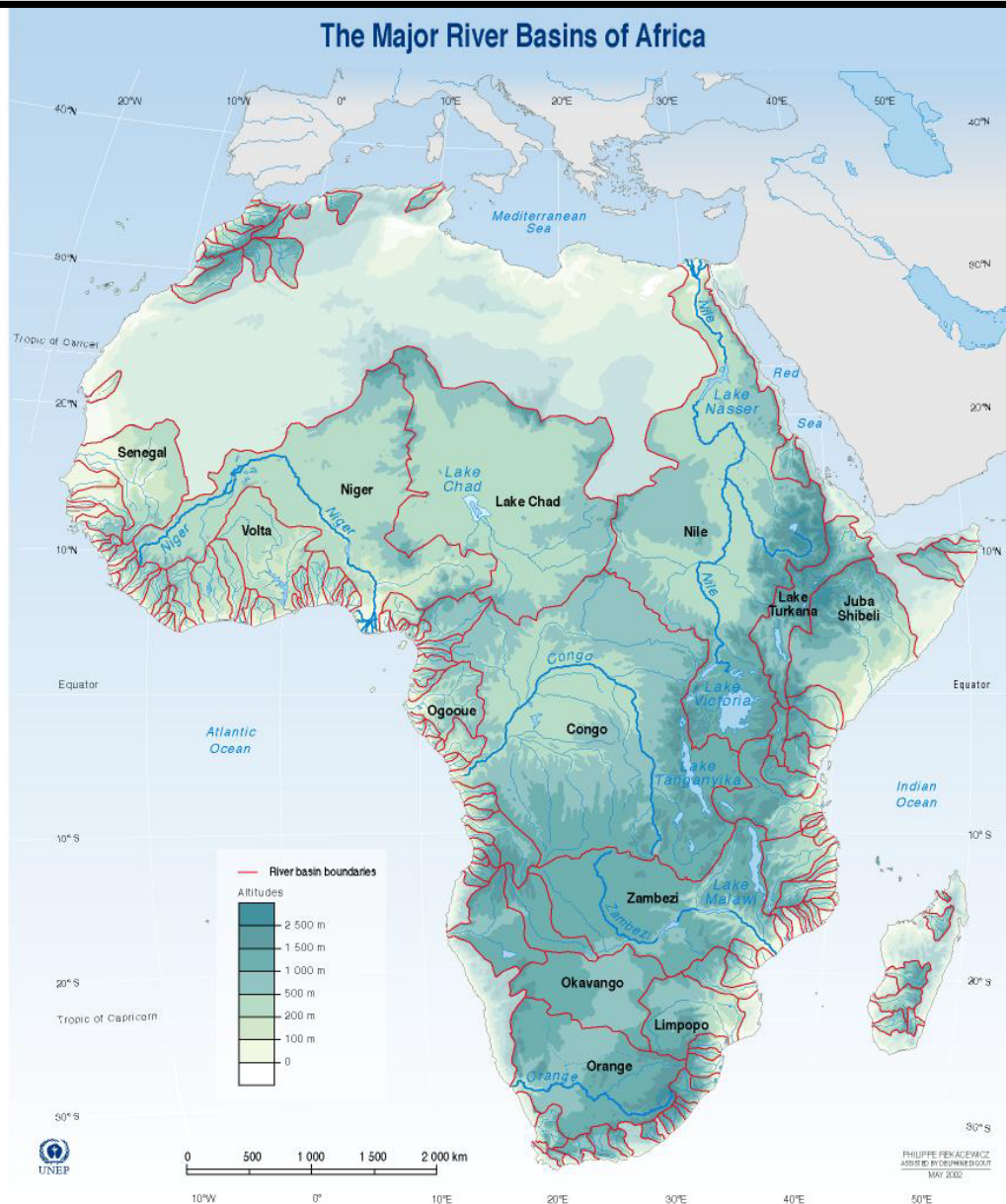


**REPORT OF THE REGIONAL WORKSHOP ON “DEVELOPING  
GUIDELINES FOR INTER-BASIN WATER TRANSFERS  
FOR POLICY MAKERS IN AFRICA”  
La Palm Royal Beach Hotel, Accra, Ghana  
25-29 September 2006**



Source: Aaron T. Wolf et al., 1999; Revenga et al., *Watersheds of the World*, World Resources Institute (WRI), Washington DC, 1998; Philippe Rekacewicz, *Atlas de poche*, Livre de poche, Librairie générale française, Paris, 1996 (revised in 2001).



## ***Drafting Guidelines For African Policy Makers***

***On***

### **INTER-BASIN WATER TRANSFERS (IBWTs) IN AFRICA**

#### **A. BACKGROUND**

Africa is a continent characterized by complex patterns and paradoxes in the availability and distribution of water resources. There is an abundance of water in the Equatorial zone in contrast to a total lack in the Sahara to the north and the Kalahari deserts to the south. This scarcity of water and its highly uneven distribution provides the physical state of the continent, which calls for evaluating the feasibility of Inter-Basin Water Transfers (IBWT).

The existence of over 54 transboundary river and lake basins form natural linkages and inter-dependence as most African countries are riparian to one or more river and lake basins with fourteen countries having their entire landmass falling within the boundaries of international river/lake/basins. Over 70 percent of the land area of Africa is within the basins of transboundary rivers/lakes and groundwater aquifers.

Of the many challenges that face Africa in its effort to develop and improve the quality of life of its people, the distribution and variability of its water resources are amongst the most complex.

Drought frequently afflicts farmers and city dwellers alike, while floods devastate dwellings, fields and infrastructure. This situation is aggravated by the fact that water is plentiful in some regions while their neighbours struggle with scarcity.

Thus there is an abundance of water in the Equatorial zone while; in the Sahara to the north and the Kalahari deserts to the south there is acute scarcity. This scarcity and variability of water and its highly uneven distribution represents both a challenge and an opportunity.

If water can be shared, equitably and sustainably between regions with abundance and regions with scarcity, both may be better off.

Inter-basin water transfer in Africa is an area of water resources management, which could provide a new dimension to correcting the spatial and temporal imbalances of water distribution in the region. The conception of water transfer has a long history as a means of addressing the critical problems of water resources by transferring water from areas where it is relatively abundant to those water-scarce regions. It will provide a driving force to enhance regional economic integration and development so that both donor and recipient countries become beneficiaries

This is sometimes possible along the course of one river or in one basin. Even where these rivers cross national boundaries, there are guidelines and procedures to guide the sharing of water and benefits from its use. However, where extensive use is already made of the existing resources of a river, it may be necessary to go further afield.

Thus it is sometimes possible to transfer water from one river basin to another. This can be decided within a country, if the rivers are not shared with others, by simple political decision. But another challenge facing Africa is that the majority of Africans live in shared river basins which cover over 70 percent of the land area of Africa. 63 transboundary river and lake basins are shared between more than one country.

Within the basin of a single river, there are relatively well-established procedures for evaluating the opportunities and developing projects to take advantage of them. The SADC Protocol is well known and it is backed up by a UN Convention although this has not been ratified by all countries. However, where one river basin has an abundance of water and another suffers scarcity, current planning and development mechanisms, founded as they are on managing water within the basin of a single river, are inadequate. Yet some of Africa's most acute water challenges – and the most exciting development opportunities on the continent occur in this sort of situation.

## **B. The Inter Basin Water Transfers (IBWTs) in Africa Workshop**

In order to address this challenge, a group of African and international experts met in Accra, Ghana between the 25<sup>th</sup> and 29<sup>th</sup> of September to consider how best to assist and support African countries in developing cooperative arrangements for identifying, appraising and promoting the implementation of potential transboundary Inter-Basin Water Transfer Projects.

Aside from sharing experiences and building a common understanding about inter-basin water transfers, a key objective was to prepare draft guidelines for consideration by African Policy Makers to assist them in making informed and comprehensive choices about IBWTs.

### **a) Objectives of the Workshop**

The overall objective of the Workshop was to assist and support African countries in formulating cooperative arrangements for meeting the challenges of water scarcity and associated problems on regional basis. Inter-Basin Water Transfer (IBWT) includes the removal of water from one major surface water drainage system either within same country across political boundaries which is referred to as "transboundary" water transfer or diversion.

The workshop was intended to provide:

1. A forum for an in-depth understanding and perception about Inter-Basin Water Transfer
2. Sharing experiences through discussion on the various aspects pertaining to Inter-basin water transfer (IBWT) within the African context.
3. Consolidate the principle of equitable sharing of benefits in IBWT among originating and recipient countries.
4. Clear guidelines to assist Africa Policy Makers in making informed and comprehensive choices from the political, economic, social, environmental and technical perspectives of IBWT.

The workshop consisted of thematic presentations and case studies on IBWT that gave an insight into problems and prospects that are relevant to the African context. The agenda of the workshop focused on issues that are pertinent from the perspective of developing countries. It aimed to assess all aspects of water transfer as a viable water management alternative for addressing imbalances in water supply and demand for sustainable development on a regional scale.

Four working groups were convened to consider challenges, opportunities, key issues and recommendations in the following areas:-

- **Policy matters**
- **Institutional and civil society issues**
- **Economic and financial considerations**
- **Environmental issues.**

From their reports, the following synthesis of elements of guidelines was prepared. These resulting Elements of Guidelines are intended to be developed into detailed technical guidelines by the **UN Water/Africa** and contribute to the components of Sirte Declaration of the African Union's Extraordinary Summit on Agriculture and Water in 2004.

## **C. Elements of Guidelines**

### **a) GENERAL POLICY MATTERS**

#### **1. Trans-boundary IBWT projects are complex and strategic and require the building of trust and confidence if they are to succeed**

Inter-basin Water Transfers between countries are often large and highly strategic development projects. Even where they involve relatively small amounts of water, they are complex and challenging to conceive, implement and manage. They can only be developed if there is trust and confidence between the partners and this must be built.

## **2. IBWT projects must be part of a larger, shared development vision**

IBWTs must contribute to and be consistent with the national visions and plans for development and regional integration in both donor and user countries, recognizing that water contributes to human security in all its dimensions, freedom from want, fear and hazard.

## **3. IBWT projects should be developed in an integrated and multipurpose way to optimize benefits and build resilience**

In view of the complexity and strategic nature of IBWTs, the needs of and opportunities in different sectors, including agriculture, power generation, and transport and well as domestic and industrial use must be considered in an integrated manner. The contribution that IBWTs can make to enhance the resilience of regions to challenges such as climate change should be identified and optimized.

### **b) ECONOMIC AND FINANCIAL MATTERS**

## **4. There must be equitable distribution of benefits between parties to an IBWT**

For an IBWT to be successful and sustainable there should be an equitable distribution of net benefits between “donor” and “recipient” communities and no individual or community should be worse off than before the project.

## **5. Rigorous economic and social analysis should be used to develop a common understanding of the costs and benefits of an IBWT project**

Economic and social analysis of IBWTs should be seen as a tool to provide a better, common, understanding of the potential and limitations of an IBWT project in all its economic, social and environmental dimensions. It should consider all feasible options to meet development objectives in a consistent and comparable manner. The long term and strategic nature of IBWTs means that conventional cost-benefit techniques will have to be adapted to reflect inter-generation issues and the potential impact of climate change.

## **6. IBWTs will only be financed if they are well conceived and prepared**

The full financial costs and returns of a proposed IBWT should be fully accounted for and distributed appropriately between potential financing entities and water users as well as the communities in “donor basins”. Incentives should be created both for the efficient use of water and other opportunities created by the project as well as for financial participation.

## **7. A systematic approach to the mobilization of finance is required**

All appropriate sources of finance should be identified and promoted, including private capital and user charges where appropriate. Where public subsidies are considered, they should be specifically targeted to the poor and disadvantaged to achieve specific social and environmental objectives. The African Development Bank has a special role to play in this regard.

### **c) INSTITUTIONAL AND CIVIL SOCIETY ISSUES**

## **8. Appropriate institutions are needed and their capacity must be built**

Effective River Basin Organizations (RBOs) are required on both donor and recipient sides for the identification and development of potential IBWTs. A dedicated organization will often have to be established to implement and manage an IBWT. The capacity of all organizations, including national governments, on both “sides” of the IBWT should be developed to ensure that all parties could identify and promote the interests of their communities and participate actively in the process.

## **9. AMCOW and RECs should assist where effective RBOs do not yet exist**

Since it is unlikely that an IBWT will successfully be established unless competent and effective River Basin Organizations have been set up, AMCOW and the relevant regional economic communities should encourage and assist the relevant countries to do so where they have not yet been established,

## **10. The impacts of an IBWT on stakeholders, particularly women, should be addressed and they should be involved in its development**

Mechanisms must be established to ensure that stakeholders are informed and enabled to comment on IBWT proposals in order to develop a shared vision and approach. National and local governments as well as river basin organizations must support such communication and parliamentarians have a particularly important role to play in the process. The impact of an IBWT on women and measures to ensure their engagement in the preparation and implementation of the project should be specifically considered. Traditional and informal arrangements governing water use and management should be identified and taken into account.

#### **d) TECHNICAL AND ENVIRONMENTAL ISSUES**

##### **11. The environmental impacts of an IBWT should be assessed, monitored and mitigated in a structured manner**

IBWT should normally not be considered unless available water is already fully used and efficiently managed in the recipient basin. Appropriate mechanisms should be used to assess potential environmental impacts and to develop proposals for their management and mitigation, making full use of local and indigenous knowledge. Project preparation should take account of the recommendations of the World Commission on Dams as well as the guidance of organizations such as ICID, ICOLD and others.

##### **12. The development of IBWT projects requires reliable baseline information**

Adequate baseline information about hydrology and climate as well as socio-economic issues will be needed to enable the preparation of a successful IBWT. Some countries may require assistance to develop and maintain their information systems. The science and technology capacity of African countries must be developed in order to support the development of IBWT and other water management activities.

## WORKSHOP PARTNERS



## LIBYA GENERAL WATER AUTHORITY

**PROGRAMME FOR WORKSHOP ON " DEVELOPING GUIDELINES FOR  
INTER-BASIN WATER TRANSFERS FOR POLICY MAKERS IN AFRICA"**

La Palm Beach Hotel, Accra, Ghana

25 - 29 September 2006

<b>DAY 1 - MONDAY SEP 25, 2006</b>	
09:00 -10:00	Registration
10:00 -13:00	Administrative Processing
13:00 -14:30	Lunch Break
14:30 -17:30	Opening Session - Chairperson: H.E.Engr. Muhammad Sani Adamu, Executive Secretary, Lake Chad Basin Commission & Chairman of Steering Committee.
	• Welcome Remarks - H.E. Engr. M.S. Adamu, Chairperson
	• Short Film :Water an African Story
	• Opening Statement: - Mr. Rex Situmbeko, African Development Bank/African Water Facility
	• Opening Statement -Mrs. Liqa Hilmy, IWMI
	• Opening Statement: - Mr. Henry Ndede, UNEP
	• Opening Statement: - Mr. Moise Sonou, FAO
	• Opening Statement by Mr. Phera Ramoeli, SADC
	• Opening Remarks on Science and Inter-Basin Water transfers: Dr. Kodwo Andah, University of Perugia
	• Short remarks: H.E. Albert Pahimi Padacke, Minister of Agriculture, Republic of Chad
	• Key Note Address: Investing in Africa's Future: Meeting the Challenges of Climate Variability with Ingenuity and Regional Integration", Executive Secretary of the UNECA or his Representative. Committee
	• Opening Address by H.E. Cecilia Dapaah, Deputy Minister of Water Resources, Public Works and Housing of the Republic of Ghana
19:00-21:00	Welcome Reception
<b>DAY 2 -TUESDAY SEP 26 2006</b>	
0900 - 12:30	First Plenary Session - Chair: H.E. Eng. Muhammad S. Adamu, Executive Secretary Lake Chad Basin Commission, Rapporteurs: Mr. K. Wiafe, VRA & Mr. I. Asamoah WRC-Morning Session. Dr. LekA Hilmy IWMI, Mr. Ben Ampomah, WRC - Afternoon Session
0900 - 09:30	• Workshop Objectives, Format and Outcomes, ECA
09:30-10:30	• Hydro-politics in Africa - Dr. A. Turton, AWIRU, • Interbasin Water Transfer systems - Implications and Lessons - Dr. Andah, WARREDOC, University of Perugia.
	• Discussions
1030 - 1100	COFFEE BREAK
11:00 -12:30	• Inter-Basin Water Transfer of water between SADC countries: A

	<p>developmental challenge for the future - Mr. Piet Heyns, DWAF, Namibia</p> <ul style="list-style-type: none"> <li>• The Great Man-Made River - Fr. Omar Salem, Director, General Water Authority, Libya</li> <li>• Discussions</li> </ul>
1230 - 1400	LUNCH BREAK
1400 - 1700	Second Plenary- Chairperson, (TBD)
1400 - 1500	<ul style="list-style-type: none"> <li>• Inter-Basin Water Transfer in the context of the Congo basin. - CICOS</li> <li>• Inter- Basin Water Transfer in the context of the Niger Basin - Mr. Ide Bana, NBA</li> <li>• Discussions</li> </ul>
15:00 - 16:00	<ul style="list-style-type: none"> <li>• Inter-Basin Water Transfer Projects and their implications: A China Case Study, Dr. J. Berkoff, Cambridge, UK</li> <li>• The Lesotho Highlands Water Project. Mr.Benedict, Lesotho Delegate,</li> <li>• Discussion</li> </ul>
1600 - 1700	<ul style="list-style-type: none"> <li>• Outcomes of the ICID Task Force Meeting on Inter-Basin Water Transfer - Eng. I. Musa, Director Federal Ministry of Water Resources, Nigeria.</li> <li>• Discussion</li> </ul>
<b>DAY 3 - WEDNESDAY, SEP 27, 2006</b>	
09:00- 12:30	Third Plenary Session: - Chairperson Dr. Omar Salem, Director General, General Water Authority, Libya/ Mr. Moise Sonou, Vice Chairman, UN Water/Africa (FAO). Rapporteur: Dr. Kodwo Andah/Mr. Charles Kabobo/ Dr. Mathias Fonteh
09:00-10:00	<ul style="list-style-type: none"> <li>• The Okavango Inter-Basin Water Transfer, - Mr. Piet Heyns, Under- Secretary, Department of Water Affairs, Namibia.</li> <li>• The Great Man-Made River - Dr Omar Salem, GWA, Libya</li> <li>• Discussions</li> </ul>
10:00-11:00	<ul style="list-style-type: none"> <li>• The Oubangui -Lake Chad Water Transfer: Saving livelihoods through Regional integration, - Mr. Gbafalo Martin, Lake Chad Basin Commission</li> <li>• A Case Study from Ghana -. Mr Minta Afosa Aboagye (Director, Water) Ministry of Water Resources Works and Housing, Ghana</li> <li>• Discussions</li> </ul>
11:00-11:30	• COFFEE BREAK
11:30-12:30	<ul style="list-style-type: none"> <li>• Inter-Basin Water Transfer in the Americas: Lessons of Relevance to Africa- Mr. Larry MacDonnell</li> <li>• GIS and Remote Sensing as a tool for Transboundary Basin Management in Africa- Dr. Ben Maathuis, I.T.C, Netherlands</li> <li>• Discussions</li> </ul>
12:30-13:00	• Introduction and Formation of Working Groups - Ms Aster Gebremariam/ Max Donkor

13:00- 14:30	• LUNCH BREAK
14:30-17:30	• First Working Group Session- Analytical Considerations
	<ul style="list-style-type: none"> <li>• Policy and Politics Issues – Chair: Mr. Phera Ramoeli</li> <li>• Economic and Financial Considerations- Chair: Mr. Jeremy Berkoff</li> <li>• Environmental Considerations- Chair: Mr. Henry Ndede</li> <li>• Civil Society Participation – Chair: H.E. Alhaji Dikko</li> </ul>
<b>DAY 4 - THURSDAY, SEP 28, 2006</b>	
09:00-12:30	<b>Second Working Groups Session- What Should Policy Makers Know</b>
	<ul style="list-style-type: none"> <li>• Policy and Politics Issues</li> <li>• Economic and Financial Considerations</li> <li>• Environmental and Financial Considerations</li> <li>• Civil Society Participation</li> </ul>
12:30- 14:30	<b>LUNCH BREAK</b>
14:30-18:30	<b>Synthesis Plenary Session. Chair: H.E. Cecilia Dapaah, Deputy Minister of Water Resources, Public Works and Housing, Ghana. Rapporteur: Dr. Mathias Fonteh/Dr. Stephen Maxwell Donkor, UN Water/Africa</b> <ul style="list-style-type: none"> <li>• Presentations of draft guidelines per Working Group</li> <li>• Inter-active Discussions to Prioritize issues from Policy Makers Perspective</li> <li>• Consensus Building</li> </ul>
<b>DAY 5 - FRIDAY, SEP 29, 2006</b>	
10:30-12:30	<b>Roundtable of Policy Makers Chair: H.E. Engr Muhammad Sani Adamu, Executive Secretary, Lake Chad Basin Commission</b> <b>Facilitator: Mr. Mike Muller, University of Witwaterstrand</b> <ul style="list-style-type: none"> <li>• Elements of Draft Guidelines, Mike Muller</li> <li>• Discussants: Ms. A. Bahri, IWMI. Mr. Omar Salem, GWA, Libya; Mr. P. Ramoeli. SADC; Mr. H. Ndede, UNEP, Dr. Charles Biney, Executive Secretary Volta Basin Authority, H.E. Engr. Muhammad Sani Adamu, Executive Secretary, LCBC, , Mr. Charles Kabobo Executive Secretary, CICOS,</li> </ul>
12:30 -14:30	• LUNCH BREAK
14:30-16:00	<b>Closing Session Chair: Dr. Akissa Bahri, Director, IWMI, Africa</b> <ul style="list-style-type: none"> <li>• Closing Remarks by Dr. Stephen Donkor, ECA</li> <li>• Closing Remarks by IBWT Conference Chairman, H.E. Engr. M. S. Adamu</li> <li>• Closing Speech by Host Country Deputy Minister, H.E. Cecilia Dapaah</li> </ul>
19:00- 21:00	<b>CLOSING RECEPTION</b>

#### ORGANIZING PARTNERS



Guidelines on inter-Basin water transfers