

2nd THEMATIC COORDINATORS MEETING. 7-8 FEBRUARY 2008

Summary Report of:

Theme: 3. Managing and Protecting Water resources

Topic: **3.4. Managing and Protecting Surface, Ground (Soil) and Rain Water**

Reporter:

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This document contains a summary report of the work performed during the topical sessions corresponding to topic 3.4, at the 2nd thematic coordinators meeting in preparation of the 5th World Water Forum. The work was done by a team of delegates representing Ministries, Conservationists NGOs, International and Regional Financial Institutions, International Professional Associations, Academia and Private Sector (Construction and Water Supply).

The working methodology was as follows:

- 1) Identification and discussion on key topical issues
- 2) Elaboration of key questions inspired by the previous issues
- 3) Synthesis/integration of questions in different blocks that eventually became into proposals for sessions at the future 5th WWF

A final **Table**, in the required format, was produced which is attached to this summary. The table was agreed in the group by unity (i.e. no particular discrepancy was expressed by any delegate in the team). The present summary pretends to be a brief explanation in order to help any external reader to understand the meaning of the **Table**.

The first thematic block discussed was about groundwater. It was pointed out that all kinds of water are part of the hydrologic cycle and must be considered together. However, it was recognized and agreed that groundwater has a very different behavior than surface waters and this fact leads to the need of specific strategies and approaches to achieve successful management and protection of the groundwater bodies. It was pointed out that a groundwater management “chaos” exists in the world, which is very pronounced in arid and semi-arid countries, such as those in the Mediterranean region. In this sense, it was recognized that public participation is very important in all aspects of water resources management, but it is crucial in the case of groundwater management, where thousands of users are involved individually in the use of the same aquifer or water bodies. It was also recognized that groundwater potential is going to become more and more crucial in a global warming perspective. Other specific issues of groundwater were also discussed such as marine intrusion, salinization problems in endoreic basins, as well as the institutional and legal frameworks most suitable for groundwater management and protection. It is proposed that all these issues must be considered to promote a specific WWF session on groundwater protection and management.

The second thematic block discussed was about Integrated Land and Water Resources Management. Discussions were initially centered on the need of considering land and water management in an integral manner, as well as to integrate as much as possible the management of rain, surface and groundwater. It was recognized that both urban and rural planning should be considered together with water management. Many problems of water (surface and underground) pollution could be effectively minimized by means of good practices and properly designed land planning and management. Emphasis was also made on the problems of urban pollution due to storm water runoff. On the other hand, many problems of water scarcity and conflict could be also minimized by means of IWRM. The theoretical framework of IWRM, and more recently the ILWRM, is available but there was a generalized opinion that the gap between the theoretical framework and the real world is huge. A main question on “how to translate ILWRM from papers to the reality” was identified and the second proposal of a session on this issue was agreed. Real case studies, successful stories and drawbacks detected by practitioners should be encouraged and prioritized against theoretical developments driven by academia.

A third block of issues related with institutional and legal frameworks related with water resources management was analyzed. The discussions were very much focused on the difficulties of combining different scales of management and to find effective institutional and legal frameworks to solve these problems. It was agreed that the main approach in use worldwide is based in a top-down scheme, where national authorities are failing to promote effective management of local problems of the people. A need of exploring effective bottom-up approaches was detected. These approaches must ensure coordination of all stakeholders and promote effective means of upscaling from the local scale to the basin and national (or even transboundary) scales. This is the main reasoning behind the proposal for a session on this topic. The a session should cover aspects such as: (1) Lessons learned from innovative legal/institutional frameworks and processes such as the European Framework Directive and the possibility of partial exporting to other countries abroad from Europe; (2) Analysis of the appropriate role of local and national water authorities and coordination mechanisms, and (3) To what extent and in which cases decentralization is a solution for local water management problems.

The fourth thematic block deals with data, knowledge and modeling issues. Discussions were established because there is a “Theme” in the WWF (the 6th) dealing exclusively with knowledge, education and capacity building. However, finally it was agreed that this block should be kept in our topic. The reason to keep it was that data availability, proper knowledge and tools constitute an integral part of water resources management. Efficient management can not be achieved without good quality data and proper knowledge. It was recognized that, in general, there is very little information and many times the information is scattered and/or unavailable for stakeholders. Other problems especially in developing countries, relate with data collection in the Water Supply & Sanitation sector, which lack standards so they can not be easily compared (or used to compute indicators) in order to support proper decisions. Modeling tools and capabilities were also discussed and it was agreed that they constitute powerful tools to support decisions and to analyze different scenarios in the broad field of water resources management. So a session is proposed and the focus should be put in the analysis and discussion on how to promote the most effective use of the information, knowledge and modeling tools by stakeholders and decision makers.

Finally, the last block of key issues discussed by the team was related with technological aspects of water treatment. A relevant point was the agreement on that new technologies are not necessarily the best technologies, and that every place and situation should be analyzed separately in order to find the most appropriate, suitable and sustainable technology for water treatment. Water treatment technologies linked with water re-use appears as one of the most effective and promising approaches for solving water problems in urban and peri-urban environments of arid and semiarid regions. In addition, treated water can be effectively used to improve environmental conditions such as ecologic base flows in rivers or artificial recharge of intensively exploited aquifers. On the other hand, innovative sanitation and water treatment solutions for rural population could have a great impact both in the health of the people and in the water bodies of the place. This is especially important in developing countries, where the main challenge would be to make such technologies achievable and sustainable. Then, a session on suitable and sustainable treatment technologies for water resources management and protection is also proposed.

Other relevant issues:

→ A discussion was set up in order to develop a list of stakeholders that could be interested in this topic. However, it was not sufficient time to finalize this job. A very preliminary list was developed which is shown here:

- Irrigation Cooperative Associations
- Farmer Associations
- Water User Associations
- International Association of Hydrogeologists
- Other professional associations related with water (IAHR, IWRA, etc)
- General Directorate of State Hydraulic Works (DSI). Turkey
- Universities and Research Institutions
- Local water authorities
- Ministries of Environment, Water and Public Works
- World Bank and other international financial institutions
- Bank of Provinces and other regional/local financial institutions
- Private sector (mainly construction, water supply and sanitation)
- NGO(s)
- UN agencies (UNESCO, FAO, etc)

→ The coordination group for Topic 3.4 was decided as:

- DSI (leading)
- IAH-Spanish Chapter
- World Bank – Ankara Office
- Ministry of Environment and Forestry – Turkey
- Bird Research Society – Turkey
- Eaux de Marseille
- GAP INSAAT – Turkey
- Istanbul University, Civil Eng.
- Fatih University
- Çukurova University

Kocaeli University

→ The need of additional work was detected. A possibility to establish a working group by internet (mailing list) and a future meeting was proposed. Candidate site for the meeting is Barcelona, where the Spanish Chapter of IAH could facilitate coordination and practical organization if needed.

THE SUMMARY TABLE IS ATTACHED (NEXT PAGE)

TOPIC SESSION REPORT		Chair: Cevat Yaman (cyaman@cevreorman.gov.tr)	Reporter: Jorge Molinero (jorge.molinero@aih-ge.org)
Theme: <u>3. Managing and Protecting Water resources</u>	Thematic coordination lead: Organization: Name contact person: e-mail:		
Thematic coordination group:			
Topic: <u>3.4. Managing and Protecting Surface, Ground (Soil) and Rain Water</u>	Topic coordination lead: Organization: DSI Name contact person: Ahmed H. Sargin e-mail: ahmets@dsi.gov.tr		
Topic Main Question: How can green and blue water support food and biofuel production and other ecosystem services?			
Topic coordination group: CSI-AIH-WB-MEF-BRS-EM-GAP			
Key Topic Issues	Questions	Session Ideas	
Groundwater protection Public participation Increase groundwater potential and optimize use	How to improve public awareness and participation to protect and manage groundwater?	Protecting Groundwater Resources Effectively: → Public participation and awareness → Institutional and legal frameworks → Sea water intrusion → Increase groundwater potential → Treatment applications	
Urban planning and water management Rural planning and water management Treating surface, ground and rain water as a single resource Management of water demand	How to move Integrated Water and Land Resources Management from papers to reality?	Practical applications for Integrated Water and Land Resources Management: → Case studies → Bridge between theory and practice	
Legal basis of water resources management Institutional framework for effective water management	What kind of legislation and institutional framework can be developed and applied for local/regional/global /water resources management?	Strategic Frameworks for Effective Water Management at Local, Regional and Global Scale	

Institutional and stakeholders coordination and collaboration		→ European Water Framework Directive: Lessons learned → The role of local and regional authorities in water management → Decentralization of water management: case studies
Lack of standardization for data collection in Wat&San sector Lack of utilizing information by decision makers and stakeholders	How to improve monitoring and modelling methods in the water and sanitation sector and how to make effective use of these methods by stakeholders and decision makers?	Emerging monitoring systems and interdisciplinary modelling methods. → Normalization and standards for data gathering of water and sanitation sector → Utilizing current technological tools for informed stakeholders and decision makers
Implementation of best available technologies Unsustainable use and consumption of water resources Protection of water resources quality	How to implement most suitable treatment technologies that will increase water reuse?	Most suitable and sustainable treatments technologies to increase water reuse → New technologies/Old Technologies ? → Reuse of water → Water and waste water treatments