

CHAPTER IV

THE REASON OF EGYPT REJECTION TOWARD ETHIOPIA'S GERD CONSTRUCTION

This chapter provides the analysis and answer the research question on why Egypt rejected GERD construction in Ethiopia and also proved the two hypotheses that arose in this research; Egypt had a different perspective from Ethiopia on the impact of Grand Ethiopian Renaissance Dam that could be a threat to Egypt national stability and Egypt had a different economic interest from Ethiopia over the Nile waters.

There are several causes that made Egypt rejected the construction of GERD on the Blue Nile in Ethiopia territory. According to the theory provided by this research, this chapter gives an explanation and possible answer of the research question that arose in this research. As what has already been mentioned before that Nile waters for Egypt was the source of live for their livelihoods. It was clear that the contribution from the Nile waters was considered having a vital role in Egypt economics and then they could not have afforded to lose its supplies. However, the actual control of Nile as Egypt's most important water resource is in the hands of Ethiopia who occupies the same territory from where the Nile water was originally originated. Ethiopia unilaterally launched their largest dam project called GERD which was currently under construction on the Blue Nile – one of the major tributaries on the Nile. It means that when the dam is completed, Ethiopia will own an ability to control the water flow from Blue Nile to the

downstream countries. Egypt sees that GERD is a threat to their water resources due to its possibility that can reduce their water supplies from the Nile. Meanwhile, on the other hand, Ethiopia declared that GERD would not harm Egypt and instead it would bring benefits not only to Ethiopia but also to other downstream countries.

Kalevi Holsti assumes conflict can emerge if there are more than one parties, which each side has different perspective on certain issue or problems, there is hostility, then undertake diplomatic action or military. In other words in a conflict there are parties, field of issue, tension and action (Holsti, 1994). In this case each side clearly has different perspective on the impact of Ethiopia's GERD construction.

Firstly, Egypt different interest that is not in line with Ethiopia goals in building the dam. It is clear that each side has their own interest toward Nile. Secondly, the problem here is GERD, a dam located on the Blue Nile build by Ethiopia to secure their water resource. However, the initiated dam of Ethiopia was considered as a threat by Egypt, that had a possibly to harm Egypt's water share from the Nile.

Thirdly, the tension has started since Ethiopian government decided to unilaterally launch the construction of GERD. Since then Egypt has been in a great worry, because Egypt saw it as a threat to their nation. Egypt has lodged complaints and gave even suggests suspending the dam construction until the

assessment of the impact of the dam finished. On the contrary, Ethiopia stressed that the construction of the dam would not be delayed.

The last one is action, a step that has been undertaken by each parties were negotiation and assessment of the GERD. However, as what have been mentioned before, Ethiopia kept ignoring Egypt suggestion while continuing to build the dam. So, to know the reason of Egypt rejection toward the Ethiopia's GERD construction, this chapter analyzes the different perspectives on the impact of GERD and different economic interests over Nile water between Egypt and Ethiopia.

A. Egypt Consideration toward Ethiopia's GERD as a Threat to Country's Stability

As the conventional water supplies, Nile water known contributes 97% of water supplies to Egypt (Nunzio, 2013). As what has already been discussed in the earlier chapter that Egypt was highly depending on Nile water supplies. One of the reasons was because Egypt received the least rainfall unlike any other state in Africa throughout the year. Nile which contributed most of the water supplies for Egypt needed in various sectors was considered as their most important water supplies. As stated in the 1959 agreement, Egypt got average annual of water supplies from the Nile about 55.5 BCM (Abu-Zeid & El-Shibini, 1997). The annual water supply from the Nile is saved in the High Aswan Dam.

As time passes by, the demand of water in Egypt increased each year in every sector because of the growing population and development of the country.

Even the supply of water from the Nile 55.5 BCM annually was not enough to cover the needs of water in Egypt which was estimated about 79.5 BCM per year (Abu-Zeid & El-Shibini, 1997; Ministry of Water Resources and Irrigation of Egypt, 2014). And nowadays the needs of water and the availability of water in Egypt are unbalanced. Egypt has tried to maximize to use their every water supply in efficient ways by developing their use on the non conventional supply that can be seen in the Egypt water policies in the previous chapter. However, it was still not enough to cover the demand of water. That was made what Egypt could not afford it if the supply of water from the Nile were reduced. The reduced supply of water from the Nile would be detrimental to Egypt survival.

In fact, Egypt is a downstream country which does not have a control to their most important water supplies, but the control is in the hands of Ethiopia as the upstream country which most of the Nile flow originates from Ethiopia. Two major tributaries originate from Ethiopia territory, the Blue Nile and Atbara. The Blue Nile is the most contributor tributaries which provide 58 percent of the Nile water that flows to Egypt (Federal Democratic Republic of Ethiopia Ministry of Foreign Affairs, n.d). Other than that, the Blue Nile also transmits a considerable amount of sedimentation which is important for the soil fertility.

Egypt has been very cautious in any development on the Nile that could threaten their main water supply. However, Ethiopia has made an aggressive move to construct their largest dam on the Blue Nile, namely GERD. GERD construction is a project that was unilaterally launched by the Ethiopian government, even Egypt has been put in a shock because Ethiopia did not give a

prior notification first. The unilateral construction of Ethiopia's GERD has put Egypt in a great worry because Egypt felt threaten by this construction.

Ethiopia's renaissance dam on the Blue Nile has the ability to control the Blue Nile water that flows to Egypt. Egypt sees that when GERD is completed, the possibility of Nile water supplies to Egypt will decrease quite high especially during the filling process of the dam and drought season. Jameel (2014) argued that, Egypt should be concerned about the amount of water released by the GERD during the filling and periods of drought, because Egypt need water to be released from the GERD to meet their minimum water requirements, however Ethiopia may prefer to increase the quantity of water stored in the GERD reservoir. The quantity of water that can be stored in GERD reservoir is around 70 BCM of water, more than a year's flow of the Blue Nile (International Rivers, 2014). The International Rivers Organization also claims that to fill the GERD reservoir it will take from 5-7 years and the estimated Nile flow that could be cut during the filling process is about 12-25%. Moreover, a hydrologist expert also added that the GERD reservoir could evaporate 3 BCM of water a year which is three times Egypt's annual rainfall that actually could be enough to be used to meet the basic needs of up to half a million people (International Rivers, 2014). This argument reinforces Egypt's view that GERD will threaten Egypt's water supply because it can cut the amount of Nile water that flows to Egypt.

In contrast to Egypt, Ethiopia declared that the dam would not cause harm to the share of Egypt Nile water. Ethiopia former Prime Minister Meles Zenawi

on his opening speech of the Hydro-power for Sustainable Development 2011 conference in Addis Abba expressed that:

We have therefore been guided by the principle of doing no appreciable harm to downstream users when we build dams. In any case hydropower dams use water to generate electricity but do not consume it. Hence they cannot possibly do any appreciable harm on downstream users. Indeed in the case of Ethiopia's dams downstream users benefit a lot. Dams in Ethiopia prevent flooding in lower- riparian countries. They prevent siltation of dams downstream. They generate clean energy that would be used by downstream countries. Last but not least our dams actually increase the flow of water in the rivers. This is so because our dams built as they are in deep gorges of our cool and wet highlands lose a lot less water to evaporation as the surface of water exposed to the sun is much lower than in the lower riparian countries and as the rate of evaporation here is much lower than in the hot and arid environments of the lower riparian countries (Berhane, 2011).

So, from Meles Zenawi speech it could be seen that the Ethiopian considers that the dam construction would not cause harm to the lower riparian countries, since the dam would regulate the Nile water flow and actually would increase the flow of water in the rivers because the site of the reservoir dam is located in much cooler place which would less let water evaporate than in Egypt which has hot and arid environment. Other than that, the dam ability to regulate the Nile water flow will also help to control the seasonal floods. The capability of the dam will handle a flood 19,370m per second (Josephs, 2017). The Ethiopian government hopes that the regulated flow of water will improve agriculture in Ethiopia and in addition it will help to reduce about 40 km of flooding in neighbouring Sudan (Josephs, 2017). Aside from that, Ethiopia's purpose in building the dam is not to harm other countries, but it is to improve the life of the people, provide drinking water to increase agricultural productivity and food security and above all to produce electricity to generate power for domestic use

and export to earn badly needed foreign exchange for Ethiopia's economy (Minas, 2014).

Egyptian Minister of Irrigation, Hossam El-Moghazy clarifies in a press conference that "Egypt is not against development in any county but there are main important concerns for Egypt, among them is keeping our share of Nile River water" (Awramba Times, 2015). Thus it concludes that actually Egypt is not against Ethiopia in constructing the GERD, but their main concern is that the impact of the dam that will reduce the share of Nile water to Egypt. Furthermore, Egypt also has serious concerns regarding construction of the dam, as it fears possible drought resulting from the dam. Egypt is also concerned about how Ethiopia will manage the filling process of their huge dam reservoir, whose the capacity of the dam is equal to more than a year's flow of the Blue Nile. In contrast to the concerns of Egypt, Ethiopia still believes that even though they drew significant amount of Blue Nile water, the availability of water for downstream countries would not be affected (Schoeters, 2013).

From the Meles Zenawi speech before, it is clear that Ethiopian government sees the dam will greatly reduce the problems of slit and sediment that consistently affect dams in Egypt and Sudan (Berhane, 2011). However, it means that GERD will decrease the amount of sediment transported to dam reservoirs in Egypt. But, in reality, sediment that is transported to the Egypt is helping in the annual renewing soil. So, it means that the loss of sediment will be followed by the loss of soil fertility in Egypt. Furthermore, the decrease amount of sediment will increase the erosive force, riverbanks field and bed will be eroded.

The erosion of riverbanks will decrease the amount of riverbanks field and has impact on food security as well (Schoeters, 2013).

The previous section has explained that agriculture sector is a major economic activity and the key sector in the Egyptian economy. Apart from the Nile being a symbol of the ancient country's identity, the Nile also exclusively supports Egypt's agriculture production. According to IFAD (2014) data, Egypt agricultural sector contribute 13 percent GDP and 20 percent of total exports. Currently, according to the data provided by Central Agency for Public Mobilization and Statistic, agriculture is the largest water consumer in Egypt as it utilised about 62.15 BCM in 2015/2016 (Mounir, 2017). This is because Egypt's agriculture is entirely dependent on irrigated land.

Egypt believes that the renaissance dam would negatively impact the country's agriculture. The Egyptian Minister of Agriculture, Adel Al Beltagy also said to the Al-Mal Business Daily before that "Egypt will not give away a single drop of water of its share of Nile Water, which totals at 55 billion cubic meters" (Shady, 2014). The statement emphasized that if the shares of Nile water to Egypt is reduced, it will absolutely affect Egypt agricultural sector. The renaissance dam will lead to severe droughts because of the water that flows from the Blue Nile is contained or controlled by the renaissance dam.

Furthermore, the research conducted by Group of Nile Basin on the impact of Renaissance Dam on Egypt has drawn Egyptian government's attention and has convinced Egypt even more that GERD will negatively impact their share of

Nile water. The research notes that the Ethiopian dam will mean Egypt will have no control to their share of the Nile water which means the High Aswan Dam will not be able to secure the future of water supply to Egypt as well. They also note that the decline of Egypt's share of Nile water will result in abandoning huge areas of agricultural lands and scattering millions of families (Hussain, 2013). According to Professor of agricultural resources at Cairo University, Nader Nour al-Din, he told Al-Bawaba News that Egypt also would face major economic losses from the dam, which could reach up to 20 billion EGP (Shady, 2014). Those effects will lead the decrease of the production from the agriculture and force the country to raise food imports which would weaken the country's fiscal position.

As illustrated on the Table 2, in the past decades, Egypt has suffered from lacks of self-sufficiency in food production such as grain group, wheat and corn.

Table 2: Self-sufficiency percentage of Egypt food products during 2010 and 2011 in comparison with 2008

Products	2008	2010	2011
Grain group	73.86	56.47	56.6
Wheat	60.11	42.99	46.46
Corn	64.41	55.23	45.93
Pulses	49.46	71.82	43.38
Refined Sugar	76.42	84.37	70.04
Oil and Grease	23.07	33.11	24.30
Meat	87.98	87.81	87.02

Source: (Agroudy & Shafiq, 2014).

Table 2 above, shows the self-sufficiency percentage of Egypt food products. Grain group which in 2008 was 73.86 was decreased to 56.6 in 2011. Wheat that was originally 60.11 in 2008 decreased to 46.46 in 2011. Corn also suffered a decline which in 2008 was about 64.41 to 45.93 in 2011.

So, to meet the need of Egyptian people, Egypt raised the food import to meet the deficit from their lack of production. According to the data from Ministry of Water Resources and Irrigation of Egypt (2014), Egypt's total import bill has reached 6000 million US\$ in 2013 against 2905 million US\$ in 2004. Meanwhile only US\$ 1110 million for exports with the main export crops were cotton, rice, potatoes and citrus. From the total imports bill, cereals contributed the largest share of the bill with 49%, and wheat alone accounted for approximately 32.6% of the total. The agricultural import bill in the country that rapidly increases from 2004 to 2013 has put a substantial burden on the country's foreign exchange resource.

The decrease in Egypt's self-sufficiency has increased its dependence on import to meet food demand. Now, with the expected deficit in the waters supplies from the Nile because of GERD will lead to the lack of irrigation water and waste agricultural lands. Then it will force Egypt to increase the food import even more. The high current account deficit and low currency reserves will only be put under greater strain if Egypt has to increase food import. At that point it will destabilize the economy of Egypt.

B. The Economic Interest of Egypt and Ethiopia over Nile Water

As the population grows, the demand for water will increase for household and industrial use and in the agricultural sector to grow the food that is compulsory to guarantee the food security of the country. The previous section has explained that Egypt relied on food imports. The reliance of Egypt on food imports made the country vulnerable to global food price hikes and supply shortages. To stabilize the economy of the country, which currently the food import was burdening Egypt's economy, according to Nunzio (2013) Egypt has begun a land reclamation scheme in desert areas, which requires a huge amount of water and would increase the strain on the shares of agricultural, industrial and municipal water consumers. In the end, Egypt also needs more share of water from the Nile to implement it.

Egypt has built the High Aswan Dam on the Nile in order to secure their share of water from the Nile – 55.5 BCM as stated in the 1959 agreement – which serves almost the whole of Egypt. The High Aswan Dam is economically beneficial for the country. Since the dam operated, the floodwaters to Egypt can be controlled. The dam impounds the floodwaters in the reservoir, and throughout the year, the dam has provided supplies of water for irrigation to run the economic activity in the agricultural sector, industries and other related sectors. The High Dam has increased the size of the agricultural land and the food production in the country. Other than that the Nile water is used by Egypt to generate electricity produced by High Aswan Dam. The availability of electricity from the

hydropower also has increased the industrial activities and industrial diversification (Biswas & Tortajada, 2012).

The importance of the High Aswan Dam on the Nile to Egypt's economic survival was clearly demonstrated during the drought season in ten consecutive years starting in 1978. The High Aswan Dam had managed to safeguard and supplied water during drought season and compensated the deficit in the Nile flow. At that time the High Dam had managed to safe guard the water supply for Egypt to keep running their economic activity.

Meanwhile on the other side, Ethiopia still underutilised the potential of the Blue Nile which represented 68 percent of Ethiopia's water supply and now Ethiopia building the GERD on the Blue Nile set for completion by 2017. The construction of GERD is reflecting Ethiopia's determination to exercise its rights to use its own rivers, and its willingness to bear the heavy financial cost (Zenawi, 2013). At the beginning, one of the potential factors of Blue Nile within Ethiopia territory was still underutilised because of Ethiopia's economic underdevelopment. However, in the late 2013, Ethiopia showed an economic growth of that had averaged 7.5 per cent a year in the last three years (Nunzio, 2013). The consequence of such growth is an ability to fund major project such as GERD. The construction of GERD which was estimated would cost US\$4.8 billion was a proof to its economic improvement. While the 30% of the cost of the construction about US\$ 1.8 billion was covered by the international fund that

China gave, the rest of it was funded by the Ethiopian government. It is said that the GERD represents a leap out of Ethiopia's dark ages of underdevelopment.

The intention to build the dam was due to Ethiopia growing energy needs. Ethiopia has no other choice of meeting its growing energy need. To meet the growing energy need, hydropower is the best option because it is a cheaper source of energy rather than importing hydrocarbon fuel or fossil fuel which is too expensive and not affordable the more the economy grows. It is said that GERD is intended to boost the economic development in Ethiopia. The Chief Executive Officer of Ethiopia Electric Power, Azeb Asnake said that "When this hydropower dam project goes fully operational, it will contribute a lot to addressing the local energy demand and enhancing ties with neighbouring countries," (Ethiopian Broadcasting Corporation, 2017). Moreover, the dam is expected to be Africa's largest hydroelectricity dam that will transform Ethiopia into a major energy exporter.

Ethiopia's purpose in building the renaissance dam is to improve the life of the people, provide drinking water to increase agricultural productivity and food security and above all to produce electricity to generate power for domestic use and export to earn badly needed foreign exchange for Ethiopia's economy (Minas, 2014). To meet the expected demand of power in Ethiopia, GERD has a vital role, because its potential that will generate an electric power about 6000MW, with an annual energy production about 15,130 GWH per year. The hydropower generation produced by GERD is roughly 50% more than the average

hydropower generation from the High Aswan Dam over the past decades and equal to the entire current national electricity consumption in Ethiopia. From the surplus of electricity produced by the GERD, Ethiopia intended to sell the electricity to the neighbouring countries as well. When the construction of the GERD is completed Ethiopia expects that the hydropower produced by GERD will be sold as soon as it can be generated and at a good price. According to Jameel (2014), the hydropower revenues involved are substantial, if the 15,130 GWH of power were sold for US\$0.07 per KWH, the annual revenue of that Ethiopia would be approximately about US\$1 billion or can be even more.

The interest of Ethiopia in building GERD to secure the Nile water and harness its hydropower potential to produce sustainable electricity might be beneficial for their economy. However, it is not in line with Egypt's interest, because the impact of the dam could reduce the share of Nile water saved by the High Aswan Dam. Then the High Aswan Dam built by Egypt to support the water needs for Egypt's economic activity in various sectors will not be able to secure the future water supply from the Nile to Egypt. As what has been explained in the previous section, Nile water is supporting the economic activity in Egypt, mainly on the agricultural food production. The reduce share of water will also affect the reduction on the food production. If that happen it will be catalyst to Egypt's economy because it will increase food import bill that already put a great strain to the economy of the country then will lead to weakening Egypt's fiscal position.