

INTERNATIONAL NEWS

Capacity building for better water management



*International
Office
for Water*

TRAINING
INFORMATION
MANAGEMENT
COOPERATION

5th WORLD WATER FORUM
ISTANBUL 2009



N° 16 - English version - December 2008 - January 2009

The French National Water

Capacity building for better water management



6,000 trainees/year

The National Water Training Center (CNFME) of the International Office for Water, established in Limousin on the two sites of Limoges and La Souterraine, attracts each year more and more water professionals, anxious to improve their knowledge and technical skills.

Should they be Elected Officials, Managers, Department Heads, Engineers, Technicians or Operators of drinking water supply and sanitation utilities, or wastewater treatment plants, employees of State services, Water Agencies, industry or consulting firms, or coming from the public sector or the private sector, **the training offer is thought, organized and provided to meet their needs in the best way possible.**

The extent of the training offer is not limited to water processes, water production and supply or sanitation, the CNFME also offers training courses to the personnel wishing to learn and improve their knowledge of automated systems, safety, industrial and commercial management, modeling or aquatic environments.

Because water professions evolve, the CNFME is adapting to the new requirements: good ecological status of the Water Bodies, patrimonial management of networks, effective drinking water and waste water treatments with membrane techniques, etc.

The CNFME proposes 245 training modules classified by topic, which represent more than 350 courses planned in a year.

In 2008, about 6,000 trainees benefited from these courses, which will have direct use in their work.

Boosted by this success, the CNFME is increasing its experts' team, including now 28 permanent trainers who, assisted by the best experts in the profession, take care of training based on a concept of putting the trainees in a real working situation on technical units unique in Europe.



Using its knowledge of the various water professions, the CNFME proposes modules allowing the trainees to acquire the knowledge and abilities necessary to fulfill their task without any problem. The courses thus proposed are the mirror of skills which these personnel must master.

For a company, training activities are a real investment, for which it is legitimate to measure their feedback: the CNFME installed a powerful tool to evaluate the training benefits.

In 2009, the clients and recipients of training courses will have the possibility not only of consulting all the training offers on the Internet, but also of knowing in real time the sessions available and of making their preliminary registration or that of their agents on line.

The CNFME can also advise a local authority or a private company on the choice of the training courses best adapted to individuals and services and offer them, through "Intra"

training programs, **the possibility of customizing training courses, as regards objectives, contents, audience, place and duration.**

GRADUATING COURSES

The CNFME proposes training cycles or courses, ending with an evaluation day for validating the trainee's knowledge. They can be "tailor-made".

These graduating courses of more than 15 training days correspond to professionalization periods.

The 2009 catalogue proposes courses for the currently most looked-for professions. The training courses were selected to represent the main skills related to the professional references usually admitted by the professionals.

All the CNFME training courses can be implemented in English upon request.

Do not hesitate to contact us. ✓

And also... training on "Waste"



The CNFME had also to meet the concerns of local authorities as regards waste: how to control the process which goes from collection to recycling, reuse or disposal?

These questions, and the structuring of the services in charge of waste management, quite naturally have led the CNFME to work out since 2004 a response with regard to training the staff of this sector (composting, sorting, treatment centers). With a dozen training courses in 2006 and 2007, the offer has been gradually developed and transformed.

In 2009, the offer is rich of 33 different modules which have taken account the experience gained for 3 years!



www.iowater.org/cnfme



Training Center

The CNFME ... under the Caribbean sun



For many years, the **International Office for Water** has been training water professionals from the French overseas departments and territories. In 2009, it innovates with an offer dedicated to these areas with very specific climate, relief, rainfall, organization and management.

A new training catalogue entirely suited to the Caribbean area was developed with the assistance of the Water Office of the Martinique.

There are **31 training** courses suited to the tropical and wet island context. The topics dealt with cover the whole water cycle: water production, leak detection and operation of networks, management of sewerage systems, wastewater treatment, water chemistry and river hydrometry.

An important component should be noted concerning the building and laying out of drains, the management of services, and the safety of the people in sewerage systems.

These training courses are mainly planned in the first half of 2009, and will proceed on sites selected according to their teaching interest in the Martinique.

This catalogue can be downloaded on **IOWater** website:

www.iowater.org/cnfme
("download" section)



The CNFME goes abroad

In 2008, **IOWater's National Water Training Center (CNFME)** had intensive activities abroad for training staffs of water utilities.

- **In Algeria**, the CNFME worked for:
 - **The Water and Sanitation Company of Algiers:** operation of wastewater treatment plants and pumping stations, etc.;
 - **Consulting firms:** design and sizing of wastewater treatment plants;
 - **The Ministry of Professional Training**, with "INWENT": training of trainers on the treatment of urban and industrial effluents;
 - **Degremont Algeria:** operation of the water treatment units using chlorine in the drinking water production plant of Constantine;

- **The Algerian Water Company** department in Jijel, in support to SCE: development of the training plan and training courses on customers' management, drinking water supply, leak detection.
- **In Lebanon**, collaboration with the Aquarius Company was confirmed by the training of its executives on drinking water production.
- **In the Democratic Republic of the Congo:**
 - the European Union entrusted **CNFME** with the development of a training plan for **REGIDESO** on drinking water production and supply;

- the CNFME trainers carried out, on behalf of the **International Committee of the Red Cross (ICRC)**, training courses on pumping stations.

- **In Tunisia**, the CNFME trained the executives of the **Ministry for Agriculture** on the optimization of pumping stations in irrigation and drinking water supply.

It also carried out the feasibility study of a wastewater treatment plant using "Filters Planted with Reeds" within the Twinning between Nabeul Governorate and the Regional Council of Limousin.

- **In Bulgaria**, the CNFME carried out a training course on technical management for executives of wastewater treatment plants.



Information - Documentation

SANDRE

SANDRE (National Data Reference Center for Water) works out the common language used by the **French national Water Information System (WIS)** directed by **ONEMA** (National Agency for Water and Aquatic Environments). **IOWater** takes care of its technical secretariat. **SANDRE** produces specifications which guarantee the technical interoperability of the information system. 2008 was marked by improvements, aiming to better meet the users' needs.

- The **OGRES** service (Management tool for **SANDRE** reference frames on water) enables the users to obtain answers to the requests for adding new elements in **SANDRE** nomenclatures (mainly chemical parameters and taxons);

- The specifications for data exchanges on the quality of surface and inland waters and on the obstacles to runoff were produced with the tool used for generating **SANDRE** documents (data dictionaries and inter-exchange scenarios);

- **EDILABO**, the standard of physico-chemical data exchange with the laboratories now has a new version free to use. **SANDRE** works on **EDILABO** Version 2 for biological data exchange.

SANDRE and the health services

In 2008, **IOWater** contributed to the draft-agreement between the French Ministry for Health and the water suppliers for data exchange with the **DDASS** (Departmental Health and Sanitary services) and managed

the evolution of the necessary benchmark data (codes of statement, parameters, etc).

The CG34 wants to be in conformity with SANDRE

The General Council of Hérault (CG34) asked **IOWater** to produce the necessary recommendations for its Water and Environments Network (RFEM) to be in conformity with **SANDRE** specifications.

IOWater contributes to INSPIRE

The European **INSPIRE** Directive defines the framework of a common infrastructure for geographical data: in the consortium, selected after invitation to tender, **IOWater** contributes to the development of a harmonized metadata profile for air, water, waste and biodiversity and of data-processing tools for reporting to the European level. ✓

International Network of Basin Organizations

5th World Water Forum

ISTANBUL - MARCH 2009

INBO and UNESCO coordinators of topic 3.1:
"Basin Management and Transboundary Cooperation"

5th WORLD WATER FORUM
ISTANBUL 2009



The International Coordination Committee (ICC) of the 5th World Water Forum, which will

take place in Istanbul from 16 to 22 March 2009, confirmed **INBO** and **UNESCO** as coordinators of topic 3.1: "**Basin Management and Transboundary Cooperation**".

During the Forum, **100 sessions**, involving all the stakeholders, should propose practical solutions, by allowing free discussions on all topics to reach consensus.

The partners in their second meeting in Istanbul in February 2008 decided to focus their propositions for topic 3.1 on the four following issues:

- ❶ **What are the success stories and failures of hydro-solidarity and IWRM at basin level?**
- ❷ **How can transboundary water resources be managed more sustainably by all the riparian countries concerned?**
- ❸ **How to organize and facilitate the participation of all stakeholders?**
- ❹ **What are the tools to use for better basin management and sustainable transboundary cooperation on surface and groundwater resources?**

The draft proposal for organizing the five sessions of topic 3.1 was widely disseminated and submitted to discussion with the partners. **More than 190 organizations participated in this preliminary discussion and have sent proposals.**

Several international meetings were organized with all the interested parties for working in open and fruitful dialogue:

- International Symposium on the management of water-related extreme phenomena, ECWATECH, **Moscow**, Russia from 4 to 5 June 2008;
- 4th International Conference on River Restoration, **Venice**, Italy, from 16 to 21 June 2008;

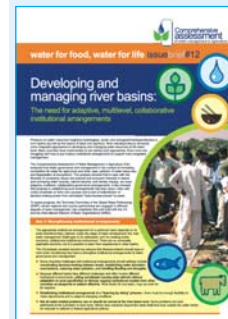
Istanbul meeting in February 2008



- International Water Exhibition - Water Tribune, **Saragossa**, Spain, from 7 to 10 July 2008 - Thematic Week 4 - INBO - MENBO-EWP Session: "basin management and transboundary cooperation in Europe and the Mediterranean", on 8 July 2008;
- WWF round table on the UN Convention on the management of transboundary water resources at the **Stockholm** Water Week, in August 2008;
- IWRA General Assembly, session on Transboundary Water Management, **Montpellier**, France, from 1 to 3 September 2008;
- IWA Symposium on River Basins, **Budapest**, Hungary, from 4 to 6 September 2008;
- "**EUROPE-INBO 2008**", session on the implementation of the Water Framework Directive, **Sibiu**, Romania, from 2 to 4 October 2008, "Flood and drought management, transboundary water management and WFD Programs of Measures";
- 4th International Symposium on Transboundary Water Management, **Thessaloniki**, Greece from 15 to 18 October 2008;
- 6th workshop of ISARM - Americas, **Dominican Republic**, November 2008;
- General Assembly of the Latin American Network of Basin Organizations, **Rio de Janeiro**, Brazil, from 19 to 21 November 2008, within the National Forum of Brazilian Basin Committees.

With GWP ...

A "Brief" for better basin management over the world



The Technical Committee (TEC) of the Global Water Partnership (GWP) and the **International Network of Basin Organizations (INBO)**, in collaboration with "the Global Evaluation of

Water Management in Agriculture (CA)" have just published, in English and in French, a "**Brief**" on the issue of water management at basin level.

This brief analyzes basin governance in the context of increasing competition for water between agriculture and the other uses, of impacts of water pollution and deterioration of ecosystems.

This analysis shows that, to face all the challenges, it is necessary to create arrangements for governance which take into account the various geographical scales.

The basin is a particularly relevant level for the field implementation of integrated management associating all the stakeholders related to water.

The note gives an overview of the various functions which must be fulfilled on this scale, advisable institutional arrangements for effective governance, roles which the Basin Organizations can play according to the national context, to criteria which determine the quality of the operation of Basin Organizations.

The "brief" also emphasizes the need for a preliminary institutional characterization, so that the type of Basin Organization to be created is suited to the challenges to face and is consistent with the actions of all the other Institutions which usually already exist in the same area. The new body should be a privileged place for coordination and dialogue.

Global Water Partnership



www.inbo-news.org

See detailed program of Topic 3.1 Sessions on page 24

Basin Organizations - INBO



"ECWATECH 2008" - 3-6 June 2008 - Moscow

"Water Resources Management under Extreme Conditions"

The International Conference on "Water Resources Management under Extreme Conditions" took place in Moscow on 5 and 6 June 2008 within "ECWATECH 2008", the main Water Forum of the Eastern European countries.

This Conference was organized by the Russian Federal Water Resources Agency, the Dutch Water Partnership, the World Water Council, the International Water Resources Association, the World Meteorological Organization (WMO), the European Water Partnership and the **International Network of Basin Organizations (INBO)**.



Strong participation in "ECWATECH" Conferences

The objective of the Conference was to allow a meeting between water management specialists coming from all over Europe, Caucasus and Central Asia.

During this Conference, the participants dealt with various topics, such as forecasting extreme phenomena; assessing flood and

drought risks and associated resources management; monitoring; land use; technical status of infrastructures; lessons learned from management practices, causes and impact of extreme phenomena; social and economic factors in decision-making; damage prevention and limitation.

INBO facilitated a special session, on 5 June in the afternoon, on the new

tools introduced by the European Water Framework Directive and its "daughter" Directives and announced the creation of a **Regional Network of Basin Organizations from Eastern Europe, Caucasus and Central Asia (EECCA-NBO)**.

"EXPO AGUA - Saragoza 2008"



Jean-François Donzier in Saragoza

Mr. Jean-François Donzier, INBO Secretary and General Manager of the International Office for Water, presented on 9 July the Introductory Conference of the "Water Tribune" day on the topic of "inter-basin twinning agreements, cooperation instruments".

Within Thematic Week 4 on "Water, a unique resource"

and the issue of "Shared Water", coordinated by Mr. Raimundo Garrido, former INBO World President, the organizers of the "Water Tribune" invited **INBO** to jointly hold a special session on 8 July on the topic of **"Basin Management and Transboundary Cooperation in Europe and in the Mediterranean area"** with the Mediterranean Network of Basin Organizations (MENBO) and the European Water Partnership (EWP).



The various round tables organized on this occasion concerned:

- **Transboundary surface and ground water management in the international districts of the European Water Framework Directive;**
- **Participation of the populations and decision makers in water management;**
- **Operational tools for the management of river basins and aquifers;**
- **Integrated plans for the prevention of floods, droughts and extreme phenomena in the Mediterranean area;**
- **Management Plans and Programs of Measures for WFD implementation.**

These contributions were in line with the preparation of the 5th World Water Forum of Istanbul in 2009, for which **INBO** and **UNESCO** were designated as coordinators of Topic 3.1.: **"Basin Management and Transboundary Cooperation"**.

The International Exhibition on water and sustainable development "ExpoAgua" took place in Saragossa, Capital of Aragon, from June to September 2008. It combined exhibitions, artistic events, shows and conferences.

The **"Water Tribune"**, a platform for discussions on the economic, social and environmental stakes of water in the world, gathered some 2,000 international experts during **10 "Thematic Weeks"**. These meetings ended on 11 September with the organization of an International Symposium on Water and Sustainable Development and the signing of the **"Saragossa Charter"**.

Commission on Sustainable Development

UNITED NATIONS - NEW-YORK



be mobilized and common cause systems set up, which are effective today through the application of the "users-polluters-pay" principles and mechanisms of common cause / equalization between the various categories of users. This must make the payment of the quantities of safe water essential to their everyday life bearable to the most underprivileged populations. It is also necessary to emphasize the significance of agricultural irrigation in water management.

This meeting was a success. It gathered 150 participants and a panel of top level decision makers, coming from several continents:

the President of the African Ministers' Council on Water (AMCOW), Mr. Itoua; the High Commissioner of the Organization for the Development of the Senegal River (OMVS), Mr. Ould Merzoug; the President of the Water Commission of the French Association of Mayors of Large Towns, Mr. Begorre; the Director of the Water Program of the International Union for Conservation of Nature (IUCN), Mr. Bergkamp; the Director of the National Water Agency of Brazil, Mr. de



The delegated French Ambassador in charge of the Environment, Mr. Stefanini

From 5 to 16 May 2008, the participants in the Commission on Sustainable Development of the United Nations drew up an evaluation of the "water and sanitation cycle" launched during CSD-13 in 2005.

The French Ministries for Foreign Affairs and Ecology mandated **the French Water Partnership (FWP)** for organizing a side event, on May 12, on the topic of IWRM financing on a national and transboundary scale.

The FWP was created in 2007 for the 4th World Water Forum of Mexico City and gathers the French water stakeholders intervening worldwide (Ministries, NGOs, Companies, Local Authorities, Basin Organizations and scientific and technical institutions). It is a forum for exchanges on governance and management of water resources.

This side event was presented by the French Ambassador's representative in charge of the Environment, Mr. Stefanini and by the representative of the State Secretary in charge of the Environment of Slovenia, Mrs. Iskrenovic, on behalf of the EU Presidency.

Mr. Donzier, General Manager of the International Office for Water and Permanent Secretary of the International Network of Basin Organizations, made an introductory speech on the financing of IWRM in the world. The Chief of the Environment and International Relations Department of the Walloon Region of Belgium, Mr. Wauthier, was the facilitator.

In his introductory speech, Mr. Donzier reminded that IWRM was certainly making progresses, but some countries are only at the beginning of its development and still have an approach primarily based on the building of traditional infrastructures and the sharing of available resources. He underlined that, today, beyond access to the resources, "we must also develop integrated policies for sanitation, the reduction and treatment of polluting discharges, take into account the quality of the ecosystems, as being the true natural infrastructures essential to water cycle operation, and of course it is necessary to prevent the natural erosion, flood and drought hazards".

Financing is a key element to make effective "everybody's access to essential services and good resources management": long-term financial resources should

Cordeiro Netto and the President of the Mediterranean Water Partnership, Mr. Scoullos. The conclusions of this side event, drawn by Mr. Donzier, will be presented to the 5th World Water Forum of Istanbul, in March 2009.

INBO was designated, together with UNESCO, as coordinator of topic 3.1 of the Forum on **"Basin management and transboundary cooperation"**, and will be the spokesman of these exchanges.



New Caledonia

1st Water Meetings and professional training activities...

Participative meetings for a shared analysis

From 19 to 23 May 2008, the Economic and Social Council of New Caledonia organized "the first Water Meetings". They gathered all the stakeholders concerned with water resources management in New Caledonia, i.e. about 150 participants per day.

The French Development Agency, which supported the organization of these meetings, requested **IOWater** collaboration to allow all the participants to express themselves. The Office thus proposed, organized and coordinated strong participative events which made the richness of the work: development of a shared analysis of advisable objectives, recommendations aiming at searching for financing and optimizing the costs, emergence of actions to achieve the medium and



long term goals and to continue post-meeting thinking.

The participants proposed priority actions such as the creation of a participative federating body with all the stakeholders concerned, the creation of a coordination body between the administrative water departments, the development of suited financial, institutional and legal tools, the building of technical capabilities, etc.

These conclusions were presented to the Members of the Government of New Caledonia.

Training course for technical departments of Noumea city

Noumea city hall called upon **IOWater** to develop the skills of the staffs of its technical departments assigned to **the acceptance of the building sites of wastewater treatment plants**. In a context where there are many projects for building wastewater treatment plants, this training, which perfectly fits in with the logical progression of skills to meet the increasing requirements for infrastructures, also concerned the Environment Directorate, Caledonian Water Company, Mont-Dore City and some local consulting firms.

Twinning between Basin Organizations



Countries involved in Twinbasin

The **International Office for Water** has acquired experience for many years in fostering twinning agreements, either directly or as **INBO (International Network of Basin Organizations) Technical Permanent Secretariat**.

IOWater has, in particular, managed the **Twinbasin project (2004-2007) financed by the European Commission**.

The **Twinbasin** project demonstrated the real added-value of developing twinning agreements between River Basin Organizations for improving Integrated Water Resources Management.

Indeed, by exchanging field experience, Basin Organizations can:

- strengthen participation of stakeholders and civil society in decision-making processes;

- improve methodologies for mid-term and long-term planning;
- set up the data bases required to organize Information Systems and decision-making supporting tools;
- build staff capacity;
- design sustainable financial mechanisms.

Twinbasin gathered more than 70 Basin Organizations around the world, which were involved in 40 twinning agreements.

The procedures within the project:

- gave strong credibility to the Twinning process;
- proposed a framework for agreements between partners;
- organized calls for proposals for selecting the best and more adapted Twinning arrangements;
- required technical reports with specific added value after the realization of experts' missions.

It is worth saying that average support made by **Twinbasin** has been of 4,000 Euros for each twinning, covering less than 40% of the direct expenses. **For such a reasonable investment, benefits have been much higher!**

Thus, for any future Twinning project, **IOWater** proposes a 3-steps methodology:

- ① **Explaining the needs**, which can be done according to the topics to be tackled with (institutional, legal, economical, technical, communication) and the practical methods used for exchanges (awareness, training, capacity building) as well as the contacts to establish (political people in charge, representatives of the economic sectors, managers of basin organizations, technicians, specialists, etc.).
- ② **Identifying the most compatible "Twins"**, in particular thanks to the networks of Basin Organizations.
- ③ **Proposing a precise content for twinning agreements** specifying the objectives, expected outputs, missions' duration, foreseen period, expert(s) profile(s), local counterparts, performance indicators, financial arrangements, etc.

Under these conditions, twinning agreements have more chance to be truly effective and to become genuine tools for sharing experience and know-how.

Water Training Centers (WTCs)

Creation of the International Network of WTCs

With the support of the French Ministry for Foreign Affairs and the French Development Agency, the **International Office for Water** has studied since 2007 the possibility of creating an **International Network of Water Training Centers** gathering its counterparts in the world to develop exchanges on their experience and to promote the development of the skills of professionals of the water sector as a prerequisite to achieving the Millennium Goals.

An inventory of the existing training centers was carried out, as well as an analysis of the regional cooperation initiatives in the field. An assessment of the needs and expectations of these centers was made at the same time through a questionnaire.

The received answers illustrate a significant diversity between the training centers, as regards their statutes, their size and their organization, their training activities or the number of trainees. The analysis of these replies allowed better describing the training centers and highlighting differences and similarities, but it also clearly underlines the current lack of partnerships between them and the weakness of the international cooperation programs dedicated to them.

Based on the outcomes of this survey, the first constitutive meeting of the International Network of Water Training Centers (INWTC) took place on 19-20-21 November 2008 in Paris and Limoges at the invitation of the French Authorities.



INWTC constitutive meeting at the French Ministry for Foreign Affairs

The exchanges especially dealt with the financing of the training system and with topics of potential interest for the future activities of the new International Network:

- Promotion of professional training and reinforcement of the relations with the main international donors supporting the development of the water sector;
- Regular organization of seminars and workshops on training needs and methods;
- Development of exchanges of experience between the partner centers on their educational tools;
- Organization of technical visits and study tours;

- Reinforcement of the training centers' promotion, thanks to communication tools, such as an Internet portal, a network newsletter, etc.;
- Creation of working groups for joint projects development.

A visit of the French National Water Training Center - CNFME - in Limoges and La Souterraine was organized in order to supplement exchanges with practical experience in the field.

This Constitutive Assembly ended with the signing of the **"INWTC Charter"** which made official the will of the **16 founder centers** to pursue exchanges and gave the Network operating method up to the next General Assembly to be held in Morocco in 2009. ✓

Strengthening training for achieving the Millennium Goals

Support to the development and operation of Water Training Centers over the world

In many countries, the weak point of Water Policy is the lack of competent staff for operation, maintenance and renewal of water infrastructures.

At the beginning of 2008, **IOWater** carried out a study on behalf of the **French Development Agency (AFD)**, which had the overall objective of assessing the situation and identifying the main lines for supporting the development and operation of Water Training Centers (WTCs) and vocational training in countries of the French Priority Solidarity Area.

The situations of the water and sanitation sector and practices of basic and continuing vocational training for water professions were analyzed in **19 countries**.

Three assessment missions were also carried out in Kenya, Togo, Benin, Ghana and Mali.

Using the analyses carried out in the various studied countries, it was possible to identify the conditions for the development of Water Training Centers to guarantee the continuity of the investments that these centers could benefit from.

These favorable factors can be classified in 3 categories:

- The preliminary analysis of the training needs and of the national and regional potential market;
- The development of an enabling environment for vocational training for water professions in each country;

- In-house structuring of the Centers to meet the market and training needs.

In a second phase, this study also allowed identifying potential actions that should be launched in each country to develop training for water professionals.

This study will enable **AFD** to support an assistance policy for this sector, which would be based on "traditional" investments or educational assistance to the training centers, but which would also aim at offering accompanying solutions for the continuity of professional training, especially by strengthening the environment of the training organizations and their long-term support. ✓

Governance of water supply and sanitation utilities

Something new in governance

With the support of the French Ministry of Ecology, Energy, Sustainable Development and Regional Planning (DAEI), **IOWater** drew up 26 "country profiles" concerning Europe and priority countries; these sheets are available on line on the website:

www.eau-international-france.fr

(Section "Practical actions: water organization in 26 countries").

These profiles are a source of very important information. They present the administrative context of the country, as well as quantified information on the water resource and consumption coming from international databases.

The politico-institutional mechanisms are also approached with a synthetic presentation of the stakeholders involved in water management and of the regulatory framework.

These sheets also include information on the management of river basins and water supply and sanitation utilities.

Finally, bibliographical contacts and references supplement the presented synthetic information and allow going further in the search for information.


In the field of management of drinking water supply and sanitation utilities, the International Office for Water developed legal, technical, economic, organizational and educational abilities which it makes available to national authorities, local authorities and utility operators, everywhere in France and over the world.

These abilities allow:

- defining the best suited institutional frameworks;
- Authorities to fulfill their duties;
- optimizing the technical management of equipment;
- organizing the financial management of the utilities and planning investments;
- ensuring and following up the quality of the service;
- capacity building and human resources management.

Within this framework, **IOWater** has just created a "center for the governance of water supply and sanitation utilities" to answer more efficiently to the various requests it receives from France, Europe and from the whole world.

Afrique du Sud



Le contexte global
Superficie : 1.221.037 Km²
Population : 44,2 M (55% urbaine / 45% rurale) en 2005
PIB/hab 2007 : 3490 USD
Divisions administratives : 9 provinces s'apparentant à des États fédérés et 267 communes décapolées en 1998 organisées sur 3 niveaux : les municipalités métropolitaines, de districts et locales.
Régime : République au régime présidentiel
La Constitution actuelle date de 1996 suite à la fin de l'apartheid en 1994. Le pouvoir législatif est depuis partagé entre 2 Chambres, une Assemblée Nationale (400 députés) et un Sénat (10 sénateurs par province, soit 90 membres). La Constitution de 1996 a instauré une Cour Constitutionnelle avec un président et 10 juges. Ils sont choisis par le conseil des ministres. Le pouvoir

I La ressource

	Afrique du Sud	France
Précipitations moyennes (mm/an), 2005	495	887
Ressources en eau renouvelables globales (km ³ /an)	50	383,79
Ressources en eau renouvelables globales (m ³ /personne/an)		
Consommation totale (km ³ /an)		
Agriculture (%)		
Domestique (%)		
Industrie (incluant la production d'énergie)		

Source FAO, Aqualat, 2005

Les précipitations sont réparties inégalement et le déficit d'eau pour répondre


Fleuves (longueur totale : en km)
Breed du Sud, Caledon, Vaal et Orange

Peu de lacs.

L'Afrique du Sud est bordée à l'Ouest par l'océan Atlantique et à l'Est par l'océan Indien. Le pays partage 4 bassins versants transfrontaliers.

Date de mise à jour : 28/02/2008

Russie



Le contexte global
Superficie : 17 M Km²
Population : 142,5 M (70% urbaine / 30% rurale)
PIB/hab 2007 : 3026 USD
Divisions administratives : 21 républiques, 6 territoires, 49 régions, 10 districts autonomes, la région autonome juive de Biélorussie et 2 villes à statut fédéral (Moscou et Saint-Petersbourg)
Régime : République fédérale

I La ressource

	Russie	France
Précipitations moyennes (mm/an)	460	887
Ressources en eau renouvelables globales (km ³ /an)	4507	383,79
Ressources en eau renouvelables globales (m ³ /personne/an)	31283	3439
Consommation totale (km ³ /an)	76,68	38,88
Agriculture (%)	18	18
Domestique (%)	19	18
Industrie (%)	63	74

Les précipitations varient entre 300 et 800 mm/an. 90% du territoire ne reçoit pas plus de 600 mm de pluie par an. La Russie est bordée par l'Océan Arctique au Nord, l'Océan Pacifique à l'Est et la Mer Noire au Sud.

Fleuves : Ob (3700 km), Iénisseï (4090 km), Léna (4400 km), Amour (2874 km) et Volga (3700 km)

Lacs : Outre la Mer Caspienne (371 000 km²) : Lac Baïkal (31 500 km²), Lac Ladoga (18 390 km²), Lac Onega (9 610 km²) Le lac Peipsi (2 555 km²) dont 1985 appartient pour la Russie) marque la frontière avec l'Estonie.

I.1 Particularités de la ressource en eau :
Les fleuves présentant de faibles pentes, ils sont pris par la glace durant l'hiver, soit une centaine de jours par an.

Le pays a connu dans le passé de nombreux accidents affectant directement l'état de l'environnement, notamment dans le domaine de l'activité chimique et pétrolière. De nombreuses régions industrielles sont fortement polluées et cette pollution a atteint les lacs et les cours d'eau, emportant ainsi gravement leur état.

Date de mise à jour : 11/07/2007

Office International de l'Eau

Water in France

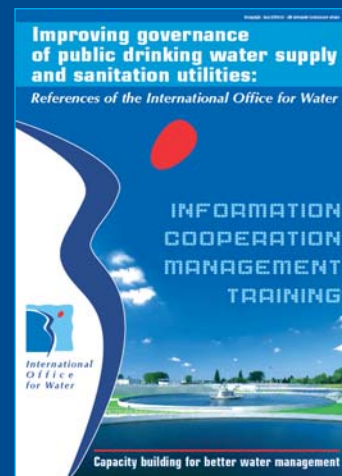
In France, the drinking water supply and sanitation utilities are decentralized public services. **The Municipalities and Groupings of Municipalities are responsible for these utilities and own the infrastructures.**

The municipalities can manage them themselves directly or delegate them to a private operator within a very thorough legislative and regulatory arrangement.

France emphasizes the responsibility of local authorities, the necessary competition of operators, the follow-up of service quality (reports to the Mayor, performance indicators), the rigor of budgetary control and the transparency for users.

To support the efforts in investing and improving performances made by the local authorities, industrialists and farmers, the system of Water Agencies allows levying water charges and redistributing them according to the priorities of each Basin Management Plan.

The International Office for Water has just published a brochure on its abilities and references on the governance of drinking water supply and sanitation utilities.



It can be downloaded on:
www.iowater.org
(Download section)

AFRICA

Governance of African Transboundary Basins

Strengthening "OMVG"

The French Ministry for Foreign Affairs mandated **IOWater** to provide strategic support to some African transboundary basin organizations, among which the **Organization for the Development of the Gambia River (OMVG)**.

"OMVG" carried out an institutional reorganization in 1991, which allowed a new approach, the starting of true basic studies and the concretization of a will for regional integration (1991-1997).

The following decade (1997-2006) allowed the maturation of priority projects, especially a strategic "Energy" project consistent with the WAPP (West African Power Pool).

In the current economic and environmental context, the benefits expected from this Energy Project are very interesting:

- Production of 1,350 GWh/year of clean energy to contribute to meeting the increasing demand in the area;
- Exploitation of renewable natural resources with a concern for sustainable development with the reduction of CO2 emissions;
- Cost price of the energy quite lower than the alternative thermal solutions;

- Improvement of the total reliability of the electric sector thanks to an ambitious interconnection.

Donors are committed to this project. More than 550 MEuros were already gathered for dams, hydropower units and interconnections, nearly 65% of the total budget of 857 MEuros.

This Energy project is strategic for the sub-region. However, "OMVG" has not yet an overall and integrated vision of water resources management in its river basins in order to:

- better guarantee management sustainability, especially of the planned structuring works;
- prepare the future actions to be carried out in the short, medium and long term, beyond the already identified projects.

The analysis made by **IOWater** showed that it is very important to support "OMVG" in its institutional and technical capacity building, and 2 priority lines can be retained for 2009/2010:

- ◆ thorough assessment of governance at the national and transboundary basin level, in synergy with the studies already undertaken by NBA (case of Guinea) and OMVS (case of Senegal);
- ◆ development of a true Master Plan for Water Development and Management and of a medium-term Investment Plan.

It is also important to reinforce the institutional structure of "OMVG", to develop monitoring and decision-making supporting tools, to carry out "capacity building / on-the-job training", to increase participative approach, etc.



The Gambia River

Performance Indicators

For the African Transboundary Basin Organizations

INBO, the **International Network of Basin Organizations** launched a project aiming at developing, testing and comparing **Performance Indicators for the African Transboundary Basin Organizations**.

This project is carried out in partnership with the **African Network of Basin Organizations (ANBO)** and with the support of the **International Office for Water** and **Ecologic**.

The project is financed by the European ACP Water Facility and the French Ministry for Foreign Affairs. It will last 3 years and will involve ten African basins during 2 test phases.

After a seminar organized in Ouagadougou in November 2007, **a first list of indicators was proposed**.

These indicators belong to two categories:

- the first one (Governance) aims at describing the operation of the bodies in charge of implementing integrated management on a transboundary basin scale,
- the second one (Technical) gathers indicators related to the field practical outcomes of this basin management approach.

The testing of this first list of indicators in the Niger, Congo, Senegal, Lake Victoria and Orange basins allowed analyzing their relevance and usefulness.

A seminar for the presentation and analysis of the first results was organized in Kinshasa in October 2008. This Workshop associated the representatives of the project basins and partners. It prepared the launching of **the second testing phase in 2009 in 10 transboundary basins** to refine the results and to lead to a final list of performance indicators truly suited to the African situation.

More information:

<http://aquacoope.org/PITB>



AFRICA

Water for a more prosperous Africa

AMCOW (African Ministers' Council on Water) and AfDB (African Development Bank) organized the first African Water Week in Tunis, on 26 - 28 March 2008.

This first meeting gathered many water specialists coming from the entire African continent: technicians, politicians and scientists came to discuss essential problems related to water (control, supply, consumption, security, etc.), to lay the first stones of the building which will guarantee the long term socio-economic development of Africa, so much hoped for.

Formulating strategies, policies and proposing practical actions for water resources development and supply in a context of climate change: this event also allowed outlining the main environmental and social challenges of the continent.

Mr. Jean-François DONZIER, General Manager of the **International Office for Water**, was invited to co-chair the session on institutional capacity building for water security in Africa and presented an introductory report analyzing the situation of these issues on the African continent.



IOWater - NBA Partnership (2003-2008)

From the first Audit to the Donors' Roundtable

In 2003, the World Bank and the Niger Basin Authority (NBA) had called upon the **International Office for Water (IOWater)** to carry out an Audit aiming at proposing necessary institutional and organizational reforms.

The various meetings of the **NBA** bodies then confirmed the will of the nine Member States (Benin, Burkina Faso, Cameroon, Chad, Ivory Coast, Guinea, Mali, Niger, Nigeria) to make this organization a tool for regional cooperation and economic development.

Thus, it was asked that a "**clear and shared Vision**" of the **NBA** be developed with the support of the World Bank and other development partners, to create an "enabling environment" for cooperation and to draw up a "**Sustainable Development Action Plan (SDAP)**", accepted by all the basin stakeholders.

A fundamental asset of the process is the **Declaration of Paris** on "The principles of management and good governance for sustainable and shared development of the Niger Basin", signed in April 2004 by the nine Basin's Heads of State and Government.

Within this shared Vision process, the **Niger Basin Authority** received subsidies from the European Union (Water Facility) to implement a project entitled "Formulation and Development of an Investment Program".

IOWater, the main **NBA** partner in this project, dealt with the task of assisting in work control, especially on the following topics:

- Drafting a Water Charter;
- The necessary consistency of the **SDAP** with the national and regional processes of Integrated Water Resources Management;
- Preparation of the investment program, including project formulation and implementation methods.

This work accompanied the ultimate stages of the "**Shared Vision**" process:

- Formulation of the **SDAP** and Development of the Investment Program and Projects over 20 years;



- Summit of the Heads of State;
- Roundtable of the donors in June 2008, in which a total amount of 5.5 billion euros was presented, covering the four next five-year plans.

The **Niger Basin Authority** has now to "act" to invoke in the future practical and lasting outcomes for the Countries, the users, the citizens of the basin. It is, in any case, the ambitious but necessary objective of this stage.



AFRICA

AWIS

Towards the creation of the African Water Information System

AWIS is a project financed by the Water Facility of the European Union. It is managed by a consortium of partners from Northern and Southern Africa: the African Network of Basin Organizations (ANBO) and its secretariat, the Organization for the Development of the Senegal River (OMVS), the Regional Center for Drinking Water Supply and Sanitation (CREPA), the **International Office for Water (IOWater)**, the Solidarité-Eau program (PS-Eau) and the Water Engineering Development Centre (WEDC).

AWIS goal is to test the feasibility of an African Water Information System. The major objective of the project is to offer an instrument which allows sharing African expertise, information and abilities.

The consortium, which manages **AWIS**, carried out, from the start, a survey involving about twenty bodies distributed throughout the African continent to identify the interest of the African stakeholders in this project, their needs and their expectations, their technical potential to collaborate.

AWIS principle relies on two large components:

- ◆ **A network of partners** located on the entire African continent, made up of information management organizations, public or private documentation centers, basin managers, NGOs, engineering firms, etc.
- ◆ **An information system** in the form of a website, "**AWIS portal**", including articles, bibliographical notes, tools for integrated water resources management, links to other websites, etc. Its update is carried out by the partners' network.

The partners' network

AWIS steering committee identified 12 partners, called Focal Points - FPs, distributed over French and English-speaking Africa. A focal point is a body with its network specialized in the field of water (drinking water supply, sanitation, IWRM, basin management, etc.).

It contributes to feeding "**AWIS portal**" and participates in the development of products of common interest on topics predefined by **AWIS community**: topical newsletters, guidance documents, topical or geographical summaries, conferences, etc. The project is committed to train the people in charge of these Focal Points on the practical methods for information management and on all the skills required for feeding **AWIS portal**.

Sub-networks may be created to develop **AWIS** products.

The information system

"**AWIS portal**" is a window of Pan-African information; it does not create information but directs towards information. It identifies and indexes the information available with its partners having the information (FPs) and sends the visitor towards their website.

A knowledge base is at the core of the system. It consists of documentary notes filled up by the Focal Points; a search engine allows making an inventory of the studies available with the partners.

Next steps

The **AWIS** system entered a field testing phase during a kick-off workshop held from 27 to 30 October in Ouagadougou for launching and training the FPs. For 6 months, the Focal Points will test the tool and make comments to improve the system. The **AWIS** preliminary phase should be completed at the beginning of 2010. **AWIS** could then be extended to all the other African organizations working in the water field.

The public website is being developed. It will soon host "**AWIS portal**":

www.sadieau.org



Burkina Faso

CNFME assists the Limousin Region in its cooperation with Burkina Faso



For several years, the Limousin Regional Council has carried out a partnership with Oubritenga Province in Burkina Faso.

It has just entrusted **IOWater** with assisting in the hydraulic aspects of this cooperation.

Following a first assignment carried out with regional elected officials and PsEau, **IOWater** is undertaking a technical and educational expert's appraisal mission on the "water and sanitation" component to identify the priority orientations and actions to be favored in the next three-year program.



AWIS launching workshop Ouagadougou, 27-30 October 2008



AFRICA

South Africa

Training system for the water supply and sanitation sector



Inauguration of commodities in a hospital

IOWater, with the support of French Cooperation, has provided technical assistance to the **National Community Water and Sanitation Training Institute (NCWSTI)** since 2005.

In April 2008, a training program was carried out on the methods and tools for Human

Resources Management (HRM) and the training of the staff of the water sector. On this occasion, the **Regional Department of Agriculture, Water and Forestry (DWAf)** had mobilized more than twenty people in charge of HRM who could discover the latest procedures applied in the specialized companies of the water sector.

This South-African staff was particularly interested in the methods used for staff evaluation and for the development and contents of Business References.

As a supplement, **IOWater** drafted a plan - a master plan - for developing the training offer of the **NCWSTI** in order to enable it to structure and organize the service provided to its customers.

In 2008 (International Sanitation Year) the **DWAf** and **NCWSTI** invited the **IOWater** representatives to participate in some events organized to celebrate the huge efforts made by the South-African Government to improve the conditions of hygiene and health in rural areas.

The **DWAf** and **NCWSTI** executives also requested **IOWater** to organize a "workshop", the objective of which was to renew the development strategy of this training institution and to support its revival.

ICRC

New cooperation with the CNFME in the Congo



A group of trainees in the training course in Lubumbashi

The **CNFME** carried out a training course in Lubumbashi, Katanga (Southern province of the Democratic Republic of the Congo) from 23 June to 4 July 2008 on the topic "operation and maintenance of water pumping stations".

This training course, financed by the **International Committee of the Red Cross**, was intended for technicians and engineers of the **REGIDESO** which supplies water to the whole country.

The **REGIDESO** has in Lubumbashi a training center comparable with that of Kinshasa. Fifteen agents of the **REGIDESO** and three local technicians of the **ICRC** participated in this two-week training course. Laurent Deplat and Bruno Portero, of **IOWater's CNFME**, trained them on:

- hydraulic and mechanical aspects, etc.,
- choice, installation and maintenance of pumping stations,
- electromechanics and power supply.

One of **IOWater's** trainers had gone before to the site in order to have a more precise idea of the supply system and of the problems encountered locally. This preliminary work enabled the training team to better meet the trainees' expectations, thanks to a better knowledge of the local constraints.

This training course fits in with the collaboration which the **International Office for Water** has maintained with the **ICRC** for several years.

IOWater carries out:

- the training of "water and habitation" engineers" of the **ICRC** during two weeks each year in the centers of Limoges and La Souterraine,
- training assignments or technical expertise in the countries where the **ICRC** intervenes.



ASIA

Vietnam

Preparation of the French-Vietnamese cooperation program in the field of water

A memorandum of cooperation was signed in June 2007 by the French and Vietnamese Ministers in charge of sustainable development.

Three priority cooperation topics were identified:

- Institutional assistance on integrated water resources management,
- Transfer of knowledge and technologies for the control of water management,
- Training on water resources conservation.

In 2008, **IOWater** and its French partners developed the cooperation lines given at ministerial level into coordinated projects supported by various French donors.

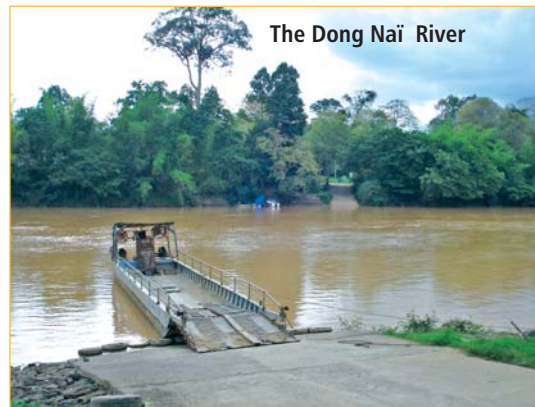
Two ambitious projects thus could be studied and submitted to the Vietnamese Authorities:

Integrated Water Resources Management in the Dong Nai River Basin

This 24-month project (2009-2010) on integrated management of the Dong Nai River Basin will be implemented by the International Office for Water (IOWater), Asconit Consultants, SCE, and financed by the French Ministry of Economy, Finances and Employment, with an amount of Euros 800,000, and the French Loire-Brittany and Seine-Normandy Water Agencies with Euros 400,000.

With the metropolis of Ho Chi Minh City, the basin concentrates all the pressures on the water resource caused by strong human activity with still poorly controlled impacts.

If industrial pollution seems the most visible, it is doubled by an agricultural pollution coming in particular from the increasingly more intensive rice growing and an important urban pollution. The quantitative and morphological stakes are also very significant with the Dau Tieng Reservoir upstream of the Saigon River, which is the largest of the country. It is exploited for hydropower and is a



The Dong Nai River

reservoir for irrigation and the supply of drinking water to Ho Chi Minh City.

The water transfers out of the basin towards dry coastal areas and low lands could also worsen the situation.

The institutional mechanisms for overall water management in the basin are still little developed in a context of strongly decentralized and sectoral management at the level of the 11 provinces located in the basin.



Flood risk management on the Saigon River



Floods in Ho Chi Minh City

In Vietnam, the vulnerability of the populations and properties to floods increases with more real estate pressures on flood plains. This situation is particularly critical in the Ho Chi Minh City area, located downstream of the Saigon River.

The project for the protection against the floods of the Saigon River thus not only plans the construction of protection works but also an institutional support component, which aims at supporting the basin's local authorities in their organizational and strategic thinking about flood hazards.

This 24-month project of the Ministry for Agriculture and Rural Development is financed by the French Development Agency with Euros 350,000.

In order to coordinate its proposal for support, **AFD** asked **IOWater** to organize a mission for the formalization of this institutional component.

This assignment, which was carried out in June 2008, had the following main objectives:

- collecting the opinion of the Vietnamese institutions concerned on the terms of reference of the project;
- analyzing the respective responsibilities of the various organizations able to control the work of this French institutional support;
- proposing a relevant institutional arrangement for its implementation;
- making sure that this project is consistent with the various current cooperation projects.

The significance of work coordination and control on the basin scale was underlined. The Dong Nai Basin Organization (DNRBO), created in 2002, could be entrusted with this task.



ASIA

Korea

First French-Korean Seminar

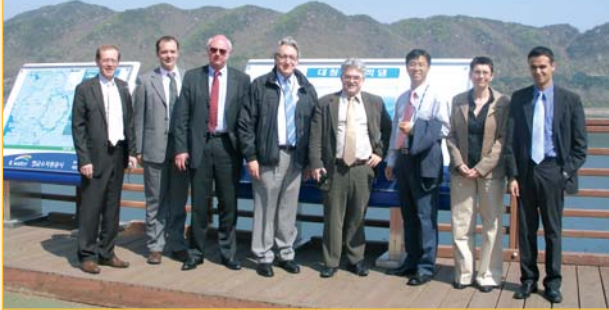
Following the visit to Korea of several French water experts, an official delegation led by Mr. Pascal Berteaud, Water Director at the

Ministry of Ecology, Energy, Sustainable Development and Regional Planning, and made up of Messrs. Jean-François Donzier, General Manager of the **International Office for Water**, Jean-Louis Beseme, CGAAER, François Brelle of the Canal-de-Provence Company and Nicolas Fraysse, BRL Engineering, went to Korea last April, with the support of the Cultural and Scientific Cooperation Service of the French Embassy in Seoul.

In addition to the participation in a Seminar on water resources management organized by the Korea Institute of Water and Environment (KIWE), a "think tank" of the Korea Water Resources Corporation (K-Water), the objective of this mission was starting a dialogue at the highest level with the Korean stakeholders of the water sector, for identifying and developing cooperation between both countries.

The next French-Korean seminar will be held in France in 2009.

The French delegation in Korea



LATIN AMERICA

General Assembly of the Latin-American and Brazilian Networks of Basin Organizations

Rio de Janeiro - Brazil - 10-14 November 2008



Rio de Janeiro hosted the National Forum of Brazilian Basin Committees from 10 to 14 November 2008.

Every two years, this event gathers all the Members of the Basin Committees, created within the Law on Water Resources of 1997. To date, about 130 Basin Committees have been created in Brazil, either related to the federal rivers or to the rivers under the sole responsibility of the Federal States.

More than 2,000 representatives participated in this exceptional event, coming from all the Brazilian regions.

The 3rd General Assembly of the **Latin-American Network of Basin Organizations (LANBO)** also took place on 11 and 12 November 2008, gathering the representa-

tives of the main Basin Organizations of Central and South America, of the Governments developing basin policies and of the regional Organizations concerned.

Work was chaired by Mr. Oscar Cordeiro Netto, Director of the **National Water Agency of Brazil (ANA)** and by Mr. Jean-François Donzier, Permanent Technical Secretary of the **International Network of Basin Organizations (INBO)**.

The Assembly discussed ongoing experiments and developments of basin policies in the represented Countries.

It approved a reform of LANBO Statutes and elected the new Executive Committee of the Network.

Mr. Edgar Bejarano-Méndez, Director General of the "Regional Autonomous Corporation of Cundinamarca" of Bogota in Colombia was elected LANBO President for the 2 coming years.

The "Intermunicipal Consortium CPCJ" of the Piracicaba, Capivari and Jundáí River Basins - São Paulo State - Brazil, will take care of LANBO Technical Secretariat, with the support of ANA.

The next General Assembly of the Network will take place in Colombia in 2010.

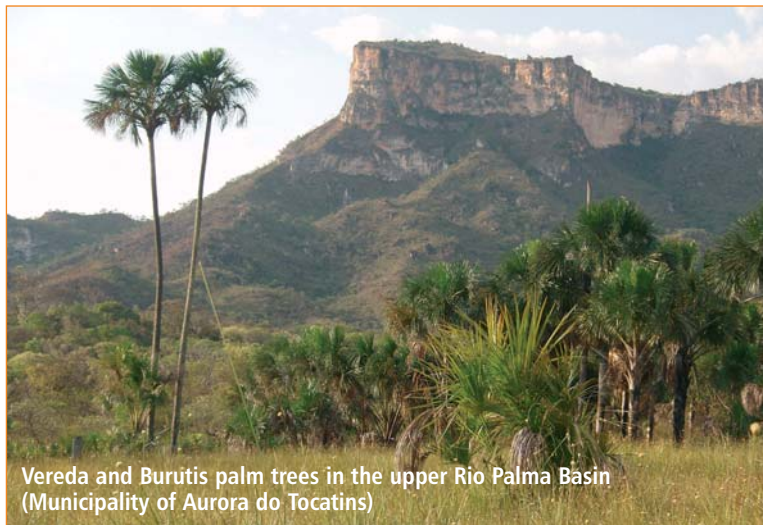
www.ana.gov.br/relob



LATIN AMERICA

Brazil

Master Plans for the Rio Manuel Alves and Rio Palma Basins



Vereda and Burutis palm trees in the upper Rio Palma Basin (Municipality of Aurora do Tocantins)

In the Tocantins State, in the middle of the Brazilian Cerrado, the Master Plans for the Rio Manuel Alves and Rio Palma Basins are impatiently awaited by the populations of these river basins. The Cerrado is after Amazonia the second Brazilian bioma in terms of surface area.

It hosts more than 6,000 species of trees and 800 species of birds. It is thus a priority zone for the conservation of the Earth biodiversity.

In 2007 and 2008, thanks to a financial support from the World Bank, the Consortium - made up by the Brazilian consulting firm Gama Engenharia and the **International Office for Water** - worked with the technical departments of the Tocantins State in charge of the Environment and Water Resources (SRHMA) to propose these two Master Plans.

tration and storage of huge quantities of water. This water percolates towards the Bambuí karstic system, located downstream, and gives rise to resurgences at the foot of the Serra Geral in wetlands called Veredas.

One can find there the splendid Burutis palm trees and the Capim Dourado, a very fine and naturally golden straw which is braided by the local craftsmen to make baskets, jewels and other crafts very famous on the national and international markets.

Thanks to these resurgences, the Rio Palma keeps a low flow higher than 145m³ at its mouth, even in full dry season.

The studies revealed how the Uruçuia-Bambuí hydrogeological system operates and guarantees the outstanding water resources of the area.

Under the huge Serra Geral tableland, the Uruçuia aquifer extends over several Brazilian States and allows the infil-

But the consultants of Gama Engenharia and **IOWater** underlined the fragility of this system. To protect the resurgence areas it is necessary to create a Natural Reserve, combining water resources management and regional planning.

The repeated droughts, which occur in the area, are not caused by the lack of water resources, but by the lack of infrastructures and organization of human activities according to these resources.

The Master Plans propose Action Plans to counteract, and could be implemented by the Tocantins State Government and by the municipalities of the area.

One of the main stakes for the future of the region will be the capacity of the local stakeholders to set up a decentralized and participative management system to implement the Master Plans: Basin Committees, Water Agencies or Inter-Municipal Associations, which are best suited to the local context and constraints.

In the Rio Manuel Alves and Rio Palma basins, taxes paid by the water users would contribute to the sustainability of these new bodies.

But the most dynamic economic activity of the area, the hydropower sector, is also the most difficult to mobilize: in Brazil, the hydropower stations with power lower than 30MW are, for the moment, exonerated from financial compensations. Many Basin Committees throughout the country want to change this situation.



One of the resurgences of the Bambuí karstic system which feed the Rio Palma in the dry season (Municipality of Aurora do Tocantins)

www.iowater.org

The water world on the Web



4,200,000 visitors in 2008!

THE CARIBBEAN

Haiti

Reform of the drinking water supply and sanitation utilities



A borough of Port-au-Prince

The Government of the Haitian Republic started an in-depth legal and institutional reform as there is a need for modernizing, in a sustainable way, the drinking water supply and sanitation sector.

Since September 2007, within the Water Law currently to be ratified by the Parliament, and upon the request of the Haitian Ministry of Public Works, Transport and Communications (MTPTC) in charge of water utilities, **IOWater** has been entrusted with the study of the future organizational model for utilities, taking into account the new three-fold principle based on:

- **the creation of a regulating body at State level** to plan and coordinate the sector,
- **the decentralization of work control towards OREPAs** (Regional Drinking Water Supply and Sanitation Offices) which will be the regional organizing Authorities,
- **the diversification of the methods for field management** of the drinking water supply and sanitation utilities.



A waterhole in Haiti

The context is such that the studies undertaken in Port-au-Prince metropolitan area and in rural areas are carried out at the same time, while taking their specificity into account.

After an inventory of the current utilities carried out in 2007, suitable technical (including resources availability and quality), economic and

financial analyses are being undertaken to define:

- **technical Master Plans** for water supply and sanitation,
- **incomes and expenditures as balanced as possible for the sector**, based on pricing models adapted to the socio-economic situation, while planning and prioritizing the necessary investments,
- **institutional scenarios of relevant organizations** between each stakeholder of the sector, based on a legal and sustainable framework,
- **optimal financial arrangements** for the planning of investments to be made (international assistance, subsidies, loans, equalization, amortization, etc.),
- **the future "action plan"** of the sector's stakeholders (including the OREPAs), based on the Master Plans selected for Port-au-Prince and rural and semi-rural areas.

IOWater and CALIA Consultants are carrying out this study by validating each alternative with the Haitian Authorities, which select the optimal model(s) for the whole territory (urban, peri-urban and rural).

In addition, within the World Water Day on 22 March 2008, the MTPTC (Ministry of Public Works, Transports & Communications) organized a **Symposium in Port-au-Prince on "Sanitation in Haiti: characterization and prospects"** with the objective of:

- ❖ presenting the Haitian sanitation problems, from a technical and institutional viewpoint;
- ❖ presenting innovating methods for improving sanitation;
- ❖ initiating thoughts on the definition of a sanitation strategy in Haiti.

During this Symposium, **IOWater** presented its proposals for the Haitian sanitation policy and the inter-sectoral policies to establish.

Since May 2008, **IOWater** has been defining a pricing policy giving access to drinking water for the poorest populations.

As it is advisable that the Haitian State controls the performances of water supply and sanitation utilities with the set-up of an information system on service quality, a data-gathering system and indicators, thus a supervision and regulation system, have been just proposed.



INVITATION

5 Topical Sessions 3.1:

20 March 2009 - 8:30 - 19:00

21 March 2009 - 8:30 - 13:00

"Basin Management and Transboundary Cooperation"
Sutluce A - Kagithane Hall - Istanbul

6th Conference of the "EUROPE-INBO 2008" Group



SIBIU, ROMANIA, 1-3 OCTOBER 2008



This year, the conference of the "EUROPE-INBO" group took place in Sibiu, in Romania,

from 1 to 3 October 2008, at the invitation of the Romanian Ministry of the Environment and Sustainable Development. It gathered 195 participants coming from 26 countries.

This conference was an important step before the World Water Forum of Istanbul in March 2009: draft "Basin" chapter for the European regional document, joint writing of a handbook with GWP on IWRM implementation in river basins, preparation of the sessions of topic 3.1. of the Forum on "River Basin Management and Transboundary Cooperation".

A workshop on the IWRM-Net project (European network of research programs on IWRM) was organized as a side event in order to identify the needs for research related to the WFD and to prepare the second transnational research program.

The EU-non-member countries (the Mediterranean, Eastern Europe, the Caucasus, Central Asia) were very active in the discussions, due to their growing interest in the WFD principles.

The participants wished that the "EUROPE-INBO" Group had a more important place in the WFD Common Implementation Strategy (CIS), as a "spokesman of the Basin Organizations" towards the European Commission and Water Directors.

The conclusions of the Conference were reported to the Strategic Coordination Group on 6 November 2008 in Brussels and a note on the WFD implementation in transboundary river basins was presented to the European Water Directors on 25 November 2008 at their meeting in Paris.

The three workshops dedicated to the WFD presented many case studies and exchanges were particularly worthwhile.

Workshop 1: Preparation of the Programs of Measures

Much work has been done but significant challenges are still to be met.

➤ Relevant scales and involvement of local stakeholders

The Programs of Measures should be developed on relevant river basin scales, not only at the large river basin level, but also in a more detailed manner at sub-basin level.

In WFD field implementation, the local politico-administrative stakeholders (municipalities, provinces, counties, departments, regions), together with the local economic interested parties, will be front-liners, especially for the investments to be made.

However, the consultation process defined in the WFD is not sufficient in itself to mobilize these local stakeholders. The WFD approach should be better explained and its added value made known. The governmental authorities should mobilize themselves not only for enforcing regulations (basic measures) but also for supporting the local stakeholders in their projects.

➤ Delays and uncertainties

As the deadline of 2015 will come very quickly, it is necessary to launch now the measures for which there are no more debates, without waiting for their formal adoption at the end of 2009.

There are still many uncertainties about the real efficiency of certain measures, about the time necessary to carry out projects in the field and to obtain positive results on the quality of water and eco-systems.

The time factor is indeed of prime importance and questions are raised about the timeframe of WFD implementation.

The implementation of pre-existing "nitrates" and "waste water" Directives should be at the core of the Programs of Measures. On the one hand, it is necessary to fill the gap in sanitation. On the other, as regards agriculture, INBO is concerned by the lack of ambition noted in the preparatory documents of the CAP Health Check. The Programs of Measures should include proactive measures from now on, otherwise it will be very difficult to obtain positive results in 2015 and even in 2021. **INBO thinks that without a true reform of the CAP, it will be almost impossible to change this situation.**

INBO recommends increasing the means devoted to wetlands and hydromorphology as the functional restoration of aquatic environments is of prime importance for achieving good ecological status.

It is also urgent to reinforce the protection measures for groundwater, to make for lost time.

➤ Definition of realistic objectives

The definition of objectives, exemptions and delays is still a major concern for Basin Organizations despite the work carried out within the CIS. Information has not always been fully disseminated to them and the position remains unclear. As regards the criteria of disproportionate cost, INBO proposes creating an inside working group to share information between Basin Organizations.



195 participants coming from 26 countries

"For facilitating the implementation of the European Water Framework Directive"

A survey, carried out during the workshop with the attending basin representatives, shows that the percentage of water bodies achieving good status in 2015 could vary a lot, between 25% and 75%. Exemptions will be necessary, not only because of technical aspects but also on account of financing capacities. The objectives can only be reached when the corresponding financial mobilization is possible.

However, additional financial efforts will be needed, maybe up to +30 % in some districts, and this will probably imply an increase of the water price and raises the question of acceptability by users, especially in the current context of economic crisis!

The issue of overseas territories was underlined, and more widely in EU peripheral areas, especially the need to have specific references and to define a framework for regional cooperation with their non-European neighbors.

Workshop 2: Implementation of the Flood Directive

The Flood Directive provides an essential European framework. It gives a strong signal: it is no more only a question of building defense infrastructures, but of adopting an integrated prevention policy with real changes in policies, institutions, decision-making processes according to 4 pillars: **forecasting flooding events, reducing vulnerability, protecting people and goods, alerting and educating populations.**

The implementation of the Flood Directive and WFD should be coordinated. But difficulties are encountered in practice, because the administrations concerned are often distinct or act on different territories/scales.

INBO recommends integrating from now on the elements of the flood risk management plans into the 1st WFD River Basin Management Plans (2009-2015) and the totality in the 2nd management cycle (2015-2021). It would be useful to develop a guide of good practices to take into account the requirements of both directives.

The presentations showed the advantage of a proactive prevention policy. As a whole, the invested amounts are lower than the costs of avoided damages. But it will be difficult to invest as much as necessary for the prevention



of exceptional floods, which will become more frequent with climate change.

The implementation of the Flood Directive requires increasing exchanges of good practices between countries, formulating national strategies and supporting Local Authorities.

Workshop 3: Transboundary Basins: progress report

The WFD brings real added value in European Transboundary Basins, by providing a common reference framework (objectives, methods, deadlines, production of common planning documents). It increased coordination of actions between riparian States and the positive role of international commissions (when they do exist) was underlined.

But huge work is still needed. Management Plans of International River Basin Districts still too often look like a patchwork of national elements, as each Member State remains responsible towards the Commission for the WFD implementation in what it is concerned.

Although WFD gives a common frame, the national legislations are remaining different in the same international district and the countries do not have the same priorities and deadlines, even for the same types of measures. This is particularly obvious when a river basin is shared with countries not members of the European Union in the Balkans and Eastern Europe.

The Basin Organizations concerned by this transboundary context highlighted specific needs: providing more human and financial resources to the "National" Basin Organizations concerned and to the International Commissions; improving the decision-making

process in International Commissions; developing common systems for monitoring and data management; better coordinating the Programs of Measures and giving more ambition to the roof section of the management plan; developing a true public consultation on the international district scale; organizing joint management of transboundary aquifers; better coordinating the management of floods, droughts and climate change.

The work completed in the river basins shared by EU and non-EU member countries is encouraging but it will be necessary to increase the institutional and financial support to non-EU countries to achieve the WFD objectives in these basins.

At the end of the conference, **Mr. Alfredo DI DOMENICANTONIO**, Director of the Tiber Basin Authority was congratulated for the last year Italian Presidency of **"EUROPE-INBO" Group.**

He handed the Presidency to Mr. Marius POSTELNICESCU, Director General of the National Administration of Romanian Waters (Apele Romane).

The Romanian Authorities were thanked for the organization of this conference and their warm welcome.

The 7th conference of the EUROPE-INBO Group will be held in the Ukraine in autumn 2009.

The final resolutions, presentations and photographs are available on the Website:

www.inbo-news.org



EUROPE

"SPI-Water"

How to improve the science/policy interface?

Proposals for facilitating the transfer of the IWRM principles towards non-European countries

In the past, many Research and Development projects tried to establish links between science and policy. However, experience shows that these relations are not as effective as they should. Usually, the research outcomes are not easily available to the decision-makers and water managers and, on the contrary, researchers lack visibility of the users' needs.

The "Science-Policy Interfacing in support of the Water Framework Directive implementation - SPI-Water" project (2006-2008) financed by the 6th EU Framework Program for Research and Development gathers 16 European and non-European partners. It proposes practical actions to fill the gaps by developing a "science/policy" interface, focusing on a mechanism for improving the use of the research outputs resulting from the implementation of the Water Framework Directive (WFD).

For 2 years, the **SPI-Water** project has been:

- Evaluating the projects and initiatives developed for managing river basins, targets for WFD implementation. The scientific knowledge, research outputs and demonstration projects thus collected were entered into the **WISE-RTD** knowledge base;
- Analyzing water policies in non-European countries for facilitating the implementation of the principles of Integrated Water Resources Management;

- Assessing the needs in the two Mediterranean pilot basins of Sebou (Morocco) and Litani (Lebanon), while complying with the WFD methodological framework;
- Studying the applicability of WFD practices in non-European countries and identifying activities for facilitating their implementations in these countries;
- Producing recommendations to improve the appropriation and dissemination of the obtained research outputs in non-European countries.

IOWater coordinated the drafting of the recommendations.

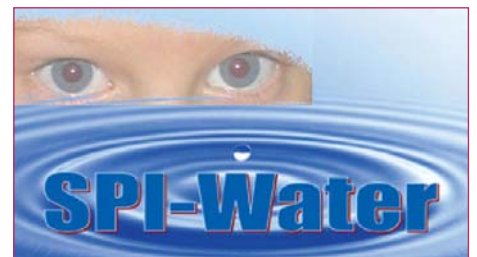
Recommendations:

They are regrouped in 5 families:

- **Building a continuous dialogue:** Creating a Scientific-Political Interfacing (SPI) platform gathering non-European decision-makers and scientists;
- **Promoting technological and social innovations:** Developing an operational body for supporting the Mediterranean countries not members of the European Union;
- **Transferring efficiently RTD results:** Identifying the needs of river basins and using the WISE-RTD portal to give them adapted answers;

- **Organizing scientific dialogue and promoting a proactive approach to research users:** Informing researchers of the users' needs by developing participatory processes between the managers of water and research programs;
- **Disseminating knowledge:** Promoting twinning and knowledge transfer via the international networking of water management organizations.

These recommendations were discussed at a final conference organized in Brussels in October 2008 for water managers, researchers, political decision-makers, representatives from European and non-European countries.



The recommendations are available on:

www.spi-water.eu
www.wise-rtd.info



Priority substances

What concentration in which basin?

IOWater, associated with **INERIS**, was selected to provide a 3-year technical assistance to **the DG Environment of the European Commission** (2005-2008). This contract was renewed this summer for a new 3-year period (2009-2011). This mission should lead to **a revision of the list of priority substances of the Water Framework Directive (WFD).**

Within this framework, one of the very first collections of data on the follow-up of dangerous substances in the environments on a European scale was completed by **IOWater**.

Upon the request of the Water Unit of the Directorate-General Environment, **IOWater gathered about 6 million official analyses on the chemical substances which are a problem or a potential problem and found in water in the various European basins between 2000 and 2006.**

The database thus created covers 26 countries including 24 Member States and concerns about 900 substances. The base is built so that each analysis can be located on a map by the position of the measurement point.

It should be used for selecting the future priority substances to be recorded in the list appended to the Water Framework Directive (appendix X of the 2000/60/EC Directive).

The collection should continue during the coming years to adapt the list to the evolutions noticed in the environments. The base views what will be included in the European WISE information system. It was published on line at the end of 2008.



EUROPE



Transnational research is starting

IWRM-Net is an ERA-Net (European Research Area) project aiming at undertaking joint transnational research programs related to integrated water resources management. **IWRM-Net is financed by the European Commission for 5 years (2006-2010) and coordinated by the International Office for Water. The project gathers 20 partners coming from 14 Member States.** ONEMA joined the project in 2008 as a permanent observer.

Launching of the first joint program: a success story

The donors of the first joint program met in Berlin in May 2008 to select research projects among the submitted seventeen within the call for proposals launched at the end of 2007.

Two projects called **FORECASTER** (Facilitating the application of the Case Studies on Ecological Responses to hydro-morphological Output from Research degradation and rehabilitation) and **RIPFLOW** (Riparian vegetation modelling for the assessment of environmental flow regimes and climate change impacts within the WFD) were retained for the topic "Hydro-morphological pressures/impacts on good ecological status" and a project named **I-FIVE** (Innovative Instruments and Institutions in Implementing the Water Framework Directive) was adopted for the topic "Water Governance". Research began during the last quarter of 2008.

IWRM-Net: a network which sees far...

Using this first experiment, **IWRM-Net** is preparing its second call for projects, the launching of which is planned at the end of 2009. Again, the method of identifying research needs is based on a series of regional workshops through Europe. The workshops aim at drawing up the list of research priorities for each regional area considered:

- Valencia, Spain in June 2008, for the Mediterranean area;
- Sibiu, Romania, in October 2008. This workshop joined the General Assembly of the EUROPE-INBO Group of European Basin Organizations for WFD implementation;

- Stockholm, Sweden on 18 and 19 November, for the Baltic countries;
- Brussels, Belgium on 10 February 2009.

Within **IWRM-Net**, the French Ministry of Ecology, Energy, Sustainable Development and Regional Planning (MEEDDAT) organized a conference in May 2008 on the prospective stakes related to water in Europe.

A work for convergence of short and long-term topics for drawing up the 2nd joint program will be finalized in a meeting of the potential donors in May 2009.

Simultaneously to these activities, **IOWater initiated a cycle of meetings with the other ERA-Nets dealing with water** (CRUE, SPLASH, SNOWMAN, CIRCLE) in order to plan a common strategy for the sustainability of the various networks after 2010.

The progress report of **IWRM-Net** activities and the draft program of the next call for projects will be presented at the international conference, which will take place on 10-11 February 2009 in Brussels.

You can join **IWRM-Net** community by registering on:

www.iwrn-net.eu



Conference on Dialogue and Water Management

**Paris
26-27 February 2009**

The French Ministry of Ecology, Energy, Sustainable Development and Regional Planning (MEEDDAT), IOWater and ECOBAG are organizing a Conference on Dialogue and Water Management, on 26-27 February 2009 at Hamelin Space (Paris XVI).

It will especially be based on the outputs of the research programs entitled "Dialogue, Decision and Environment" (DDE) and "Water and Territories", financed by MEEDDAT.

This Conference aims at identifying the ways of improving dialogue between researchers and operational stakeholders working in the field and the sharing of good practices regarding dialogue.

Synthesis of the work carried out during this conference will be then published in the form of recommendations.

More information:
n.amorsi@oieau.fr



Invitation

**Session 6.1.1:
20 March 2009 - 11:00 - 13:00**

**"Knowledge for all -
All for knowledge"**

**Coordinated by IOWater
and IWRM-net**

Feshane Hall - Room 6 - Istanbul

EUROPE

"ISONITRATE"

Isotopic follow-up of pollution by nitrates: towards water policies adapted to the kinds of pollution

ISONITRATE, a LIFE European demonstration project (2007-2009) coordinated by **BRGM**, is addressing the decision makers and managers of the water world to show the added value of isotopic follow-up in understanding pollution by nitrates in groundwater. **ISONITRATE** aims at showing how an isotopic approach allows a better characterization of the river basins, distinguishing the various sources of nitrates and analyzing the pressures / impacts of pollution by nitrates.

The **ISONITRATE** objective is finally to help formulate policies adapted to the various sources of pollution identified.

IOWater intervenes in the dissemination of the project outputs.

During this first year, conclusive results already could be evidenced, thanks to the sampling campaigns carried out over two periods (winter and summer). The isotopic approach was used in four well differentiated sites: complex site with pollution by nitrates of multiple origins, simple site where only one kind of pollution was identified until now, natural site where nitrification would be independent from human activities and a natural nitrate removal site.

The sampling campaigns are going on.

ISONITRATE presented its intermediate outputs during the conference, entitled: a European policy for groundwater, organized at the UNESCO in Paris on 13-15 November 2008.

isonitrate.brgm.fr



"Stockholm Junior Water Prize": French selection for 2008



The French national jury at the meeting on 6 May 2008

The FEEE (Foundation for Environmental Education in Europe) rewarded, for the fourth year, the prize winners of the French selection for the "Stockholm Junior Water Prize", organized by SIWI (Stockholm International Water Institute).

The French national jury met on 6 May 2008. It was chaired by Mr. Jean-François Donzier, **IOWater's** General Manager.

Finally the high-school pupils of the 1st STAV (Sciences and Technologies of Agronomy and the Living) of the Agricultural College of

Thiérache, in Fontaine-les-Vervins, and their document "Naiads in Picardy" will compete at the final Swedish Prize contest.

The other French prize winners are:

- Sciences and Technology: "Water in Chantilly, a scientific review" by the College of the Burgundies in Chantilly,

- Public Mobilization: "I protect my college, I protect my planet" of the Julliot-de-la-Morandière College in Granville. The three first prizes of the French selection were handed in the lounge of the Swedish Embassy in France, in the presence of the partners of this environmental education project, and the prize winner was designated to represent France at the international final competition in Stockholm at the Water Week at the end of August 2008.

✓

Ukraine

"National Dialogue on Integrated Water Resources Management"

The 1st Meeting of the Management Committee of the "National Dialogue on Integrated Water Resources Management" took place last April in the National Academy of Sciences of Kiev, at the initiative of OSCE (Organization for Safety and Cooperation in Europe), EUWI (European Union Water Initiative) and UNEP.

Representatives from the **Ukrainian National Water Committee** presented the situation of water resources in their country as well as drinking water supply and sanitation, and talked about the impact of climate change.

International experts, including Messrs. Jean-François Donzier, General Manager of the **International Office for Water**, Rainer



Enderlein of UNECE and Jos G. Timmerman, of the "Center for Water Management" of the Netherlands, presented the new IWRM approaches, which could be adopted by the Ukrainian National Water Committee.

✓

EUROPE

Bulgaria

An institutional twinning for WFD implementation in Bulgaria: Programs of Measures and Economic Instruments

The Bulgarian Ministry of Water and the Environment selected France as partner in the institutional twinning financed by the European Union, which will deal with **WFD implementation** and more particularly with the capacity building of the Bulgarian water management authorities for the preparation of the Programs of Measures and the implementation of economic instruments.

This 18-month project will be led by **IOWater**, mandated by the French Ministry of Ecology, Energy, Sustainable Development and Regional Planning (MEEDDAT) for following up the twinning agreements in the water sector.

As a continuation of the cooperation, which has been developing for several years between the French Water Agencies and the Bulgarian Basin Directorates, the Artois-Picardy Water Agency will be widely involved in this project by delegating Arnaud Courteuisse, Head of the Studies and Economic Evaluation Department, who will become the twinning resident adviser in Sofia, and

various specialists who will participate in short appraisal expert missions.

The Rhone-Mediterranean and Corsica Water Agency will intervene with experts' assignments and study visits supervised by François Guerber, in charge of international activities.

Experts from the MEEDDAT, BRGM and **IOWater** will also contribute to the work dealing with:

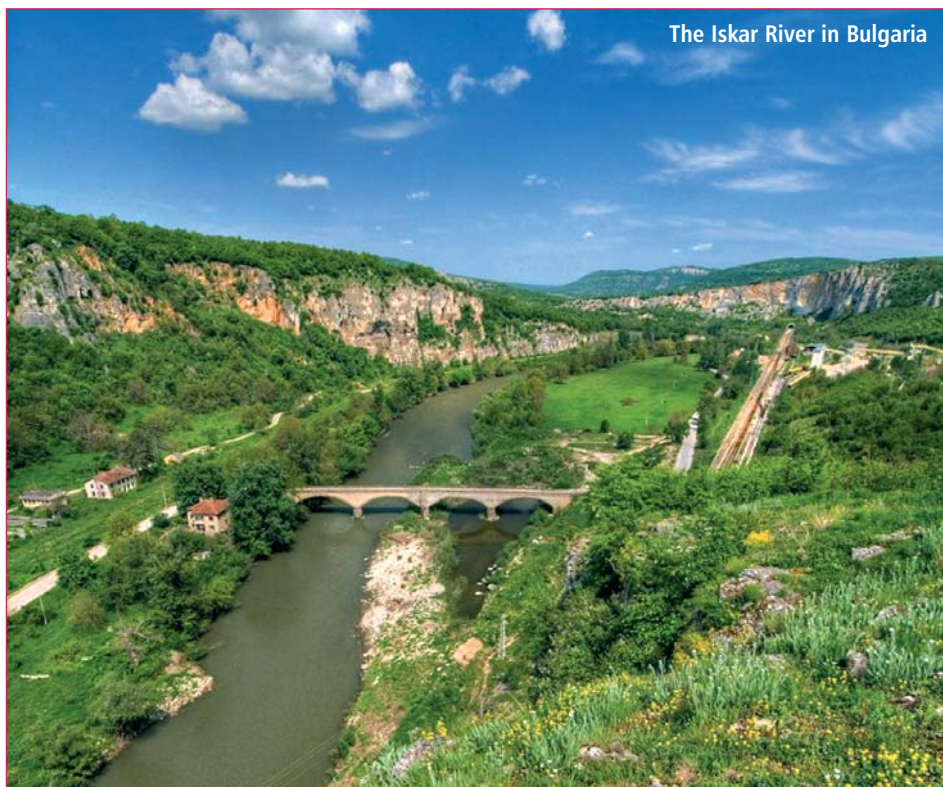
- **a huge training program for the Bulgarian authorities on the development of Programs of Measures and economic analyses**, with the organization of training seminars and workshops in Bulgaria, two study tours to France, the use and adaptation of role playing games to the Bulgarian context, etc.
- **assistance with the revision of the tax computation and levying system** which will contribute to the financing of the Programs of Measures, and with the creation of the data-processing tool allowing the centralization of the information.

A **"Program of Measures and economics" working group**, made up of Bulgarian experts of the Ministry and of each Basin Directorate, was created for following up the project activities, analyzing the proposed methodologies, implementing tests in the pilot basin, contributing to the development of guidance documents and the dissemination of the experience gained to all the teams concerned by WFD implementation in Bulgaria.

Exchanges have already started without waiting for the official project kick-off, with the organization of a 2-day seminar at the end of May 2008 at the French Embassy in Sofia.

The seminar was opened by **Mrs. Lubka Katchakova, Vice-Minister in charge of water**, who, with the support of Galina Balusheva, senior expert at the Water Protection Department, will supervise this project considered as a priority by the Bulgarian Authorities.

The seminar dealt with a first introduction to the French experience regarding the development of Programs of Measures and the drafting of a work plan to quickly launch the preparation of the programs of measures and public consultation which are the next steps in the WFD schedule in Bulgaria.



The Iskar River in Bulgaria



5th WORLD WATER FORUM
ISTANBUL 2009





Invitation

Regional Session Europe:
17 March 2009 - 14:00 - 19:00

ROUNDTABLE:
**"European Experience
in Transboundary Basins"**

Sutluce - Istanbul

Kosovo

Better watched river waters



Tests of the European methods used for assessing ecological status with aquatic invertebrates

For the purpose of matching its legislation and administrative methods for water management with the European "standards", the Water Department of the Ministry for the Environment and Regional Planning of Kosovo is the current recipient of a project financed by the European Union and implemented by the European Agency for Reconstruction and the Liaison Office of the European Commission in Pristina.

A team made up of three long-term international experts, local experts and short-term international experts of GFA Consulting Group GmbH, Bas-Rhône Languedoc International and IOWater provided **assistance to the Kosovar authorities for establishing**

water monitoring programs, developing Integrated Information Systems and for building institutional management capacities for basin management purpose.

During the first half of 2008, special effort was made in a **pilot basin of a tributary of the Drini River**. The undertaken activities aim at developing monitoring methods allowing defining the ecological status of rivers, better understanding the great management stakes and analyzing the data management chain in order to formulate recommendations on the monitoring of the status of water bodies in the entire country.

Within this framework, **IOWater** experts participate in the development of methods for the biological monitoring of rivers and of quality elements which were not followed up until now in Kosovo (Fish, invertebrates, diatoms, etc.). Training programs carried out in situ also allowed the collection of field data and the testing of the European tools developed by the Member States within the Common Implementation Strategy (CIS) of the European Water Framework Directive.

In order to complete the activities in the pilot basin, a working group was made up and gathers representatives of the various departments of the Ministry for the Environment and Regional Planning, the Hydrometeorological Institute, universities but also municipalities or water utilities.

Work on modeling, definition of the structure of the future water information system, flood management and on wastewater management also started at the national level, in parallel to the activities undertaken in the pilot basin.



Training course on electric fishing methods



INVITATION







Basin Management and Transboundary Cooperation at the 5th World Water Forum in Istanbul

- **17 March 2009** (17:00-19:00) **Regional European Session - Sutluce**
 European Water Partnership - INBO - Role of Europe in the world - Transboundary Basin Management
- **18 March 2009** (14:30-19:00) **Side event - European Union - China River Basin Management Program**
 Yellow River Commission - INBO - RM&C French Water Agency - University of Liege - Pô River Basin Spanish Ministry for the Environment
- **20 March 2009** (08:30-19:00) **Topical sessions 3.1 - Basin Management and Transboundary Cooperation - Sutluce**
 (08:30-10:30) **session 3.1.1.:** Hydro-solidarity successes and failures
 (11:00-13:00) **session 3.1.2.:** Water users' participation
 (14:30-19:00) **session 3.1.3.:** Institutional tools for Transboundary Cooperation
- **20 March 2009** (19:00-20:00) **INBO - GWP presentation: "Handbook for Basin Management" - Sutluce**
- **21 March 2009** (08:30-13:00) **Topical sessions 3.1 - Basin Management and Transboundary Cooperation - Sutluce**
 (08:30-11:00) **session 3.1.4.:** Technical tools for River Basin Management
 (11:00-13:00) **session 3.1.5.:** Work synthesis and conclusions
 (13:00-14:30) **IWRM side event: Governance of River Basins - French Pavilion**
 French Water Partnership - French RM&C and Artois-Picardy Water Agencies

THE MEDITERRANEAN

"INECO"

Institutional and Economic Instruments for Sustainable Water Management in the Mediterranean Region



National workshop in Lebanon

Research focuses on the alternative institutional and economic instruments which allow promoting equity, economic effectiveness and environmental sustainability in water resources management.

The main goal of **INECO** is to develop the stakeholders' skills and constructive commitments in planning Integrated Water Resources Management.

INECO is supported by the European Commission within the INCO Program - Topical priority of the Mediterranean Partner Countries (MPCs). It gathers 14 institutions from 10 Mediterranean countries (Greece, France, Italy, Cyprus, Tunisia, Egypt, Lebanon, Syria, Algeria and Morocco), including public (6), private (7) and international (1) organizations. The project, which extends over 3 years, began in July 2006 and will be completed in June 2009.

INECO deals with the various problems encountered in decision-making processes and with the difficulties of the current governance structures in the Mediterranean Basin.

The project focuses on three challenges:

- **Water sharing**, with (institutional, regulatory, legislative and economic) mechanisms to be created for allocating water resources in river basins;
- **Giving a value to water**, with cost assessment, maximization of economic effectiveness, implementation of cost recovery and of the "user-pays" and "beneficiary-pays" principles;
- **Improving the governance of water** and institutional environment which allows the implementation of Integrated Water Resources Management.

In a first step, the **International Office for Water** carried out an inventory of the best practices and institutional and economic instruments used in the following countries: The United States, Japan, Australia, Israel, Argentina, Chile and Canada.

Then **IOWater** sought to see how some of these measures could be adapted in the Southern Mediterranean countries, partners of the project. It then organized, with its various partners, **national workshops** to analyze the water-related problems and to propose solutions.

It finally organized, with the International Center for Environmental Technologies of Tunis, a Conference for summarizing this work.

IOWater wrote the synthesis of the various national workshops and the report of the Tunis Conference.

INECO should be seen as a "social experiment" for developing skills and political structures.

INECO aims at providing experience and enabling local societies to change their perceptions and their water management practices. The project will provide complete and adaptable recommendations.

<http://environ.chemeng.ntua.gr/ineco>



"MELIA"

"MEDiterranean diaLOgue for Integrated water manAgement"



MELIA is a program selected by the European Union within its 6th FPRD. Started in 2006 for 4 years, it gathers 45 participants (public authorities, international organizations, NGOs, universities, etc.) from 16 Member and non-Member States of the European Union.

policies in the Mediterranean Basin.

Its objectives are also to develop awareness on social, economic and technical issues related to water management, to propose participation mechanisms to avoid competition between the regions and the various water

MELIA aims at evaluating the methods for Integrated Water Resources Management (IWRM) in the Mediterranean countries, using the regulations of the **European Water Framework Directive (WFD)** to harmonize water management

users, to support sustainable water policies and to provide indicators to implement the benchmarking of IWRM.

IOWater intervenes on all the topics of the project; it is responsible for **analyzing the water policies of the various countries and for identifying the main factors which condition the development and implementation of these policies**, such as scarcity of the resource or the concept of sustainable development.

www.meliaproject.eu



EMWIS:

Euro-Mediterranean Information System in the Water Sector

Italy is now chairing the Steering Committee

On 21 July 2008, as a side event of the Conference of the Euro-Mediterranean Water Directors, which was held in Athens, France officially handed to Italy the **Presidency of the Steering Committee of the Euro-Mediterranean Water Information System (EMWIS)**.

The new President, **Mr. Walter MAZZITTI**, congratulated France and more particularly its Water Director, **Pascal BERTEAUD**, for the progress made during the last three years and for his initiative to strengthen the Euro-Mediterranean cooperation mechanisms which will be opened by the next Euro-Mediterranean Ministerial Conference occurring nearly 10 years after that of Turin on local water management which took place in October 1999.

National Focal Points

The 8th meeting of **EMWIS** Coordination Committee took place in Madrid (Spain) on 25 - 26 June 2008. This meeting allowed making an evaluation of the actions carried out in the countries and an analysis of the progress made in the implementation of their **National Water Information Systems** by introducing the 1st elements of harmonization with the **Water Information System for Europe (WISE)**.

The main progresses underlined by **EMWIS Focal Points** are better cooperation between the parties involved in water information management, the availability of a site of reference on water per country and the building

of human and material capacities. Water data management remains a priority for the future. Awareness and education on water saving were identified as important topics for future exchanges of know-how.

Synthesis and knowledge transfer

The reports of the working groups on **"treated wastewater reuse"** and **"drought and water scarcity"** have been published. These groups, initiated with the Water Framework Directive (WFD) and Med-EUWI (Mediterranean component of the European Water Initiative) Joint Process, aim at making characterizations and recommendations using the WFD principles. Additional work is undertaken on indicators for drought and water scarcity.

An analysis of the monitoring networks will be presented at the beginning of 2009.

Partnerships

EMWIS is preparing an agreement with the **African Water Facility** to support the development of **National Water Information Systems** in the North African countries. A 1st joint action in Tunisia should allow validating the technical and organizational aspects to implement such a system thanks to a joint financing from the World Bank, AFD and the African Development Bank.

A second agreement is in its finalization phase with the **World Water Council** within the Alliance for a Global Water Information Mechanism.

Finally, **EMWIS** has joined the **Mediterranean Water Partnership**.

A Mediterranean entry in the Water Information System for Europe (WISE)

This project, initiated at the beginning of 2008 with the DG Environment of the European Commission, aims to facilitate access to quality data on water in the Mediterranean Partner Countries (MPCs) while supporting, thanks to common rules, **compatibility between the National Water Information Systems and the Water Information System for Europe (WISE)**.

This work is undertaken in close cooperation with the European Environment Agency. In addition to the definition of technical recommendations, the implementation of a "Mediterranean" entry point on WISE website is also analyzed as a pilot demonstration for all the countries concerned by the Neighborhood Policy of the European Union.

Two topics of the working groups of the Mediterranean Water Initiative / Water Framework Directive joint process are the subject matter for information gathering and experience sharing:

- **Networks and water monitoring programs**, for which an inventory is going on and a workshop will be organized in spring 2009. This inventory will also be useful for the monitoring sub-group of the "Horizon 2020 Initiative", the aim of which is pollution removal in the Mediterranean;
- **Drought and water scarcity**, pursuant to the recommendations of this group report (June 2008), a proposal for indicators, based on the practices of the partner countries, will lead to a regional synthesis in 2009.

Finally, an on-line metadata catalogue of the sources of water information in the Mediterranean Partner Countries is being prepared, in accordance with the last rules for the implementation of the INSPIRE Directive on spatial data.

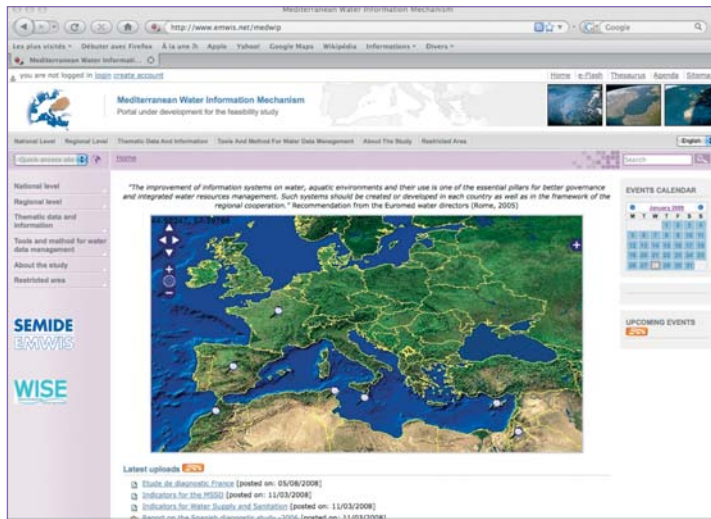


Conference of the Euro-Mediterranean Water Directors
Athens - July 2008

THE MEDITERRANEAN

SEMIDE EMWIS

Towards a long-term water strategy in the Mediterranean area



This program relies on the development of National Information Systems in each country and of a regional and shared water information system in the Mediterranean area, based on two great principles: the voluntary partnership of the States which would like to join the project, and the respect of data confidentiality.

A regional water information mechanism in the Mediterranean area?

In the context of climate change with strong impacts on water resources, which might be significant in the whole Mediterranean Basin, it is impossible to circumvent having knowledge of the quantitative and qualitative status of water resources, of the status and prospects for evolution of the pressures on these resources, in terms of abstraction and pollution, to prioritize actions and to evaluate the performance of the programs undertaken in the Mediterranean Basin.

Upon the request of **EMWIS Steering Committee**, a feasibility study on the development of a **Regional Water Information Mechanism** was carried out, under the technical coordination of the **International Office for Water**.

The analysis of the needs, carried out in 7 pilot countries and involving many regional organizations, allowed emphasizing the difficulties currently encountered in the phases of data gathering and enhancement at the regional, national and local levels. The study recommends the implementation of a program to develop the production, interpretation and dissemination of comparable information between the interested countries.

The study details a multi-year implementation plan aiming at:

- ◆ **Strengthening the National Water Information Systems of the volunteer countries;**
- ◆ **Developing the interoperability of the information systems;**
- ◆ **Organizing the production of indicators of general interest, based on a consensus between the organizations concerned;**
- ◆ **Structuring regional collaboration;**
- ◆ **Building the human and material capabilities of the institutions in charge in each participating country.**



"Mediterranean water knowledge hub"

Towards a Mediterranean Information and Resource Network?

The development of such a network in the water sector could be equivalent to the Anglo-Saxon **"Knowledge Hubs"**. Those are based on the principle of partnership between the stakeholders working in complementary fields: each stakeholder, recognized as leader in its field, facilitates a network, collects and disseminates knowledge; self-sufficiency of each stakeholder is required to guarantee the sustainability of the network.

The development of such a **"Mediterranean water knowledge hub"** could start with very diverse bodies having different statutes and nationalities, since each stakeholder has its own development and management logics.

The Network is a way of sharing objectives and results, of developing synergies, of being controlled by the project managers or an Orientation Committee, and of sharing common tools and available means, human resources in particular.

The **"Mediterranean Information and Resource Network in the Water Sector"** should develop starting from the existing and perennial bodies working in the following sectors:

- ◆ Water Stakeholder Partnership;
- ◆ Regional Water Information Mechanism;
- ◆ Documentation exchange system;
- ◆ Network of the water training centers;
- ◆ Increase and enhancement of research in the water sector;
- ◆ Project Task force;
- ◆ Prospective, etc.

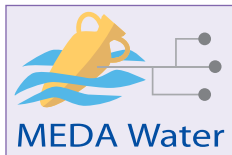


THE MEDITERRANEAN

MEDA-Water

Promotion of the Program outputs

Conference of Marrakech - Morocco - April 2008



The **MEDA-Water** Program was implemented from 2003 to 2008, in partnership with South

Mediterranean Universities and their European counterparts. It aims at promoting local water management through cooperation projects in the sectors of training and know-how transfer, technological innovation and users' awareness.

Nine projects were implemented and the Regional Monitoring and Support Unit (RMSU) is responsible for promoting their outputs.

This unit is established in Jordan at the Regional Delegation of the European Commission, it is managed by a consortium coordinated by the Mediterranean Water Institute, with **IOWater** and the Danish SYKE institute as partners.

A conference, held from 28 to 30 April 2008 in Marrakech in Morocco, gathered a hundred representatives of the projects and Authorities from the countries concerned. They emphasized the significance of information exchanges at the regional level and the urgency to organize a dialogue between the authorities and the populations at the local level. The climate change consequences were a concern in all the discussions.

For each topic dealt with in the MEDA-Water projects, precise recommendations were formulated, in particular:

- **Importance of decentralizing decisions on water management,**
- **Public information on suited low-cost technologies,** in particular to local micro-companies,
- **The "Public-Private" partnership** as a new tool for implementing water policies.

In 2008, **RMSU**, in partnership with **EMWIS** (Euro-Mediterranean Information System in the Water Sector) and **Med-EUWI** (Mediterranean component of the European Water Initiative), organized:

- ◆ A synthesis of indicators for each project, of the benchmarking type;
- ◆ The publication of the outputs of the MEDA-Water program;
- ◆ The design and dissemination of "newsletters" and brochures for each project;
- ◆ The development of the "medawater-rmsu" website.



www.medawater-rmsu.org



Egypt

Twinning project on the management of water quality

The twinning project on the management of water quality in Egypt, presented by the consortium made up of Italy, France and Austria, was selected by the evaluation committee and the Egyptian Ministry of Water Resources.

This 2-year project (Euros 1,300,000 of budget) will be coordinated by Giorgio Pineschi, project's permanent resident adviser.

France, whose action is coordinated by the **International Office for Water**, is entrusted with testing the development of a management plan in support to the Aswan Dam Authority and with institutional assistance for the control of accidental pollution, which will be carried out by CEDRE.



THE MEDITERRANEAN

Algeria

Institutional assistance to Basin Agencies on water taxes



At the beginning of 2008, the French Development Agency financed an institutional and legal assistance to improve the water abstraction tax, which has been adopted since the creation of the Algerian River Basin Agencies (ABH) in 1996, as an economic incentive tool for better water resources management.

This assistance was provided by Pierre Henry de Villeneuve of the International Office for Water and André Wulf, from the Seine-Normandy Water Agency.

It allowed two executives of the Algiers-Hodman-Soummam ABH to come for studying the practical aspects of water tax management at the Seine-Normandy Water Agency.

This in-depth thinking about the evolution of the water tax in Algeria led to the proposal of practical texts, which were drawn up with the main Algerian interested parties.

It is especially necessary to combine water management planning and water tax.

The latter, now only applied to the industrial water abstractions, which remain a minority (less than 2% of abstracted volumes), must become an incentive tool for water saving applied to all the main uses of the resource.

After consolidation of this prime objective by the National Water Plan in particular, the tax could be more efficiently used to stimulate water resources conservation in Algeria.



Analysis of the training needs for staffs of the water and sanitation sector

Algeria continues to face major challenges as regards water resource mobilization and pollution control to meet an increasing demand generated by demographic growth and the economic and social development of the country.

Also, together with an ambitious investment program, the Ministry of Water Resources (MRE) has been implementing a modernization process for five years through an institutional and organizational renewal of its services.

In this context, continuing training is a genuine tool for supporting the development strategy of the sector. It covers all issues: design and planning, project management, contracting authorities and prime contractors, engineering studies, new work and repairs, preventive maintenance and operation of facilities, water resource mobilization, urban hydraulics (water supply and sanitation), irrigation, etc.

The 2004-2006 training plan, with a three-year budget of 40 million dinars (nearly 5 million euros), allowed the organization of more than 186 training courses in 30 fields. 4,000 civil servants of various ranks benefited from this plan.

On their side, the public institutions (ANBT, ANRH, ABH, ADE, ONA and ONID) supervised by the Ministry made a huge effort for training

their staffs and, in 2005, they mobilized a budget of more than 21 million dinars for the training of 1,600 agents.

The "Algérienne des Eaux" (ADE) alone used a budget of more than 16 million dinars for training 1,432 agents.

In-house training is mainly carried out by ADE and ONA training centers, and by INPE, which trains the staff of the 48 Water Directorates of the Wilayas, and outside training is carried out by training centers, dependent either of the Ministry for Higher Education and Scientific Research or of the Ministry for Training and Professional Education.

To improve the effectiveness of its training system, the MRE decided to carry out a study for defining strategic lines for the capacity building of the staffs to face unavoidable changes.

Benefiting from a financial support from the French Development Agency (AFD), this study on the "Analysis of the training needs and improvement of the staffs of the water resources and sanitation sector" was entrusted to the International Office for Water and has the following main objectives:

- Assessing the training needs,
- Analyzing the current offer of the national training system,
- Drafting the terms of reference for a multi-year training plan.



Architectural project of the "Algérienne des Eaux" training center in Algiers: 3 technical units (left) and the lodging/restaurant building

Turkey

"Water and Health" Twinning for applying European legislation on public health protection in the field of water



Speech of Mr. Abdurkadir ATALIK, State Secretary for Health during the closing session of the twinning project

This twinning, financed by the Program for Pre-accession to the European Union, started in May 2006 and was completed in June 2008.

It aimed at building Turkish capacities for applying the European Directives on drinking water (98/83/EC), bathing water (76/160/EEC and 2006/7/EC) and on mineral water (80/777/EC).

The Twinning partners were, on the Turkish side, the Ministry for Health, Directorate-General for Health, Health and Environment Department, and, on the French side, the Ministries in charge of ecology and health, as well as the **International Office for Water**.

A permanent team worked during the whole project (25 months) at the Turkish Ministry for Health. This team was made up of four people: the twinning resident adviser seconded by the Loire-Brittany Water Agency, the Turkish expert counterpart to the resident adviser, an administrative assistant and a translator assistant.

45 French experts from the Ministry for Health, the Loire-Brittany and Seine-Normandie Water Agencies, BRGM, Afssa analysis laboratories, Paris Water Company, water syndicates and IOWater, carried out assignments in various environmental health fields:

water management, monitoring of drinking water, bathing water and mineral water, bacteriology, inorganic and organic chemistry, algology, parasitology, information and databases, etc.

About a hundred Turkish experts from all the institutions were involved for various reasons: Ministry for Health, Ministries of the Environment, Agriculture, Tourism, Transport, Refik Saydam Public Health Institute, Iller Bankasi (Bank of Provinces), large metropolises, municipalities, provincial Health Directorates, laboratories.

The twinning activities dealt with all the fundamental aspects of public health:

- ◆ harmonization of Turkish legislation with the European Directives and their implementation,
- ◆ public information on water quality,
- ◆ development of protocols for water analysis and sampling,
- ◆ management of non-compliance cases.

For drinking water:

The European Directive requirements as regards the monitoring program, analysis frequencies, new parameters, as well as the responsibilities of the partners contributing to drinking water production, distribution and

their cooperation, were studied. Information and databases were a significant component.

The procedures, which must be implemented in cases of non-compliance with water quality, led to particular developments and seminars (immediate health risk during accidental events causing emergencies, long-term risk of pollution of geological origin or chronic pollution caused by human activities).

The connection between the quality of the supplied water and water resources protection was emphasized, especially the eutrophication phenomena and their effects on the treatment processes.

The difficulties and water shortages, which occurred last summer in Ankara City, illustrated the interest of having preventive measures to reduce the vulnerability of water supply, alternative measures when water shortage cannot be avoided and, in all cases, provisions to prevent negative impact on health.

For bathing waters:

The priority actions dealt with the evolution of the control organization and harmonization with the new directive published in March 2006, in particular with respect to the definition of bathing zones, coding and classification, knowledge of the pressures of polluting activities, exchanges with other ministries, municipalities and other partners, the establishment of environmental vulnerability profiles and pollution reduction.

For mineral waters:

The various experts' actions dealt with the inspection of water intakes, the monitoring of water production and distribution and marketing rules, as well as with import and export procedures.

They also dealt with the materials in contact with water and the application of the rules to avoid the migration of compounds into water and any deterioration of its quality.

THE MEDITERRANEAN

As regards laboratories:

The main actions dealt with:

- the human and material potential of each laboratory,
- the training of executives on the latest microbiological and chemical technologies, recommended by the various directives (drinking water, bathing water, mineral water) from sampling to analysis using in particular new parameters such as cryptosporidium, micro-cystine and pesticides, including the implementation of the ISO standards and standard methods, quality assurance procedures, the development of comparative tests and accreditation.
- a French-Turkish inter-laboratory comparison test was carried out and gave excellent results.

Design of a database:

A software was presented for:

- continuous quality and non-compliance management by local and national services,
- the drafting of the national reports to the European Commission,
- for bathing, classifications for opening before-season, in and at the end of the season,
- communication tools and exchanges of information between institutional partners and public information. ✓

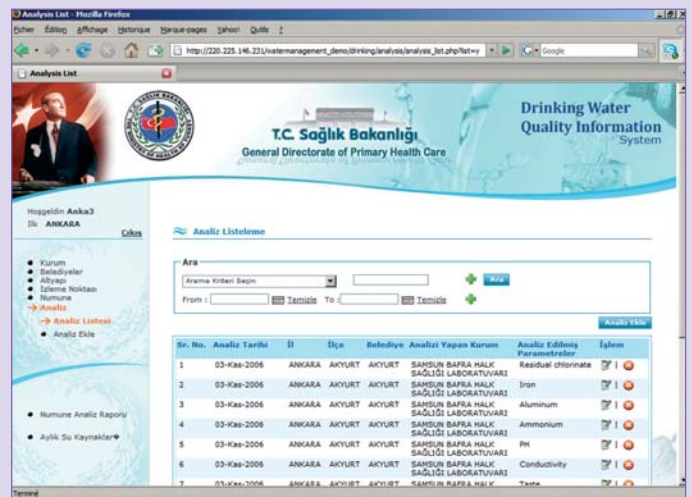


Study tour of a Turkish delegation in Montpellier in March 2007

Website on drinking water and bathing water quality

In Turkey as in France, quality control of drinking water and bathing waters is one of the responsibilities of the Ministry for Health.

Using the French experience, **IOWater** developed a Turkish Web application aiming at facilitating the collection and automated processing of the data resulting from the control of drinking water and bathing water quality.



Created in the data processing department of the Turkish Ministry for Health, this Web application allows sampling organizations and analysis laboratories to record the characteristics of the samples and the results of analyses, and offers possibilities of using these data for the production of summary reports (analysis sheets, monthly and yearly reports, etc.) by the various departments of the Ministry at local, provincial and national levels.

In this twinning project, a first phase of data gathering was organized with the provincial Directorate for Health of Ankara concerning drinking water and with the provincial Directorates for Health of Antalya and Balikesir regarding bathing waters.

✓



5th WORLD WATER FORUM
ISTANBUL 2009



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SIDE EVENT:

"Strengthening water vocational training with the International Network of Water Training centers"

Sutluce - Istanbul

Participate in the sessions
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5th World Water Forum - Istanbul
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The News N° 16 - December 2008 - January 2009

Publishing Director: Christiane RUNEL

Coordination - Production: Frédéric Ransonnette - IOWater - Paris / Editing - Translation: Gisèle Sine

Printing: GDS Imprimeurs - Limoges - N° ISSN : 0769-1995D

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