



# Recommendations: The transfer of knowledge to non-EU countries

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## Of Special Interest for:

- Non-EU research programme managers: adaptation of EU research results to regional specifications
- Non-EU water managers: transferring needs to research
- EU water managers and non-EU water managers



## The purpose of this leaflet is to give recommendations on the transfer of valuable water management knowledge to non-EU countries.

This leaflet is based on a two-year experience and knowledge exchange between EU and non-EU water experts who have studied the applicability of the European Water Framework Directive (WFD) practices to non-EU countries. The SPI-Water project proposes now a set of recommendations to facilitate the transfer of Integrated Water Resource Management (IWRM) principles to non-EU countries to offer solutions for increasing needs and challenges in the water sector.

This leaflet explains how to achieve the following main objectives:

- Transfer to non-EU research programmes managers the knowledge acquired in EU countries for the implementation of the WFD for adaptation to regional specificities;
- Transfer non-EU IWRM research to non-EU water managers and transfer needs from non-EU water managers to research;
- Transfer experiences from EU water managers to non-EU water managers, and between non-EU water managers.

The main key principles to reach the above objectives are to promote:

- knowledge accessibility through a web-portal;
- partnerships and participatory process for meeting water needs through focused research;
- networking between EU and non-EU water managers in transferring WFD practices to non-EU river basins;
- the development of twinning programmes between river basin organisations.

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## Aim of the SPI-Water recommendations

Integrated Water Resources Management (IWRM) is nowadays a well spread concept worldwide, being implemented by water managers from various institutions. The Water Framework Directive (WFD) has converted this concept in legal obligations and its implementation within European Member States has generated experience and common works, while transforming the national water policies and identifying practical solutions for implementation of those concepts. A huge amount of information is available.

The developed recommendations aim at facilitating the transfer of IWRM principles to non-EU countries to help non-EU countries to better benefit from the knowledge accumulated by EU-countries during the implementation of the WFD. These guidelines are targeting the transfer of knowledge and results from research to water managers but moreover they also promote the exchanges of information between researchers, stakeholders and water managers.

We propose to rely on **5 main pillars** that should be forced by the recommendations to make the knowledge transfer to non-EU countries more effective:

- **Building a continuous dialogue:** Creation of a Scientific-Political Interfacing (SPI) platform with non-EU members;

### • Promoting organisations being opened to technological and social innovations:

Creation of a Science-Policy Interfacing support team;

### • Transferring efficiently RTD results:

Identification of problems and needs in non-EU river basins and use of WISE-RTD web portal to meet non-EU river basins needs;

### • Organising the scientific dialogue and promoting a proactive behaviour of potential users and stakeholders towards research:

Develop a participatory process of research and promotion and implementation of WFD knowledge in researcher networks;

### • Promoting and implementing use of developed knowledge:

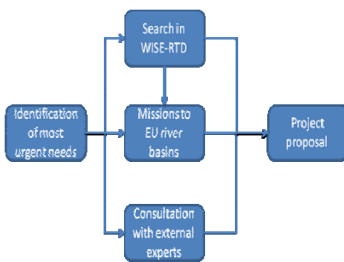
Promoting twinning and knowledge transfer via international networking.

Some of the nine recommendations (membership in a networking organisation and the organisation of twinings) will be further explained in this document. Additional concrete outcomes of the knowledge transfer to the SPI-Water non-EU pilot river basins Litani (Lebanon) and Sebou (Morocco) will be described.

Read more about the SPI-Water recommendations in a detailed report:

[www.spi-water.eu](http://www.spi-water.eu)

## The Nine Recommendations



*"Approach undertaken within the SPI-Water project to identify possible solutions for the non-EU pilot river basins in Morocco and Lebanon"*

1. Enhance a permanent dialogue through a **multi-stakeholder platform**;
2. Create an operational interface open to technological and social innovations: a **support team for the Science Police Interfacing**;
3. How to identify **problems and needs** in non-EU RBs;
4. Promote the **extension of WISE-RTD** to meet the needs of non-EU RBs;
5. Enforce a **participatory process** of research as a governance of researches;
6. Extend the **water research programme managers networking** (IWRM.Net) to Mediterranean non-EU countries;
7. Develop **twinning programmes and agreements** between RBOs;
8. Promote WFD knowledge via **international networking** of RBOs;
9. Apply **EU-experience in non-EU countries**: concrete transfer of knowledge between EU and non-EU countries

## How can the Water Framework Directive (WFD) support non-EU Integrated Water Resources Management

While in EU countries the most pressing challenge is water quality, in Mediterranean non-EU countries, water quantity is becoming more and more a pressing issue. Non-EU neighbouring countries are amongst the most water scarce worldwide and water managers are faced with the challenging task of securing enough water for all users. The positive population growth projections, the increased demand for irrigation water, the boost of industries, all contribute to deterioration of resources and lack of water for everybody in non-EU countries of the southern and eastern rim of the Mediterranean. The need for improving the way water is valued, allocated and preserved on the long term is evident to water users and water managers.

The EU WFD is not a legally binding framework for non-EU countries and its applicability is hence limited. Nevertheless the WFD is one of the most

advanced water legislations, that details a process for achieving i) the integration of various water-related sectors, ii) the participation of various interest groups in decision making processes and iii) the selection of actions based on an economic scrutiny. In this respect the WFD can be an inspiration to solve water management challenges in countries – especially in those countries where the legislation does not provide clear guidance on how to achieve IWRM. The spirit of SPI-Water project was to verify whether the research efforts, made in the past to contribute to the implementation of the WFD by the EU Member States, could be of any help and support to non-EU countries. Two pilot non-EU basins, representative of two different regions in the Mediterranean, have been selected with this objective: the Sebou river basin in Morocco and the Litani river basin in Lebanon.



*"Promoting twinning programmes and agreements between water organisations (such as RBO or administrations in charge of water) will help demonstrating tools, methodologies and results developed by RBO in the frame of WFD implementation to another non-EU RBO."*

## ZOOM on Recommendation 7: Twinning between River Basins improves IWRM transfer

Our experience and findings show that during the implementation of WFD in EU States many interesting achievements in water management have been obtained. These are practical results, tools, methodologies and organisational framework developed by River Basin (RB) organisations (RBOs), that could be of benefit to RBs. Unfortunately, access and transfer of such knowledge to other RBOs is rather limited. Twinning promotes knowledge transfer and capacity building of RBOs to improve their expertise, and to help them overcome water management problems mainly by:

- Promoting friendly cooperation between water managers and creating ties among RBOs;
- Encouraging exchange of expertise, knowledge and technical personnel;
- Strengthening effectiveness of integrated water management within the RBOs;
- Improving overall functioning of the RBOs.

Twinning between RBOs is a means to support IWRM transfer. By facilitating direct exchanges on best practices, and as well on failed experiments, twinning can help RBOs to improve their effectiveness by a greater technical, scientific and institutional expertise. RBOs can profit from peers opinion regarding administrative, technical and/or institutional aspects, coming from a sister organisation with another geographical, political or economic context. This is particularly true for the youngest RBOs, but also makes it possible to improve RBOs having already reached a further stage of development, which can make some kind of "self-assessment" on their own practices.

For more information about why and how to setup a twinning see:

<http://www.spi-water.eu/>

## Conclusions from the Litani River Basin in Lebanon

Litani River Authority (LRA) has a strategic importance for the South Bekaa and South Lebanon region, representing 40% of the total national area.

The most pressing water management issues of Litani RB identified in the SPI-Water Project are: pollution of surface and groundwater, over-exploitation of groundwater and the lack of a basin wide approach to water management due to a missing institutional setting.

For a successful use of transferred knowledge to LRA it is absolutely necessary that the organisation has the mandate to implement the de-sired changes. The chosen priorities represent therefore a balance between the most urgent needs of the RB and the feasibility to successfully implement the new ideas.

Technical visits of LRA experts have been organised to Duero RB (Spain) and to several organisations in France where they learned about existing experiences regarding groundwater management and the institutional organisation of

water management.

For each pressure identified LRA experts made a list of possible solutions based on their own experiences. Afterwards they searched WISE-RTD web portal for references to similar topics and compared them with their own ideas. This approach allows to find a solution, which fits in the local situation and at the same time gains through experiences made in the EU. After evaluating the material found in the portal partners of the project elaborated the following project proposals: "Establishment of an aquifer contract" and "Twinning project for the establishment of IWRM in the Litani river basin", keeping in mind the limited mandate of LRA.

Nevertheless, it was underlined by the partners that in the long term LRA must get the duties and mandate of a true River Basin Agency to implement IWRM principles and to effectively use the possibilities of knowledge transfer.

For more information see: <http://www.hydroscan.be/uploads/b20.pdf>



*"Hydro-morphological modification resulting from hydroelectric and irrigation projects causes the alteration of river ecosystem in the Litani River Basin."*

## Conclusions from the Sebou River Basin in Morocco

Morocco has today water resources of about 700 m<sup>3</sup> per capita/year, which is below the scarcity threshold of 1000 m<sup>3</sup>/per capita/year set by the UN Development Programme (UNDP). Studies show that this level might decrease below 500 m<sup>3</sup> per capita/year by year 2020. Water degradation costs Morocco 1.2% of its GDP.

The Sebou River Basin is one of Morocco's most populated hydrographical basins, with 6.2 million inhabitants (2004), who account for 20% of the total population. Some of the main water management issues affecting the Sebou RB are: pollution of surface water, overexploitation of

groundwater as well as the loss of freshwater ecosystems and their functions.

Technical visits of ABHS experts have been organised to the Júcar RB (Spain) and to several organisations in France, where the focus was laid on the solution of the groundwater overexploitation and monitoring activities.

After a search in the WISE-RTD web portal the partners agreed on elaborating the following project proposals for ABHS: "Use of biological indicators for surface water monitoring" and "Establishment of an aquifer contract".

For more information visit: <http://www.hydroscan.be/uploads/b21.pdf>

### ZOOM on Recommendation 8:

#### Knowledge transfer through active participation from non-EU River Basins in international networks

The experience gained in the frame of the SPI-Water project show, that networking activities between water managers from different water basins enables and improves water management. Conferences and workshops, where water managers from different regions and countries meet, are an effective way of exchanging information and making personal contacts with experts with know-how in the fields of water management. One of the networking organisations is the International Network of Basin Organisations (INBO), whose common goal is the implementation of IWRM on the river basin level.

Several regional networks as MENBO (Mediterranean Network of Basin Organisations) focus on regional problems and unite EU and non-EU partners in the aim of achieving common objectives.

The pilot river basins of SPI-Water project, Agence de Bassin du Sebou (Morocco) and the Litani River Basin Authority (Lebanon) are already member of MENBO.

For more information on international networking visit INBO: [www.rioc.org](http://www.rioc.org) and MENBO: [www.remoc.org](http://www.remoc.org)



*"Membership in a networking organisation offers the possibility to know other (European and non-European) water managers, which have expertise in IWRM and knowledge about Water Framework Directive (WFD) principles they might share."*





*Different user groups (policy makers, water managers, modellers, stakeholders, etc) are distinguished and guided by intelligent search on the WISE-RTD web portal to a customised selection of available information needed to accomplish any WFD and IWRM task.*

## “WISE-RTD portal” can support non-EU IWRM

The WISE-RTD portal is a knowledge base providing support for the implementation of the WFD. The information is provided in form of guidance, synthesis reports, experiences, ICT-tools, technologies and methodologies. Furthermore, provides WISE-RTD information on EU water projects funded by the Commission. The knowledge base extends beyond EU's boundaries as many of the projects have undertaken activities in non-EU countries. The portal provides a vast knowledge base of case studies at national and regional level, river and sub-river basins.

WISE-RTD gives an overview of the information found on the Web and provides links to documents, reports and project websites for further reference. The portal is an open to the public website aiming to link available information with the needs and problems arising in the implementation of the WFD. It is part of the wider initiative taken by the European Commission and the European Environment Agency called **Water Information System for Europe (WISE)** <http://www.water.europa.eu/>.

Different user groups (policy makers, water managers, modellers, stakeholders, etc) are guided through the web portal based on their needs. Essentially, the guidance

enables the linkage with available information, questions related to milestones and/or tasks specified in the WFD implementation. By this intelligent search users can find a customised selection of available information, which they might need to accomplish any WFD task.

During the SPI-Water project, the WISE-RTD portal has been used by non-EU river basins at several occasions in order to test its applicability and usefulness to their specific issues. This exercise has proved that WISE-RTD can provide valuable information, which otherwise would have been scattered on the web, in a fast and efficient manner. It provides ideas on how to address issues that other RBs have already addressed. Moreover, it offers contacts and links for further information.

The WISE-RTD portal has been created based on the WFD terminology. Non-EU water managers are not always familiar with this terminology, which means a special threshold for them. Therefore, it was proposed to adapt the user-guidance in the WISE-RTD to non-WFD terminology as well.

**Visit yourself WISE-RTD web portal, this powerful knowledge base at:** <http://www.wise-rtd.info/>



## About the SPI-Water EU Project

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Many current water-related Research and Technology Development (RTD) projects have already established operational links with practitioners, for allowing the needs of policymakers to be taken into account. However, experience has shown that this interrelationship is not as efficient as it could / should be. Often, RTD results are not easily available for the policy-orientated implementer (policymakers) and, vice versa, research scientists may lack insight in the needs of policymakers. The SPI-Water Project has proposed a number of concrete actions to bridge these gaps of communication by developing and implementing a “science-policy interface” the WISE-RTD Web Portal ([www.wise-rtd.info](http://www.wise-rtd.info)). During its two-year duration, the SPI-Water Project has:

- Evaluated projects in the field of river basin management that are of potential use for the WFD implementation. The collected scientific knowledge, research results and demonstration projects were entered into the WISE-RTD Web Portal

based on their relevance and usefulness with respect to the European WFD water policy aspects.

- Performed activities for facilitating the implementation of Integrated Water Resources Management principles in non-EU countries.
- It has reviewed water policy experiences in non-EU countries and performed a needed assessment of 2 Mediterranean river basins.
- Studied the applicability of WFD practices to non-EU countries and identified activities for facilitating its implementation in non-EU countries
- Provided recommendations on how to translate IWRM knowledge to non-EU countries for disseminating the obtained results to non EU-countries.

**Please visit the project website for more information at:**

<http://www.spi-water.eu/>