Integrated Water Resources Management in the Caribbean
Some of the Challenges

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Traditional Methods of Water Management

- In the past, the planning, development and management of water resources took on a sectoral approach.
- Coordination, even in states small as ours, was minimal.
- Three traditional sectors were dominant, water for domestic, industrial and agricultural sectors were the most visible.
- Water for eco-systems was not even considered as being needed.

The Need for Water Management

- Serious deterioration in water quality and the impact on people's health caused by effluents from industrial water use came under intense scrutiny.
- The inefficient use of water by agriculture which always had been a problem became more severe when coupled with the poor quality of irrigation return water.
- Domestic water use was severely impacted in terms of quality and available quantities, by the crisis situation with industrial and agricultural water use.
- This focus on the different sectors was shortsighted and did not lend itself to long-term planning and management.

Background

- Having been a part of the water issues discussion at an international level since 1993, my recollection suggests that the term Integrated Water Resources Management (IWRM) emerged in the mid to late 1990's.
- The major drivers for the new concept were
  - The intense pressure resulting from the competition for a limited resource
  - Recognition that the major consumer of water resources viz. irrigation was very inefficient.
  - Fears that the deterioration in water quality made the limited resource even more limited
  - The concern that trans-boundary disputes over water use and availability could trigger major international confrontations.

Background

- At the United Nations Conference on Environment and Development in Rio de Janeiro in 1992, the concept of IWRM had been recognized.
- Earlier that same year, the UN Conference on Water Development held in Dublin had created fertile ground for a paradigm shift in looking at Water Resources.
- We are well aware that the Dublin principles are now a mantra for everyone involved in water, even those who are unconverted or even non-believers in these principles.

Background

- At the World Water Forum in the Hague, the Netherlands, in 2000, IWRM was on everyone's lips although thematically, the conference was organized on a sectoral basis.
- As with any new concept, bets on the success of IWRM were hedged by considering cross-cutting issues as being critical to its success.
- IWRM is a process and is not a panacea for the range of issues which are confronted in the water sector. There is no cookbook, i.e., no prescriptive solutions.
- Because of these qualifiers, countries are at different stages in the IWRM development cycle.

What is IWRM?

- IWRM is a participatory, planning and implementation process which gives opportunity to determine how to meet society's long-term needs for water while maintaining essential ecological services and economic benefits.

  It is the process of balancing water demand and water resources, and helps to protect the world's environment, foster economic growth and sustainable agricultural development, promote democratic participation in governance and improve human health.

  Worldwide, water policy and management are beginning to reflect the fundamental interconnected nature of hydrological resources and IWRM is emerging as an accepted alternative to the sector-by-sector top-down management system that has dominated in the past.

  (USAID, 2004 – What is Integrated Water Resources Management?)

What is IWRM?

The GWP, an organization which was formed to promote IWRM, defines it thus:

- IWRM may be defined as a process which promotes the coordinated development and management of water, land and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. IWRM is a comprehensive approach to the development and management of water, addressing its management both as a resource and the framework for provision of water services. *(IWRM and Water Efficiency Plans by 2005, Why, What and How? Torkil Jonch-Clausen, GWP TEC Background Paper No.10)*

Principal Components of IWRM

- Managing water resources at the lowest possible level (at the river basin or watershed scale)
- Optimizing supply
- Managing Demand
- Providing equitable access to water resources through participatory and transparent governance and management
- Establishing improved and integrated policy, regulatory and institutional frameworks
- Utilizing an inter-sectoral approach to decision making
- Integrating management means that we receive multiple benefits from a single intervention

The Operational Tools of IWRM

A. Enabling Environment
   - Policies
   - Legislative Framework
   - Financing and Incentive Structures

B. Institutional Roles
   - Institutional Framework
   - Institutional Capacity Building

C. Management Instruments
   - Water Resources Assessments
   - Planning for IWRM
   - Demand Management
   - Social Change Instruments
   - Economic Instruments
   - Information and Communications

Enabling Environment
Legislative Framework

- National Law and Implementation with respect to
  - basic water needs
  - productive uses
  - water reallocation to different uses
- Local customs regarding water tenure
- Representation of all stakeholders (actors) in water institutions (particularly the poor, indigenous people and the under-represented)

Enabling Environment
Financing and Incentive Structures

- Affordability and availability of new technologies and resources
- Subsidies and cross-subsidization at various levels
- Incentives for good service delivery
- Implications of privatization of resources, investments including irrigation management, transfers and water markets or people's access to water.

Institutional Roles
Institutional Framework

- Local Water Governance
  - roles of local government
  - traditional authorities
  - other informal structures NGO’s, CBO's
- Inclusive community participation in interventions
- Integrated resource delivery by water sector and rural development agencies
- Resolution of disputes which arise both within and between sectors
- Enforcement of regulations and laws
- General representation of the disadvantaged and underrepresented in higher level institutions

Institutional Roles

Institutional Capacity Building

- Training of all stakeholders to assert their rights and to be part of decision making
- Sensitizing bureaucrats and technocrats to the issues and bring them on board with wider participatory approaches
- Training and retraining of water professionals, development experts and civil society on water related issues
- Retention of existing capacity from opportunities offered by aid agencies, development banks and international relief agencies

Management Instruments

Economic Instruments; Demand Management and Valuation

- Differential pricing to manage demand
- Water valuation criteria to allocate water
- Distribution of benefits from water
- Model for economic growth in economic analysis for water policy

Management Instruments

Information; Communications; Water Assessment Plans

- Accessibility to information, communications and IWRM decision making support tools and in mapping, scenario development and planning
- Focal point to coordinate, facilitate, network and exchange (a regional institution, for example)
- Support to countries and coordination, e.g., for water governance and dialogues on Food and Environment
- Case Studies

Governance

- Since IWRM proposes a serious departure from how business in the water sector had been conducted, governance is key to operationalizing IWRM. The Enabling Environment is all about governance.

What is Governance?

- Governance refers to the traditions and institutions by which authority is exercised in a country, i.e., it looks at who is really in charge or the power balance
- In this region, we are accustomed to hierarchical governance or the state-steering society, but contemporary governance is distributed governance in which governments, society and markets interact to influence outcomes. Governance is neither government or politics.

Water Governance

- The GWP defines Water Governance as the range of political, social, economic and administrative systems that are in place to develop and manage water resources and the delivery of water services at different levels of society.

Importance of Water Governance

Governance matters because there is a need for

- Social Equitability
  - access to water in sufficient quantities and adequate quality for all people
- Economic Efficiency
  - Scarcity of water and financial resources require efficient use of water
- Environmental Sustainability
  - Present use should not compromise use by future generations

Current situation of Water Governance

- We know more about bad governance than good governance. There is no single approach or method to water governance i.e. no quick fix.
- Governance is not only a work in progress, but acceptance of the need for good governance is one of the important keys to determine whether IWRM will prevail.

IWRM in the Caribbean

- Small Island States should be natural promoters of the concept of IWRM. In small islands, there is no upstream or downstream conflicts since we are all downstream. The short flow distances to the sea and the economic role that the sea plays in our lives both for recreation and for food makes it imperative that we adopt an approach which is holistic.

IWRM in the Caribbean

- The Caribbean People are very adaptive and have been exposed to the idea of IWRM from its inception via both Regional and International fora.
- The GWP Caribbean is the regional member of the GWP family and is dedicated to promoting IWRM in the region. In order to accomplish this, it was decided to deepen the process by conducting workshops in several countries and bringing stakeholders together to see at what stage of the process, the different countries had reached.
- Workshops were held in St. Kitts in December 2005, Antigua in January 2006 and St. Lucia in May 2006. The Consultant, Ms. Marilyn Crichlow, compiled reports on these consultations.

Key Issues of IWRM identified in the Consultations

St. Lucia

- Lack of an integrated approach to Water Resources Management and Coastal Management
- Lack of water resources monitoring and assessment and therefore the unavailability of data and information to support proper decision making.
- The need to establish an Authority for Integrated Water Resources Management
- Water is not treated as an economic good
- Mobilization of financial resources for water resources management.
- An aging water distribution system resulting in high unaccounted for water losses
- Lack of a comprehensive and sustained public education and awareness programme.
- Inadequate watershed management
- Lack of adequate drainage systems intensifying the problems of soil erosion, sedimentation and the incidence of flooding

Key Issues of IWRM identified in the Consultations

St. Kitts

- The protection of groundwater resources with respect to water quality and contamination
- Waste water management
- Conservation and reduction of wastage and losses through leakage
- Lack of adequate institutional capacity
- Inadequate use of technology
- Lack of Political Will
- Absence of coordination
- Financial constraints
- Little public education and awareness

Antigua

- Political will and commitment
- The need for an integrated Water Resources Management Policy
- Stakeholder Participation
- Implementation of Integrated Watershed Management
- A Water Resources Agency separate from the Water Supply Department (non-self regulatory)
- Water reuse
- Effective land use control for water resources sustainability and to support development
- Deforestation
- Contamination
- Water storage
- Public Education

Analysis of the Consultation Reports

- These three reports point out that the Caribbean is not yet practicing IWRM and there is a crying need to adopt this approach to get us out of the crisis which we find ourselves in.
- Many of the key issues identified are similar.

High Level Meeting Held by CWWA

- At the 15th Annual CWWA Conference held in Tobago in October, 2006, a High Level Session (Ministerial Forum) was included.
- Discussions during this session, by the movers and shakers of the region on water issues identified the following points which warranted attention in the Caribbean:
  - Gender
  - Lack of capacity
  - Financing
  - Cooperation between countries on a major issue (Jamaica and Trinidad)
  - Level of service and willingness to pay
  - Failure of governments to pay for water service
  - Review of water and waste water Rates
  - External funding
  - Waste water reuse for irrigation (golf courses in Barbados)
  - Desalination (Nevis)
  - Hurricane damage of water infrastructure (Grenada)
  - Leak reduction (Bahamas)
  - Metering (Montserrat)

The Way Forward

- The discussions at the Ministerial Forum confirm what we know about IWRM in the region, i.e., we are not moving fast enough and in some cases, the train is still at the station.
- It was recognized that the pace and sequence of reforms for IWRM are critical.
- One key to institutionalizing and operationalizing IWRM is via Partnerships.

The Way Forward

- Partnerships are fundamental to effective water governance and applying IWRM
- MDG 8 establishes global partnerships for development (public, private and civil society)
- Partnerships are one of many development mechanisms but there must be solid and realistic expectations
- They are multi-stakeholder and inclusive by design
- They bring together otherwise unrelated water-players, i.e., critical mass and buy-in
- Diverse: variety of organizations

The Way Forward

- A major challenge of operationalizing IWRM in the region could be the application of the tools to the Tourism Sector.
- The Tourism Sector is a major player in our economic life and it may be a good entry point for us to apply IWRM in the region. Specifically two key components can be basis for case studies:
  - Water Demand Management – how to reduce consumption in the sector.
  - Water Conservation – recycle and reuse
- This is an excellent project for any of our stakeholders together with CTO to get involved in.

The Way Forward

- Additionally, we need to look at IWRM in relation to poverty. We cannot be serious about the Millennium Development Goals and the associated Poverty Reduction Strategy Papers without looking at the link between water and poverty.
- This can be a platform for our social scientists to join with the water specialists to apply IWRM principles to deal with deforestation, water abstraction and pollution together with their social impacts on all our lives.

Conclusion

- As the calypsonian said, the “Journey Now Start” as far as IWRM in the Caribbean is concerned.
- We, the Caribbean people have walked many a mile and will have to find the strength to continue walking in order to honour our forebears Toussaint, Bogle, Garvey, Butler and Fanon by our stewardship of water and associated resources.
- Our legacy must not be that future generations inherit a “Silent Spring” as predicted by Rachel Carson, but preferably in keeping with our culture, a cacophony of calypso, reggae, cadence and salsa, rhythms to accompany the drum beat of IWRM. This will reflect our mixed heritage and will be a tribute to our custodial responsibility and environmental solidarity.