

CHAPTER 1

INTRODUCTION







Albert Nile just before Murchison Falls

Photo: Vivek Bahukhandi

The Nile Basin

The Nile is the world's longest river and has a drainage area of about 3.2 million km² which is nearly 10% of the landmass of the African continent. Running through 11 countries from south to north, the river flows over 35 degrees of latitude, traversing highly diverse landscapes and climatic zones. The Nile has two main tributaries; the White Nile with its upstream catchments fed by rivers originating in Burundi and in Rwanda and the Blue Nile originating in Ethiopia, both of which have very distinct hydrologic regimes. Other tributaries of the Nile are the Sobat river draining parts of the south-west Ethiopia, and eastern parts of South Sudan the Atbara river passing through Sudan and the Bahr el Ghazal draining the western part of South Sudan.

The Nile Basin is home to over 257 million people which is about 54% of the total population of the 11 countries that share the Nile. The Nile Basin has hugely diverse ecosystems with a significant part classified as arid and semi-arid. These diverse ecosystems coupled with the diverse climatic zones have been observed to determine the distribution of the population within the basin. The riparian commu-

nities are very heavily dependent on exploitation of the environment and water resource for their livelihoods.

The large number of countries that share the Nile Basin, combined with the uneven distribution of the water resources among the countries, population pressure, urbanization and complex hydrology of the Nile System coupled with climate change pose significant challenges for the sustainable management of the shared waters.

Over a period of several years, riparian countries of the Nile have come together to try to address challenges within the basin so as to harness the resource for sustainable development. The first international technical cooperation (1967-1992) was the Hydro meteorological Surveys Project of the Upper Nile (Equatorial Lakes) Catchments (HYDROMET) which was followed by the Technical Cooperation Committee for the Promotion of the Development and Environmental Protection of the Nile (TECCONILE:1993-1999). The Nile Basin Initiative (NBI) was launched on 22 February 1999. The launching of the NBI as an all-inclusive platform ushered a new era in the history of the Nile cooperation.



Food sharing



Dry river bed, South Sudan



Ngorongoro Conservation Area - Tanzania

RIVER LENGTH
6,695 km

AREA OF THE NILE BASIN
3,176,541 km²

POPULATION
257 million

THE NILE BASIN INITIATIVE

The Nile Basin Initiative (NBI) is an inter-governmental partnership of 10 Nile Basin countries namely; Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, The Sudan, Tanzania and Uganda, established on 22nd February, 1999. Eritrea participates as an observer.

For the first time in the Basin's history, an all-inclusive basin-wide institution was established, to provide Basin States with a forum to discuss with trust and confidence the sustainable management and development of the shared Nile Basin water and related resources for win-win benefits.

The partnership is guided by a Shared Vision Objective: *'To achieve sustainable socio-economic development through equitable utilization of, and benefit from, the common Nile Basin water resources'*. The shared belief is that countries can achieve better outcomes for all the people of the basin through cooperation.

The highest political and decision making body is the NBI is the Nile Council of Ministers (Nile-COM), comprised of Ministers in charge of Water Affairs in the NBI Member States. The Nile-COM is supported by a Technical Advisory Committee (Nile-TAC), comprised of 20 senior government officials, two from each of the partner states. The NBI is one institution with three centers; the Secretariat (Nile-SEC) based

in Entebbe, Uganda is responsible for the overall basin wide perspective, corporate direction of the institution and leads implementation of the 'Basin Cooperation' and 'Water Resource Management' programs. The Eastern Nile Technical Regional Office (ENTRO) based in Addis Ababa, Ethiopia, leads implementation of the Water Resources Development Program in the Eastern Nile sub-basin comprising of Egypt, Ethiopia, South Sudan and The Sudan. The Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP-CU) based in Kigali, Rwanda, leads implementation of the Water Resources Development Program in the Nile Equatorial Lakes sub-basin comprising Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, The Sudan, Tanzania and Uganda.

In each Member State there is an NBI national office, which coordinates and ensures regional NBI interventions are embedded in national development planning.

What NBI does

The Basin Cooperation Program actively provides the only all-inclusive regional platform for multi stakeholder dialogue, for sharing information, joint planning management and development of the shared water and related resources in the Nile Basin. The platform further creates opportunities for learning, networking and



Photo: Dr. Nicholas A. Zia



NILE BASIN INITIATIVE
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SHARED VISION OBJECTIVE: 'to achieve sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources'.

sharing experiences across Basin States.

The objective of the water resources program is to assess, manage, and safeguard the water resources base that supports the peoples of the Nile Basin. Under this program, NBI undertakes water resources analysis to to inform riparian dialogue, strengthens Member States' analytic capacities, formulates transboundary policies and promotes collaborative monitor-

ing of the Nile Basin.

The Water Resources Development Program assists Member States to identify and prepare investment projects of regional significance, which are economically viable, environmentally friendly and socially acceptable as well as mobilize financial and technical resources for their implementation by the Member States.

NILE BASIN WATER RESOURCES ATLAS

Without synthesized information, identifying and devising mitigation measures for the critical threats to the sustainability of the water and related natural resources of the basin becomes a challenge.

As much as certain aspects of our environment such as topography do not change, most aspects of our physical environment change. As populations grow, effective planning for sustainable development requires dependable information about the trends in our changing environment.

In order to develop the Nile Basin resources to address urgent social and economic needs of the people while ensuring equity in sharing of the benefits, decision makers need evidence based information to enable them to make evidence based decisions.

As part of expanding the knowledge base, the NBI has developed a Water Resources Atlas for the Nile Basin to provide synthesized, interpreted

information to the stakeholders and thereby promote evidence based decision making.

The Nile Basin Water Resources Atlas provides a visual account of the status of the resources, present observed trends, vital statistics and the biophysical status of the basin.

The Atlas will inform the second Edition of the State of River Nile Basin Report and will provide a platform for viewing the spatial and temporal distribution of resources within the basin especially hot and hope spots and their environmental, economic and social significance.

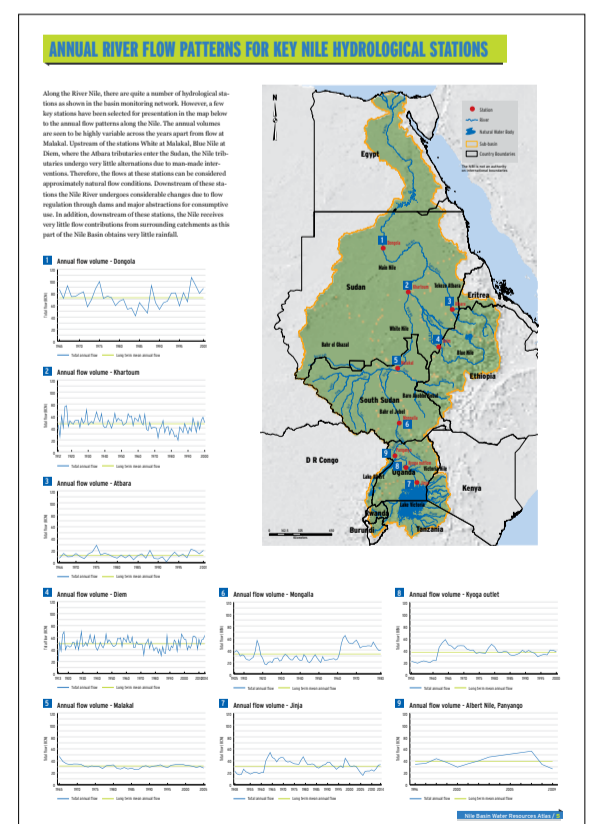
By guiding and informing basin-wide planning, the Nile Basin Water Resources Atlas together with the State of River Nile Basin Report will significantly contribute to achievement of the NBI goals of equitable benefit sharing and win-win outcomes, that are at the heart of cooperation on the Nile.

Objectives

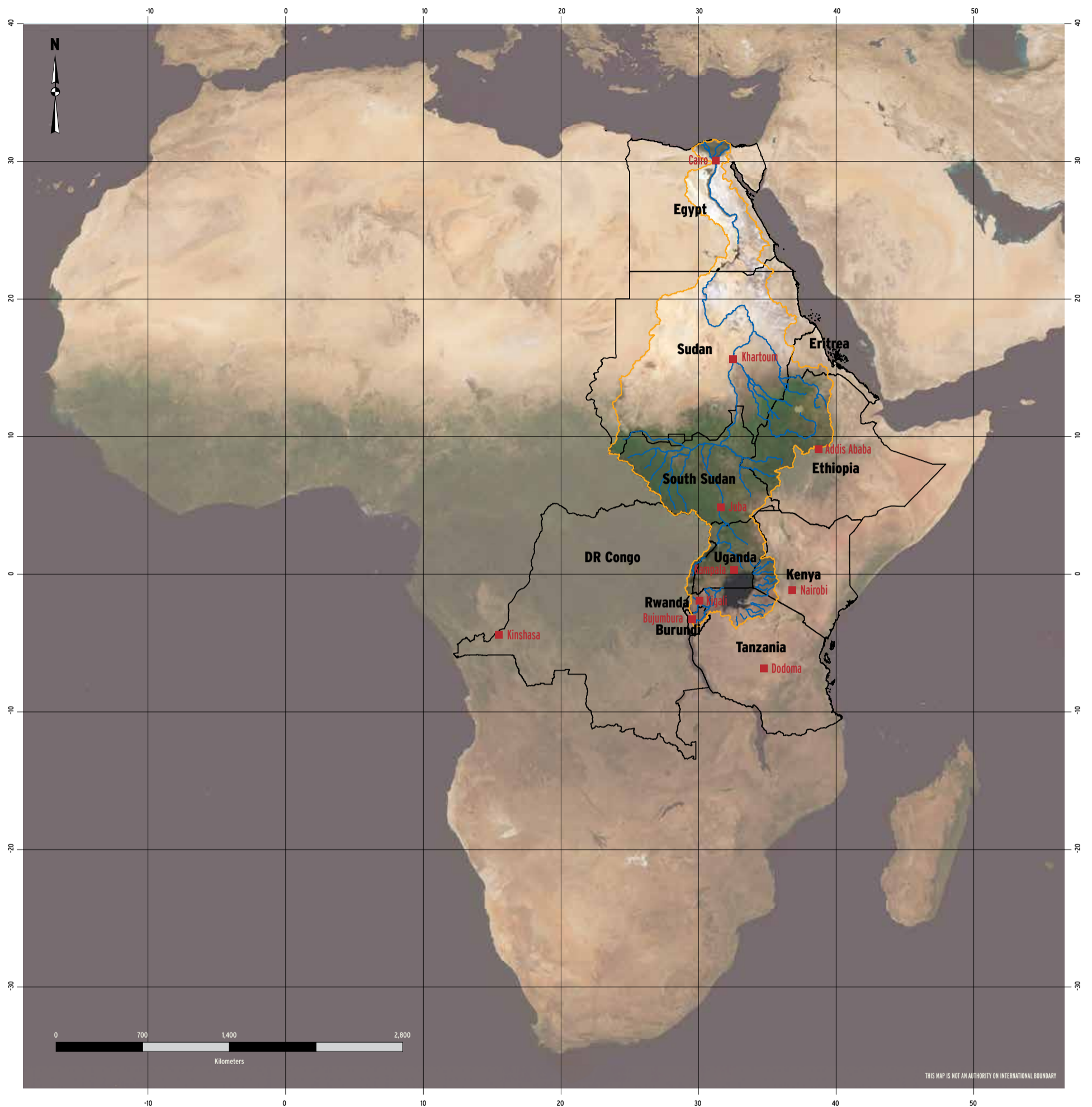
The primary objective of the Nile Basin Water Resources Atlas is to present factual information on water resources of the Nile Basin, its spatial and temporal distribution and uses. The Atlas makes extensive use of illustrations to present facts, characteristics and trends with respect to the water resources of the Nile Basin and serves as shared knowledge base on Nile.

Approach

The Nile Water Resources Atlas was developed by a team of NBI staff in collaboration with experts from NBI member states (members of the Regional Working Group). Three consultants supported the development of illustrations with a professional firm taking care of the graphic design and editorial process. The data and statistics used have been validated and sometimes provided by representatives from each Member State.



LOCATION OF THE NILE BASIN IN AFRICA



The Nile Basin covers an area of about 3.2 million km², which represents some 10 percent of the African continent and hosts nearly 20 percent of the African population. The basin extends from 4° south to 31° north latitude.

The Nile is the longest river in the world with a length of 6,695 km. It has two main

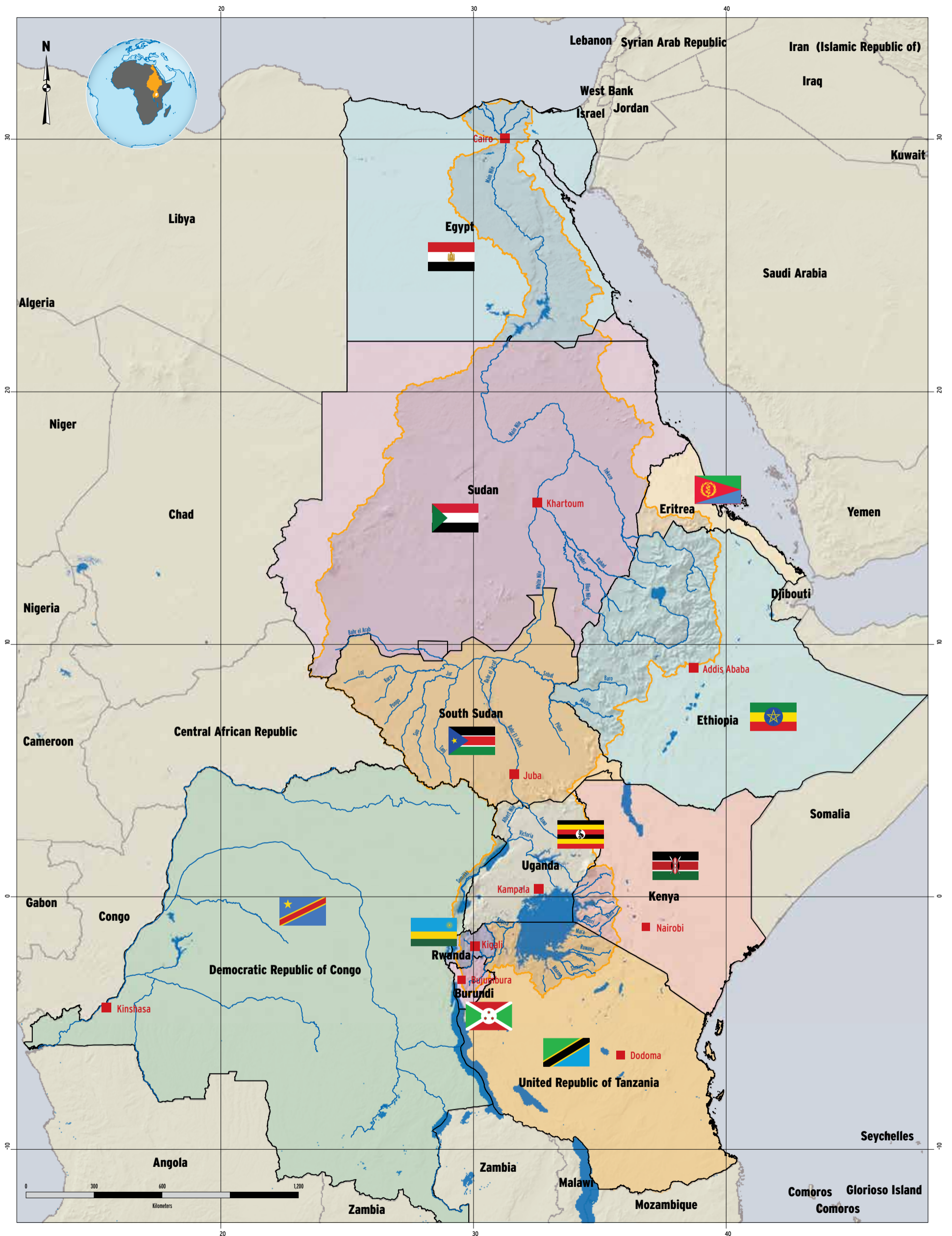
tributaries: 1) the White Nile, originating from the Equatorial Plateau of East Africa, the headstreams of which flows into Lake Victoria, and 2) the Blue Nile, with its source in the Ethiopian highlands. Other significant tributaries are the Tekeze-Atbara and the Baro-Akobo-Sobat, both originating in the Ethiopian highlands. Lake Victoria with the surface area of

66,700 square kilometres is the world's second largest freshwater lake after Lake Superior in North America.

Eleven countries share the river: Burundi, the Democratic Republic of the Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, the Sudan, South Sudan, the United Republic of Tanzania and Uganda. The

Nile Basin is home to approximately 257 million people, while some 487 million live within the eleven riparian states. The Nile waters play a vital role in the socio-economic development of the Nile Basin States. Agriculture is the dominant economic sector in most Nile riparians. The Nile also has huge potential for hydro-power production.

THE NILE BASIN COUNTRIES



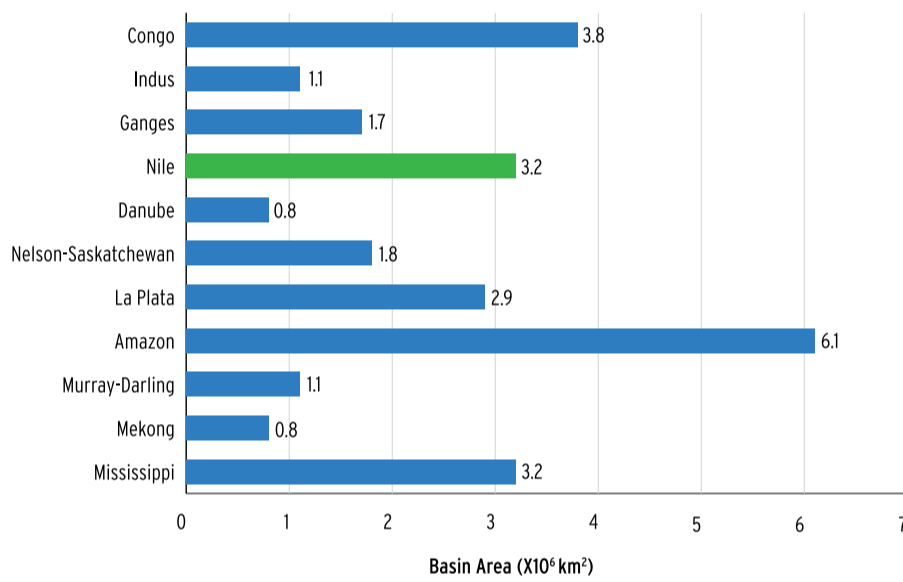
THIS MAP IS NOT AN AUTHORITY ON INTERNATIONAL BOUNDARIES
 Data Source: The Global Administrative Unit Layers (GAUL) dataset, FAO - 2014

The designations employed and the presentation of material in the maps do not imply the expression of any opinion whatsoever on the part of FAO and NBI concerning the legal or constitutional status of any country, territory or sea area, or concerning the delimitation of frontiers

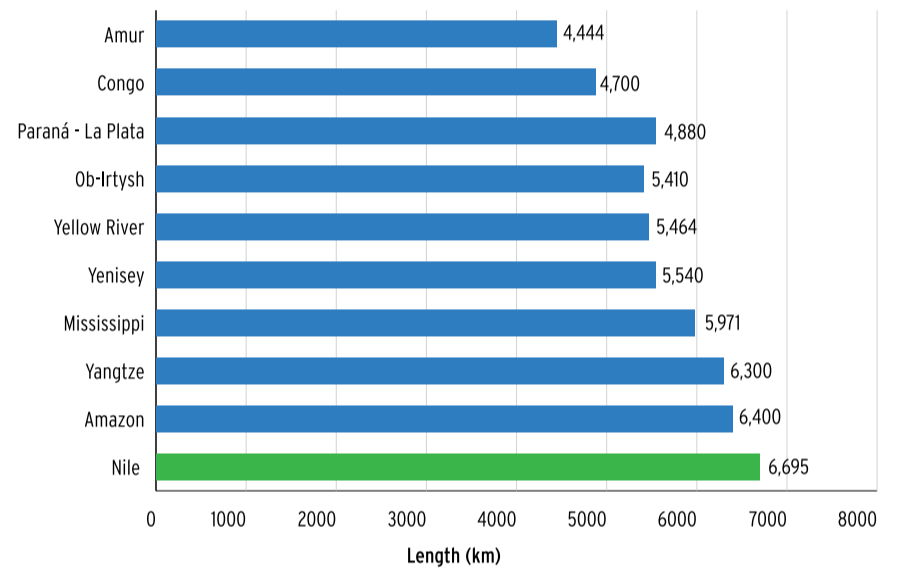
QUICK STATISTICS ABOUT THE NILE

AREAS OF COUNTRY WITHIN THE NILE BASIN				
Country	Estimated Total Area (km ²)	Area in the Nile Basin (km ²)	Area in the Nile Basin (% of total basin Area)	Area in the Nile Basin (% of total country area)
Burundi	27,834	13,860	0.44	49.39
DR Congo	2,345,410	21,796	0.69	0.91
Egypt	996,960	302,452	9.52	30.34
Eritrea	121,722	25,697	0.81	21.11
Ethiopia	1,144,035	365,318	11.50	31.93
Kenya	593,116	51,363	1.62	8.66
Rwanda	26,338	20,625	0.65	84.01
South Sudan	644,329	620,626	19.54	97.71
Sudan	1,864,049	1,396,230	43.95	74.90
Tanzania	945,000	118,507	3.73	12.69
Uganda	241,248	240,067	7.56	99.51
Total		3,176,541		

Basin Area: Comparison of the Nile Basin area to other river basins of the world

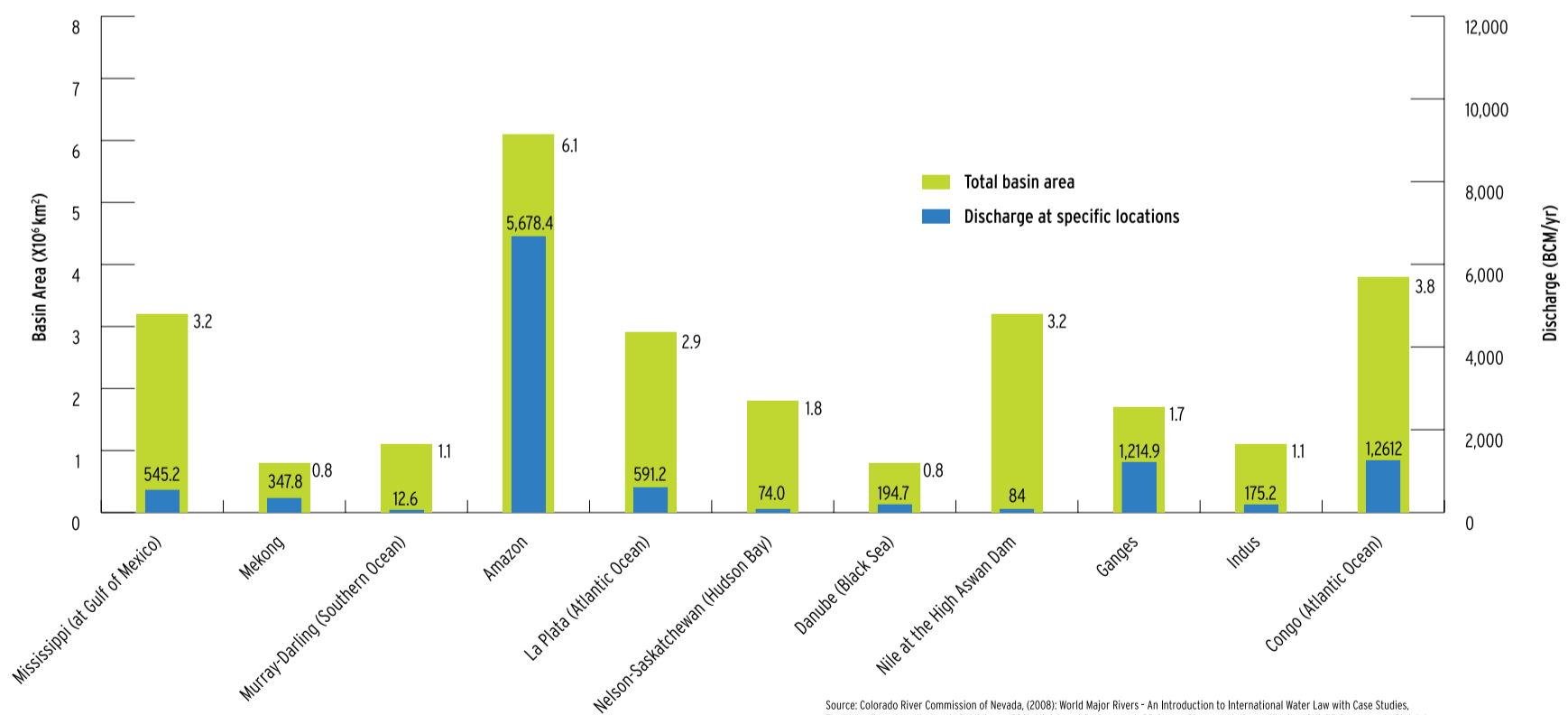


River Length: The length of the Nile in comparison to other rivers of the world



Source: World Major Rivers - An Introduction to International Water Law with Case Studies, Ministry of Environment, DR Congo, River regulation authority - RVL DR Congo.

Discharge of the main selected rivers in the world



Source: Colorado River Commission of Nevada, (2008); World Major Rivers - An Introduction to International Water Law with Case Studies, The Water Encyclopedia (Lewis Publishers, 1990); Ministry of Environment, DR Congo, River regulation authority - RVL DR Congo, and NBI database.

