

Managing shared climate change risks in a transboundary river basin,

*The Nile Basin Initiative experience
(second part, 9th November 2011, Marrakech)*

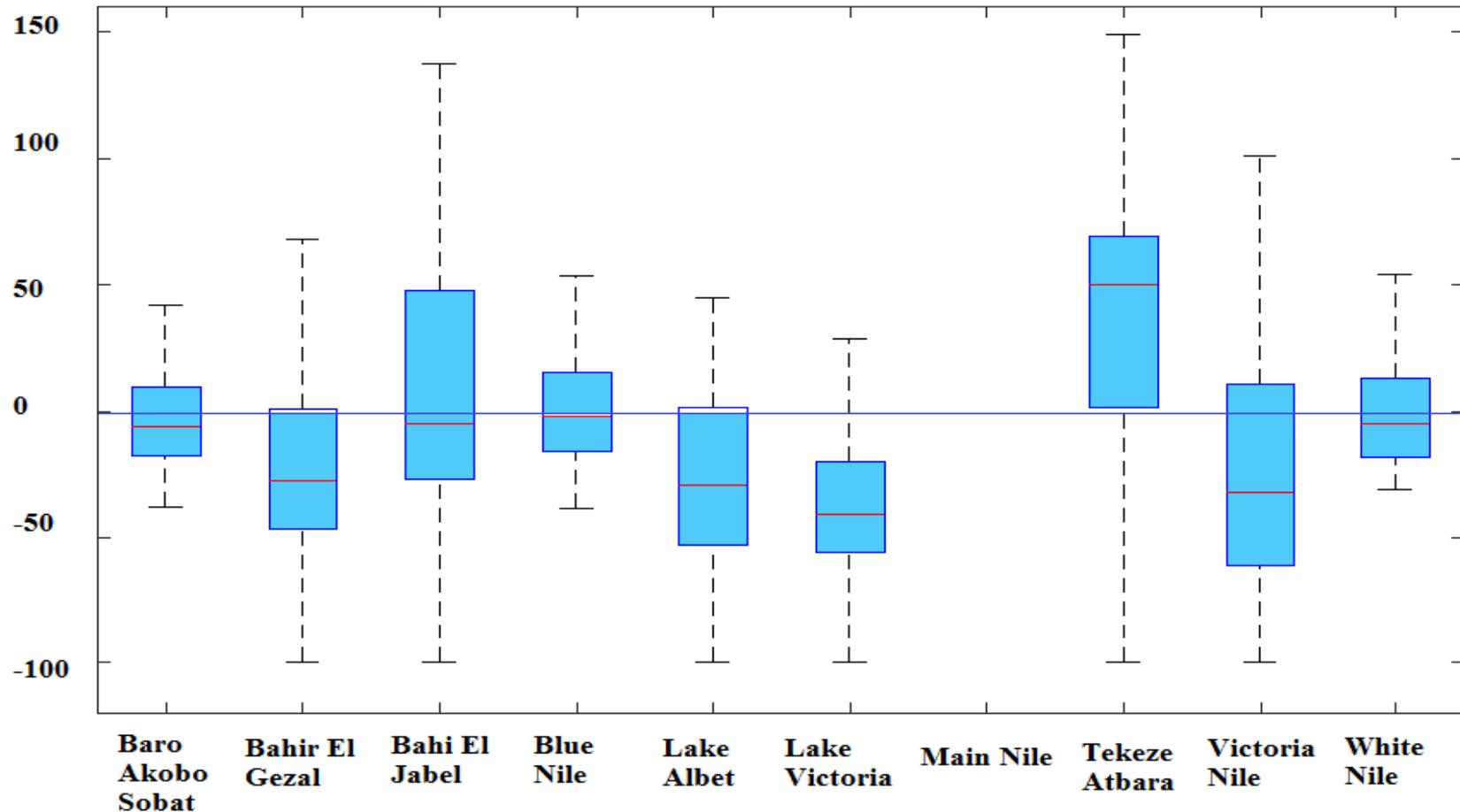
*Abdulkarim H Seid
NBI Secretariat*



The Nile Basin Initiative

- A joint institution of the 10 Nile Basin States
- Launched on 22 February 1999
- Directed by Nile Council of Ministers (Nile-COM)

Scenarios of sub-basin runoff under climate



Wide difference in how the future runoff evolves under climate change

- High uncertainty for Tekeze-Atbara, Bahr el Jebel,
- Potentially more runoff for Tekeze- Atbara, Bahr el Jebel,
- Relatively less uncertainty on projection of runoff

NBI response to climate change challenges

Transboundary policies

- The NB Sustainability Framework (NBSF)
- Climate Change Strategy
- Sub-basin level guidelines for investment projects
- Wetland Strategy
- Environmental and Social Policy and guidelines
- The NBI Environmental Flow Management Strategy
- Dam safety framework

Infrastructure

- Joint, multi-sector investment planning (sub-basin level): hydropower, irrigation, watershed management
- Climate proofing guides - investments
- Capacity building (in climate finance)

Institutions

- Provide platform for TB cooperation
- Training and capacity building
- Data and Information exchange
- Partnership building (IWMI, GWP, UNEP, LVBC)

Information

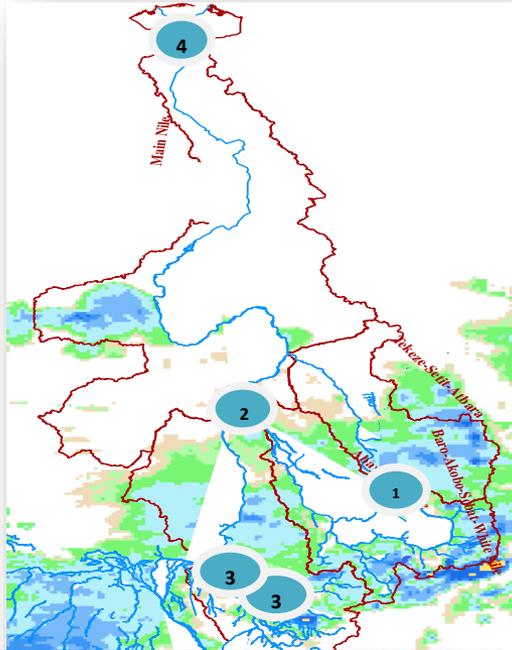
- Joint Analytic tools (NB DSS)
- Water demand & supply projection
- Regional knowledgebase
- Basin monitoring:
Evapotranspiration, enhancing basins monitoring infrastructure)
- State of the Basin Report (every 5 years)
- Flood forecasting and warning communication

Disaster preparedness: *strengthening member countries capacity to mitigate flood risks*

EN Flood Monitoring Program pilot Areas

1. Lake Tana flood forecasting system (Ethiopia)
2. Blue and Main Nile flood forecasting (Ethiopia and Sudan)
3. Baro-Akobo-Sobat (BAS) flood forecasting (Ethiopia and South Sudan)
4. Wadi Al Arish flash flood mapping (Egypt)

Main activities: flood forecasting, warning communication and community preparedness support



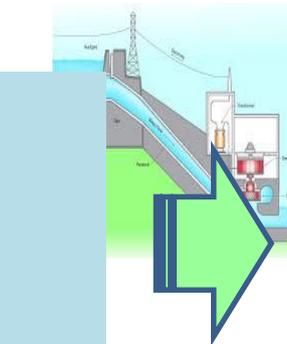
Delineation of flood prone areas and setting flood marks (GYR colors)



Climate change adaptation at regional level in the Nile Basin. *Examples:* Investment in green energy



- Increased integration of economies
- Reduced thermal power costs (Sudan)
- Reduced GHG from reduced fossil fuel usage (Sudan) → CC mitigation
- Increased export revenue (Ethiopia)



- Increased integration of economies of Burundi, Rwanda and Tanzania
- Increase electricity access to over 1,100,000 people
- Clean energy → reduction of GHG emission

Ethiopia – Sudan Interconnection

- *Inaugurated in 2013*
- 100 – 200 MW being traded

Rusumo falls HEP project

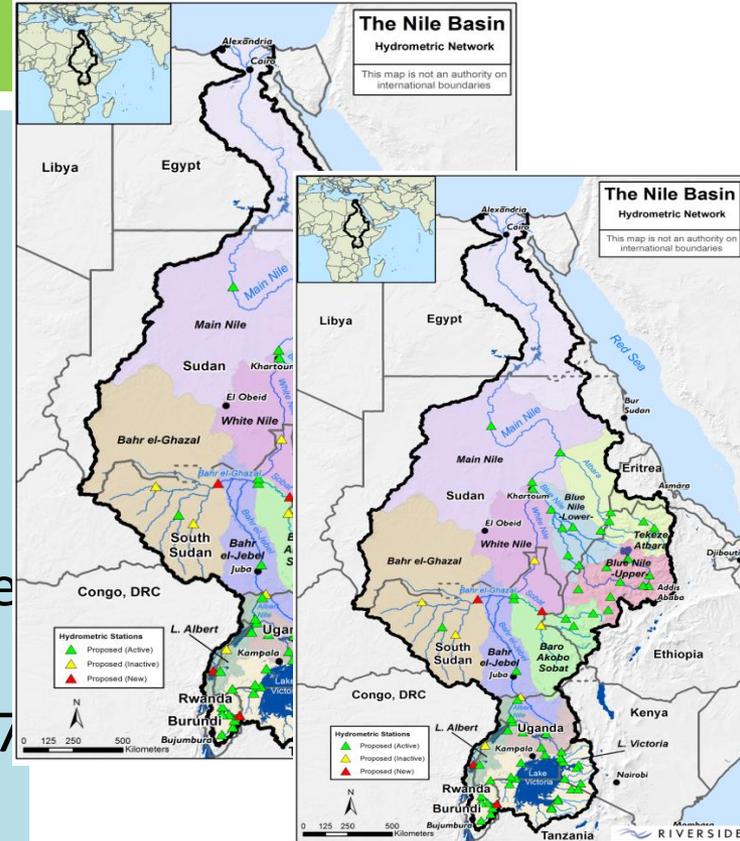
- Joint project (Burundi, Rwanda, Tanzania)
- *Financing secured*

Examples

Improved joint Basin monitoring

Regional hydromet system for the Nile Basin

- Design completed; first regional hydro-meteorological monitoring system for the Nile Basin
- Improved CC adaptation – one of the objectives of the system
- Real-time data sharing system – part of the design
- First phase implementation to start in 2017

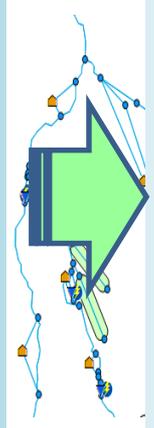


Livelihood centered integrated watershed management

Changes observed



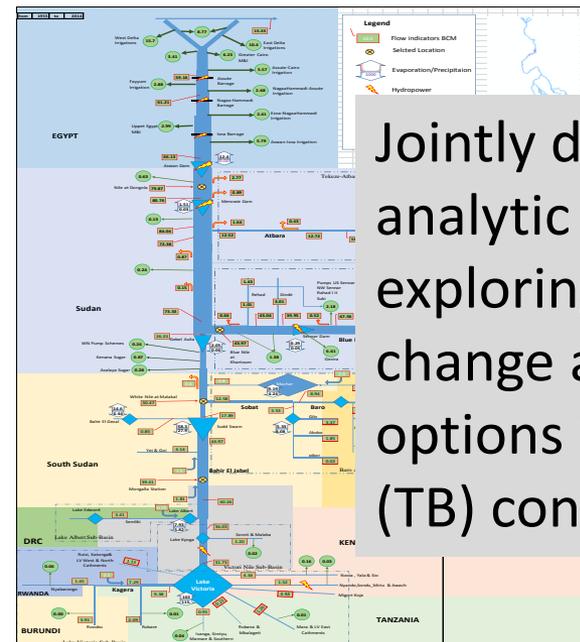
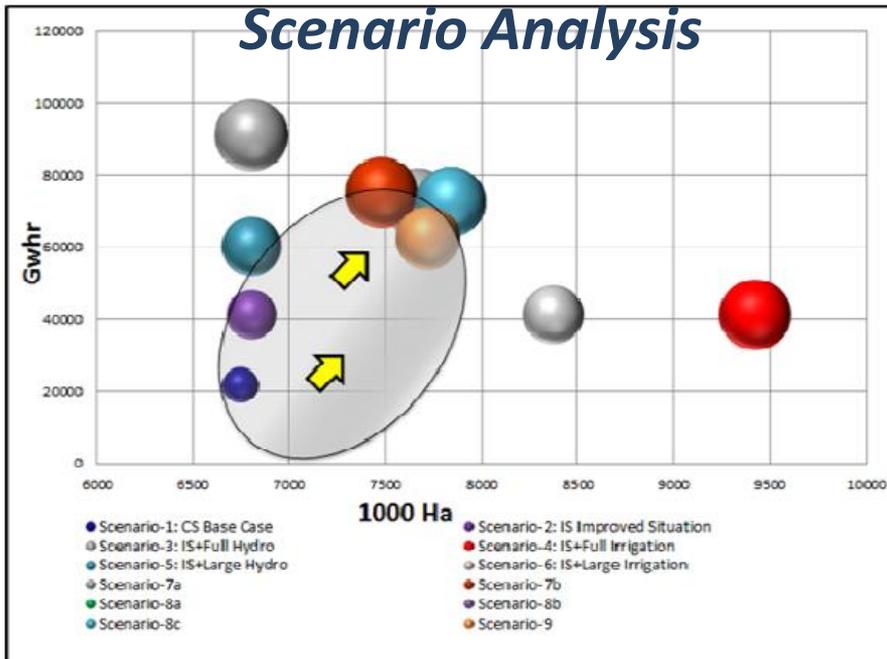
Improved joint river basin planning



- Basin/sub-basin as hydrologic unit → Optimize resource use taking comparative advantages of countries
- Leverage regional cooperation for better adaptation to climate change

Multi-Sector Investment Plans

- Multi-country sub-basin wide water resources plan for NEL
- Multi-country, multi-sector investment strategy for Eastern Nile



Jointly developed analytic tools for exploring climate change adaptation options in a regional (TB) context