Nile River

The Nile River supplies water to hundreds of millions of people in eleven countries. Utilization of its waters has given rise to controversies and conflicts since ancient times and continues to the present day to be a source of political tensions. While some observers are optimistic that finding a way to share the Nile's waters equitably could lead to peaceful negotiations and cooperation among rivals, others predict that the Nile may become a battleground for future "water wars." Sustaining this natural resource is intricately tied to the political stability and the economic development of a large portion of the African continent.

The Nile is the world's longest river, measuring 6,671 kilometers in length, and it is also seen by many as the world's most important river given the vast area and large population it affects. The Nile Basin catchment area is shared among eleven countries: Burundi, the Democratic Republic of the Congo (DRC), Egypt, Eritrea, Ethiopia, Kenya, Rwanda, South Sudan (a new nation as of July 2011), Sudan, Tanzania, and Uganda. It drains an area of more than 3.35 million square kilometers, which covers about one-tenth of the African continent. The White Nile and the Blue Nile meet in Khartoum in Sudan to form the Nile. The White Nile provides approximately 15 percent of the water to the Nile, whereas the Ethiopian tributaries (the Blue Nile, Atbara, and Sobat rivers) contribute approximately 85 percent of the water, as measured at Aswan in Egypt, where the total water of the Nile annually averages 84 billion cubic meters. Sustainable management of this immense natural resource is essential not only to the quality of life of the people of the region but also to the economic and political stability of the Nile countries.

As of 2011, there were approximately 370 million people living in the eleven Nile countries and about 200 million in the basin itself. It is estimated that by 2030 there will be about 650 million people, of which 330 million will be living in the basin (FAO n.d.). Clearly the pressure on the utilization of the water will be increasing. In addition, the prediction of global climate change raises new uncertainties regarding the amount of rainfall in the catchment area and the resulting total flow of the Nile.

Geopolitical Complexity

The development and sustainability of all the Nile countries are dependent upon the river to various degrees. For example, Egypt, as a downstream country in a desert, is totally dependent upon the Nile, and the river provides about 98 percent of the country's fresh water. In 2011, Egypt had a population of more than 80 million people, and it is expected to increase to about 130–140 million by 2050 (FAO UN n.d.). The majority of Egypt's Nile water comes from Ethiopia, which also has a population that numbers about 80 million people and one of the fastest rising population rates in the Nile Basin, expected to rise to more than 150 million by 2050. How the Nile water should be shared is a complex and sensitive question.

Sharing of the waters of the Nile River has been a controversial political issue with geopolitical consequences since ancient times and no doubt will continue to be so in the future. In 1929, Egypt and Great Britain (on behalf of the East African colonies) negotiated the Nile Water Agreement, which stated that "no irrigation or power works or measures are to be constructed or taken on the

River Nile and its branches, or on the lakes from which it flows . . . in such a manner as to entail any prejudice to the interests of Egypt, either reduce the quantity of water arriving in Egypt, or modify the date of its arrival, or lower its level." In effect the 1929 agreement gave Egypt the right of veto over any uses of the Nile that would affect its own interest.

In 1959, Egypt and Sudan signed the agreement titled For the Full Utilization of the Nile Waters, in which they divided the totality of the Nile waters between themselves without any consideration for the upstream countries, not even inviting them to the negotiations. According to this agreement, of the Nile's annual average 84 billion cubic meters of water as measured at Aswan, Egypt should receive 55.5 billion cubic meters and Sudan 18.5 billion cubic meters, and the rest evaporates mainly in Lake Nasser. This agreement thus implied that the other Nile basin countries were denied use of the Nile water, which has hindered the development of the respective countries because water is essential for hydropower projects, irrigation programs, and food security. As a consequence, upstream countries have disputed this agreement for a number of reasons (Tvedt 2010).

The 2010 Cooperative Framework Agreement

In 1999, the Nile Basin Initiative was established among the then ten Nile countries (with Eritrea having an "observatory status"). The aim has been "to achieve sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources" by negotiating a new agreement that included the upstream countries. In May 2010 the Cooperative Framework Agreement (CFA) was signed by Ethiopia, Rwanda, Tanzania, and Uganda; it was signed by Kenya shortly thereafter and by Burundi in February 2011. Egypt and Sudan have strongly opposed this agreement. For Egypt it means the loss of its historic dominance of the Nile's utilization as well as the veto rights with regard to Nile issues going back to the 1929 agreement. In order for Sudan to develop, they also need to use more water than was allocated in the 1959 agreement for hydropower and irrigation systems. With South Sudan as a new nation state this also puts more pressure on Sudan's water resources.

The 2010 agreement has changed the geopolitical map and altered the premises for the use of the Nile water by giving the upstream countries the right to an equitable share and use of the Nile without harming the needs of others. How a sustainable use of the Nile will take place in practice is uncertain, however, given the continuous political processes, the projected population increase, and the possibility of less water in the Nile due to climate change. Moreover, with the collapse of the regime of Hosni Mubarak in Egypt in February 2011 and the independence of South Sudan in July 2011, new factors regarding the collective use of the Nile have emerged that will have implications for future negotiations.

Possibilities

Although water is a limited and finite resource, the character of rivers has certain advantages compared to other limited resources. Within "the tragedy of the commons" paradigm developed by the US ecologist Garret Hardin (1968), a limited resource, open to all, is likely to run a course toward overuse and ruin. The use of water as a common property resource has often been interpreted from this perspective, but rivers open up possibilities for different uses that may benefit the respective parties involved. As the historian and Nile expert Terje Tvedt (2010, 240) says: "Societies along the Nile are neither equally capable of harming their common resource nor equally likely to suffer the consequences of others' behaviour, not only because some live upstream and others downstream, but also because individual action need not negatively affect other actors (although this of course may happen, and very deliberately so)." For example, Ethiopia launched the construction of the Grand Ethiopian Renaissance Dam in April 2011, a 5,250-megawatt dam on the Blue Nile, which is expected to be complete in 2014. Egypt views this dam as representing a threat to its country's national security because it will reduce the water table in Lake Nasser, the reservoir of the Aswan Dam. Egypt faces another potentially devastating threat, however: the Nile carries huge amounts of silt, which eventually could fill up Lake Nasser and destroy the Aswan Dam. The presence of other dams farther upstream should reduce the amount of silt and thus prolong the lifespan of the Aswan Dam (Tvedt 2010).

The media have often referred to the Nile as a likely place where "water wars" will take place in the twenty-first century, perhaps in response to (and remembrance of) President Anwar Sadat's famous 1978 threat to attack Ethiopia if that country diverted the Nile, and in April 2011, Ethiopia dismissed the current Egyptian commission's threat as a psychological game. With the fall of the Mubarak regime, tensions have softened, and now both Egypt and Ethiopia focus on cooperation and finding a solution amenable to both parties. A contradicting theory thus suggests that water has the potential to create greater interdependence between states, and as such is a pathway

to peace through negotiation. Politicians have rhetorically used both of these positions to acknowledge that managing the use of the Nile water faces many challenges, some of which may include future cooperation or conflict among Nile states. The ways in which the Nile issues are settled politically will have profound consequences for a sustainable use of the river, the development of the Nile countries, and the geopolitics within and beyond the region.

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See also Africa (*several articles*); African Union (AU); Cairo, Egypt; Congo (Zaire) River; Danube River; International Conflict Resolution; Lake Victoria; Mediterranean Sea; Rhine River; Sahara; Sahel; Transboundary Water Issues; Water Use and Rights (Africa); Water Use and Rights (Middle East and Northern Africa)

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