#### Integrated Water Management

#### Prospects and challenges for the next decade





CHANGWON 2008

« Healthy wetlands, healthy people »



CONVENTION ON WETLANDS CONVENTION SUR LES ZONES HUMIDES CONVENCIÓN SOBRE LOS HUMEDALES (Ramsar, Iran, 1971)





- Results of recent global water assessments
- Predictions of future water use and availability
- Likely consequences of climate change for water resources, wetlands and human wellbeing
- Technical planning and policy options for addressing some of these consequences



# What is in this presentation



- What do we mean by "water equity" and why is it important ?
- What is the relationship between water equity and IRBM ?
- How is this relevant for Ramsar?
- What does Ramsar's water guidance offer ?
- Challenges for the future.





# Some thoughts on equity





- Equality is just a first step towards equity
- Perceptions of both equality and equity are subjective
- Conflicts arise when people feel they have been treated unfairly, relative to others around them
- Equity is a dynamic state, and the goalposts will always be moving





- 1. Equity related to the water itself
  - simple equality for basic human needs
- 2. Equity of access to water for beneficial uses
  - offstream and instream uses
- 3. Equity of access to ecosystem services





## Ecosystem services 101



- Most water-related services, including water supply, are directly or indirectly dependent on healthy, functional wetland ecosystems.
- Water-related services support many subsistence livelihoods
  - value of this support is frequently not considered in national accounts.
- Wetlands require water (quantity, quality, timing) in order to sustain a flow of ecosystem services



# Working towards equity



- Delivering water is technically straightforward, though not always easy.
- Delivering ecosystem services is much more complex;
  - supporting interventions from multiple sectors, working in collaboration
  - mechanisms for ensuring equitable decision-making
  - mechanisms to ensure protection of supply of goods and services (eg environmental flows)
  - mechanisms to ensure equitable distribution of costs and benefits associated with goods and services
  - institutional flexibility to address the ever-changing "dynamic equity" balance
- Delivery of ecosystem services is probably best effected within IWRM or IRBM frameworks







#### Approaches are still evolving:

- 1. Whatever water is left once all reasonable demands for basic human needs and beneficial uses have been met can be allocated to the ecosystem
  - still implicitly supported by countries pushing for rapid industrialization and development using water-intensive industries and crops.
- 2. Ecosystem is a competing user, will get water allocation if the value of this as a beneficial use is shown to be equal to or greater than other proposed water uses.
  - more common among countries beginning to retrofit EFs in fully subscribed or nearly closed basins.
- 3. Ecosystem is the resource (natural capital) from which the benefits and services are derived, and must be protected first.
  - gaining ground amongstcountries with heavy dependence on subsistence agriculture & fisheries.
  - can conflict with basic human needs allocation, depending on people's expectations for basic human needs.







Actual policy statements from various eras of water management in South Africa:

- 1978: Every drop of water that reaches the sea is wasted
- 1988: The environment is a competing user. Water can be allocated to the environment after all other needs have been met
- 1992: The environment is a recognised user, with legitimate claim to water, but this must be justified.
- 1996: The environment is the resource from which water is derived, and must be protected.







- The wise use concept is consistent with "dynamic" equity and multi-sectoral policy.
- Ramsar has a suite of technical and planning guidance that can contribute to integrated water management

- especially the natural infrastructure component.

• Uptake and implementation is still relatively weak.





### Lessons from RBM cases



- Ramsar guidance and case studies on integration of wetlands and wetland ecosystems into river basin management (DR19)
- Emphasis on implementation.
- Provided good lessons, relevant for IWRM and IRBM.





## Get the ducks in a row

- The longer implementation is delayed, the greater the risk of failure, and the greater the discontent of people who have a stake in the implementation.
- Sequencing is one of the most important factors in avoiding blockages and delays in implementation.





All of these are on the "critical path" for implementation.....



- Understanding of biophysical and hydrological constraints & opportunities
- Enabling legislative & regulatory environment
- Suitable institutional environment
- Supportive civil society environment
- Credible data
- Knowledge (conventional & indigenous)
- Infrastructure
- Financing, capacity and skills





#### Plan for problems before they arrive



- There seems to be a set of typical obstacles or challenges to integrating wetlands into RBM.
- There are numerous creative local solutions for overcoming these obstacles.
- Plan for the obstacles.
- Enable the creativity.





## Challenges for the future....



- Technical planning and policy tools are emerging, to meet some of the water challenges facing us.
- Wide range of useful experiences from local and small river basin levels.
- Successul implementation of ecosystem-based approaches at river basin level can show the way for institutional development and policy at national and international level.
- Three big challenges:
  - Policy coherence
  - Water law
  - Institutions





## Policy coherence at multiple levels



- Horizontal coherence across multiple sectors:
  - possible at Convention level,
  - difficult but not impossible at country level with commitment and support
  - achievable at site or river basin level with commitment and support
- Vertical coherence from Convention level down to site level remains challenging in many countries
  - Need capacity and support for governance mechanisms that allow "downward cascading" of policy
  - Need capacity and mechanisms for encouraging implementation on the ground "upward cascading"
- Larger scale regional and global policy implementation will also require "diagonal coherence", where the consequences for one community or country depend on the policies and actions of geographically distant communities or countries





# Institutional environment



- Institutions will need to be
  - flexible, adaptable, have a formal mandate to work across sectoral boundaries;
  - able to consider multiple conflicting objectives;
  - have authority and responsibility to plan and implement.
- Many existing sectoral public agencies are not well suited for this.
- River basin management agencies could potentially grow into this role, but many are still currently not truly cross-sectoral.





- Most current water law does not adequately address the role of wetland ecosystems in the hydrological cycle.
- Water allocation provisions tend to focus on longer-term certainty and rights.
- Water allocations for environmental flows require flexibility and adaptability to ensure flow regimes closer to natural.
- Changes in hydrological regimes due to climate change will accelerate – can our water allocation laws cope with this ?







- Ramsar's suite of water guidance provides many useful tools for addressing the "natural infrastructure" component of integrated river basin management.
- Parties should actively disseminate and support the uptake of DR19 and other water guidance.



