

Report from the 4th World Water Forum Theme

“Implementing Integrated Water Resources Management”

March 18, 2006

THE INCLUSION OF IWRM IN NATIONAL PLANS

Session 1, 2 and 3

(FT2.07, FT2.19, FT2.20)

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INTRODUCTION

At the 2002 World Summit on Sustainable Development (WSSD) held in Johannesburg, delegates concluding that integrated water resources management and water efficiency planning should be an essential element in all national or regional development strategies by 2005 added this target to the list of Millennium Development Goals (MDGs)¹. Indeed, over the years it has been shown that an integrated approach to water resources management (IWRM) will be critical for achieving many of the MDGs, including not only those related to health, but also to poverty and hunger eradication, education, women's empowerment, environmental sustainability and global partnership for development. It is now recognized that inherent in the concept of IWRM are the principles of water-use efficiency, equity of access, a balance of competing uses, the application of all appropriate environmentally sound technology, and participatory planning and implementation to include all sectors of the economy and all segments of society.

The purpose of these three consecutive sessions focusing on IWRM in national planning was to examine to what extent and how countries have adopted and implemented the principles of IWRM and thus are progressing toward this MDG target. The sessions also served to provide an overview of on-going monitoring activities regarding IWRM planning and implementation—from the global scale to the regional and country levels. Considering activities around the world, in several regions and in selected countries, the aim of this mega-session was to develop a set of conclusions and recommendations as to how best to promote the inclusion of IWRM in national planning. Organized by the IWRM Info Forum,² a group of institutions focused on bringing coherence to the work of the many organizations and individuals interested and involved in addressing the 2005 IWRM target, this session was designed to be both a learning experience as well as a reporting mechanism on the success of moving forward with IWRM worldwide.

¹ WSSD Plan of Implementation, paragraph 25.
http://www.johannesburgsummit.org/html/documents/summit_docs/2309_planfinal.htm

² Led by United Nations Development Programme (UNDP), and including the Global Water Partnership (GWP), United Nations Environment Programme (UNEP) and UN-Water's World Water Assessment Programme (UN-WWAP).

FINDINGS: A MATTER OF SCALE

The presentations in this three-part mega-session reported on the findings of several global and regional surveys as well as the experience of countries, city-states and non-governmental organizations in attempting to integrate IWRM principles into water resources governance and management. Notable despite the diversity of the reports was the wide acceptance of the importance of a holistic, basin-oriented and integrated approach in addressing the current generation of water management issues.

Different perspectives and different scales: global, regional, national, local

The findings of two global surveys and six regional overviews were presented. Table 1 presents the summary of information from two global surveys discussed in Session 1. These surveys had collected and analysed information on the progress of incorporating IWRM principles into national planning around the world. Although the proportion of respondents falling into the middle category—that is, those countries that have made ‘some progress’—is roughly the same in both global surveys, the difference between the percentage of countries falling in the best versus the barely functioning categories is much greater in the Japan Water Forum (JWF) survey than the Global Water Partnership (GWP) survey. This difference may be attributed to the different analytical methods used by the two groups, or the selection of countries sampled.

Table 1: Proportion of countries at different levels of progress toward IWRM, 2005

Level of progress toward meeting MDG target for IWRM	Global Water Partnership (1)	Japan Water Forum (2)
<i>Sample size:</i>	<i>95 countries</i>	<i>85 countries</i>
Good progress ^a	21 %	28 %
Some progress ^b	53 %	57 %
Initial stages ^c	26 %	15 %

Note: a - Defined by GWP as “Countries that have plans/strategies in place, or a process well underway, and that incorporate the main elements of an IWRM approach.” For JWF these were the countries that scored in the top 20 percent on a quantitative and qualitative evaluation of their progress toward IWRM. [See source documents for details on the scoring process.]

b - Defined by GWP as “Countries that are in the process of preparing national strategies or plans but require further work to live up to the requirements of an IWRM approach.” For JWF these were the countries whose scores fell within 40-80% of total available points.

c - Defined by GWP as “Countries that have taken only initial steps in the process towards preparing national strategies or plans and have not yet fully embraced the requirements of an IWRM approach.” For JWF these were the countries whose scores fell below 40% of total available points.

Source: Col. (1) GWP. 2006. *Setting the stage for change*. Stockholm. Pg. 5.

(2) JWF. 2006. *Survey of progress towards IWRM*. Tokyo. Pg. 28.

Regional organizations have in many cases been instrumental in promoting the concepts of IWRM and facilitating action aimed at meeting IWRM targets. Table 2 summarizes the information provided in the six regionally oriented presentations delivered in Session 1 through 3. Undertaken by regional organizations of diverse affiliations, these analyses are based largely on published documents but also in some cases surveys of government officials. It was acknowledged that sharing experience and information and mobilizing political will and public awareness is more difficult in some regions than others. However, it was also agreed that a regional approach permits harmonization and complementarity of solutions in addressing common problems, often of a transboundary nature.

Eleven reports on local actions by national governments and NGOs were presented in Sessions 2 and 3. Tailored to reflect local conditions, the different approaches taken to realizing IWRM principles prevents a strict comparison of the often widely diverse national reports. It was clear from these presentations, however, that although many countries are in the process of preparing strategies and plans for moving ahead with IWRM, the associated and crucial process of institutional reform is proceeding at a much slower pace. Lagging even further behind is the implementation of the plans and their proposed activities. Limited success in implementation was attributed to a variety of causes but mainly low capacity, limited awareness and political support, and inadequate funding. Most importantly, however, it was acknowledged that the integrative perspective promoted by the IWRM approach had been successful in expanding the recognition of water's importance to the entire development effort. As this understanding grows, political and financial support should also increase.

Methods employed

With various surveys organized by different groups, there was a great danger that the results of such efforts would not be strictly comparable. However, there appeared to be attempts by some groups to follow the model set by Global Water Partnership (GWP), especially with regard to basic principles and structure of the investigations. Most of the information used to prepare the analyses described above was derived from a review of documentation provided by government authorities, the analysis of survey questionnaires submitted to government agencies and stakeholders and in some cases interviews with government officials. Closer examination reveals that most of the stakeholders contacted appear to be institutions rather than domestic consumers. Local actions, mainly reports of national efforts to reform water resources management according to IWRM principles, although quite varied, appeared to be moving toward the more holistic, integrated approach to water resources management promoted by IWRM.

Table 2: Proportion of countries achieving progress toward IWRM target in selected regions

Status of reform toward meeting MDG target for IWRM	Africa, Southeast Asia & Central Asia region ^a (1)	Middle East ^b region (2)	Arab region ^c (3)	Central America region ^d (4)	Asia-Pacific region ^e (5)	West Africa region ^f (6)
<i>Number .of Countries:</i>	37	13	22	7	56	15
Good progress	8 %	31 %	23 %	-	n.a.	47 %
Some progress	62 %	38 %	50 %	-	n.a.	33 %
Initial stages	30 %	31 %	27 %	100 %	27 %	20 %

Notes: Figures are not strictly comparable between columns due to different analytical methods, and different regional definitions, among other factors.

a – Includes countries from all regions of Africa (28), Southeast Asia (6) and Central Asia (3), not specifically identified in summary presentation.

b – Egypt, Jordan, Palestine, Yemen, Bahrain, Kuwait, Qatar, Saudi Arabia, UAE, Iraq, Lebanon, Oman, Syria

c – Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, UAE, Yemen

d – Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panamá

e – See www.unescap.org/about/member.asp; total here excludes members from outside the Asia-Pacific region.

f – Benin, Burkina Faso, Cabo Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Níger, Nigeria, Senegal, Sierra Leone, Togo [Note: Mauritania is also a member of this group but did not take part in this survey].

Source: Presentations submitted to the WWF4 IWRM Sessions 1-3 (by column):

(1) Lindgaard-Jorgensen, P. "UNEP Regional Surveys". [IWRM road maps/plans]

(2) UN Economic and Social Commission for Western Asia. "Assessment of IWRM Planning in ESCWA Countries".

(3) Technical Secretariat of the Arab Water Council and Centre for Environment and Development for the Arab Region and Europe (CEDARE). "Status of IWRM Plans in the Arab Region".

(4) CCAD. "Towards a Central American Strategy for Integrated Water Resources Management". [Numbers presented are derived from information supplied herein].

(5) UNESCAP. "Asia Regional Report on the Implementation of IWRM in Asia and the Pacific". Water Resources Section, Environment and Sustainable Development Division. [Number presented based on the application of the Strategic Planning and Management Guidelines in 17 case study countries].

(6) ECOWAS. "West Africa & IWRM". [Numbers presented here were developed from weighted averages derived from information presented in this document].

LESSON LEARNED

From the some 20 reports presented it is clear that there are numerous lessons that can be learned from the various attempts to implement an IWRM approach in national planning. Despite the cross-section of socio-economic conditions reflected in the reports from different continents, there was marked agreement in the major lessons learned and the key issues to be addressed. Here we highlight the more prominent points of consensus.

- Although IWRM terminology may not be explicitly used in all national plans, IWRM concepts, e.g., harmonizing efficiency and equity objectives in water usage, preserving the environment, managing demand as well as supply, promoting better understanding and participation of water users, appear to be widely attempted. By and large regional and national level reports support the findings of the global analyses regarding varying levels of understanding of IWRM and different approaches to incorporating IWRM in national plans.
- The success of IWRM planning depends on institutional and human resources capacity, awareness and leadership. In too many countries a poor understanding of IWRM appears to impede progress, not only in implementation of plans but in some cases in the planning process itself. Out-dated water laws and sectorally focused and supply-driven approaches continue to dominate in some countries.
- Integration means not only the coordination between different economic sectors but between different elements of the community. Involving civil society from the beginning of the IWRM process is important for clarifying issues, reaching agreement on goals and objectives, prioritizing investment and mobilizing support for innovative policies and activities, especially as related to water supply and sanitation goals.
- The main obstacles impeding institutional reforms and IWRM implementation appear to be limited capacity, low public awareness, poor political support, and inadequate funding. Limited capacity and awareness have resulted often in a

formulaic approach to the preparation of national plans, poor adaptation of plans and principles to local conditions and sluggish implementation.

- The disparity between the groups of countries that are making progress and those that are left behind in the process of implementing IWRM is increasing. In the case of transboundary resources, it is urgent that countries that are lagging in IWRM planning processes are assisted technically as well as financially in meeting their IWRM target. If not addressed, such growing disparity could become the source of future conflict.
- Monitoring at all levels is important to ascertain progress in meeting the IWRM target and to alert agencies and organizations capable of providing support to those countries or regions lagging behind and in need of assistance. With countries taking different approaches to planning and interpreting IWRM in a manner deemed appropriate to local conditions, the difficulty of effective monitoring cannot be overemphasized. Most monitoring efforts to date have tended to rely upon largely subjective assessments and have focused more on planning than implementation aspects.
- Even in regions or countries in which securing financial resources is less of a problem, officials find it easier to justify funding for 'curative', or post-disaster, activities as opposed to preventative planning. The limited attention given to the creation and application of innovative economic instruments continues to be a serious impediment to development efforts in the water resources sector.
- Finally it was acknowledged in several national reports that environmental concerns too often receive inadequate attention in IWRM planning. Negative environmental externalities, which detrimentally affect water resources, continue to be too often ignored, while the positive contribution of ecosystem services to the water regime, a healthful environment and rural livelihoods is consistently undervalued.

CONCLUSIONS AND RECOMMENDATIONS

Given the seemingly similar experience of participants in this session, the groups appeared largely in agreement over the main issues and areas requiring more focused attention. On the whole, the situation seems to be that the basic principles of IWRM *are* being introduced into legislative and institutional reform, albeit in some cases slowly. The importance of harmonizing legislation related to various aspects of water management—environment, surface water, ground water, land-use, transboundary flows, waste disposal, etc.—needs to be continually stressed, however. Sectoral plans need to be developed in tandem with and complementary to national plans. Recognizing the importance of sound planning at all levels, it was noted that there is an urgent need to insure that the concepts of IWRM are infused throughout all planning processes—in sectoral as well as subject area programmes, such as poverty reduction. Above all, more attention needs to be paid to implementation. Moving from planning to the follow-up phase of concrete action appears to be a stumbling block for many countries. The several key areas that need to be addressed in order to overcome these impediments are discussed below.

Key recommendations

- Given that in many countries there is only a limited understanding the concepts of IWRM and how to translate these concepts into action, *capacity enhancement* was repeatedly noted as an urgent need and of critical importance to institutional strengthening. Indeed capacity building is needed at all levels, from political and scientific ranks through to civil society. Improving awareness and commitment to IWRM principles will require not only more cogent and targeted policy briefings and better public outreach but the introduction of IWRM concepts into school curricula. Such material should include information on the process and procedures of IWRM as well as its principles. Thus, the success of IWRM will depend heavily on the success of such capacity building efforts.
- The second important recommendation to emerge from this session, especially from presentations emanating from the national or local level, was the importance of *increasing civil society involvement* in the IWRM process. Improving public participation from the beginning is important not only for strengthening the bridges of communication between civil society and government, but for gaining public support

for reforms, defining the appropriate level of decision-making regarding water management and improving democratization, decentralization, transparency and accountability, the basic elements of good governance. Better integration means including citizens from across the spectrum of age, gender, ethnicity and socio-economic status as well as improving cooperation between all stakeholders, from the public and private sectors as well as the academic community.

- *Governments, international agencies and donors need to increase support* especially to countries lagging behind in the IWRM planning process. For those countries that have responded to the WSSD Plan of Implementation and have IWRM plans well underway, funding needs to be found for implementation. Better coordination among the international actors in this field, including bilateral donors, international organizations, development banks and NGOs, is critical, especially to avoid duplication, to promote implementation and to ensure that no community is left behind with regard to achieving the IWRM target.. The link between poverty alleviation and IWRM must remain at the forefront with the importance of IWRM principles to development highlighted. While donors must be willing to increase funding to assist the poorest countries to meet the IWRM target, innovative economic instruments should also be sought by all in order to increase financial resources available for addressing water related issues.
- The variable interpretation of IWRM and its application around the globe highlight the importance of *refining monitoring mechanisms*. A set of indicators need to be developed that is acceptable to all and an official monitoring process agreed. More attention must be given to developing indicators, quantitative as well as qualitative, which can more clearly reflect the progress toward implementing IWRM and meeting IWRM-related goals and objectives, namely more equitable, efficient and environmentally sustainable use of water resources. The challenge is to develop indicators sensitive to local differences and priorities while able to deliver at the global level. More effective monitoring demands better communication and cooperation between the institutions and organizations involved in the IWRM process in order to improve coherence and comparability of the results. Above all, there is a great need to be able to show the relevance and impact of adopting an IWRM approach, that is, specific evidence of solving water problems and creating sustainable

management of water resources. Systems for collecting, managing and disseminating water information need to be better integrated with information presented in a widely accessible, easily understandable format.

- Finally, recognizing that environmental concerns were in many cases poorly addressed, it was recommended that more attention be given to *integrating environmental concerns* into national water resource management plans. Offering many benefits in terms of traditional livelihoods and human well-being, a healthy environment, it must be stressed repeatedly, is critical to maintaining safe and sustainable water supplies. Consequently environmental sustainability must be highlighted as one of the truly essential pillars of IWRM.

Box 1: Key areas for improvement

- Capacity enhancement
- Civil society involvement
- International support and coordination
- Monitoring and indicator development
- Environmental sustainability

In conclusion, it is clear that despite the admirable progress made in initiating IWRM planning and establishing an enabling institutional environment for IWRM in many countries, the slow progress made after success in the initial stages indicates that the realization of the IWRM target set at Johannesburg may in fact take many years. The type and level of change required, a shift in mindset as well as operational approach, demands widespread institutional as well as social change, at all levels. Recognizing this, it was agreed that IWRM should be viewed as a process as opposed to a product. Thus, implementing IWRM must be seen as a course of continual adjustment and adaptation with the integration of IWRM in national planning being only the initial step. IWRM must be seen as a dynamic process in which political support, especially at the ministerial level, is indispensable and public participation is essential.

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Annex 1: List of Presentations and Presenters

World Water Forum 4

Theme: Implementing Integrated Water Resources Management, 18 March 2006Mega-session: *INCLUSION OF IWRM IN NATIONAL PLANS*

Convenors: World Water Assessment Programme (WWAP), Global Water Partnership (GWP), United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP)

Time	Presentation	Speaker
Session 1 Inclusion of IWRM in National Plans (FT2.07) 11.00 – 13.00	Introduction	Gordon Young, WWAP
	Invited speaker	João Bosco Senra, Division of Water Resources, Ministry of Environment, Brazil
Chair: Torkil Jønych-Clausen (DHI / GWP) Rapporteur: Thierry Facon, (FAO/ROAP)	The Global Surveys <i>Setting the Stage for Change: Second informal survey by the GWP network giving the status of 2005 WSSD target on IWRM and water efficiency plans</i> <i>Survey of Progress towards IWRM</i>	Alan Hall, GWP Koichiro Umemura, JWF
	The Regional Surveys <i>UNEP Regional Surveys</i> <i>Assessment of IWRM Planning in ESCWA Countries (TS 0034)</i> <i>Status of IWRM Plans in the Arab Region (TS 0311)</i>	Palle Lindgaard-Jørgensen, UCC Water/DHI, Denmark Roula Majdalani, UN Economic and Social Commission for Western Asia, Beirut Khaled AbuZeid, AWC/CEDARE
	Panel discussion	Hideaki Oda, JWF Jamie Bartram, UN-Water Mahmoud AbuZeid, Ministry of Water Resources, Egypt; AWC
Lunch		
Session 2 Inclusion of IWRM in National Plans continued (FT2.19) 14.15 – 16.15	Local Actions: Arab Region <i>The Omani Aflaj: an ancient indigenous IWRM system</i> <i>IWRM plan of Egypt</i> <i>NWSSIP: towards IWRM in Yemen</i>	Khalid Mahfood Al Busaidi, Ministry of Regional Municipalities, Environment and Water Resources, Oman Hussein El-Atfy, Ministry of Water Resources and Irrigation, Egypt Abdulqader Hanash, Ministry of Water and Environment, Yemen
	Short panel discussion (Q and A)	
	<i>Towards a Central American Strategy for IWRM (TS0504)</i>	Ligia Castro de Doens, Ministry of Environment, Panamá; CCAD
	Local Actions: Latin America <i>National Political Processes Enabling Change at the Local Level (Bolivia, LA 0796)</i>	Alberto Crespo Milliet, Lake Titicaca Case Study Project, WWAP, Bolivia
Chair: Joakim Harlin (UNDP)		
Rapporteurs: Suzanne Schmidt (UNDP)		
Khaled AbuZeid (AWC/CEDARE)		

	<p><i>Citizens' Voices in Water Sector Governance: the role of transparency, participation and government accountability</i> (Mexico, LA 1445) (TS 0368)</p> <p><i>Water Management in Mexico: The National Water Plan</i> (TS 0538)</p> <p><i>IWRM in Martinique</i> (TS 0359)</p>	<p>Isabel Bustillos, Presencia Ciudadana Mexicana, Mexico</p> <p>Juan Carlos Valencia Vargas, CONAQUA, Mexico</p> <p>Jeanne Emerante, Water Development Office, Martinique</p>
	Short Discussion Panel (Q and A)	
<p>Session 3 Inclusion of IWRM in National Plans <i>continued (FT2.20)</i> 16.30 – 18.30</p>	<p><i>Implementation of IWRM in Asia and the Pacific Region</i> (TS 0334)</p>	Ti LeHuu, Environment and Sustainable Development Division, UN-ESCAP
	<p>Local actions: Asia</p> <p><i>IWRM in Malaysia: experiences of a process</i></p> <p><i>Singapore's experience in sustainable water management</i> (TS 0396)</p>	<p>Salmah Zakaria, National Hydraulics Research Institute and Ministry of Natural Resources and the Environment, Malaysia</p> <p>Khoo Teng Chye, Public Utilities Board, Singapore</p>
<p>Chair: Anders Bertell (SIWI)</p> <p>Rapporteur: Marina Vardanyan (USAID, Armenia)</p>	<p>Local actions: Europe</p> <p><i>Implementing IWRM in the South Caucasus</i> (TS 0079)</p> <p><i>Environmental and socioeconomic characteristics of water bodies in the Basque country</i></p> <p><i>Implementation of the principles of integrated water resources management in Estonia</i></p>	<p>Sophia Akhobadze, Ministry of Environment Protection and Natural Resources, Georgia</p> <p>Iñaki Urrutia and Ana Oregi, Department of Environment and Land Planning, Basque country, Spain</p> <p>Harry Liiv, Ministry of the Environment, Estonia</p>
	<p><i>West Africa & IWRM</i></p>	Rui Silva, ECOWAS
	<p>Local actions: Africa</p> <p><i>Burkina Faso experience on Local Water Committees</i> (LA0644) (TS 0405)</p>	Francis Bougaire, Ministry of Agriculture, Hydraulics and Fisheries
	Major panel discussion	<p>Jan Møller Hansen, DANIDA, Denmark</p> <p>Iman Abd El Aal Arab, Association of the Friends of IBRAHIM ABD EL AL, Lebanon</p> <p>Max Campos, University of New Hampshire</p> <p>Wouter Ariens, ADB</p> <p>Mohamed Al-Eryani, Ministry of Water & Environment, Yemen</p> <p>Dam Mogbante, GWP/WAWP</p> <p>Andranik Andriasyan, State Committee of Water Economy, Armenia</p> <p>Farig Farzaliyev, Ministry of Ecology and Natural Resources, Azerbaijan</p>
	Statement & Closing	