power, and a National Water Agency, executing tool for water policy, whose main functions will concern the implementation of programs, the collection of data on water resources and uses, the drawing up of planning documents, the levying of water charges and aid management.

At the end of this first stage, an enhanced technical assistance, funded by the French Ministry for Foreign Affairs and implemented by IOWater, was requested by the Ivory Coast's partners regarding various priority topics:

- The strengthening of the institutional scheme (the setting up of Basin Committees and of the Water Agency);
- A technical, administrative and legal assistance with the preparation of decrees for implementing the Water Code;
- The study of a water charges system for establishing a National Fund for Integrated Water Resources Management.

A first assignment dealing with the latter topic was carried out at the end of 1999. This economic study is obviously a key element for the "sustainable" implementation of these reforms.

KENYA

Human Resources Development with District Water Offices

A technical assistance program financed by French Cooperation and dealing with Human Resources Development (HRD), started in 1995 for the Ministry of the Environment and Natural Resources (former Ministry of Water).

The setting-up of a Human Resources Development Unit (HRDU) in the Ministry and the carrying out of an experiment in the Machakos district (implementation of training programs adapted to the target public by local training centers), have proven that it was possible to train unqualified technicians at reasonable cost for their greatest benefit regarding efficiency and motivation.

The setting-up of "Training Committees" in each district, a systematic training need assessment, the organization of training courses suited to these needs and implemented by Kenyan

centers at affordable costs are the long term objectives of this program.

This year, several additional districts will benefit from technical assistance through the organization of new training courses.

At the central level, the Human Resources Development Unit will become a division of the Ministry's personnel management department and see its role fully recognized.

This program showed that the success and sustainability of actions carried out with French Cooperation will only be possible if changes are taking place in the Ministry's personnel management, with a decentralization of decision-making and financial resources at district level.

The strengthening of its capabilities and training capacity should enable the Kenya Water Institute (KWI) to become in the future the reference for training in the water sector in the whole Eastern African region.



Reference: "Large Projects, International News 1999 N° 7, page 8

SOUTH AFRICA

Towards the building of a training center

In 1999, French Cooperation financed technical assistance to the National Community of Water and Sanitation Training Institute (NCWSTI) of PIETERSBURG (Northern Province) to which IOWater twice seconded a trainer to assist with training courses.

This technical assistance allowed the strengthening of relations with this institute which might become the favored partner in a later and more significant cooperation program financed by the French Priority Solidarity Fund, to which South Africa is eligible. It would aim at enhancing the NCWSTI's technical skills and training capabilities by setting up training facilities and training trainers. This project would be the baseline of a network of training centers planned at the level of the Southern African countries (see "Botswana").

MALI

A new Water Code

A National Concertation Workshop dealing with the preliminary Draft of the Malian Water Code was held in Bamako in May 1998.

About 80 people attended. Representatives from the four Ministries concerned either at the central level or at the level of their regional directorates, public companies and different private companies actively participated in this workshop, chaired by the National Director for Water and Energy.

Using these workshop recommendations, Messrs. Joël Mancel, IOWater's Director of International Cooperation, and J. Sironneau from the French Ministry of the Environment (Water Directorate) provided legal assistance to the Malian Authorities in the drawing up of the final version of this new Water Code.

The drawing-up of this new legislation focused on the revision and analysis of

existing texts regarding the water sector, formulated in 1991 under the aegis of the United Nations Development Program.

This Water Code allows the gathering in a sole document of all essential legislation many parts of which were dispersed.

The new law relies on comprehensive water management, with a twofold aspect: its quantitative and qualitative conservation and its development as an economic resource.

The code provides the basic principle of public ownership of the water heritage as a whole.



Information

Fax : +33 4 93 65 44 02

E-mail : aquacoope@oieau.fr



BOTSWANA

A training network in Southern Africa

IOWater and its partner "LYSA - a branch office of the Suez-Lyonnaise des Eaux", have been carrying out training activities for four years within the framework of a contract signed with the Water Utilities Corporation, recipient of a financial protocol with the French Ministry of Economy. These activities dealt with the training of trainers in Botswana, technical training in IOWater training center (CNFME) in Limoges and in operational branches of the Lyonnaise in South Africa.

A feasibility study was carried out within this program with a view to increase training on water professions. It led to a proposal for networking the training centers existing in the SADC member countries (Southern African Development Community). The WUC would be the cornerstone of this arrangement which would allow these countries to have a complete set of training courses available to improve the skills of technicians from water utilities.

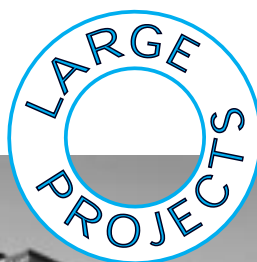
South Africa is interested in this project as its first priority is its populations' water supply. The project for developing NCWSTI (see "South Africa") is in line with this scheme and would enable the launching of this ambitious program.



Official opening of the center on 25 May 2000

Finally, the French protocol permitted the setting-up in the WUC of a documentation center equipped with the most recent technologies. It will make Botswana a reference in the region. Its official opening took place in May 2000 in presence of local Authorities and representatives of the French Embassy.

Reference: "International News" 1999, N° 7, page 6



View of the new documentation center

WATER UTILITY PARTNERSHIP

Institutional reforms: the sharing of African experiences

The "Water Utility Partnership" (WUP) is a program started by the African Union of Water Suppliers (AUWS) in 1996 to improve water utilities in Africa. Continuing institutional reforms is therefore one of its priority objectives.

For this purpose, IOWater, in concertation with AUWS and the "World Bank Institute", proposed to set up a tool for exchanging experience and capacity building in a network of professionals from legal departments of ministries and public and private organizations involved in the management of water and sanitation utilities.

The project started at the end of 1999 and should last about 2 years.

This network will be developed using the new technologies linked to the Internet and by gathering various experiences and relevant information. This development will be facilitated by the setting-up of a specialized Documentation Center with a pilot unit in Abidjan.

In a first stage, the identification, networking of professionals, information collection and validation will be carried out in 6 target countries where institutional reforms are already in progress: Ivory Coast, the South African Republic, Cameroon, Tanzania, Mozambique and Morocco.

This African base will be extended to other international institutional experiences, selected in the International Office for Water's documentation base.

NIGERIA

National Water Resources Institute - NWRI

The International Office for Water (IOWater) has been intervening in Nigeria for ten years within a privileged co-operation with the Kaduna National Water Resources Institute (NWRI). NWRI's educational and scientific capacities and its role as a demonstration model were strengthened.

In 2000, cooperation between NWRI and IOWater is continuing with a revision of its contents and form.

To meet NWRI's objectives, IOWater's actions in Nigeria are regional in 2000: bilingual (English-French) team teaching training programs, jointly managed by IOWater and NWRI, are addressing the whole West African subregion.

Specialists from neighboring countries are thus invited to attend the NWRI training programs included in the year-2000 catalogue (water analysis, drinking water production, wastewater treatment) and to meet their counterparts of this

part of the African continent and exchange their experiences.

This year, IOWater is also working with NWRI to complete the Nigerian National Water Data Network (NWDN) to ensure that NWRI skills are diversified (training, documentation, research, ...) and in compliance with its official task.



IOWater, an ISO 9001 certified training center since 1999 as concerns its training programs, proposed to the NWRI the implementation of indicators for assessing the effectiveness of all its ac-



SOAF's wastewater treatment pilot unit

IOWater experts with their NWRI's colleagues

tivities in order to meet the national and international donors' expectations regarding the efficiency of their financing.

Reference "Large Projects" - News 1999; N° 7; p 9

FRANCOPHONE AFRICA

Starting of the RéFEA

The Francophone Water and Sanitation Network (RéFEA), output of a cooperation program between the International Office for Water, the Regional Center for low-cost Drinking water supply and Sanitation (CREPA) of Ouagadougou, Canada-Environment and the Water Solidarity Program (PS-Eau) is now available on the Web at:

<http://www.oieau.org/ReFEA>

The RéFEA, a place where specialists from the South and North can meet, focuses on low cost technologies and systems for water supply, sanitation, management, information, etc.

It favors dialogue among water stakeholders. It gathers large organizations, international experts and local operators from the whole world. Original

experiences and appropriate technologies are presented there.

The RéFEA will progressively grow thanks to the active participation of the whole "Technical French-Speaking World" whose competent organizations are invited to join the network.



Information

Fax : +33 4 93 65 44 02

E-mail : aquacoope@oieau.fr

KAZAKHSTAN AND RUSSIA

International management of the Irtysh : signing in Paris of a protocol between France, Russia and Kazakhstan

At the invitation of the French Ministry of Regional Planning and the Environment, Mr. Mikheiev, Prime Vice Minister of Natural Resources of the Russian Federation and Mr. Murat Musataev, Prime Vice Minister of Natural Resources and Environmental Protection of the Republic of Kazakhstan signed an agreement protocol on the transboundary management of the Irtysh river basin in Paris on 10 May 2000.

tize the orientation and coordination of the national experts' work, gathered in the Irtysh River Basin Sub-Commission, which will be supervised by the Russian and Kazak Commission on the joint use and conservation of shared waters. An International Basin Information System will be set up and supplemented by the development of a hydrological model in particular. It will allow the definition and implementation of joint policy and programs for water resources management in the basin.

such a law will thus be discussed with the Kazak partners. The existing Funds should also be a basis for the development of more incentive tools for environmental protection.

Basin monitoring system

The rehabilitation of the existing monitoring network is necessary. Several proposals were detailed to improve information and enhance data within an integrated river basin information system at the Kazak level which could be integrated into the transboundary system. They will be revised with the Kazak partners and the World Bank as concerns the investments needed.

Groundwater quality and security of drinking water supply

The main sources of pollution were identified in the 3 towns of Ust-Kamenogorsk, Semipalatinsk and Pavlodar, thanks to a campaign of additional measurements. Groundwater quality assessment in the 3 towns will be presented in the final report. A hydrodynamic model is under way for Ust-Kamenogorsk. It will allow the checking of the options for the treatment of the main pollution sources.

Sanitation in towns

In these three towns, it was proven that the pollution load received by each wastewater treatment plant remains relatively small, due to leaks in the sewerage system and the low connection percentage for wastewaters. Each plant was also evaluated in the first phase. The final report will present the improvement work to be carried out for each of these 3 plants, together with a cost estimate. A more complete assessment of the sewerage systems must be undertaken.



Signing of the agreement

The International Office for Water, in partnership with the consulting firms SAFEGE and ANTEA, will provide technical assistance with the implementation of this project, financed by the French Fund for the World Environment (FFEM).

A preliminary phase, carried out in 1999, defined the objective of this project which is perfectly in line with the Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes (articles 9, bilateral and multilateral cooperation, 11, Joint monitoring and evaluation and 13, Exchange of information between riparian countries).

Owing to the special French expertise in this sector, the International Office for Water - ANTEA - SAFEGE Group will assist both States with the design and implementation of instruments for the basin water resources management. Technical assistance will priori-

The outputs of the work carried out in this Irtysh project should be usefully reused in many rivers, transboundary between Russia and Kazakhstan (Ural, Tobol, Ishim), and between Russia and China (Amur).

This project is in line with the ongoing "Study Program for the improvement of water quality in the Irtysh river basin in Kazakhstan". This

program which started in Spring 1999 is also implemented by the IOWater - ANTEA - SAFEGE group and financed by the French Ministry of Economy and Finance (FASEP).

The first conclusions are as follows:

About the Irtysh quality

It especially dealt with the hierarchization of the impact of different pollution sources on the basin. Industrial pollution, mining in particular, is the most significant. On the contrary, urban pollution has only a small impact. Additional impact assessments will be carried out in a second phase, in Ust-Kamenogorsk in particular, regarding industrial discharges and the impact of flow reduction in the Black Irtysh.

About institutional aspects

An analysis of the law on environmental protection and water code of the Republic of Kazakhstan, of the existing institutions and financial resources was carried out. As a priority, the need for a Framework Law taking up clear principles of water resources management per unit was emphasized. Proposals for



Information

Fax : +33 4 93 65 44 02

E-mail : aquacoope@oieau.fr

INDIA

Integrated management of the Sabarmati River Basin

Institutional and financial reforms clearly seem to be the key challenges for the development of the water sector in India.

After the organization of a seminar on Integrated Water Resources Management in New Delhi in 1994, it was decided that a pilot river basin would be selected to start the experimentation of a new approach within the framework of a cooperation between France and the Indian Union.

The Indian Authorities have chosen the SABARMATI river basin in the State of Gujarat, a dynamic State where economic and industrial development, initially based on textile and now diversified in chemistry, agro-food processing, etc. is very high. Ahmedabad, the main city of the State, and several medium-sized towns including Gandhinagar, the administrative capital, are located in this basin. The securing of drinking water supply and pollution control are the key factors for the development of these urban and industrial areas, which will host a large part of the rural population.

On the other hand, water demand for agriculture is still growing and highly dominant (about 90% of water consumption). It increases the very high pressures on resource quantity. As in

many other semi-arid regions of this State, located in the western part of India, drought is seriously affecting this basin in 2000 and the drinking water supply to many villages is no more secure.

The pilot French-Indian cooperation project: "Integrated Management of the Sabarmati River Basin" started at the end of 1999 and will be implemented in two years.

Its main objectives are the following:

- ① **Organization of an integrated information system** for the Sabarmati river basin, based on existing databases and gathering all water data in a consistent manner: data on resources and uses, administrative and socioeconomic data, etc.
This obviously implies a close collaboration between the different existing projects such as the Hydrology Project/ HIS, Remote sensing center and GIS, ...
- ② **Preparation of a long-term development scheme** for the Sabarmati river basin including an assessment of the situation and problems and the definition of regional objectives taking into account the plan for the socioeco-

nomie development of the State. This scheme is based on the Integrated Sabarmati River Basin Plan (interim version, 1996, Group for Water Resources Planning, Gujarat State, NWR&WSD).

- ③ **Definition of a priority action program**, based on the choices of the new "Sabarmati River Basin Committee". Owing to water scarcity, measures ought to be taken to manage water demand.

These different outcomes shall be validated by a "Sabarmati River Basin Committee", gathering the various administrations involved in water management, and in so far as possible, representatives from the users within the framework of a better participatory approach. The action program will also define the possible institutional and financial reforms which will also be discussed and validated by this Committee.

The International Office for Water is managing the French technical assistance, within a group of French consulting firms, BRLi, SEURECA and BCEOM, gathering the various technical and institutional competences needed. This technical assistance is financed by a grant from the French Ministry of Economy and Finance (FASEP).

VIETNAM

National Training Center for Professions in the Water and Environment Sector

The project has reached its 2nd phase

Several working meetings took place at the end of 1999 and beginning of 2000 with the Ministry for Construction, the School of Construction and Urban Development, representatives of the French Embassy and French companies in Vietnam. They allowed the definition of a program for the second phase of the Training Center for Professions in the Water and Environment Sector, set up in 1997 in Gia Lam-Hanoi with financial and technical assistance from the French bilateral cooperation (agreement) and the Lyonnaise des eaux - Suez (SAFEGE).

Significant needs should be met and it is estimated that the Vietnamese water utilities employ around 14,000 people for a population of 76 million inhabitants. With regard to sanitation, the number of employees will be around 50,000 with an estimated ratio of 20% executives and 80% workers and employees.

It is necessary to carry out:

- The institutional training of executives from national and municipal

administrations, to fulfill two objectives: the implementation of reforms in the field of water resources management and the modernization of municipal drinking water supply and sanitation utilities.

- The operational training of personnel from municipal drinking water supply and sanitation utilities

An ambitious project

In order to meet these important needs for improving the efficiency of Vietnamese water utilities, moving towards a system of professional training is required :

- organized by Vietnamese trainers in the local language,
- at reduced training costs, compatible with the water utilities' revenues and paid for in local currency
- offering modern training courses,
- based on the advanced technological know-how of leading French industrial groups,
- using both the equipment currently available in the country and installations and equipment which will be developed in the coming years, for

practical learning under working conditions.

An agreement plans a joint investment by France and Vietnam for carrying out the second phase of the project which will associate some French companies present in or interested by this country.

IOWater was approached to prepare and carry out a feasibility study financed by the French Ministry for Foreign Affairs.

Two missions, carried out last March and May by IOWater experts, allowed the collection of the data needed to prepare a document which will be discussed by the French and Vietnamese partners.

The context remains difficult as the water companies, although financially independent, have small budgets for training purposes. However, the Vietnamese partners' willingness can be relied upon, including the Ministry for Construction, very interested in this project, which proposed to bear the costs of the new buildings, and the Hanoi People's Committee which could provide the land.



Latin America

VENEZUELA

HIDROVEN

A national and professional training system

The feasibility study, dealing with priority training programs and the setting-up of a Training Center ("Escuela Nacional del Agua"), was completed by IOWater and its HIDROVEN partners, with financing from French bilateral cooperation and then from the Inter-American Development Bank.

HIDROVEN Presidency strongly supports this approach aiming at a sustainable transfer of capabilities.

It is planned that some mobile installations for drinking water production, provided by international organizations after the Vargas disaster (December 1999) - especially those which would no more be used in 2001 - could be reused as educational equipment by the future Training Center.

Reorganization of the drinking water supply and sanitation sector

This present-day issue is a worldwide concern. Venezuela is streamlining a reform in this sector and seems to focus on:

- the management of utilities at municipal level,
- the involvement of the private sector.

Exchanges between Hidroven and the Office were very enriching during last months.

Interested in the projects implemented by the Office, especially in various countries of Latin America (projects executed for the IBD in Bolivia and Nicaragua in particular), HIDROVEN requested assistance with the drawing-up of a Law on Service Providing, which should be the first one to be discussed by the new Parliament as soon as it is elected.

Year 2000 will undoubtedly be a turning point in this sector.

BOLIVIA

Quality standards for drinking water supply and sanitation utilities

With regard to a project financed by the Inter-American Development Bank (IDB), the International Office for Water, in partnership with BCEOM, assisted the Bolivian Government's "Program for the Development of a Regulatory framework for the Drinking Water Supply and Sanitation Sector" with the formulation of a set of standards and technical guidelines for the management of these utilities.

In order to improve coverage and quality of water supply and sanitation utilities, the Bolivian government wants to develop the concession of these public utilities in municipalities with more than 10,000 inhabitants. Such an objective requires that means and criteria be developed at the same time to ensure the quality of the services provided by private companies to the users.

Using an assessment of the situation regarding regulations at the national (Bolivia) and international level (France, United States, Peru), the following standards and technical guidelines were formulated:

- Quality of water intended for human consumption,

- Discharges of industrial wastewater into the sewerage system,
- Standardized measurements of drinking and waste waters,
- Terms for drinking water supply,
- Unaccounted for water - macro and micro measurements,
- System for metering, billing and recovery,
- Information of users and management of complaints.

A model for service regulation was also proposed together with a contract between the water company and the users. The feasibility of these proposals was validated by a cost-benefit analysis of their economic impacts on the community.

This significant regulatory work carried out on behalf of the public Authorities in charge of the water supply and sanitation sector in Bolivia (Ministerio de Comercio Exterior e Inversión - Superintendencia de Aguas) will improve the quality of the services provided to the users and strengthen the State and Municipality capacity to control the negotiation and follow-up of contracts for the concession of their public utilities to private companies.

CUBA

Assessment of the water sector

An audit was carried out in Cuba by Mr. Vincent Frey, expert in the International Office for Water network, upon the request of the French Ministry of Public Works (Directorate for Economic and International Affairs-DAEI).

It allowed the identification of some gaps but also the confirmation of the Cuban Authorities' strong will to implement integrated water resources management in the country at the level of its main river basins. One of the main concerns is to achieve sustainable development to reconcile economic activities, especially high tourism development, with the conservation of water resources and the environment.

Concurrently to institutional organizational issues, there are significant equipment needs for hydro-meteorological measurement, teletransmission and data processing systems to improve resource allocation and organize forecast management (floods, management of infrastructures, etc.).

In addition, the Cuban Authorities are also setting up a national reference laboratory for physico-chemical analyses of water (CENHICA) within INRH, in collaboration with INHEM (Institute for Hygiene, Epidemiology, Microbiology) in the area of biological analysis of water in order to quickly undertake the efforts needed to maintain credibility for tourism in Cuba (parasitology, microbiology).

A third topic concerns the administrative and fiscal management of the sector, a legal structure, the organization of water supply companies and methods for the financing of infrastructures.

Improvement in the maintenance and rehabilitation of drinking water supply systems is a priority.

MEXICO

Regional water information centers

With the impulse of the National Water Commission (Comisión Nacional del Agua -CNA), Mexico has undertaken a thorough reform of the water sector including, among other things, the creation of River Basin Councils, Commissions and Committees at the level of the country's main river basins, sub-basins and aquifers.

These organizations which gather federal, State and municipal authorities and representatives of the various water users allow for dialogue and planning of actions to be carried out to solve the problems encountered in resource management and sharing.

Once this decentralized participation developed, these basin organizations have rapidly felt that access to information would allow them to make the appropriate decisions.

Within such a context; 2 French specialists (Mr. Haener from IOWater and Mr. Frenel from the Loire-Brittany Water Agency), were invited by CNA to participate, from 15 to 19 May 2000, in meetings of river basin councils (3rd meeting of the Rio Colorado Basin

Committee, 4th meeting of the Lower California Basin Council) and to contribute to the first national workshop dealing with the setting-up of regional water information centers. This workshop gathered 60 executives from CNA and other organizations involved in the management of information on water at the State and federal level.



The Rio Colorado Basin Commission meeting

This mission, financed by the French Ministry for Foreign Affairs, dealt with the analysis of the operating methods used by basin committees and an introduction to the French experience on water resources data management and on planning at the level of a local sub-basin, the Rance SAGE (Water Management and Development Scheme).

Following this mission, the opportunity of a multi-year French-Mexican cooperation program relative to the setting up of regional water information systems is under study: the basins and sub-basins selected for the execution of a pilot project are the Rio PANUCO and the sub-basin of the Rio SAN JUAN.

NICARAGUA

Preparation to the privatization of water supply utilities

IOWater, in partnership with BCEOM, has prepared the terms of reference for the concession of the utility management to an international operator on behalf of the Nicaraguan Water Supply and Sanitation Utility with funds from the Inter-American Development Bank.

It mainly aims to reinforce the corporate management of this utility and its suitable computer equipment. This study, carried out by the BCEOM-IOWater group, led to an assessment of the current situation with regard to the management of subscribers, equipment, etc.



Information

Fax : +33 4 93 65 44 02

E-mail : aquacoope@oieau.fr





Latin America

BRAZIL

PARANA Institutional reforms

For more than a year the International Office for Water has been participating in the modernization of the institutional organization regarding water resources management in the Parana State.

In collaboration with SOGREAH and COBRAPE (Brazilian partner), the Office was entrusted with:

- an in-depth definition of the training program required for the implementation of the decided upon reforms
- an institutional expert's mission, based on the expertise acquired by the Office in many emerging countries.

This project has enabled the passing of the Water Law in the Parana State at the end of 1999. This law uses the main principles of modern water resources management.

Therefore, the new legal framework plans for integrated, decentralized and participatory management at the level of the main river basins, the setting-up of basin organizations and the establishment of charges for water use and pollution. It is a very encouraging example on the Brazilian and Latin-American scale.

This success is mainly due to the perseverance of Mr. Francisco Lobato,

expert in the Planning Secretariat, together with the project team which has communicated and discussed with the users.

The 2000-2001 period will allow the gradual implementation of the measures decided upon.



Seminar on water resources management



ESPIRITO SANTO Implementation of the w and management of tran

IOWater organized another training course on integrated water resources management at the level of river basins in Brazil, upon the request of MMA (Ministry of the Environment) within the framework of the implementation of the federal water law n° 9433 of 8 January 1997.

Therefore, this course which took place in Vitória (Espírito Santo) allowed the introduction to different implementation experiences in France, Europe and various parts of the world.

This course, honored by the presence of the Federal Secretary for Water Resources, Mr. Raymundo Garrido and of the State Secretary for the Environment, Mr. Almir Bressan Junior, was interactive and allowed the 50 participants, coming from the whole Union, to become aware of:

A Training Center for Water Professions

In 2000, IOWater continues the feasibility study on the creation of a Brazilian training center for water professions with the support of the Brazilian Secretariat for Water Resources - Ministry of the Environment - and the French Embassy in Brazil.

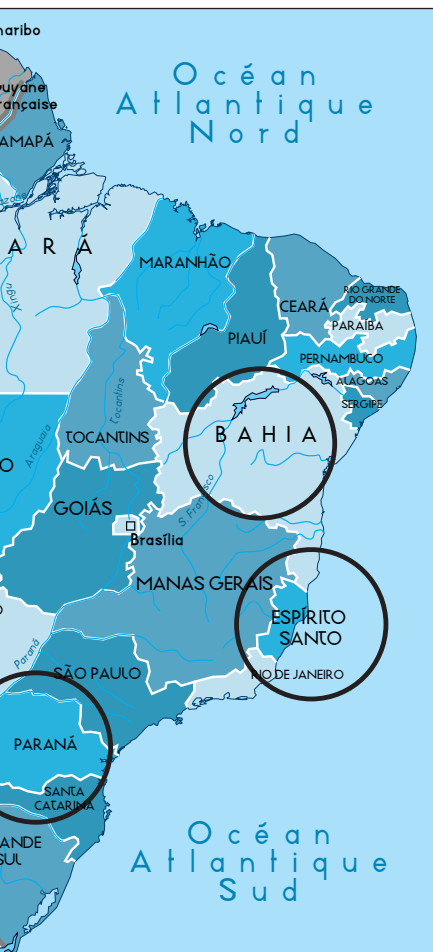
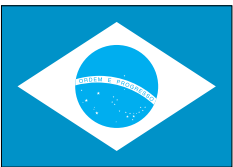
It focuses on studying the viability of a Brazilian legal structure with a twofold aim:

- Administrative: addressing civil servants from the federal administration and Brazilian States to al-

low the implementation of the Law of January 1997 which set out the principle of integrated water resources management at the level of river basins.

- Technical: to allow all professions in the Brazilian water sector to benefit from continuing practical training on all technical areas of drinking water supply and sanitation, either the design of facilities or the operation, maintenance and management of utilities.

This center feasibility study should be completed at the beginning of 2001.



Water law transboundary rivers

- the notion of comprehensive water resources management;
- the involvement of the Civil Society in the decision-making process so that the users play an active part in River Basin Committees and participate in the technical discussions which will take place within the planned Water Agencies.

Several lectures dealt with experiences on the management of transboundary rivers, an issue of prime importance in Brazil, due to many rivers being shared with neighbors and the federal character of the country where many water-courses are shared by several States of the Union.

BAHIA Study missions on the Rio Jiquiriçá

The Rio Jiquiriçá is located in Bahia State and flows out into the Atlantic Ocean. The Brazilian Ministry of Water Resources and Legal Amazonia / Secretariat for Water Resources entrusted IOWater with experts' missions for the implementation of integrated water resources management in this river basin. These missions will support institutional reforms by assisting our local partners, especially the Intermunicipal Consortium of the Jiquiriçá Valley (CIVJ), with the definition of methods for setting up possible basin structures (Committee of Water Users) and their technical tools (databases, GIS, etc.) and planning instruments (a Water Development and Management Scheme).

One of these missions carried out in Salvador de Bahia and in the Rio Jiquiriçá basin allowed **the preparation of a methodological guide to set up a geographic information system.**

The Brazilian national water law of 8 January 1997 defines this system as a "system for gathering, processing, storing and retrieving information on water resources and on factors intervening in their management". Therefore the information system is a tool for planning and land use, a support for dialogue, for society's mobilization and communication.

Steps for setting up this Information System (IS):

As a prerequisite to the setting-up of this IS, IOWater proposed to the CIVJ the following methodology: definition of the information system objectives, creation of a working group which will assist the CIVJ with this approach (its composition may reflect the future Jiquiriçá basin committee); definition of the system contents, definition and analysis of the kind of information to be collected, its availability, its format, the choice of the suitable and evolutive computerized tool and equipment, definition of the human and financial resources.

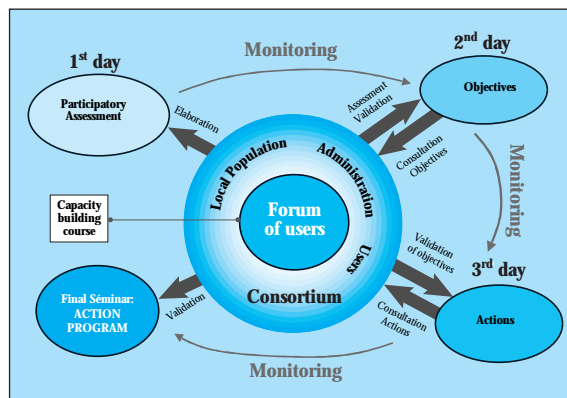
IOWater proposed to the CIVJ a four-step approach to set the IS:

- Definition of the topics to be dealt with by the IS,
- Acquisition of information to establish an inventory and assessment of the Jiquiriçá river basin, by carrying out:
 - an assessment of local participation by mobilizing the local population
 - a bibliographical analysis of the existing documents
 - a survey of the key stakeholders

- Preparation of an action program and management measures, starting with the definition of management objectives
- Definition of reference indicators to allow the follow-up and evaluation of the actions concerned.

The IS should not be a cartographic document only. IOWater proposed a breakdown into 3 complementary and indivisible documents:

- A report with an analysis of the gathered information, proposals for improving access to information and for standardizing its format, the elements explaining the assessment, the objectives and actions needed for developing the Jiquiriçá river basin,
- A database, with technical sheets for each analyzed document and information. It is the basis for the setting-up of a geographically-referenced information system,
- A cartographic document with a series of 10 topical maps illustrating the basin assessment, 5 to 6 maps providing a geographic view of management and development objectives, 5 to 6 maps geographically displaying the measures to be taken and actions to be implemented.



Society's mobilization

In order to involve the Jiquiriçá basin's key local stakeholders in the preparation of the information system, IOWater proposed that CIVJ initiate a program for the "society's mobilization". Three days of meetings, training, reflection will be organized to share and exchange knowledge of the river basin. They will be included in each step of the information system implementation (see figure).

The beginning of the information system implementation was based on this methodological guide. Led by CIVJ, it should be completed within six months or a year.



Information

Fax : +33 4 93 65 44 02

E-mail : aquacoope@oieau.fr



The Mediterranean

AN ACTION PLAN FOR THE MEDITERRANEAN

The Euro-Mediterranean Conference on Local Water Management took place in Torino on 18 and 19 October 1999.

This conference defined an action plan for priority areas:

- drinking water supply,
- sanitation and wastewater treatment,
- local management of water resources and demand (in quantity and quality) on the scale of river basins and islands,
- prevention and abatement of drought effects and equitable management of water scarcity,
- irrigation; use of non-conventional water resources,
- formulation of national and local scenarios for 2025 enabling the setting of precise objectives and the taking of measures for sustainable water management in the Mediterranean region.

Actions are planned for each of these priority topics:

- institutional capacity building and training,
- exchanges of information and knowledge,
- transfers of technologies,
- awareness raising, mobilization and inciting commitment from all beneficiaries.

This action plan will mainly rely on the MEDA program within which a call for proposals for significant regional projects should be launched this year.

Its objective is the implementation, as soon as possible, of a consistent set of operations in accordance with the action plan priorities.

The importance of EMWIS, the first effective project of the Euro-Mediterranean partnership, was again emphasized.



The Euro-Mediterranean Conference on Local Water Management - Torino - 18 and 19 October 1999.

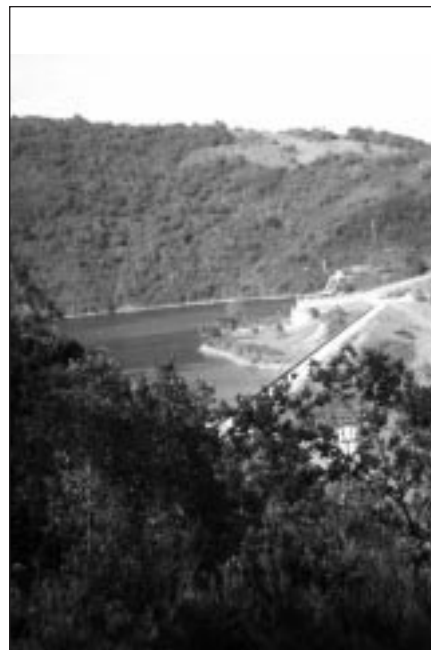
MOROCCO

Protecting water resources: a main concern of "ONEP"

Three training courses, financed by German Cooperation (GTZ), took place in France from 2 to 8 November, 14 to 20 November and from 28 November to 4 December 1999. They addressed top-level executives from "ONEP" (regional managers and executives at headquarters).

These courses aimed at providing understanding of French water policy and of the Water Agencies' role and missions. They also dealt with procedures and methods for implementing measures for water resources protection: delimitation of protection areas, water policing, role of the Agencies in this field, etc.

Case studies were of great interest to the participants.



The participants visited the St. Cassien Lake dam



Information

Fax : +33 4 93 65 44 02

E-mail : aquacoope@oieau.fr

ALGERIA

Development of River Basin Agencies

Within the framework of its new water policy, the Algerian Government created five River Basin Agencies in August 1996:

- Oran - Chott - Chergui,
- Algiers - Hodna - Soumman,
- Constantinois - Mellégue - Seybousse,
- Cheliff - Zahrez,
- Sahara.

A first program of assistance to these young Algerian basin agencies, financed by the French Ministry for Foreign Affairs and the Algerian Government, was carried out in France from December 1999 to January 2000, in Sophia Antipolis and Paris and at the headquarters of the French Water Agencies concerned.

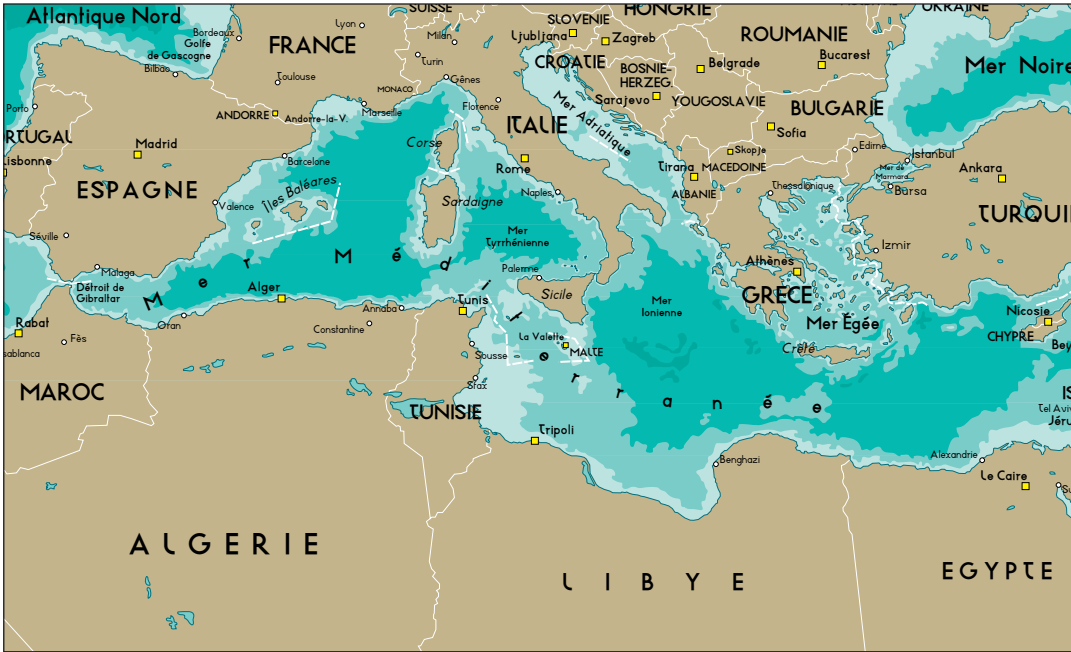
The different training courses aimed at presenting French experience on four topics:

- databases,
- water quality control and monitoring,

- communication,
- management of Agencies.

The training courses were implemented with a view to transferring know-how, exchanging viewpoints and adapting them to the Algerian institutional context.

In accordance with its objectives, the training course "Strategy for a river basin agency's action" attended by four out of the five Directors allowed the drawing out of the main priority baselines for a future multi-year cooperation between France and Algeria in this field.



International Office for Water - Homepage

Update of September 6th, 2000

News Flash

To keep you up to date, new features on the site, as well as job opportunities

www.iowater.org

IOWater Web site

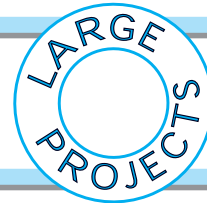
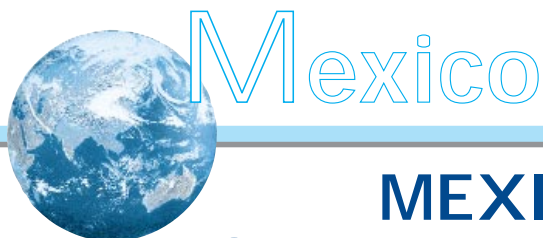
Whether you are a researcher, a student, a contractor, an institutional stakeholder, a water specialist, or you work in an administration or a company, ... you will find all the information available on water on the International Office for Water's web site:

Search for and on-line order of documents, warnings on innovations, information on the water world, lists of studies, education or training centers and available diplomas, continuing training, program of events, specific information on industry and clean technologies, advice to elected representatives, national water data, national and international electronic publications.

The Water Academy

The Euro-Mediterranean Information System on know-how in the Water Sector - National Focal Point

From One Continent to Another



MEXICAN TRAINING CENTER FOR WATER SUPPLY AND SANITATION

Inauguration in autumn 2000



The building of CEMCAS (Centro Mexicano de Capacitación en Agua y Saneamiento) will be completed in September 2000 (1st phase) on the banks of the Texcoco Lake, between Mexico City and the international airport.

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 sector of water and public works and more than forty French companies, gathered under the aegis of the French Embassy in Mexico (PEE) with an impulse from Vivendi / Générale des Eaux and Lyonnaise des Eaux / Suez around the International Office for Water (OIWater) in charge of the technical engineering and educational tasks.

In the long term, it will train **3,000 Mexican and Central American trainees** from all professional categories in the water sector, using the educational concept of continuing training under real working conditions, developed by the International Office for Water in its National Training Cen-

ter for Water Professions (CNFME) in Limoges - La Souterraine.

This project involves the construction of educational and administrative buildings covering 1000 m² together with eight technical workshops reproducing in real size all installations required by drinking water supply and sanitation utilities (drinking and wastewater treatment plants, pumps, automation, electromechanics, laboratories, etc.).

The cost of the project is 59.000 MFF, 18.500 MFF of which are contributed by a grant from the French Treasury (protocol) and by French partner companies.

CEMCAS is managed by a non-profit making foundation under Mexican law. Its first Board of Directors was held at CNA headquarters in Mexico on last 11 July.

After the success of the Gdansk Water Foundation - GFW - Poland (1,000 trainees per 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.

sanitation, in terms of both design of facilities and operation, maintenance and management of utilities.

It will be possible to train people 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, sanitation) ...



Please be reminded 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 amounting to 5.500 MFF** with his French counterpart to finance this project with a grant for the **technical and educational engineering provided by the International Office for Water.**

This project is original as it involves 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 building of the Training Center began in November 1998, on the occasion of the visit to Mexico of the President of France, Mr. Jacques Chirac. It is located on the bank of Texcoco Lake, on the outskirts of Mexico City, close to the future wastewater treatment plant planned for the Federal District.

First training courses before the end of 2000

CEMCAS's first Board of Directors took place on last 11 July in Mexico in the headquarters of the "Comisión Nacional del Agua" (CNA), under the Chairmanship of Mr. GUERRERO VILLALOBOS, CNA Director General, and the vice-chairmanship of Mr. DONZIER, IOWater General Manager, with the presence of Mr. L. LEVIOL, Economic and Commercial Adviser at the French Embassy in Mexico.

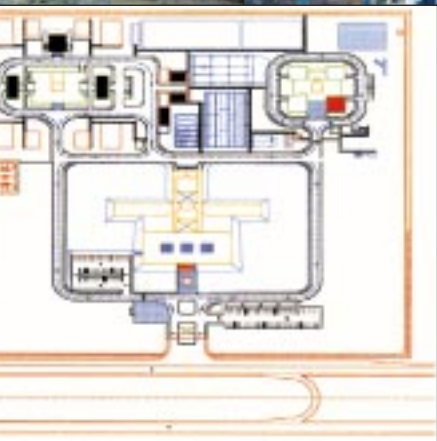
The first board followed the official registration of the Center statutes as a non-profit making foundation under Mexican law. These statutes were signed before a notary on 28 June 2000 in Mexico by the representatives of the nine founder members: Comisión Nacional del Agua, the French Embassy in Mexico, the International Office for Water (IOWater), the Federal Secretariat of State for Labor and Social Affairs, the Mexican Institute for Water

Technologies, and the other Mexican partners: the National Chamber of Consulting Firms, the National Association of Water and Sanitation Companies, the Mexican Chamber of Construction Industry and the National Chamber of Processing Industry.

The Board noted that with the impulse of the newly nominated director, Mr. Luis HEREDIA, the building of the training center could be completed in September and that the gathering of the administrative, logistics and education teams was well under way, and therefore the first 29 training courses dealing with priority topics could be launched next autumn.

The Mexican Training Center for Water Supply and Sanitation (CEMCAS) will in the next few months offer a range of practical training courses for continuing training, in all the technical areas of drinking water supply and

The cost of the project is estimated at about 59.000 MFF, shared between the National Water Commission (CNA) on the Mexican side and, in addition to the Treasury protocol, 56 French companies, gathered under the aegis of the French Embassy in Mexico (PEE) with an impulse from the Vivendi-Générale-des-Eaux and the Lyonnaise-des-Eaux-Suez around IOWater.



This French funding, amounting to 18,500 MFF., is distributed as follows:

- 5.500 million French francs as a grant from the Treasury (Ministry of Economy and Finance)
- 2.000 million French francs for technical know-how for the Center's technical and educational Department, and
- 6.000 million French francs for the payment of training required by the two French groups of the Vivendi-Compagnie Générale des Eaux and Lyonnaise des Eaux-Suez, in particular for the training of their Mexican staff working in the Federal District of Mexico and in Mexican towns such as Aguascalientes...
- 5.000 million French francs as a grant for materials and equipment provided by about forty French specialized companies.

The Training Center will be provided with a drinking water clarification and treatment unit, 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, ..., organized in eight educational workshops designed by IOWater.

In a second phase, it will be equipped with a pilot wastewater treatment plant and sanitation-related units, a workshop with a drainage system being already installed in the first phase.

Given the rapid progress of the building work, the training of Mexican trainers by the International Office for Water will continue in the second semester of 2000 in France and Mexico. The first 29 priority training courses could then be organized in Texcoco in Spanish in year 2001. 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 completion is achieved, will come from the sale of its training programs, invoiced at cost price and in pesos.

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

Fax : +33 4 93 65 44 02

E-mail : aquacoope@oieau.fr

56 French Companies provide educational equipment

- | | |
|------------------------------|-------------------------|
| ● AGGRIPA FAST | ● PAMCO |
| ● AKA | ● PCM POMPES |
| ● ALPHACAN | ● PE INDUSTRIE |
| ● AREAL | ● PEM |
| ● CHARLATTE | ● PERAX TELEGESTION |
| ● COLENA | ● PONSELLE MESURE |
| ● DEGREMONT | ● BOMBAS GRUNDFOSS |
| ● ENDRESS ET HAUSER | ● PRONAL |
| ● FAURE | ● R&O DEPOLLUTION |
| ● FRIATEC | ● RAMUS |
| ● G2C ENVIRONNEMENT | ● RAUFOSS ISIFLO |
| ● GIRPI | ● SAINTE LIZAGNE |
| ● HIBON | ● SALMSON |
| ● HUOT | ● SAPPTEL |
| ● HUWER | ● SCHLUMBERGER |
| ● HYDREKA | ● SCHNEIDER |
| ● HYTEC | ● SEPEREF |
| ● JOHN CRANE France | ● SERES |
| ● JOHNSON | ● SEWERIN |
| ● JOUAN | ● SNF |
| ● KSB | ● SOCLA |
| ● LACOIX SOFFREL TELECONTROL | ● SODIMATE |
| ● LEGRAND | ● TALBOT |
| ● LEROY SOMER | ● TUBAFOR INTERNATIONAL |
| ● METRAVIB | ● TROUVAY CAUVIN |
| ● NAPAC | ● ULTRAFLUX |
| ● OTV | ● WATTS EUROTHERM |
| ● OLDAM France | ● YSM |



EMWIS

EURO-MEDITERRANEAN WATER INFORMATION SYSTEM

Setting-up of the Technical Unit and focal points

After completion of the feasibility study (1997) and financing document (1998), EMWIS entered its operational phase in 1999, thanks to the financial resources provided by the European Commission, France, Italy and Spain, for **the installation of the Technical Unit at Sophia Antipolis** and its operation and **the designation of National Focal Points by 20 of the countries involved in the Euro-Mediterranean partnership.**

The International Management Committee and representatives of 20 EMWIS National Focal Points met at Sophia Antipolis from 2 to 6 December 1999. Mr. MAZZITTI (Italy) presided over the work conclusions in presence of Mr. ROUSSEL (France - Director for Water) and representatives from the French General Council of Alpes-Maritimes and "PACA" Regional Council who support the project.

EMWIS Web site was officially launched during this session.

www.semide.org

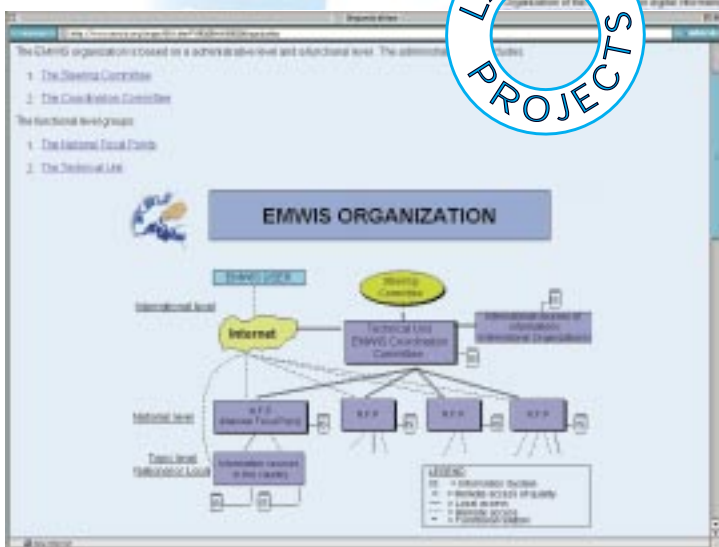
The Committee members also expressed their satisfaction with the final declaration of the **Torino Ministerial Conference (October 1999)** which recommended the strengthening of EMWIS in the preparation of the Action Plan for the Mediterranean and adopted a series of actions for promoting EMWIS to the different European and International organizations.

The Web site already provides an overview of EMWIS objectives and action program implemented by the Technical Unit and the National Focal Points.

In accordance with the original action program which had been approved during the Naples Conference (December 1997) and which has been the reference basis for the financing agreement with the European Commission,

the first step of EMWIS setting-up deals with **the optimization of a telecommunication network** between the Technical Unit and the NFPs and the organization of information on **"Who does What" in the water sector in the partner countries.**

Activities	Starting date	Ending date
1.1: Setting up of National Focal Points	01/01/99	31/12/99
1.2: Organization of the communication network	01/01/99	31/12/99
1.3: Presentation of the network organization and training of NFP computer experts	01/01/99	31/12/99
1.4: Setting up of necessary connections and equipment (NFP)	01/01/99	31/12/99
1.5: Strengthening of connections between networks at international level	01/01/99	31/12/99
2: Setting up of the Technical Unit	01/01/99	31/12/99
3: Setting up of directorate and categories of information sources	01/01/99	31/12/99
4: Preparation of directorate and categories	01/01/99	31/12/99
5: Elaboration of directorate and categories and contacts	01/01/99	31/12/99
6: Setting up of the catalogue of information sources	01/01/99	31/12/99
7: EMWIS sustainability study	01/01/99	31/12/99
8: Preparation of common model for water information	01/01/99	31/12/99
9: Preparation of common model for water information	01/01/99	31/12/99
10: Preparation of common model for water information	01/01/99	31/12/99
11: Preparation of common model for water information	01/01/99	31/12/99
12: Preparation of common model for water information	01/01/99	31/12/99
13: Preparation of common model for water information	01/01/99	31/12/99
14: Preparation of common model for water information	01/01/99	31/12/99
15: Preparation of common model for water information	01/01/99	31/12/99
16: Preparation of common model for water information	01/01/99	31/12/99
17: Preparation of common model for water information	01/01/99	31/12/99
18: Preparation of common model for water information	01/01/99	31/12/99
19: Preparation of common model for water information	01/01/99	31/12/99
20: Preparation of common model for water information	01/01/99	31/12/99



These two topics were discussed during two seminars, one gathering the NFPs' computer scientists in Rome from 22 to 26 May 2000, the other gathering the "people in charge of the content" in the NFPs in Madrid from 13 to 16 June 2000.

In September 2000, information on EMWIS project will be made available on-line by the Spanish and French NFPs, as an experiment, and links will be set up with the NFPs which already have national servers.

EMWIS's next Management Committee will meet in Brussels in autumn 2000 to validate EMWIS work program and budget for 2001.

International News n° 8 - 2nd Semester 2000

Publishing Director : Jean-François DONZIER

Production : Frédéric RANSONNETTE - E&di - Limoges - Tél. : +33 5 55 35 08 70

Printer : GDS - Limoges - N° ISSN 0769-1995D

International Office for Water - 21, rue de Madrid - 75008 Paris - France

Tel.: +33 1 44 90 88 60 - Fax: +33 1 40 08 01 45

E-mail: dg@oieau.fr - Web: <http://www.iowater.org>