

**NILE WATERS
UP TO 2011 AND BEYOND
PROSPECTS FOR SOUTH SUDAN**

(Abridged)

SUBSAHARA CENTRE

OTTAWA

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Developed by T. Elkhazin

The basins of the Nile Waters in South Sudan

1- Bahr El Jebel Basin (The White Nile)

2- **BAHR EL GHAZAL BASIN**

3- Sobat basin

Other basins in Sudan

1- Blue Nile Basin

2- Atbara Basin

3- Diner Basin and other smaller basins and rivers

Historically and as per the 1929 “Exchange of Notes between UK and Egypt”:

1- Egypt had the right to 48 BCM of water annually and

2- Sudan had the right to 4 BCM of water annually

3- Sennar Dam was completed and waiting for the agreement since 1925

1- Total discharge of the Main Nile at the High Dam was estimated as 84 billion cubic meters (BCM) in 1959

2- Of that, Egypt has the right over 55.5 BCM

3- Sudan has the right over 18.5 BCM

4- Evaporation is claimed to take 10 BCM.

The High Dams was functional in 1963

Who uses that water and who does not?

- 1- 98% of Egypt's agriculture is dependent on Nile Waters
- 2- 15% of Sudan's agriculture is dependant on Nile Waters (100% in the North)
- 3- 2-3% of Ethiopia's agriculture is dependent on Nile Water (or other rivers water). Why:
 - 3-1: The World Bank and other institutions block any funding unless Egypt gives its no-objection.
 - 3-2: There was no regional backing for Ethiopia, especially from Sudan (hands tied by the 1959 agreement).

From where does this water come?

1- Ethiopia about 80-86%, of which Sobat delivers 12-15%

2- The Lakes Region, about 14-16% (In spite of the large discharge from Lake Victoria)

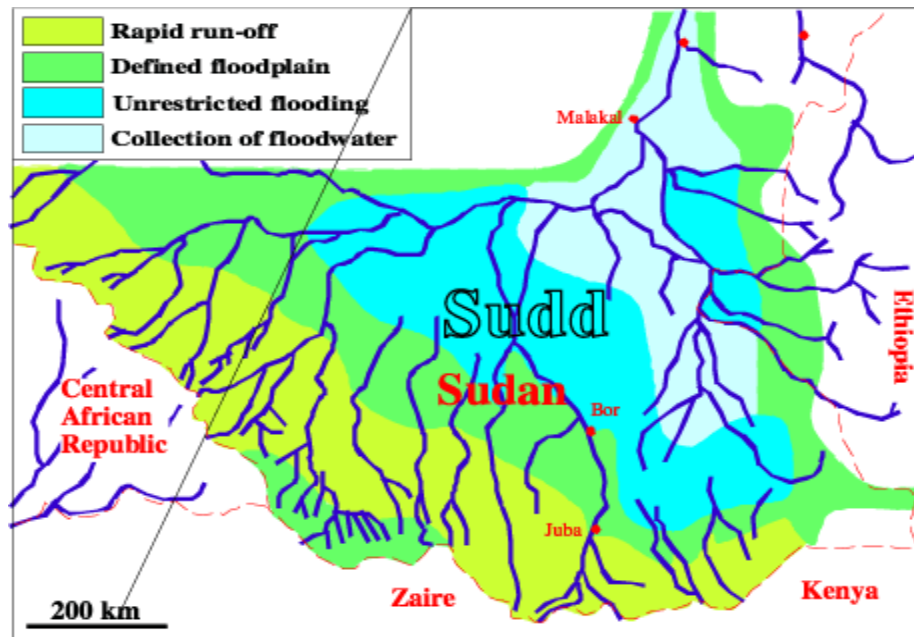
3- Other sources en-route, 4%

Where does the missing water from Lake Victoria go?

S U D D---T O I Ch(J)

Now the fun starts!!

The SUDD and SS Input into the Main Nile Note Bahr El Ghazal Basin's Contribution



Powell and Lock, 1994

Seasonal and Permanent SUDD



The SUDD and Wetlands of Central South Sudan West of the Nile

1- The catchment of the Wetlands is estimated at 30,000 to 70,000 Square Kilometres (SQK). (Different estimates). The actual flood reservoir is estimates at 30,000 SQK.

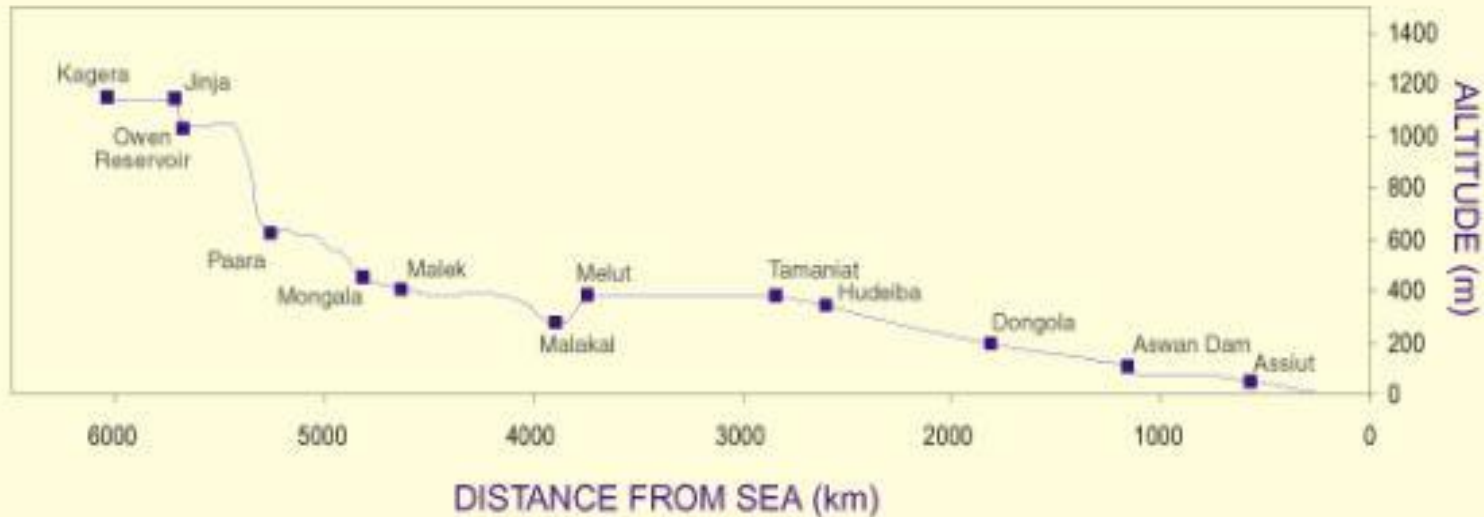
3- 14,000 SQK of that is seasonal with peak discharge around August.

4- 16,000 SQK of that is permanently flooded with water from Lake Victoria and other sources.

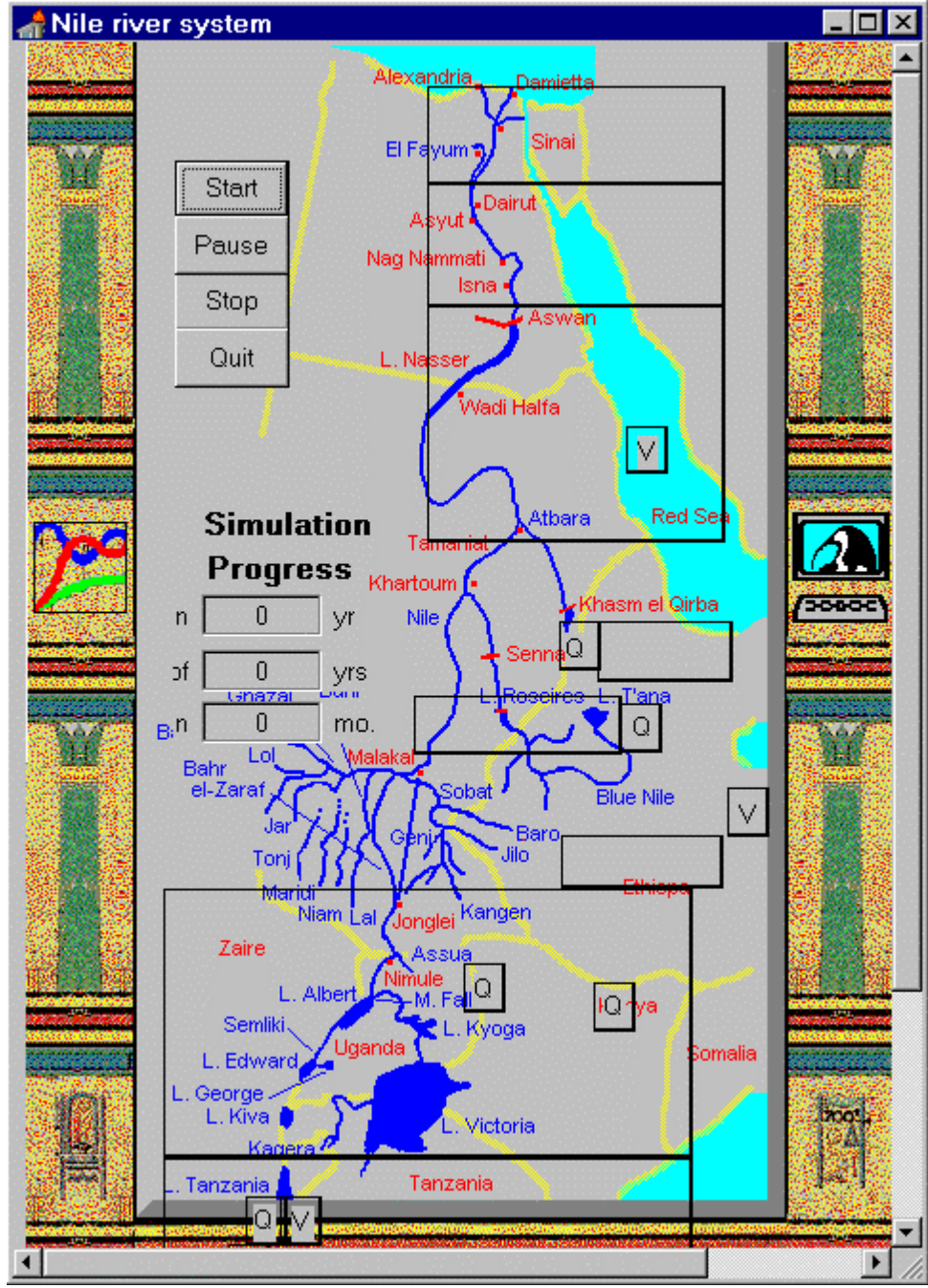
5- The estimated quantity of water in the SUDD is 30 BCM or 1/3 of the total discharge at the High Dam.

Gradient of the Nile from Kagera to Delta.

Note the drop before and at Malakal



The Nile System: Passage and additional discharge in SS



Which Countries make up the Nile Basin?

- 1- Burundi
- 2- Democratic Republic of Congo
- 3- Kenya
- 4- Rwanda
- 5- Tanzania
- 6- Uganda
- 7- Egypt 75% after Evaporation. Sudan 25%
- 8- Ethiopia
- 9- Sudan
- 10- Eritrea**

Who owns that water, now and after 2011?

- 1- 1929 is silent on that although the idea of Jonglei Canal (s) was developed in 1904**
- 2- 1959 talks about sharing any additional discharge from projects or natural rises in lake Victoria 50-50 between Sudan and Egypt, but the issue of “Rights and Ownership” of the source of additional waters is not specified**
- 3- 2005 CPA is silent about stagnant water rights as the issue could have torpedoed the talks under IGAD.**
- 4- By “~~DEFAULT~~”, the stagnant water belongs to the Peoples of South Sudan.**

Rights and benefits and the Nile Basin Initiative (NBI)

- 1- All the rights lie in Ethiopia and the Lakes Region (Including South Sudan). 100%**
- 2- All the benefits are reaped by Egypt and North Sudan without compensation. (98% of cultivated land)**

Possible conflict?

- 1- Trade “RIGHTS” with “BENEFITS”.**
- 2- Canada is the father and mother of the NBI since 1992.**
- 3- NDUGU dropped like a hot potato after 1988.**

What if South Sudan cannot, or does not need to, make use of the Nile Waters?

THAT IS NOT THE CASE

- 1- THE SOBAT VALLEY: 2-3 BCM of water for mechanized irrigation. Granary of South Sudan. Can cultivate ½ the size of the Gezira Scheme. Only location in SS**
- 2- Sobat River: Can dam 12 BCM of water and can generate about 250 MW of hydro at a manageable cost within the absorption capacity of South Sudan. (Eastern Bank)**
- 3- Bahr El Jebel can generate between 240 to 705 MW hydro at Fula rapids in Nimole. (All Equatoria/Bahr El Ghazal)**

Bahr El Ghazal Basin-I

1- Sue, Bussari→ Jur, Lol, Tonj, Ragaba Al Zarga, Pongo, Geti, Get, Wokko, Naaam and Kiir, 100% SS

2- Huge “Spill-over” from B. Jebel Basin north of Shambe estimated at 6BCM creating a link between the 2 swamps. (Target of Jonglei I)

3- Estimated area of basin 16,800 SqK. Total discharge 15.7 BCM (same as Sobat).

2- East of Jur: edges and part of the Wetlands (SUDD)

BAHR EL GHAZAL BASIN-II

3- Warrap and Lakes are pastoralists land

4- What does “Dredging” do?

-Positive

-Negative

5- Why B Ghazal Basin for dredging?

6- What are the impacts of dredging?

7- Why the hurry?

8- Why did President Kiir cut his trip to Egypt short?

What are the currently known Nile Agreements involving Sudan:

- 1- 1891 Anglo Italian
- 2- 1901 Anglo Italian on Gash River
- 3- 1902 Anglo Ethiopian
- 4- 1906 Franco Anglo Italian
- 5- 1925 Anglo Italian
- 6- 1925 Anglo Ethiopian over Lake Tana
- 7- 1929 ~~ANGLO EGYPTIAN ON SENNAR DAM~~
- 8- 1933 Anglo Italian, Kenya, Italian Somalia
- 9- 1959 ~~SUDANESE EGYPTIAN HIGH DAM~~

Water Policy of South Sudan (1)

1- Page 26: “The trans-boundary nature of Nile Waters necessitates the development of effective measures for regional and international cooperation”

2- Page 14:

-...Keneti River in EE....it is no longer operational

-“Currently there is no hydropower station existing in Southern Sudan”

- There have been plans to generate power from the Cataracts of Fula....and Bedden above Juba.

-....Focusing on small scale rapids Aga Falls on R Yei, Morobu Payam, Wudabi Payam,

SOBAT IS NOT EVEN MENTIONED

Water Policy of South Sudan (2)

1- Page 16: There is no single official document which brings together existing **POLICY AND LEGISLATION** relevant to water resources management and utilisation **IN SUDAN....**

2- Page 17 and 18 lists 12 major challenges facing South Sudan. Not **ONE** has been addressed.

3- Pages 21, 22 and 23 list 19 bullets relating to “Guiding Principles for Water Resources Management: None deals explicitly with Nile Waters.

-Bullet 3-2-7 “To streamline institutional and legal frameworks relating to water resources management with clear separation of functions, roles and responsibilities”.

4- Highlight Capacity Building Project under discussion with the JDT and Legal Affairs and Constitutional Development of GOSS.

Water Policy of South Sudan (3)

1- Page 26: GOSS will need to undertake a detailed assessment of its own needs and priorities with regard to “DEVELOPMENT” of Nile waters. “TECHNICAL UNDERSTANDING” of “STATUS” and “TRENDS IN THE AVAILABILITY” and “USE” of Nile Waters.... Due to lack of scientific research.

2- Page 27: GOSS shall take all the necessary steps to establish a supporting “LEGAL AND REGULATORY FRAMEWORK” to enable efficient and effective functioning of newly established water resources management institutions in SS.

Comment: This proves that such institutions still do not exist. The draft of the “Policy” was developed in 2007 and launched in 2009.

Rights and Benefits

- 1- Must first know what the rights are: How much water is generated in SS? Any rights in other water passing through SS?
- 2- Must participate in deciding what the benefits are.
- 3- Where does/would SS lie in the clear division of East Nile and Lakes Nile?
- 4- Is anybody serious about funding the huge sums(Billions) needed to compensate countries of “rights” with “benefits” equitably with their rights and needs/new needs?

What the Egyptians are doing in BG Region:

- 1- Dredging the major rivers of Lul, Bahar Naaam, Seu/Bussari or Jur and other tributaries of Bahar El Ghazal.
- 2- To what effect? Drain the stagnant waters (TOJ) into the main Nile discharge.
- 3- What does 1959 Agreement say about that? (See handout I excerpts from 1959-Highlights 1 through5): More water into the shared quota before 2011. See article III 1 and 2. Article V 1 and 2
- 4- They also have their eyes on the West Bank of B. El Jebel between Bor and Sobat Mouth. Only security is stopping them from starting work.
- 5- Watch the spill-over zone north of Shambe: Why?

What does South Sudan need to do-

- 1- Study all 9 agreements. Note how frustrating the situation is by studying the 1993 Ethio-Egyptian Agreement.**
- 2- Study all the African Basins' Agreements and Cooperation Protocols. (At least 27 known).
- 3- Be aware of how and why these colonial agreements are important by studying the ICJ rulings on Badme (Eritrea and Ethiopia) and Bakassi Peninsula (Nigeria and Cameroon)

What does South Sudan need to do-II

- 4- Start full research and study International Law on water which is very weak. (Helsinki Rules).
- 5- Build a library from the British Archives.
- 6- Embark on serious capacity Building for the Legal and Water cadre of South Sudan and engage Universities.
- 7- Forge professional alliances (St Lawrence, Danube, Rhine, Zambezi.....)

What does South Sudan need to do-III

8- Build Scenarios:

- If there will be no separation?
- If there will be separation?
- How to share the 18.5 BCM allocated to the “Old Sudan”? At what ratio? What are the criteria?
- What are the rights and benefits?
- What of B Ghazal Basin?
- What of Sobat basin and the prospects for agriculture and Hydro?
- Who are the partners and who are the allies? And who are the....
- THIS IS ONLY TO GET READY!!

Consultant's independent Recommendations-I

- 1- South Sudan needs to start debate: Where will SS fit in NBI?**
- 2- Prepare to have policy on how to deal with the SUDD waters. Sell? Rights/benefits? Do nothing for now?**
- 3- Stop dredging until SS knows what is happening and what to do. It may not be possible to claim “rights” of B. Ghazal drained waters later.**
- 4- Nature and Eco-Systems never give anything for free. What is the “Price” of dredging? BG and Jonglei.**

An example of the Dogma of Upstream and Downstream: Proposed Cooperative Framework Agreement

1- All other NB Countries draft of Article 14:

“(...) the Nile Basin States therefore agree, in a spirit of cooperation, to work together to ensure that all states achieve and sustain water security and **not to significantly affect the water security of any other Nile Basin State.**”

2- Egypt/Sudan proposal:

“(...) the Nile Basin States therefore agree, in a spirit of cooperation, to work together to ensure that all states achieve and sustain water security and **not to adversely affect the water security and current uses and rights of any other Nile Basin State.**”