NEWSLETTER

EMWIS

EURO-MEDITERRANEAN INFORMATION SYSTEM ON KNOW-HOW IN THE WATER SECTOR

EMWIS in the context of the Barcelona Process: Union for the Mediterranean (from Marseille 1996 to Florence 2010)

Five years after the Water Directors' Forum that took place in Rome in 2005, EMWIS is delighted to be returning to Italy, this time to Florence, thanks to the hospitality of the Arno Basin Authority. The event is particularly important because at this meeting the Water Directors will hand EMWIS a new mission that takes their involvement even further. It will also provide an occasion to present a book telling the extraordinary story of the Euro-Mediterranean Partnership, starting with the 1996 Marseilles Conference, where Ministers decided to launch a regional system for exchanging information and know-how in the water sector, and going right up to Florence, which marks both an end and the starting point of a new EMWIS phase.

I think it is worth presenting here once again the introduction that I wrote for this book – partly to introduce the next Steering Committee meeting on 3 December. This also gives me a chance to thank all of those who, through their continued efforts, make it possible for EMWIS to successfully accomplish its task, flourish and move forward.

On 10 December 1997, towards the end of the evening and in the splendid surroundings of the Castel dell'Ovo in Naples, the Director-Generals of the 27 countries in the Euro-Mediterranean Partnership, responding to a mandate received from the Ministers for Water in Marseilles, unanimously decided on the creation of EMWIS, the first regional-scale project for the Mediterranean.

I can still picture my colleagues' satisfied smiles and handshakes. At that moment, I could clearly see that the Partnership spirit was at work, and in a most unexpected fashion. In a climate of great reciprocal confidence, we were giving the green light to an important collaboration device for the future of water in the Mediterranean – all of us together, including representatives from countries in conflict in the Middle East. Barely two years after the launch of the Barcelona Process, there was satisfaction in seeing that it was from the world of water that came this strong and tangible signal of countries' willingness to work together and create new common development perspectives in a climate of stability and peace in the Mediterranean region.

During its 13 years of existence, EMWIS has come a long way. Since its creation, we have been working in a spirit of strong partnership with water departments in Euro-Mediterranean countries to encourage the exchange of knowledge and know-how in the freshwater domain. Today, the twenty or so EMWIS National Focal Points work concertedly to collect, organize and circulate information on local water management, find ways to improve capacities and train specialized staff, managers and decision-makers. The shared electronic network devoted to water is a reality. EMWIS's success has been recognized at the highest level and has served as an example in Latin America and sub-Saharan Africa, because it responds to a common need: to improve water management and share information better.

The enthusiasm and the desire to increase opportunities to cooperate and develop new energies are still there, as illustrated by the intense activity described in this publication.

EMWIS's energy and the results of its concerted, solid action show that the Partnership is a strong one, and that the choices made by countries over the last few years are the signs of a fertile future. I am thinking of Tunisia, for example, with its recently established National Information System. Yet I am also thinking of support for this idea that we have received from ministries in Egypt, Jordan, Morocco, Syria, the Palestinian Authority and Algeria. They are more convinced than ever that strategic water planning can only be achieved by a country if it has access to perfect knowledge based on reliable data relating to availability, quality, usage, dispersion, deficiencies, pressures and the economy. This result can only be obtained through setting up a National System, a Centre that gathers and substantiates all the information that for different reasons may seem fragmented, scattered, and held by different bodies like ministries, universities, research centres and agencies, etc.

This is where the future of EMWIS and its partners lies. This is our future mission, and we have already embarked on it, in the knowledge that hard work lies ahead to encourage the creation of a National Information System in each partner country. We are aware that we should immediately make it our responsibility (as we do for the National Focal Points) that these new systems develop consistently, based on common standards, and that in the future they will be capable of promoting the dissemination of data and information, technology, innovation and know-how, not only within and between countries, but also with international organizations. Our delicate task will be to reach these targets from the Florence meeting. Our mission will be to accompany this trend and encourage EMWIS's development in line with the new political, social and economic requirements that interest the Mediterranean.

Before concluding, I would like to point out that this publication is not intended as a traditional report of our activities from 1995 to the present day. Its aim is to contribute to knowledge and to maintaining and circulating the historical memory of a process that EMWIS has experienced from the start as the outcome of a political will, a cooperation device between countries in the Mediterranean region, but also a forum for dialogue between decision-makers, since it has promoted some important conferences of Director-Generals, such as those in Madrid in 2001 and Rome in 2005.

Our sincere thanks go to the European Commission for the financial support that they gave to EMWIS during the first years of setting up the System, as well as for funding specific projects that have made it possible to broaden our field of action and improve its quality, to the benefit of partner countries. We hope that the European Union shall be able to continue supporting our work in the future. We are aware that, however great its financial aid to the water sector, it shall never represent more than a modest portion of the total needs generated by the process of change in the Mediterranean region, highlighted by the strategy elaborated by the Union for the Mediterranean's national experts, which we hope shall be approved by ministers shortly. Lastly, I am certain that many others will join me in addressing sincere thanks to the EMWIS Technical Unit, and in particular its manager, Eric Mino, for their remarkable, continued work for the System and its partners.

I send my thoughts and pay particular homage to all of my colleagues, for their precious contribution throughout this extraordinary journey that we have taken, in a climate of amicable sharing.

Walter Mazzitti
President of the EMWIS Steering Committee

EU Twinning Project on water quality management in Egypt

After 2 years of close cooperation between the Egyptian Ministry of Water Resources and Irrigation and the EU twinning project's 3 European partners (Austria, France and Italy) (budget: 1,300,000 euro), it is time to draw some conclusions.

As part of this project, IOWater drew up a pilot

management plan for Lake Nasser, in line with the main steps and principles of the EU Water Framework Directive. The recent experience of those EU countries reporting on their first river basin management plan in March 2010 was put to immediate use.

A first key step was to collect information on the different studies undertaken on the lake, such as the Lake Nasser Development Plan, which was used to calculate potential pollution of current activities and to build a baseline scenario of changes in pressure on the Lake's quality in the coming years. To make this time-consuming data and information collection more efficient, the project helped set up a web-based catalogue of existing water data sources. This will serve as a basis for developing the Egyptian National Water Information System, with EMWIS support.

The second key step was to make a sectorial analysis of the different water uses in close collaboration with stakeholders. This review made it possible to collect and model the data required for the different sections/steps of the plan. The results of the sectorial analysis constitute one of the first attempts to address the quality issue in an integrated way. Through its programme of measures, it gives a suitable response to the coordination requirements of the various water managers. It emerged that it is possible to maintain the present good quality of Lake Nasser waters through carefully controlled domestic development. Limitation of agriculture and aquaculture development was strongly recommended due to the estimated high potential of nutriment discharge that could lead to localized eutrophication of the lake. Attention was further drawn to potential future increases in nutrient loads from upstream activities (Sudan), which could evolve and impact the quality of Lake Nasser by using a share of its self-purifying potential.

A programme of priority action lines was proposed for the next five years to control the impact of each sector on water quality. It includes implementation indicators. The work done to structure the programme of measures is an important step towards satisfying this crucial need to improve organization and coordinate stakeholders.

After this successful test of whether EU planning methodology can be adapted to the Egyptian context, the next target is to apply the guidelines further and implement IWRM on other water bodies/sections of the Nile. For these future experiences, the preparation of the river basin management plan needs to be more closely associated with reinforcing institutions' capacities so that local teams can become more autonomous in handling this progressive management tool.

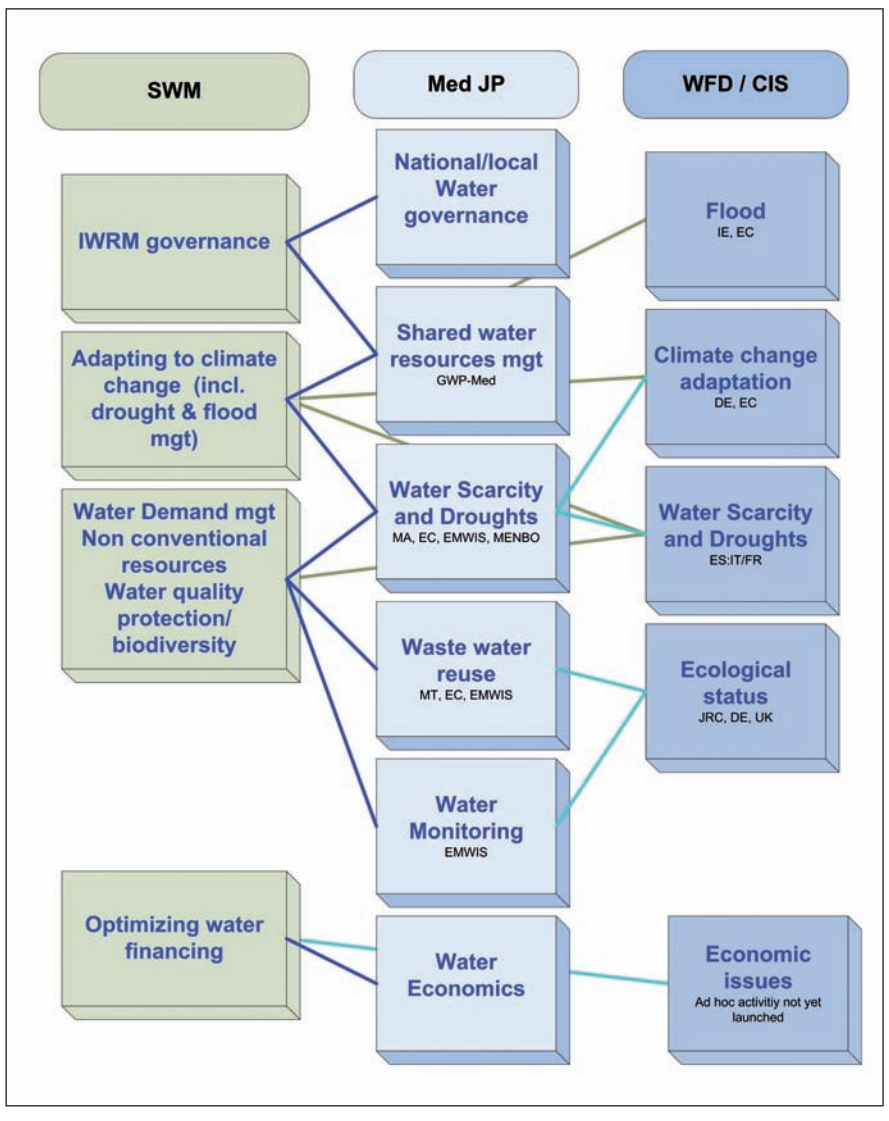
The benefits of exchanging experiences of the Water Framework Directive

The working groups involved in the joint process of the Water Framework Directive (WFD) and the Mediterranean Component of the EU Water Initiative give rise to useful exchanges of experience between countries, and the possibility of setting up pilot projects has met with great success. Since the process was launched in September 2004 in Brindisi (Italy), six working groups have exchanged and produced analytical work on groundwater, drought and water scarcity, water in rural development, re-use of wastewater, shared water management and water quality monitoring and control networks. In addition to these working groups, activities have been led in pilot basins, particularly Sebou in Morocco and Litani in the Lebanon. An overview of all activities undertaken between 2004 and 2010 has been produced by EMWIS and a proposition for a new activity phase set out – see documents online at: http://www.semide.net/initiatives/medeuwi/JP/. This proposition for a new phase is oriented along the lines of the themes of the Mediterranean Water Strategy so as to contribute to developing its action plan. The new phase also proposes the more systematic use of experiments in pilot basins to test and validate working groups' recommendations, rather like work done in Europe around the WFD. The diagram under shows the links between themes that could be developed or pursued in the Joint Process and how they link in with the Mediterranean Water Strategy project and the joint strategy for implementing the WFD.

To this end, EMWIS could not only continue to circulate information and manage the online collaborative platform, but could also co-pilot groups on drought and water scarcity, water quality surveillance and the new topic of economising water, for which a technical WFD guide already exists (WATECO).

During 2010, EMWIS organized two working group meetings. The first was on **water scarcity and drought** (WS&D) in February 2010 in Madrid (Spain) and took place in parallel with a meeting of European Water Framework Directive (WFD) experts working on the same subject, as preparation for an international conference.

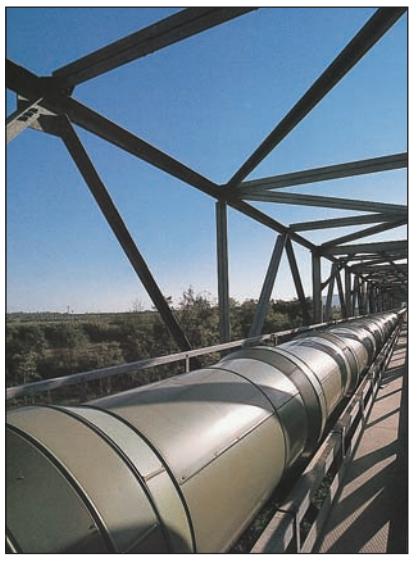
The second meeting, on 10 November, also in Madrid, focused on producing an overview of existing **water quality monitoring and control networks** in Mediterranean partner countries. This meeting highlighted challenges that countries in the South will have to tackle and the main difference between approaches implemented on the two sides of the Mediterranean. The EU targets the good ecological status of water resources, while countries in the South focus more on water quality in order to optimize its use in a context of recurrent scarcity. A list of pilot zones to test the development and implementation of management plans centred on water quality is being prepared by group members. For more information: http://www.semide.net/topics/watmon.



Water financing in the Mediterranean

Today, in a number of Mediterranean countries the water sector and the related institutions are seriously underfinanced. Rare water resources, increased demand and the degradation of water quality aggravate the challenge of providing sufficient water to all users. The expected climate change impacts seem to be especially severe in the Mediterranean basin make action even more urgent. Hence, sufficient and sustainable financing is a prerequisite of a functioning water sector, which ensures the sustainability of public water services, which itself is necessary for human and economic development, social stability and peace.

In the water sector, many services have traditionally been subsidised from the mobilisation of the water resources, its treatment for different uses, and its supply till the treatment of the used water. With the growing unbalance between the demand and the available resources, increased tariffs are sometimes seen as a tool to reduce the demand. In this domain, public subsidies resulting in low water prices encourage its wasteful use and merely shift the burden of paying for the water on to governments. These costs leave governments unable to finance the water pipes, tunnels etc. so urgently needed by the poor in the urban shantytowns and small rural farms of the developing world. But, tariffs are a very sensitive issue from a social perspective and we should avoid simplistic approaches as the added value of the use of water must be considered. Many moral issues have been raised by lobbyists and anti-privatisation NGOs, which claim that it is not acceptable to make people pay for something as fundamentally necessary as water, to which access is recognized now as a human right. But the delegation of water supply and sanitation to the private sector is more targeted to increasing the efficiency of the sector rather than making water a commercial good.



The important issue is to consider the cost recovery schema for the overall water cycle in order to have a clear picture of all the costs and to match them with the necessary financial resources: tax payer money, tariffs and fees, and international financial aid. The user and polluter pay principle can obviously not be fully applied, but it should be introduced, especially to get sufficient financial resources to reduce the pollution of the resources. In addition, the introduction of private companies into water and sanitation services over the last 20 years has provoked considerable political, social and academic debate. It has involved major multinational companies and international institutions, consumers, trade unions and social movements. At the 5th World Water Forum in Istanbul, the Ministers acknowledged that: "exclusively economic approaches and tools cannot capture all social and environmental aspects in cost recovery. Financing strategies should be based on a best possible use and mix of tariffs for all forms of water services, taxes and transfers to cover needs related to infrastructure development and extension, operation and maintenance".

Experiences and debates have taken place in nearly all Mediterranean countries, both north and south. In large part, opposition arises because of doubts about whether purely private markets can address the many different social, environmental and political aspects of water. Some problems with privatization include higher prices for water that worsen economic inequities and prevent poor people from getting basic service, neglect of water conservation programs, a failure to protect public ownership of water and water rights and the transfer of assets out of local communities and to multinational corporations. Privatization however can also bring significant benefits, from expert technical knowledge and improved access to capital to costs, savings from more efficient management and operation, including water metering. In the best cases, more efficient operation has allowed people without access to be hooked up to centralized water systems. But the problem remains that those cities, states, and nations with the biggest water problems and the strongest incentives to privatize are often the least prepared to deal with the many potential problems of water privatization. In many countries, water privatization has become the alternative solution to the lack of funding in order to improve the public supply networks. There are many pros for privatization, such as:

- Societal: The private sector can deliver basic goods and services more efficiently and at lower costs than the public sector. Thus privatization actually benefits consumers – particularly the poor – by improving access and lowering costs.
- Financial: Private sector can mobilize capital faster and cheaper than the public sector. Adequate water services cannot be provided without enormous increases in investment.
- Pragmatic: Competent, efficient water-system operations require private participation.

In comparison, public management has significant advantages when compared to private management (water privatization), such transparency, reinvestment of surpluses, big cost savings that can be reinvested in improving the water services.

Moreover, to achieve an integrated water resources management, it is necessary to proceed by increasing the participation of local communities and the private sector in decision-making and financing, as well as identifying niches and subsidy mechanisms to promote private sector participation. The development of water user associations in the irrigation sector is a good example. Transferring the responsibility from governmental bodies to these user associations increases the user understanding of the costs related to the water supply services.

To catch up with rapidly growing water demand and emerging needs for better water quality, the private sector should be more involved as it can provide cost-effective solutions rapidly. The key issue is for the governments to set-up the right regulatory framework to keep the control and ensure equal access to water and sanitation on all the territories.

We still need to explore and promote innovative financial mechanisms involving the private sector such as blending grants and repayable finance, microfinance, output based aid (incentives for using water efficient or less pollutant technologies).

Finally, in the framework of the preparation of the long term strategy for Water in the Mediterranean, we have defined with the water authorities of the Mediterranean countries a set of priorities regarding water financing:

to develop financing strategies to improve the overall financing of the water sector through sustainable cost recovery policies, transparent financing mechanisms and realistic targets. This will enable Governments to achieve their responsibility of ensuring that entities in charge of executing essential public services are able to fulfil their economic and social function.

to improve efficiencies to reduce the financing gap by reducing investment needs and operational costs. This includes efficiency in water resources allocation, use, and investment planning and functioning of the sector related entities.

to mobilize additional revenues from tariffs for water services, public budgets, and grants from International Financial Institutions, as well as from repayable finance, such as external finance (e.g. concessional or commercial loans).

to encourage private investments in the water sector by promoting public-private partnership and strengthening public regulation of the sector.

to improve the supply, effectiveness and accessibility of bi- and multilateral finance at a regional, national and local level and improve the quality of subsequent projects and activities.

Walter Mazzitti

Using spatial technologies in water management

For water management, spatial applications provide ideal tools for responding to the needs of Mediterranean partner countries and could be used in developing numerous projects. The Union for the Mediterranean conference entitled “Space for the Mediterranean”, organized in June 2010 in Toulouse, highlighted the benefits of spatial technology in certain domains, including the water sector. With a view to preparing tangible projects in the water sector, EMWIS worked with the European Space Agency (ESA) to organize a workshop in Frascati near Rome at the end of September 2010. For countries that do not possess adequate networks for ensuring the characterization and monitoring of their water resources, earth observation applications can offer reliable, affordable solutions that are easy to put in place. The applications envisaged relate to the following sectors: cartography of water resources; indicator monitoring on drought; assessment of manmade pressures (irrigated zones, urban zones, waste zones, etc.); flood and drought alert systems; identification of unauthorized withdrawals; identification of pollution; improved irrigation efficiency; monitoring of water quality, etc. The success of this type of application depends on partnerships with remote spatial detection centres and water authorities and involves building stakeholders’ capacities so that they can make use of these technologies. EMWIS, ESA and a group of pilot countries defined the framework of a regional programme for improving water resource management in the Mediterranean region, taking advantage of the policy of free access to satellite images that comes under the GMES programme - Global Monitoring for Environment and Security - jointly launched by the European Commission and ESA.

First steps towards a shared environmental information system for the Mediterranean

In September 2010, the European Environment Agency (EEA) launched a project to set up a shared environmental information system (SEIS) in Europe and countries neighbouring the EU. EMWIS is one of the partners selected by the EEA for its first implementation steps in Mediterranean countries. Recent work done by EMWIS on standardizing national water information systems can be used to develop components for the SEIS. This work includes: a metadata catalogue coupled with a tool for visualizing maps on the internet which makes it possible to list, then research and consult data in line with international standards (including INSPIRE Directive rules and WISE system recommendations); pilot activities in Tunisia and Jordan to standardize water data based on the System of Environmental-Economic Accounting for Water (SEEAW); accounting recommendations for national water information systems using the European water information system (WISE); national workshops on implementing water information systems shared between all national stakeholders and standardized at Mediterranean level, to guarantee durability. Similar meetings are scheduled for November 2010 in Palestine and Morocco, then in December 2010 in Turkey and Syria. For the latter, the national workshop will be combined with a meeting of Arab League countries focusing on preparing a database on shared waters such as that featured in the draft text of the Water Strategy for the Arab World. EMWIS will on this occasion present European experiences and the outcomes of its work.

National meetings that have already taken place have generally led to significant progress:

Tunisia: memorandum of understanding between five ministries on exchanging data and coordinating donor funding worth 3 M euro.

Jordan: access to the Prime Minister’s cabinet at the request of the Minister for Water and Irrigation to ensure inter-ministerial coordination required for setting up a national information system on water to fit in with an electronic governance approach.

Egypt: project to develop and integrate the NEIS into the department for integrated water resources management and to follow up the implementation of Egypt’s National Water Resources Plan.

Lebanon: preparation of an ambitious project for a water information and training centre.

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