IWRM IN AFRICA:
From Concept to Practice

Cape Town, 10 March 2008
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Presented on behalf of the Global Water Partnership
Outline

- Part I: Facts: water in pictures
- PART II: The IWRM theory in simple words
Part I

Facts: water, in images
Water is a political good!

VOLTA RIVER, GHANA

AFRICAN LEADERS, WATER AND POWER:

NKROUMAH: VOLTA DAM, VOLTA RIVER
NASSER: ASSOUAN DAM, NI LE RIVER
MOBUTU: INGA DAM, CONGO RIVER
Enough of political instability and humanitarian handouts

We need peace, we need an enabling environment!

Gatumba, Burundi. 28.02. 2008
Algeria: Fetzara Lake, a Ramsar site

Competition between the 3 Es...

Industrial pollution  Human pollution
South Africa: unauthorised connection...

If you do not consult and convince people, they will make their own plan!
Angola: mother and child
LAKE VICTORIA, KENYA
Angola
Mombassa, peak hour: going back home
Transport Lake Kivu
DR Congo
Water ways, Copenhagen, Denmark
Agriculture...
### GARIEP AND VANDERKLOOF STORAGE CONTROL CURVES

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Mother Nature is sovereign!
Shashe, Limpopo Rivers in the dry season
Congo River, Kinshasa and Brazzaville:
too much water:
20 000 to 80 000 m³/s

- Transfer to Lake Tchad?
- Transfer to the South (Namibia and others)?
Adaptation to seasonal variability: harvesting of groundwater when surface flow has stopped
Floods in Crocodile (East) in 2000

Flow gauging stations
- Many were damaged by these floods
- Or the limits of the discharge table were exceeded
Manyame, Zimbabwe: fetching water from a drying pond...
South Africa: pipe burst in city center

Develop (build) infrastructure, operate and maintain it
Part II

The IWRM theory in simple words

( the GWP way)
Life abounds at the intersection of three natural resources

- Land
- Air
- Water + Energy
Land related issues

Ownership
- State
- Communal/tribal
- Private

Land use
- Soil erosion
- Degradation
Air related issues

- No ownership
- Air pollution
- CO$_2$ and other gases & global warming
Water related issues

Variability in
- **State** (liquid, vapour, solid)
- **Space** (humid and arid areas)
- **Time** (wet and dry seasons)

- **Ownership?**
- **Source?**
- **Freshwater?**
- **Quantity?**
- **In high demand:** (population, standard of living)

Is it true that the next war will be about water?

Need for integrated management!
So, what is Integrated Water Resources Management (IWRM)?

- IWRM is defined as ‘a process that promotes the co-ordinated development and management of water, land and related resources in order to maximise the resultant economic and social welfare on an equitable manner without compromising the sustainability of vital ecosystems.’ (GWP, 2000).
IWRM (Rio-Dublin) Principles

1. Fresh Water is a finite and vulnerable resource, essential to sustain life, development and the environment.

2. Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels.

3. Women play a central role in the provision, management and safeguarding of water.

4. Water has an economic value in all its competing uses and should be recognised as an economic good.
Often, an IWRM Project deals with a combination of the 3 Es, in our context:

**ROLE OF INFRASTRUCTURE?**

- **ECONOMIC EFFICIENCY**
  - Management Instruments
  - Assessment Information Allocation tools

- **SOCIAL EQUITY**
  - Central-local
  - Public-private
  - River basin

- **ECOSYSTEM SUSTAINABILITY**
  - Enabling Environment
  - Policies Legislation

**Relevant**

**Truly relevant**

**Extremely relevant!!!**
The IWRM Framework

A. Enabling environment
   A1. Policies
   A2. Legislation
   A3. Financing & incentive structures

B. Institutional roles
   B1. Creating an organization framework
   B2. Institutional capacity building

C. Management instruments
   C1. Water resources assessment
   C2. Plans for IWRM
   C3. Efficiency in water use (WDM)
   C4. Social change instruments
   C5. Conflict resolution
   C6. Regulatory instruments
   C7. Economic instruments
   C8. Information exchange
Misconceptions

1. IWRM demands wholesale integration. (NOT True)

2. Sectoral decision-making should be abandoned entirely. NOT TRUE.
Risks of fully sectoral approach

- Overlooking negative impacts on environment and other sectors
- Inefficient use of resources—natural and financial
Risks of fully integrated approach

- Getting mired in complexity.
- Not making good use of specialist expertise.
Finding a balance

Each country should decide where integration makes sense based on social, political and hydrological situation.
Part III

IWRM in Africa: emerging success stories and lessons:
  Regional
  Countries
  Local – various scales
1. Are policies and laws adequate? How to get funds to implement the laws?

2. Are institutions functional and with the required capacity?

3. What instruments are in place to facilitate the implementation of the laws?

4. Is there measurable progress towards the MDGs and the 3Es?

The IWRM iterative loop

Global Water Partnership
1. Regional / RBO level

- ECOWAS: WRCU – a full IWRM programme
- Nile Basin Initiative – several countries, from Burundi to Egypt.
- SADC – A protocol for shared water courses
A. Enabling environment
A1. Policies
A2. Legislation
A3. Financing & incentive structures

B. Institutional roles
B1. Creating an organization framework
B2. Institutional capacity building

C. Management instruments
C1. Water resources assessment
C2. Plans for IWRM
C3. Efficiency in water use (WDM)
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C8. Information exchange

RBOs: Senegal, Volta, Nile, Okavango

Various forms, yet not enough

SADC PROTOCOL; RWP & S

ECOWAS: GETS A % ON IMPORT TAXES
The SADC context...

- 15 shared rivers

- A Protocol for shared watercourses which is IWRM compliant, a regional water policy and strategy

- River Basin Commissions being established, often after difficult negotiations which have lasted years... (how much did all these meetings cost?)

- Southern Africa is firmly engaged on a path for the sustainable management of its water resources...
Relationships between Different Processes in SADC

- **SADC Revised Protocol on Shared Watercourses**
- **Regional Water Policy**
- **SADC Vision for Water Life & the environment**
- **Regional Framework for Action**
- **Regional Water Strategy**
- **RSAP 1, RSAP 2, RSAP 3**
- **Regional Framework for Action**
- **River Basin Plans**
- **National Framework for Action**
- **National Water Legislation**
- **National Water Policy**
- **National Sector Policies**
- **Other SADC Sector Policies & Strategies**
- **SADC Revised Protocol on Shared Watercourses**
- **SADC Vision for Water Life & the Environment**
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RSAP 2 Conceptual Framework

Capacity Building
- Skills Training
- Academic IWRM Training and Research
- Support to WD
- Strengthening RBOs

Resource
- Assessment
- Monitoring
- Planning
- Operation

Infrastructure
- Energy
- Agriculture, Food Security + Rural Livelihoods
- Water Supply & Sanitation

Water Governance
- Implementation of Protocol
- Stakeholder Participation
- Implementation of Policy and Strategy

Global Water Partnership
ECOWAS

- Institutional Framework in place and functional, coordination by the WRCU.

- Several activities in the WARAP - IWRM: programme of activities to be funded by partners such as: AfDB, AWF, GEF, fGEF, EU, etc.

- Integration the activities planned by other role players (IUCN, GWP West Africa, UCC Water).
Country level

- South Africa – legislation, institutions (not functional)
- Zimbabwe: legislation, institutions, capacity...
- IWRM and WE Planning (following the 2002 WSSD resolution)
Support for IWRM plans

- The Netherlands DGIS
- Canadian CIDA
- USA USAID
- Burundi has started with AfDB funding

PAWD - GWP and Cooperating partners
Zambezi River, Livingstone, Zambia: water and tourism
E.g. Malawi

IWRM Plan Goal: sustainable mgt and use of water resources to contribute to economic devpt

Goal: Malawi Economic Growth Strategy
Employment and wealth creation through sustainable mgt of resources to reduce by half people living in poverty

Contribute to Sustainable Devpt
Local level: Densu River Basin, Ghana
Malawi, Ngolowindo Community Self Help Irrigation Scheme
ZIMBABWE
Lower Manyame, Zimbabwe

- Project area (26,000 Km² > Swaziland (17,680 Km²)
The Lower Manyame team:
ordinary people who had to develop an IWRM Plan for this sub catchment

With champions among them

And an office of < 12 m²
So, where is the Lower Manyame now, more than 2 years after the project ended...

- The Lower Manyame Sub catchment council is still functioning

- Revenue is being collected and an annual budget drawn

- The council now employs 7 persons to manage its day to day activities in order to better serve its constituency.

- In short, the project kick started *a sustainable IWRM process* in the Lower Manyame
Local level: SADC/Danida support to localised IWRM pilot experiences, getting ready for up-scaling

- Malawi - Dzimphutsi IWRM and Improved Rural Livelihoods Project
- Mozambique - Improved Livelihoods in Lower Limpopo
- Namibia - Sustainable IWRM in Omaruru Lower Swakop Basin
- Swaziland - Capacity Building of Lavumisa Irrigation Project
- Zambia - Namwala food security
- South Africa - Several cases on the West Coast - The Crocodile (West)
In conclusion

- In Africa, IWRM is a quest for wisdom that is gradually demonstrating its worth.

- As we take stock of the lessons, gains and failures, we should exercise caution: let us not throw away neither the water nor the baby:

- We should keep the baby and recycle the water!
Join the happy African boy in the water dance: *a lutta continua, victoria certa*...