



The Great Renaissance Dam in Ethiopia: The Conflict on the Nile Close to Resolution

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The dam on the Blue Nile in Ethiopia will be the largest in Africa, and one of the world's largest hydropower installations. Egypt has been protesting against its creation since 2011, fearing that it would run out of water for its population and agriculture after the construction of the dam. Now, close to the start of operations to fill the dam, the parties to the dispute are close to concluding an agreement decreasing the risk of conflict.

The construction of the 155 m high, 1.8 km wide Great Renaissance Dam began in 2011. It is located 30 km from the border with Sudan. Its artificial reservoirs will hold 75 billion cubic metres (bcm) of water and generate 6.45 gigawatts (GW) of power. This would secure Ethiopia's internal energy needs (66% of its inhabitants currently have no access to electricity—one of the highest rates in the world). It will also allow a profit of approx. \$0.5 billion annually from selling surplus abroad. The dam is a symbol of the growing importance of Ethiopia in the region and the unity of the state. Its construction budget, about \$4.6 billion, was largely covered by social contributions and government bonds. The dam, which is 70% ready, is to be completed by 2022. Filling its reservoirs, which is the core of the dispute with Egypt, [struggling with water scarcity](#), would start this July.

Ethiopia's Dispute with Egypt. According to Egypt, the 1959 agreement between itself, Sudan and the United Kingdom defines the legal framework on the use of the Nile. Under it, Egypt was allocated with 55.5 bcm of water annually (Sudan 18.5 bcm) and got a veto over hydro-technical projects in the upstream Nile, for example, in Uganda, a British colony at the time. Egypt assumes that the agreement also imposes obligations on Ethiopia, which is not a party to the decision, from which 85% of the water flowing through Egypt comes, as well as on other—now independent—countries with tributaries of the Nile (including Rwanda, Tanzania, and the Democratic Republic of Congo). Ethiopia did not accept these arguments and began building the dam on the Blue Nile less than two months after the fall of President Hosni Mubarak. It hoped Egypt would focus on internal issues and would not protest. This strategy worked. Although Egyptian military commanders threatened to bomb the dam, they were unable to gain support for such a solution in the region. Therefore, Egypt agreed to establish a panel of experts from Ethiopia, Sudan and Egypt, which initiated negotiations based on the principle of mutual respect for national interests. However, the parties couldn't agree on the timetable for filling the reservoirs. In October 2019, at Egypt's request, the U.S. joined the talks, and on 31 January in Washington, foreign ministers of the three states sharing the Nile announced a breakthrough and pledged to sign the final agreement by the end of February. However, the Ethiopians, dissatisfied with the pro-Egyptian attitude of the United States, withdrew from the talks. Still, all parties declare their willingness to complete negotiations shortly.

Calculations of the Negotiating Parties. Egypt's water consumption is 600 bcm per capita per year. This is below the scarcity level (1,000 bcm, according to the UN). In Egypt, 98% of freshwater comes from abroad, through the Nile, while for Ethiopia the dam has no significance in terms of water supply security. For Egypt, success in the negotiations is, therefore, a matter of national security. First of all, the state must protect itself from increasing shortages of water for drinking and agriculture, to which end it requires the dam to be filled slowly. If this process lasted 21 years, Egypt would lose 3 bcm of water per year (and 2.5% of its agricultural area), which it can afford. Under the three-year scenario preferred by Ethiopia, Egypt will lose 27 bcm of water per year (and 67% of its crop area), with disastrous consequences. However, the Egyptians are aware that they lack the means of pressure. The military threat is not realistic due to the distance, the Ethiopian air defence system and the inability to obtain permission from Sudan or Eritrea to use their territorial air space.

Ethiopia, although it wants an agreement, can act unilaterally. For prime minister Abiy Ahmed, the planned start of filling the reservoirs during the rainy season (from July) will be proof of his effectiveness before parliamentary and regional council elections, planned for August 29 (the first since he took power). The possible escalation of the dispute with Egypt will also work in his favour, helping to unite society against a common enemy.

The U.S. is particularly keen on the success of the talks. The convergence of the parties' positions has so far been President Donald Trump's greatest success in Africa and proof of the U.S. maintaining global leadership. In January, seeking re-election, Trump mentioned that he had prevented war in the region, for which he deserved a Nobel Peace Prize. The determination of the U.S. to finalise the agreement allows Ethiopia to win concessions from Egypt.

Regional Dimension. Launching the dam will strengthen the informal "African bloc" inside the Nile Basin Initiative, an intergovernmental organisation established in 1999 grouping Egypt, Sudan and the nine sub-Saharan basin countries. They are demanding new rules for access to water. Rwanda, Burundi, Tanzania, Kenya and Uganda, which are already implementing or planning hydro-technical projects, are counting on Ethiopia's success. In Uganda, seeing the progress of the negotiations between Ethiopia, Sudan and Egypt, the Chinese Powerchina group presented a project to build a dam in Ayago on the White Nile (840 MW). Sudan's position, contrary to Egypt's expectations, is close to the "African bloc". It counts primarily on development benefits. Completion of the dam would allow the import of energy to border areas in Sudan, particularly to the Blue Nile state, emerging from a long-standing armed conflict. The constructive, compromise-based participation of Sudan in negotiations in the U.S. also increases the country's chances of being removed from the U.S. list of countries sponsoring terrorism. This is necessary to unblock international financial assistance for [stabilising Sudan's economy and completing its transition](#), which will improve security in its neighbourhood, for example in southern Libya and Chad.

Ecological Effects. The Ethiopian project does not take into account the environmental effects. Meanwhile, both the filling of the reservoir and the subsequent functioning of the dam constitutes a deep interference in the ecosystem of the Nile basin and threatens the well-being of nearby residents. The example of the Aswan High Dam in Egypt, opened in 1971, indicates how similar constructions can impact biodiversity. There, the number of freshwater fish species commonly found in Egypt fell from 72 to about 25. The construction also stopted the annual flow of the mud fertilising the areas around the river. Due to the location of the Ethiopian dam, its ecological effects would only be noticeable in Egypt and Sudan. Egypt will be forced to supplement water shortages in the Nile from the artificial Lake Nasser (holding twice as much water as the planned reservoirs in Ethiopia), depleting its reserves and making it more vulnerable to the effects of drought. Regulation of the Blue Nile will allow Sudan to prevent seasonal floods that are accompanied by epidemics such as cholera; however, a potential collapse of the dam would cause a flood wave that would threaten the Sudanese capital. Some experts point to the possibility of changes in seismic stability in Sudan once the reservoir is filled. Ethiopia's dam would also make it difficult for Sudan to continue to improve its environment, having decided to stop building new dams on its territory.

Prospects. As the time nears to fill the reservoir behind the dam, tensions probably will increase in the region, but this will not lead to the use of force. Ultimately, the parties are likely to resume talks, Ethiopia will agree to a compromise, and the agreement will guarantee technical cooperation between the three countries. In the long run, this will increase trust between Ethiopia, Sudan and Egypt, and help settle border disputes (such as in the Halayib area between Sudan and Egypt).

Hydropower will develop intensively in Africa, for example, along the Congo River, at the expense of environmental losses. The success of the dam and the subsequent expansion of the transmission infrastructure reduces the likelihood that nuclear power plants will be built in Uganda and Rwanda, for example, locations which Russian state energy firm Rosatom is seeking contracts. The regulation of the Blue Nile once the dam begins operations could help Polish companies renew cooperation with Sudan in the field of agriculture, such as in Gezira, the central agricultural complex, which the authorities plan to develop.