

	SESSION TOPIC SYNTHESIS
Topic:	INTRODUCTION TO IWRM
Questions / Issues to Discuss	<ol style="list-style-type: none"> 1. In your region, how critical is water in sustainable development? 2. What are the key elements of an IWRM approach to sustainable development? 3. What challenges does IWRM present to: (a) policy-makers; (b) decision-makers and practitioners; (c) educators, researchers, and visionaries? 4. What are some examples of an IWRM approach to sustainable development?

Introduction

The world faces many challenges at the beginning of the new century. An increase of nearly 2.6 billion in the world population within the first quarter of the century with its implications on the economic development, basis health, and food production seriously threatens the already stressed and fragile ecosystem of the planet. Water has emerged as one of the most vital issues facing the society and is moving up the global agenda. Other issues, such as public health, poverty, climate change, biodiversity, deforestation, and desertification, are closely linked to water, its use, and management. The current rate of increase in water withdrawal is twice the rate of growth in population. This trend is estimated to worsen over the next 25 years creating serious water shortages, heavy pollution loads, widespread public health problems, and serious damage to the world's ecosystems.

Water on the global agenda

As stated in Agenda 21 and adopted by the United Nation's Conference on Environment and Development, Rio de Janeiro, 1992, "Integrated water resources management is based on the perception of water as an integral part of the ecosystem, a natural resource and a social and economic good, whose quantity and quality determine the nature of its utilization. To this end, water resources have to be protected, taking into account the functioning of aquatic ecosystems and the availability of the resource, in order to satisfy and reconcile needs for water in human activities." The Conference further stated "The holistic management of freshwater as a finite and vulnerable resource, and the integration of sectoral water plans and programs within the framework of national economic and social policy, are of paramount importance for action in the 1990s and beyond."

The threats and the urgency for action were reaffirmed in the Second World Water Forum and Ministerial Conference, March 2000 at The Hague. The process continued at the International Conference on Freshwater in Bonn in December 2001 ("Dublin+10"), through the 10-year review of implementation of Agenda 21, and beyond. Efforts are being made to give water a prominent place on the World Summit on Development in Johannesburg in 2002. The Third World Water Forum, March 2003 in Kyoto, will further facilitate vision to action. The goal of providing water security in the 21st Century is reflected in the unprecedented process of broad participation and discussion by experts, stakeholders and government officials in many regions of the world. This process has profited from the important contributions of the World Water Council, who launched the World Water Vision process at the First World Water Forum in Marrakech, from the formation of the World Commission on Water in the 21st Century and from the development of the Framework for Action by the Global Water Partnership.

As pressures from the various demands on water converge on this limited resource, the need for finding new and innovative approaches becomes more and more apparent and urgent. The international community has recognized this need and over the past decade consensus has formed that integrated water resources management (IWRM) is an appropriate approach to addressing the threats posed to water.

Integrated water resources management (IWRM)

Integrated water resources management is not a product, but a process. Because water is one of the vital elements that support life, growth, and development, sustainable management of this finite resource must take into account a broad spectrum of social, economic, and ecological factors. IWRM is one of the essential processes through which these factors are linked. It allows decision making at all levels within the framework of overall planning and coordination among all sectors of society.

The actions advocated by the international community are based on integrated water resources management, that includes the planning and management of water resources, both conventional and non-conventional, and the uplands. This takes account of social, economic and environmental factors and integrates surface water, groundwater and the ecosystems through which they flow. It recognizes the importance of water quality issues and impact of upland management on coastal water management. Special attention should be paid to the poor, to the role, skills and needs of women and to vulnerable areas such as small island states, landlocked countries and desertified areas.

Integrated water resources management depends on collaboration and partnerships at all levels, from individual citizens to international organizations, based on a political commitment to, and wider societal awareness of, the need for water security and the sustainable management of water resources. To achieve integrated water resources management, there is a need for coherent national and, where appropriate, regional and international policies to overcome fragmentation, and for transparent and accountable institutions at all levels.

The IWRM process

The IWRM process allows for effective and efficient management of water resources by considering:

- Sectoral interests including health, agriculture, urban, and industry;
- stakeholder participation in decision making including planning, design, implementation, ownership;
- institutional objectives and coordination;
- ecological issues environmental issues, including water quantity and quality;
- gathering and sharing of hydrologic, environmental, economic and social data and information;
- sustainability of the resources base;
- economic and financial issues, including long-term costs, benefits, and opportunity costs;
- social issues;
- legislative and policy frameworks for national and transboundary prosperity; and
- need for building the necessary institutional and human capacity.

Key elements of IWRM

The key elements to be considered in the IWRM process are:

- Sound water policies (based on overall development objectives, stakeholder input, donor input, etc.)
- Legal, institutional, and regulatory framework (Governance)
- Stakeholder participation
- The critical role of women
- Perception of water (cultural, religious, political)
- Value of water (economic, social, environmental)
- Equitable allocation of water resources
- Decision making at the lowest level appropriate
- Decentralized responsibility for management and delivery of water and ecosystem services
- Sound scientific and technical approach
- Data/information system and knowledge base
- Analytical tools for assessment of resources (value, use cost, tradeoff, pay-back, allowable risk, water pricing)
- Framework for monitoring and enforcement
- Institutional and human capacity
- Conflict management

References
