Only in Perverse Egypt: Gravity Pulls Water Uphill, Hydropower Consumes Water

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I. The Nile, Ethiopia and Egypt

Nile, the longest river on planet earth, is the source of civilization for ancient Egypt, Sudan and Ethiopia. Ethiopia contributes some 86% of the water and Egypt’s fresh water supply is almost entirely dependent on River Nile. Sudan too is substantially dependent on Nile for both irrigation and other uses.

Ethiopia’s 70% fresh water is located in the Nile basin, distributed only in 30% of its surface area. While source country Ethiopia has used almost nothing of its blessed water, Egypt has been misusing it with an archaic irrigation system that substantially remained unchanged since the time of the Pharaoh’s. Egypt failed to learn from the advanced water technologies of neighbouring Israel. But, Egypt has been busy obstructing any water resources development upstream of the river by whatever means under her capacity. The sabotage and subversive acts against Ethiopia have been so pervasive, deadly and intertwined with the problems in the Horn which every Ethiopian fairly understands well.

Three years back, in March 2014, the Ethiopia launched the Construction of the 6,000MW hydroelectric dam project located some 20km upstream of the Ethiopia-Sudan Border. The Project is named Great Ethiopian Renaissance Dam (GRD for short). The purpose of the dam is generation of electricity.

While Ethiopia has a potential to generate 45,000MW of electricity from its rivers (mainly from Nile tributaries), it is currently generating a little over 2,000MW. This translates to 3.65 billion kilo watt hours, placing Ethiopia 126th position when ranked to the world. This is absurdly immaterial when compared to the population size and the potentials Ethiopia has. Ethiopia lags far behind Egypt in electricity generation and consumption (please refer Figure1 below). Reversing the existing deplorable situation is critically essential. The launching and successful progress to date of GRD is a step forward in the right direction.

![Figure 1: Electricity consumption in bkwh](source: Extracted from www.cia.gov, accessed July 1, 2013)
In its attempt to distract upstream countries, Egypt calls the agreements of her colonial masters of 1929 and a bilateral agreement she had with Sudan in 1959. Ethiopia has never been colonized and was not a signatory of these agreements. Even in the bilateral agreements of 1959, Ethiopia was deliberately excluded from the negotiations by Nasir who imposed his will against the Sudanese after orchestrating a coup against latter’s leadership. Egypt’s attempt in anchoring its arguments over these treaties is inherently farcical to all upstream countries in general and Ethiopia in particular.

II. GRD technical and benefits to Ethiopia
The Great Renaissance Dam (GRD) of Ethiopia is the greatest water project this country has ever started. In its third year, the project is reported to have achieved 32% and is expected to be completed by 2017. It is entirely financed by Ethiopians and the Ethiopian government. When completed, the dam will have a gross and live storage capacity of 74 and 60 billion cubic meters respectively.

This 145 m high dam, when completed after four years will enable Ethiopia supply cheap electricity for industries, households and even to neighbouring countries. The direct and indirect benefits accruing from this project are considerably high that every citizen is contributing a share financially, technically, emotionally and what not? Every citizen understands that the completion of the project is great strides forward in decoupling poverty from the citizens of this ancient nation. According to a study by an Ethiopian Scholar named Yilma Sileshi (PhD), GRD can serve for 100 years fetching 2.0million Euros per single day. Is that not a blessing for this poverty stricken nation?

III. Benefits and adverse impacts to Egypt and Sudan
The benefits of GRD to Sudan and Egypt are quite immense. According to a recent study, the following are clearly depicted as the major ones [1].

- Flood damage reduction to Sudan and Egypt.
- Regulated flow helpful for the safety of hydraulic structures in both Sudan and Egypt.
- Drought protection by releasing the stored water in times of water stress.
- Extending life of dams and canals by harnessing the silt which could otherwise trouble both downstream countries.
- Energy lifting by improving the life of dams and structures.
- Water saving by means of storing in deep gorges which otherwise could have been lost to evaporation in the flat lands of the Sahara desert.
- New opportunities for water management.
- Predictable flow and hence enhanced navigability
- Etc.

There are also other global and regional benefits to which both the source country and the two downstream countries benefit collectively. In this regard, green energy production for climate change mitigation, power pool and economic integration can be mentioned.

The location is free from earthquake and hence is safe. The only adverse impact on Egypt, if it is said so, is during the initial filling of the dam. This may reduce the flow temporarily. Technically, it is possible to fill the dam in 3 to 5 years than in a year and half. Also, Egypt’s Lake Nasir at Aswan dam with its nearly 160 billion cubic meters capacity gives her two years leverage in case of any shortages. Remember Nile's
annual flow is some 80+ billion cubic meters. If dam filling time is shortened, it should have been Sudan with its smaller dams to outcry but not Egypt.

While the downstream benefits are enormously attractive, Egyptians stand in the opposite direction fanning anti-dam propaganda. In the last three weeks, Egyptian politicians and the media are intensely disseminating anti-GRD and anti-Ethiopia propaganda. Some naïve Egyptians have went even so far as harassing Ethiopian maids in the Middle East.

In what seems a diplomatic offensive, the military backed government of Egypt has even gone a little farther in approaching the leaders of Russia, Italy, China, Tanzania and France. The agenda is stopping the construction of GRD. In their shuttle diplomacy, Egyptians talk of success with no iota of doubt. Does this rhetoric have any grain of truth? How and why? Are the benefits accruing from GRD less important to Egypt than their perceived and/or implied adverse impacts? Reading the minds of Egyptians, particularly those politicians, as to what their motives are is both timely and critical.

IV. The Egyptian motive
Since time immemorial, Egyptians have both the myth and the reality about their life giving source, River Nile. After knowing that the major source of the river is Ethiopia, Egypt unleashed whatever meager power it had against Ethiopia, specifically in the last 150 years. Although Egypt was successful in engaging Ethiopia in a protracted civil war by supporting secessionist and rogue states in the horn, she miserably failed in controlling the sources of the water. The recent propaganda is a continuation of this failed trend.

The pillar of Egypt's propaganda machinery and so-called diplomacy rests upon the perception that ‘GRD reduces Nile water flow to Egypt’.

The concept on which the Egyptian propaganda rests is clearly naïve and irrational for the following reasons. Let us see how.

1) GRD is a hydropower project. The water stored in the dam flows downstream in a regulated manner, turns the turbines to generate electricity and joins the natural course of the river to continue its hitherto flow to the Mediterranean Sea.

2) The location of GRD is some 20km upstream of the Ethiopia-Sudan border. The topography and the soil condition downstream of the dam are prohibitive to irrigation agriculture. There is also no settlement or any industry. Therefore, the water that generates electricity has no other use than crossing the border to Sudan.

3) Irrigation land in the Blue Nile basin is scarce. Even when there is, it is near Lake Tana and its surroundings which are at an elevation of 1,800m to 3,500m or above mean sea level. How can water from 700m elevation dam site be flowing to the highlands vertically upwards (about 1,000m to 1,800m) for hundreds of kilometers horizontally? Think of the costs of investment versus the Egyptian fear. It is both technically and economically infeasible.

4) If irrigation is the intention of GRD, would it not be feasible to Ethiopia to construct small dams upstream than risking such a huge dam near the border of a riparian state?
Negating these facts, Egyptians have fully engrossed themselves that ‘GRD reduces Nile water flow’. How can a hydropower dam consume water? It does not! How can water flow upwards without any pumps and allied infrastructure? It cannot, unless nature recreates itself so that gravity acts upward! It is only in perverse Egyptian minds gravity reverses direction to pull water upward and hydropower project consumes water. An insult to science! An insult to common sense too! What decadence!

But, still it is worth noting that the recent perverse propaganda is unleashed for purpose. The purpose is purely political partially encased in myth. It has clear targets to achieve. The desired outcome of the Egyptian propaganda has the following targets.

i. Pressurize Ethiopia to the level of brinkmanship so that Egypt will have some concessions from the former.
ii. Scare away any potential financier so that GRD construction gets stuck due to financial problems.
iii. Confuse Ethiopians by pumping misinformation like safety issues, war, poor economic returns, etc. so that Ethiopians get fade up and start questioning their government.

By hook or crook, obstructing the construction of GRD and frustrating the development of Ethiopia is the superior target. The motives that lead to this propaganda can be a combination of factors such as political marketing, strategic leverage loss and collision between myth and reality. Let us have a brief overview of each of them.

**Political marketing:** After staying in the iron grip of Mubarak for about 30 years, Egyptians went to the streets in 2011 to topple his regime. They succeeded in doing so. But, Egypt descended into anarchy after the politicians divided the public into contradictory directions. Terrorism has been gaining momentum in Sinnai and other major cities. Tourism is at its lowest and the economy in bad shape. A democratically elected government is deposed and his group labeled as terrorist. The country went back to the military rule. A typical zero-sum politics! Proponents of this group are the illegitimate government officials and few opposition forces.

Under the prevailing circumstances, there are two unifying factors for the polarized Egyptian public: Nile and Israel. While the presidential and parliament elections are coming, every Egyptian politician needs to be more patriotic than others. Pointing at Israel is something that causes a tailspin to Egypt and hence tantamount to playing with fire. The illegitimate military circle has no other seemingly simple unifying factor than bringing the Nile to the fore. Will this cheap political marketing be able to subdue and unify those Egyptians suffering from the daily economic, security and political woes? Time will tell.

**Strategic leverage loss:** Many Egyptians think that Ethiopia and other upstream countries have stealthily slipped out of their imagination reaching to the economic status of constructing water projects in their own capacity. This is something bitter to swallow for many Egyptian politicians. Sabotage and subversive acts have long lost their steam. The Cold-War era and Arabization under Nasir have long been thrown to the dust bin of history. Egypt’s political clout, military and security power dwindled fast. On the Contrary, upstream Ethiopia is fast advancing in many aspects.

Egyptian politicians’ nightmare ghost: “That who controls the Nile controls Egypt” seems haunting fast. To them, menace Ethiopia, if not annexed to Egypt, should be divided and weakened. Having understood their helpless situation and Ethiopia’s rising economy, these politicians are attempting to suffocate
Ethiopia with absurd propaganda with the sole purpose of bringing diplomatic pressure on Ethiopia. Once the pressure is mounted reaching a level of military confrontation, they expect the developed nations will intervene as negotiators so that Ethiopia kneels down. By doing so, Egypt dreams to have an agreement of legal effect to challenge Ethiopia. This dream can never bear fruit for the simple reason that Ethiopia is financing the project from its sources and no other country is cooperative to Egypt’s irrational approach. Instead, the collateral damage will be too much for Egyptians in their future relations with Ethiopia. Adherents of this group are Egyptian intelligentsias that are living today in their dreams of the past. They are feeling it deep in the spine that Ethiopia is advancing fast in all fronts. These sections of the Egyptian society are trying to make up their losses through a patched diplomacy cum propaganda.

Collusion between myth and reality: Most politicians and gullible Egyptians have problems of understanding as well as differentiating myth and reality. These sections of the society fully believe that Nile is their water and no country upstream has the right to use it. They repeatedly say, ‘historic rights’ as if source country Ethiopia and others have no the rights. They also think that Egypt is all too powerful to give a lesson to any upstream country undertaking water projects, (Africans as they call us).

Whatever myth Egyptians may have, they have to come to understand the reality. The myth of the millennia has brought Egypt nothing except fabricating absurd propaganda like that of this week, ‘hydropower project GRD reduces Nile Water flow’. If Egyptians choose the myth, well it their right and they will reap what they have sown for generations to come. On the other hand, if they come to their true sense, they have to understand the views from Ethiopia.

V. Conclusion
Egyptians have already unleashed anti-GRD and anti-Ethiopia propaganda. The motives stem from their current domestic political problems, remorse from strategic leverage loss as well as ludicrous myth. The unleashed propaganda will never bear fruit to Egyptians. It will soon wilt and die out. After all, how can a perverse propaganda anchored on logic tantamount to saying gravity acts upward bear fruit? It will rather in the future make Ethiopians less accommodative to Egyptians. As has been repeatedly said, Egypt’s only sane option is cooperation. Although farcical from deep inside, the writer respects the rights of those Egyptians who believe and reflect ‘gravity pulls water uphill and hydropower GRD consumes Nile water’. May the Almighty help them in understanding the reality!

God bless the children of the Nile!

VI. References

In order to have a better understanding pertaining Nile, the reader is advised to read the following reference materials.