**Geography SL**

**Nile - An internationally shared water resource**

**Ethiopian Grand Renaissance Dam - Contemporary dam building expansion**

The Nile is the second longest river in the world. It flows through north-east Africa and empties into the Mediterranean. It drains 10 countries, but it’s most prominently associated with Egypt, Ethiopia, and Sudan. It is an exotic river throughout most of its length, as it flows through the arid, desert land of Egypt. There, it is the only significant water source. Nile’s two main tributaries - merging in Sudan - are the White and Blue Nile. The former is longer and originates in the highlands of central Africa and feeds lake Victoria on its way. The latter forms in the Ethiopian Highlands in East Africa and at the place of confluence it provides significantly more discharge - 85% of all water in Egypt comes from the Blue Nile.

Access to Nile’s water is of critical importance in all of the three aforementioned countries, particularly in the case of Egypt. 95% of its 100 million population is settled within a few kilometers off the river, that is 5% of the country’s land. Annual precipitation averages in Egypt drop below 5mm a year and so the water flowing into the country through the Nile is used in all aspects of human life, e.g. irrigation and as a source of hydration. While Ethiopia has, in general, slightly more wet, life-supporting climate, partially due to its high elevation, the deserted and dry north of Sudan also relies heavily on Nile’s waters.

Due to the dependency of the countries on one water resource, Nile has been and is at the core of political disputes in the regions. Particularly Egypt is an unfavourable position, as it lies downstream after both Sudan and Ethiopia. Several agreements have been made in the past, in which each country was entitled to their share of Nile’s water in order to achieve sustainable co-existence. For example, in the Agreement of 1959 between Sudan and Egypt, the countries divided the annual flow of 74 billion cubic meters into 18.5 billion and 55.5 billion cubic meters respectively. Nevertheless, Egypt continues to consume more than its designated amount. Partially due to Sudan’s inability to construct any major water reservoirs, unlike the Aswan High Dam which regulates all of Egypt’s water.

A very current source of controversy in the region is the undergoing construction of the Ethiopian Grand Renaissance Hydroelectric Dam. In order to reach the goal of elevating itself among middle-income countries, Ethiopia needs a sufficient, renewable power source. The Renaissance Dam should, at peak values, supply the grid with up to 6000 megawatts of power. However, such an ambitious project in a developing economy comes at a price - 5 billion USD. To finance it, the Ethiopian government is encouraging the citizen to buy bonds, one bond worth the average monthly salary.

For long, Ethiopia was under the threat of open conflict with Egypt if it were to block the Blue Nile. Apart from cutting down Egypt’s water supply, it would also assert Ethiopia’s political dominance. However, Ethiopia saw its opportunity in 2011, when Egypt was experiencing the revolutions of the Arab Spring and began the construction of the dam. While the fully-operating dam will not affect Nile’s flow in any way - since a hydroelectric dam doesn’t store water, only passes it through a turbine -, the speed of it filling up is crucial for Egypt. Ethiopia plans the dam to flood more than 1700 square kilometers and to store an entire year of Blue Nile’s discharge. Predictions state that a period of 6 to 7 years would have a manageable impact on Egypt, but anything less than that and the consequences will be felt by its people. Yet, it is in Ethiopia’s own economic interest to top its dam as fast as possible.

While Egypt has its objections to the Renaissance project, Sudan will have its benefits from it. Currently, the flow of the Blue Nile through Sudan is greatly affected by the monsoonal rains in the southern part of the country. Much of the river’s annual discharge runs through in a short period of time - the regular water level of the Blue Nile in Sudan is 2m, the same river exceeds 6m during the monsoonal weeks. However, with little ability to capture the sudden influx of water, most of it is lost to downstream, never to be used by the people of Sudan. The Renaissance Dam should generate a more steady supply of water to the Blue Nile all year round. This would open new opportunities for the farmers in Sudan, and thus provide a bigger crop yield for the country.

A water source shared between several countries can trigger political discord. As is the case with the river Nile, the situation is only exacerbated if the river is crucial for the sole existence of the countries involved. However, in an enclosed system, it is very likely that the interests and goals of one country will directly affect its neighbors. For this reason, the three major players - Egypt, Ethiopia, and Sudan - have, in the recent past, attempted to set up agreements, such as the 2010 Entebbe Agreement or the 2015 Declaration of Principles, but none are strictly followed. And yet, the need to reach mutual cooperation, which would ensure water supply for all, is urgent. Especially for the unpredictable future dictated by climate change.

<https://e360.yale.edu/features/on_the_river_nile_a_move_to_avert_a_conflict_over_water>

<https://www.reuters.com/article/us-egypt-nile-factbox-sb/factbox-nile-river-agreements-and-issues-idUSTRE56Q3MD20090727> (1959 agreement)

<https://www.bbc.com/news/world-africa-43170408>

<http://www.futuredirections.org.au/publication/conflict-on-the-nile-the-future-of-transboundary-water-disputes-over-the-world-s-longest-river/>

<https://www.cia.gov/library/publications/the-world-factbook/geos/print_eg.html> (population distribution)

<https://www.reuters.com/article/us-egypt-rice-factbox/who-controls-the-worlds-longest-river-idUSKBN1HU1OE>