

Hydropolitics and Regional Stability in the Nile Basin.

Aaron Tesfaye
William Paterson University, Wayne, NJ*

Summary:

Population growth, poverty, ecosystem degradation and water scarcity are serious threats to political stability in the Nile Basin nations. In the past, tensions were muted by several factors: Egypt's military dominance, civil wars in Sudan and Ethiopia and the negligible use of water by upstream riparian states. But recently tensions have surfaced, as most riparian states have openly defied the status quo, which favors Egypt. In these arid and semi arid regions, the failure of rainfall contributes not only to famines and chronic hunger, but also to the onset of violence when people clash over scarce food and water. When the prospect of famine appears in Ethiopia, or violence erupts in water-starved regions such as Darfur, Sudan, leaders tend to view the problems in narrow political terms. But the problem is a basin-wide issue. It is in the interest of the US to encourage national leaders to undertake long-term solutions, such as a new Nile waters agreement, and facilitate the implementation of the Nile Basin Initiative (NBI), which could evolve into a supranational authority that will develop the basin for the benefit of all.

The Challenge:

The Nile Basin is made up of ten nations: Burundi, Democratic Republic of the Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, the Sudan, Tanzania, and Uganda with a combined population of 300 million. Water is a critical resource for all countries that share the basin, but it is especially important for the development and survival of Egypt, Eritrea, Ethiopia and the Sudan. Water will be even more critical in the future as these countries face larger populations and therefore an even greater demand for water. For many years, there have been tensions among these countries over the use of the Nile. At the heart of the tensions are the 1929 and 1959 Nile Water Agreements, respectively between Britain and Egypt and Sudan and Egypt, which have been rejected by upstream states. Tanzania, for example, has declared that it will use Lake Victoria, which feeds the Nile, to supply its parched communities, straining relations with Egypt. Tanzania is an impoverished nation of

* The author would like to thank the College of Humanities and Social Sciences, at the William Paterson University, for the 2005 Summer Research Grant that facilitated travel to Ethiopia and the writing of this policy brief.

35 million people, and suffers recurrent droughts due to inadequate rainfall, deforestation, and soil erosion. In 2004, Tanzania began to build a pipeline that would supply drinking water to approximately 1 million of its inhabitants. In a similar vein, Kenya has begun to exploit fresh-water-related opportunities such as fisheries, energy, transport, cattle keeping, and agriculture for approximately 3 million people who live close to Lake Victoria.

For Ethiopia, the Nile is critical. Some 40 percent of its population live on rain-fed subsistence farming in the highlands, the zone of highest rainfall, which provides 86 percent of the Nile waters. But the rainfall is highly erratic, and the population pressure on Ethiopia's land has made the system of extensive cultivation unsustainable. Ethiopia has expressed interest in developing its water resources by building a series of micro-dams on the Blue Nile. In the past such plans have led to tensions between Egypt and Ethiopia. In 1980, Egypt nearly went to war with Ethiopia after Addis Ababa opposed attempts by Egyptian President Sadat to divert the Nile waters to the Sinai desert. In the 1990s Ethiopia's new leaders, faced with the need to establish food security after the famines of the 1980s, promoted plans to divert Nile waters for irrigation. However, such efforts have not yet matured because of international financial institutions' policy of not funding any projects on the Nile without approval of all affected riparian states in the region.

Egypt is also dedicated to increasing its water supply because its population of about 63 million is expected to increase to 115 million by 2050, making its economy and the survival of the peasant farmer along the Nile River more precarious. In order to survive, Egypt has embarked on two massive projects. One is the Toshka project, an ambitious plan that will divert Nile waters into a desert oasis, and which is expected to irrigate a vast territory at a cost of \$88.5 billion. The other is the Sinai Development Project, which will increase the amount of land irrigated by mixing water from the Nile with drainage water. In 1997, under President Hosni Mubarek, Egypt opened the *Al Salaam* (Peace) Canal to transport water under the Suez into the Sinai. This project is seen with suspicion by upstream states, because it offers the potential to diverting or sell water to Israel and thus

may invite an extra-basin conflict in the Middle East. However, the potential of Israeli involvement in water development in upstream states is also seen by some upstream states as leverage against Egypt.

In Sudan the problem of water is closely linked to economic development. First, Sudan has the twin needs of irrigation and hydroelectric power coupled with the need to protect its citizens near the banks of the Nile from annual rainy season floods in the highlands of Ethiopia. Sudan's reservoirs are small and the floods from upstream have, at times, led to sedimentation and silt. Second, although in the past Sudan had hoped to be the breadbasket of the region, the discovery of oil might lead to a decrease in the importance of the agricultural sector, and oil exploitation in southern Sudan may have a major impact on the Sudanese economy, as well as on the civil war. Now Sudan is faced with a choice: either become a "rentier" state emulating the Gulf oil-based economic model and therefore less dependent on the agricultural sector, or use the oil resources to enhance economic diversification. But for now water and rain-fed agriculture remain critical to the country.

International Water Law and Trans-boundary Rivers.

One hurdle facing Nile Basin countries is that the body of water law governing international fresh-water river basins is relatively new. The "Convention on the Law of the Non-navigation Uses of International Watercourses," adopted by the UN General Assembly in May 1997 with one hundred three (103) countries in favor, three (3) against and twenty seven (27) abstentions, is weak. To begin with, the countries surrounding international river basins tend to disagree about water law and the Nile Basin is no different. This is in part because the definition of "international water course" was not established until 1984 because the term was controversial, threatening notions of sovereignty. Such concepts as "drainage basin" and "equitable allocation" were not accepted by the International Law Association (ILA) in the Helsinki Rules, the predecessor of the UN International Law Convention, until 1966. In brief, the difficult process of codification of emerging legal concepts and hydrological intricacies was not begun until the U.N. Water Conference in 1977, at Mar De Plata, Argentina.

Thus, while the U.N. established the Helsinki Rules to mediate the uses of waters of international rivers, article V sets some principles on geographic, historical, social, economic, and technical variables that need to be considered when allocating a basin's water resources. But the problem with article V is that it not only recognizes the principle of prior use for downstream states, but also equally acknowledges the right of upstream states to engage in water development, stipulating that new users may have to compensate older users. The 1997 International Law poses two distinct challenges. First, it includes provisions for cooperation (exchange of data, protection of eco-systems, etc.) but couches issues of water sharing and allocations in vague terms. Second, although the convention defines and makes distinctions between the concept of "reasonable and equitable use" and the obligation not to cause "appreciable harm," it does not prioritize them, but rather straddles them. The result has been that upstream states have stuck to the principled demands for "reasonable and equitable use" and "full utilization," while downstream states have called on other countries to refrain from causing "appreciable harm" and to adhere to "historic rights."

Bilateral Cooperation in the Nile Basin.

Despite different interpretation of international water law, Nile basin nations have worked together on mutual projects. Bilateral cooperation in the Nile Basin is much older than multilateral cooperation. For example, relations between Egypt and Sudan have been up and down. Egypt is interested in maintaining a unified Sudan, since 20% of the Nile flowing into Egypt flows through south Sudan. An independent South Sudan might complicate the situation. Plans to increase the water supply by building the Jongeli Canal, which was developed between Sudan and Egypt but interrupted in 1983 by the civil war, would be facilitated by a united Sudan. Yet Egypt is also hedging its support of Khartoum by building relations with different constituencies in the Sudan such as the Sudanese Peoples Liberation Army and other opposition groups.

On the other hand, cooperation between other Nile Basin countries is much more recent. In 1991, for example, Ethiopia signed a statement of principle over equitable use of the Blue Nile/Atbara

Rivers with the Sudan. Two years later it signed a framework of understanding with Egypt intended to smooth relationships between the two nations. Uganda and Egypt have also worked together on several projects for many years, on the Owens Dam in Uganda. Other areas of cooperation include cleaning up weeds and floating islands in Lake Victoria and Kayoga, which had blocked water flow and contributed to flooding in Uganda. So far, Egypt-Uganda relations seem positive. Egypt and Kenya are also cooperating in projects that involve working to increase Kenya's underground water, with similar projects planned in Tanzania. This project is critical to Egypt because it will mean upstream countries will use less river water in the future. Egypt is also involved in cooperative endeavors with Tanzania in establishing a national water research center as well as capacity building. All of the above examples indicate how, in return for know-how and at times financial support, Egypt gains either concrete benefits or improved relationships with upstream countries.

Multilateral Cooperation in the Nile Basin.

In the past many attempts at multilateral cooperation failed because countries such as Ethiopia or Kenya had observer status, due mostly to the perception that the scene was dominated by Egypt. These cooperative attempts include the *Hydromet* (1967-1992), *Undugu* (1983-1993) and *Tecconile* (1992-1999). But since then multilateral cooperation has changed dramatically because nine of the Nile countries, including Ethiopia, are active members. The Nile Basin Initiative (NBI), launched in 1999, is headquartered in Entebbe, Uganda, and is mandated to develop a framework for regional cooperation for equitable distribution, integrated water resource planning, and reduction of potential conflict among the ten riparian nations of north and east Africa. The NBI was begun by the Council of Ministers (Nile-COM) of Water Affairs of the Nile Basin countries in which there are yearly meetings. The Technical Advisory Committee (Nile-TAC) is a support organization where suggestions for the Nile-Com are prepared and which meets frequently during the year. Both bodies are supported by a permanent secretariat (Nile-SEC) based in Entebbe, Uganda with chairmanships of

the COM and the TAC rotating among countries on an annual basis. The NBI is an ambitious and complex basket of programs, projects and sub-projects involving most riparian nations.

In terms of organization, the NBI's structure and orientation seems designed to persuade participants to focus on problems through conferences, national representation and common visions, which are important steps in cooperation. In addition there are smaller working groups such as the Nile-COM and Nile-TAC, which translate the results into the larger basin wide and regional context. In addition, the Nile 2000 Conferences held each year in one of the Nile Basin countries has been a good opportunity for national representatives, hydrologists, engineers, and academics to engage in discourse of mutual concern. Besides the above, projects on the ground are also being developed. These are the Subsidiary Action Programs (SAPs), which work on the regional, national and local level. They include several sub-programs intended to buttress the broad objectives of the Shared Vision Plan.

Planning: Funding Mechanisms and Implementation

The Council of Ministers of Water Affairs of the Nile basin states established the Nile Basin Trust Fund in March 2001 and requested the World Bank to establish a trust fund to implement the Shared Vision Plan. The Council and the Bank agreed that a trust fund committee would provide fiduciary oversight for the management of the funds. It was further planned that the committee would comprise the Council members and contributors to the trust fund, and that the Council president and the World Bank would provisionally chair the committee until the stewardship was transferred to a permanent body within the Nile Basin Initiative.

In terms of options for implementation of the Shared Vision Program (SVP), it was decided as a basic principle that the SVP project would not necessarily be located in one country. Instead, a decentralized approach was adopted through which different Shared Vision Projects could be based in different countries. The Nile-Council of Ministers further decided that the locations of the various projects would be determined through applications submitted by countries preparing to host a specific

project. It was also agreed that the Nile Secretariat would only manage information sharing, coordination, integration, monitoring of projects and evaluation. The Council also indicated that eligibility to host Shared Vision Projects would be determined primarily by the country's commitment to a particular project, and the overall Nile Basin Initiative.

The Shared Vision Program is the first phase of the NBI Strategic Action Program designed to help realize the shared vision of the Nile Basin countries: harnessing the resources of the river to create a better life for the 300 million people who depend on it. The SVP portfolio, identified and prepared through a participatory process involving a range of stakeholders from the Nile basin states, includes eight projects, six of which are already under implementation. All projects are expected to become effective by the end of June 30, 2006. Two other programs buttress the SVP: the Eastern Nile Subsidiary Action Program (ENSAP) and the Nile Equatorial Lakes Subsidiary Action program (NELSAP). ENSAP, located in Addis Ababa, Ethiopia, involves Egypt, Ethiopia, and Sudan and seeks to initiate an integrated, regional, multipurpose program through a first set of investments. NELSAP, located in Kigali, Uganda includes Burundi, Democratic Republic of the Congo, Kenya, Rwanda, Tanzania, and Uganda, and is working to contribute to the eradication of poverty, promote economic growth and reverse environmental degradation through several regional water development projects.

Table 1

THE NILE BASIN INITIATIVE: BASIN-WIDE SHARED VISION PROGRAM

Project	Objectives
1. Nile Trans-boundary Environmental Action	Works to promote cooperation among countries in protecting and management of the Nile River eco-system. The project provides training to develop skills in government ministries, NGOs, and local communities in areas such as: water quality, conservation of wetlands. The regional project management unit is located in Khartoum, Sudan.
2. Nile Basin Regional Power Trade	is working to establish the regional power markets among the Nile Basin countries. It began in Sept. 2005. It is located in Dar es Salaam, Tanzania .
3. The Water for Agriculture production	is working to provide sound good conceptual and analytical basis to increase the availability and efficient use of water for agricultural production. This project is expected to begin in July 2005, and is located is located in Nairobi, Kenya.
4. Water Resources and Planning and Management	is designed to build the skills in each country to analyze the hydrology and nature of the Nile Basin River System essential in the management, development and protection of such resource. The project is located in Addis Ababa, Ethiopia.
5. The Socio-Economic Development and Benefit Sharing Project	is building a network of experts from economic planning, research institutions, and representatives from civic groups and NGOs from the basin to explore alternative Nile development scenarios and benefit sharing schemes. This project is co-located with the NBI in Entebbe, Uganda.
6. The Confidence-Building and Stakeholder Involvement Project	is working to increase the involvement of stakeholders from government, business, civil society to build public awareness of the NBI programs and future investments. This project began in August 2005 and is co-located with the Nile Basin Secretariat in Entebbe, Uganda.
7. The Applied Training Project	is working to improve water planning and management in the basin by assisting development of human resources/institutional capacity: water resource planning/management; strengthening Nile Basin higher educational/research and to integrate water resources management. This project began in January 2005 and is located in Cairo, Egypt.
8. The SVP Execution and Coordination Project.	is strengthening the capacity of NBI institutions too carry out basin wide programs and effective oversight of SVP The three-year project began in March 2004. The regional management project is co-located with the Nile Basin Initiative Secretariat in Entebbe, Uganda.

Source: Nile Council of Ministers (Nile-COM), *Nile Basin Initiative*, Entebbe, Uganda, May 17-18, 2001

Canada, Denmark, Germany, Netherlands, Norway, Sweden, UK, UNDP, the World Bank and African Development Bank support the above Shared Vision program. To date, out of the US \$150 million total program cost, donor partners have pledged US \$ \$105.4 million, which is being disbursed as projects become operational. Out of this total program cost, \$14.4 million is national governments' counterpart funding. Other donors have also expressed interest in this program including the European Union. In order to assess a member's commitment, the Nile Council of Ministers agreed that countries would only be eligible to host a Shared Vision if they (a) are up-to-date in their Nile Secretariat annual dues; and (b) have committed to funding a national NBI office. In addition, those countries that are interested in hosting a Shared Vision Project are requested by the Nile Council of Ministers to demonstrate their commitment to the project by providing an office, administrative staff and other support, which includes staff privileges and immunities.

However, the total program cost of Shared Vision program is misleading. While data is not available for total project cost estimate of the Nile Equatorial Lakes Subsidiary Action Program (NELSAP,) the Eastern Nile Subsidiary Action Program (ENSAP) alone was estimated to cost, in 2001, US\$ 525 million, which includes US \$49 million for project preparations. This means that both NELSAP and ENSAP will have to "sell" their projects to the World Bank or other funding institutions and obtain soft loans to implement regional development. Thus while funding is a challenge, the mechanism itself is also complicated by the demands, conditions and types of loans and investments made by numerous entities, which may bureaucratize the process of implementation.

The National Interest: The Politics of Perceptions.

One obstacle to realizing the full potential of Nile Basin Initiative is the national interests of riparian nations. Egypt's official strategy seems to be a policy of cooperation based on engagement of upstream nations using its experience in water development and financial and technical matters. Egypt's options to improve cooperation in the basin are (a) sharing the increases in water supply from a project such as the future Jongeli canal, which would lessen evaporation before the Nile enters the

swamp lands of the *Sudd* in South Sudan, (assuming there is peace in the Sudan for its construction) and (b) collaborate with upstream states in reforestation and water shade management that would mitigate erosion and sedimentation. Other cooperative endeavors might include using the comparative advantages of different countries such as hydroelectric power development in Ethiopia and irrigation in the Sudan, as well as sharing the costs and benefits of different projects.

Sudan is located between Ethiopia and Egypt and is vulnerable in many ways. A main concern and an obstacle to water development is political instability and the on-again and off-again civil war in the south that has hindered water development projects and investment. Sudan is amenable to favoring and using comparative advantages with its neighbors. That is, Ethiopia could specialize in hydroelectric power development by building a dam on the Blue Nile. This dam would diminish sediments from being transported into the Sudan. Sudan could specialize in agriculture and Egypt could deliver technical assistance, management and workers during harvest.

Ethiopia's position in the Nile Basin Initiative is that of a lukewarm participant and keen observer. Ethiopia joined the Nile basin Initiative in order to participate fully in the legal affairs that govern the basin. Ethiopia doesn't give credence to Egypt's claim on technical know-how and its willingness to provide water related technology because it believes Ethiopia already has adequate number of well-qualified professionals in terms of water development. But Ethiopia seems optimistic that financial resources can be tapped, projects developed, and that a legal framework can be established. It is taking an assertive and active position at the national and international level in developing its water resources. Finally, while the lessons of Nile Basin Initiative are many, a most central issue to the realization of a basin wide supra-national authority is confidence building among the riparian nations which could, in the future lead to a new Nile waters regime.

Policy Recommendations

- Comparative Advantage and Economic Integration: The US should persuade Nile Basin countries to focus on their comparative advantage. Ethiopia can focus on hydroelectric power development,

which can benefit down stream countries. Egypt can focus on its technical expertise and financial resources, which are critical to upstream countries. Sudan can concentrate on land for irrigation and produce that can be exported regionally. The above could lead to economic interdependence, peace and confidence building.

- Stream Line Third Party Efforts. The US should be involved in streamlining international third party effort. A plethora of international organizations are involved in the International Consortium for Cooperation on the Nile (ICCON) in funding various projects. The US can coordinate such effort in terms of financing, but most importantly, can help set cooperation as a condition for accessing international financial resources which can act as an incentive for Nile Basin countries to work together.

- A New Nile Agreement. The US should persuade Egypt to open talks on a new Nile Agreement. Egypt's strategy has been to block development upstream through conditions set by development banks or alternatively to unilaterally create facts on the ground through large mega water development projects such as Toshka. This second option is not promising in the long run. A negotiated approach promises to enable Egypt to influence developments upstream in such a way as to minimize negative impact downstream.