The dynamics of Nile Basin Initiative (NBI) water governance and Jonglei Canal project on the South Sudan water resources exploitation

Introduction

The Nile is the longest river in Africa with its drainage basin covering eleven countries namely; Tanzania, Uganda, Rwanda, Burundi, the Democratic Republic of the Congo, Kenya, Ethiopia, Eritrea, South Sudan, Republic of the Sudan, and Egypt and it flows into the Mediterranean Sea. The Nile is the primary water source for Egypt, Sudan and South Sudan. It has two major tributaries – the White Nile, which begins at Jinja, Lake Victoria in Uganda, and the Blue Nile. The White Nile is traditionally considered to be the headwaters stream. However, the Blue Nile is the source of most of the water of Nile downstream (Wikipedia). Nevertheless, the Nile Basin Initiative (NBI) is an intergovernmental partnership of ten Nile Basin countries, namely Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, The Sudan, Tanzania and Uganda. It was established on February 22, 1999, by Ministers in charge of Water Affairs in the Nile Basin countries with the goal of achieving sustainable socio-economic development through the equitable utilisation of, and benefit from, the common Nile Basin water resources.

The Jonglei canal, however, was a billion dollar-water development project on the White Nile dating back to 1970s aimed at draining and diverting excess water in South Sudan Sudd swamps downstream by the Egyptian government. It was initiated at the time when north Sudan and Southern Sudan were embroiled in the bitter conflict which lasted for over twenty years. The project was brought to standstill when the equipment was hit by a missile from unknown place after about 240 of 360 kilometres was completed. Egypt claims that more than half of the water that is supposed to flow downstream is lost through evaporation and transpiration and would drain it northwards through the canal – if possible.

Lately, there is suspicion that the Egyptian government is engaging the government of South Sudan for the resumption of the stalled project which analysts, activists and some politicians see as a bad idea since it would alter South Sudan ecosystem and biodiversity. The objective of the essay is therefore, to analyse the dynamics of politics of Nile Basin Initiative (NBI) and Jonglei Canal project on the current and future water consumption in South Sudan, examining the distribution of water, voice and authority and knowledge and expertise while drawing interrelations between the three distributions, the theories used from the selected papers and the case evidence. Published materials from Nile Basin Initiative (NBI) and Jonglei canal will be reviewed to explore how the water governance and political choices affect the distribution of water, voice and authority, knowledge and expertise on the individual Nile Basin member state and South Sudan in particular.

Ayuen John Awan Mawak

Water Science and Engineering, Irrigation Engineering and Management for Food Security

The Nile Basin Initiative and Jonglei Canal

Cooperative water resources management is complex in the Nile Basin, which is characterised by water scarcity, poverty, a long history of dispute and insecurity, and rapidly growing populations and demand for water (MRC March 2022). Despite Nile being an important source of fresh water for the riparian countries, it can also be regarded as a potential source of conflict. Many countries along the Nile put meaning to the Nile and its resources depending on its importance to the population. Egypt for example, relies mainly on the Nile for fresh water - for domestic, industries and irrigation and would not allow a loss of a drop downstream as a result of water resource development projects initiated by upstream countries. With rhetoric such as "Nile is Egypt and Egypt is Nile", this sentimentality directs a negative signal that whoever tampers or meddles with Nile flow downstream, has equally meddled with the life of Egyptians. It means that Egypt can do anything to ensure it exploits the Nile at the expense of other countries upstream or block water development projects on the Nile. An example is the case of The Grand Ethiopian Renaissance Dam (GERD) in Ethiopia which led to tension between the two countries including the Sudan where the Blue Nile passes down to Egypt. Sudan uses Blue and White Nile for irrigation in Gezira irrigation scheme and Sennar dam. The long-running dispute between Egypt, Sudan and Ethiopia over a massive hydroelectric dam being built on the River Nile shows no sign of being resolved (BBC 2021).

The share of Nile water is not equitable among the downstream, middle and upstream member states as the agreements during the colonial era reportedly gave Egypt a lion share. Egypt has long held a dominant position in the region; influenced by the colonial Nile treaty of 1929 and established by the 1959 Nile Waters Agreement between Egypt and the Sudan. This non-inclusive agreement – involving only Egypt and the Sudan – determined not only power relations but also economic development in the Nile basin. Egypt claimed 75% of Nile flows; the Sudan was allocated the remaining 25% (Keulertz, Martin 2012).

In 1999, after forty years of Egypt's dominance of exploitation of Nile water resources, ten Nile basin countries struck a deal to bring to end their exclusion. "Each Basin State is entitled to an equitable and reasonable share in the beneficial uses of the water resources of the Nile River System" The Cooperation Agreement, states. But is this statement being translated into the realities? There are still disagreements over the text in the agreement let alone the equitable exploitation of the Nile resources. No consensus was reached on some Articles and most particularly on the sharing ratios. Article 14 says "not to significantly affect the water security of any other Nile Basin States". Egypt insists that it should be "not to adversely affect the water security and current uses and rights of any other Nile Basin State". This

Ayuen John Awan Mawak Water Science and Engineering, Irrigation Engineering and Management for Food Security

statement is an indication that Egypt doesn't entertain any water development projects that would interfere with its current consumption of the Nile water.

Jonglei canal, however, as introduced above is Egypt's strongest desire to boost the discharge downstream by draining the vast Sudd swarms given South Sudan's lack of meaning to the Nile apart from it passing through the land downstream to the Mediterranean Sea. When South Sudan gained independence in 2011, Egypt was one of the first countries to establish relationship with the leadership of president Salva Kiir with water as its major motive. Egypt provided diesel generators and built power stations in all ten states in South Sudan to delay South Sudan from dreaming of hydropower plant which would adversely affect the discharge on the White Nile downstream. Egypt every year provides undergraduate and postgraduate scholarships to South Sudan to allegedly soothe and politically massage the leadership to give up on Nile water especially the resumption of the Jonglei canal project which is estimated to increase the flow downstream by at least 500 cubic meters per second. South Sudan is crippled by lack of water professionals, competent visionary leadership and years of violent conflict distracting the country from developing its infrastructure including the development of water resources and as a result, its vulnerability can be exploited by countries like Egypt with handouts.

The relationship among the Nile basin countries probably varies depending on the position along the Nile. Countries along the basin may also cooperate at the expense of others. The head and tail countries for example can use micro agreements to exploit in disregard of the middle countries. Uganda where the source exists and Egypt the downstream country, have no notable friction and have more dams than any other countries in the region.

Distributions in governance of water resources in the case

Distribution of water

Despite the presence of agreements, the share and exploitation of Nile water depends on how each country flexes it muscles and the meaning it has put on the water itself. The financial, political and military prowess have been seen to influence to a greater extent the exploitation of Nile resources. Policies often do not achieve what they envision on paper due to interpretation, negotiation and rearrangement by socially positioned actors at different spatial levels leading to uncertain, hybrid and context specific outcomes (Jeltsje S. 2015). According to Anand (2011), politics, technology, and physics play greater role in water supply as pressure might be useful to make water flow. Pressure can also be mobilized by using pumps or politicians, and access to the technologies of pressure is mediated as much by capital as by social connections. To understand the importance of pressure is to recognize that water is accessed

Ayuen John Awan Mawak Water Science and Engineering, Irrigation Engineering and Management for Food Security

by enabling both physical and social relations, and water supply can be curtailed as much by politics as by topography. Moving water from upstream to downstream; from one river basin to another will almost always benefit some while depriving or even harming others, (Jeltsje S. 2015).

South Sudan has been faced by consecutive years of flooding as a result of climate change with upstream countries releasing more water downstream from behind their dams causing havoc in floodplains in the Eastern bank of the Nile. South Sudan has no dam to control water flow and that has proved water as a disaster rather than a blessing to the new nation. With politics of Nile Basin countries dominated by the interest of powerful ones, the achievement of efficient and safe water exploitation is still a nightmare. The question of capital to make such huge water infrastructural development is another reason why some countries lag behind leading to disparities in the distribution of water resources. As noted by Anand (2011) politics, technology, and physics play greater role in water supply, South Sudan stands to lose out in the distribution of Nile water as its leadership is engaging in implementing transitional agreements since 2005 with inadequate development plans that would guide in protecting it from exploitation. South Sudan is behind in technology and capital to develop its own water infrastructure and would rely on sugar-coated ambitious projects from countries like Egypt with hidden motives.

Distribution of voice and authority

The quest for development has led to a consensus that participation by both men and women - as equal partners – is essential for sustained results. Ensuring equality for women on decisions about water is critical for their social and economic empowerment and plays a vital role in strengthening community resilience, as women are the most affected (Seifeldin H. Abdalla, 2020). Women play an essential role in the provision, management, and safeguarding of water as well as ensuring a more durable peace (WWDN 2020). Until 2017, NBI has had women starting to participate in the discourses of water through Women in Water Diplomacy Network established with the help of Stockholm International Water Institute (SIWI).

Decisions about water distributions occur in complex socio-political environments in which numerous social actors strategize with varying degrees of influence and certainty. These actors do not only have widely differing perspectives and interests, but are also drawing on different resources, norms and legal repertoires to articulate, frame, and defend their positions (Zwarteveen et al, 2017). Government institutions have weak technical capacities and little experience coordinating actions among functional agencies. Non-governmental stakeholders may not be well organized or have the resources to cover the costs of lengthy negotiating processes (Rebecca N. 2007). The Nile Basin Development Forum (NBDF) is a high-level regional event convened every three years by the Nile Basin Initiative (NBI) in collaboration Ayuen John Awan Mawak

Water Science and Engineering, Irrigation Engineering and Management for Food Security

with its Member States and in partnership with development partners. The event is a science-policy dialogue that provides an opportunity for sharing latest information, knowledge and best practices as well as building partnerships among professionals, in trans-boundary water resources management and development. However, the 6th NBDF organized in 2021 was attended by 925 participants from 57 countries where none from South Sudan, a Nile Basin member state participated. As noted by Rebecca N. 2007 above, South Sudan's participation in the Nile Basin activities is due to weak government institutions and weak technical capacities and experience in coordinating regional activities and this adversely affects it from benefiting from development initiatives initiated in these fora and subsequently the share of Nile resources.

Distribution of knowledge and expertise

The Nile Basin Initiative (NBI) sees gender mainstreaming as essential to its work and has formulated a Gender Mainstreaming Policy and Strategy to guide gender mainstreaming and to ensure that women are not left out of the picture of development benefits arising from the emerging projects. Involving women also brings to the table their knowledge on water and natural resource management (Seifeldin H. Abdalla, 2020). Until 2017, NBI has had women starting to participate in the discourses of water through Women in Water Diplomacy Network established with the help of Stockholm International Water Institute (SIWI). The challenge still remains is the regional spread by involving all women from all NBI countries to participate.

NBI organizes Regional Nile Day Expo annually in form of a knowledge exposition. The target audience for the NBI Knowledge Expo includes Ministers in charge of Water Affairs in the Nile Basin countries, policy decision makers, development partners, researchers, academia, civil society, media (national, regional and international), youth, children, and NBI's strategic partners. It provides a platform to showcase NBI's technical expertise and its contribution to evidence-based decision making in transboundary water cooperation in the Nile as well as water resources management and development. Unfortunately, the events organized since 2007 to date have been rotated in other Nile Basin countries and none has taken place in South Sudan, an evidence of lack of or limited participation of South Sudan and therefore, limited distribution of knowledge for that matter. Distribution of knowledge and expertise is also uneven as far as publication of some policy documents of the NBI is concerned as most documents have been dominated and authored by experts from some countries—this affects the side stories of the countries not represented.

Interrelations between the three distributions, the theories used from the selected papers and the case evidence

Water governance is complex and multidisciplinary and so does the distribution of water, voices and authority, as well as knowledge and expertise. No single discipline is capable of making water available or solve water problems. The term governance thus marks a change in policy emphasis from infrastructure to the organizational, financial, and institutional arrangements needed to regulate and order flows of water (Zwarteveen et al, 2017). According to Peter. T 2007, technology, and by implication those with technical expertise will determine the future. Ultimately, countries with the technology and expertise will exploit the water resources of the Nile more other than others in disregard to the available laws.

Reflections:

According to Peter T. (2007), reflective engineers view socio-technical systems as interlinked and holistic, because for them engineering only forms part of a solution. Reflexive engineering is based on an integrated ethical and systems-based approach to development which values communities and the environments in which they are sited as well as the technology. As noted by Anand (2011) politics, technology, and physics play greater role in water supply as pressure might be a useful to make water flow, it is sufficing; to say that water governance, the three distributions discussed above require multidisciplinary teams to ensure they equitably take place. It is also noted that the exploitation of water in a basin depends on the importance or meaning you put on water as a resource.