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From “Gift of the Nile” to “Hostage of the Dam”: Egypt Between Thirst and Costly Alternatives

On Tuesday, September 9, 2025, Egyptians awoke to a video published by the Ethiopian News Agency (ENA) showing the official inauguration ceremony of the Grand Ethiopian Renaissance Dam (GERD), attended by a number of guests from various countries.

The footage sent shockwaves through Egyptian society, which had clung to hope until the very last moment that diplomatic efforts and negotiations might succeed in persuading Ethiopia to abandon what is commonly referred to in Egypt as the “Dam of Destruction.”

Cairo, through its Ministry of Foreign Affairs, asserted that it would not allow Ethiopia to unilaterally control the management of Nile water resources after the dam’s commissioning, which comes 14 years after construction began.

In an official statement, the ministry said it had submitted a letter to the UN Security Council, describing Ethiopia’s move as “a violation of international law.”

Foreign Minister Badr Abdel Aaty clarified that “attempts to cloak the Ethiopian dam with a false veneer of legitimacy and acceptance do not change the fact that it is a unilateral measure that contravenes international norms and laws.” He

stressed that any assumption that Egypt might relinquish its “existential interests in the Nile River” is “pure delusion.”

Notably, the dam’s inauguration coincided with Egypt’s annual celebration of “Farmer’s Day”—a day that honors the vital role of farmers in national development and their age-old bond with the Nile, which Egyptians have historically revered to the point of deification, once even offering sacrifices to ensure its annual flood.

But now, the dam casts a heavy shadow of uncertainty over a nation long described as the “Gift of the Nile,” historically rooted in agriculture as a cornerstone of its enduring civilization.

With Egypt’s water resources now effectively beholden to unilateral Ethiopian decisions, the future of millions of Egyptians hangs in the balance. Agriculture represents the backbone of Egypt’s economy, contributing about 15% to the GDP, 20% of exports, and employing nearly 30% of the national workforce.

These facts have fueled deep concerns about how the GERD might impact Egypt’s agricultural sector and whether Egypt might lose its historic status as a leading agricultural nation.

Capping 12 Years of Negotiation Failure

The dam’s official opening reopens the wounds of 12 fruitless years of negotiations that Egypt has engaged in since 2012. Despite the regime’s repeated assurances that tampering with Egypt’s water share would be a “red line,” no tangible breakthroughs were ever achieved.

The Egyptian government’s handling of the GERD issue has fallen far short of public expectations. Egyptians still remember the widely mocked and strangely hopeful 2013 televised meeting under the late President Mohamed Morsi, which ultimately yielded little.

Rather than securing Egypt’s historical rights to Nile waters, the current administration signed the Declaration of Principles in March 2015 a move that granted Ethiopia the legal and diplomatic cover it needed to push forward with construction and secure international funding and backing.

Many observers believe Ethiopia’s progress would have been impossible without that Egyptian signature.

Despite the dam being a matter of national survival, Egypt’s post-2013 leadership waited nearly a year before giving the issue serious attention.

When President Abdel Fattah el-Sisi took office in June 2014, Cairo resumed negotiations with Addis Ababa, alongside Sudan. In October of that year, it was

agreed to commission two consulting firms to conduct technical studies on the dam.

However, the most pivotal shift came in March 2015, when Sisi signed the Declaration of Principles in Khartoum alongside Sudan’s then-president Omar al-Bashir and Ethiopia’s then-prime minister Hailemariam Desalegn effectively a formal Egyptian acknowledgment of Ethiopia’s right to complete the dam. Since then, Ethiopia has stalled and sidestepped Egyptian and international warnings.

According to observers, Egyptian negotiators lacked firmness and failed to leverage available pressure points, allowing Ethiopia to rally domestic support around the dam as a symbol of national pride and existential purpose.

The image of Prime Minister Abiy Ahmed swearing in the presidential palace in Cairo in June 2018—not to harm Egypt was presented by Egyptian media as a diplomatic victory. But mere days later, Ethiopia announced the first filling of the dam.

After a decade of grueling negotiations, Egypt now faces a worsening water crisis, prompting austerity measures, reliance on treated wastewater, and shifts in agricultural patterns with enormous economic costs.

For over ten years, Egyptian authorities insisted that no dam would be built without an agreement. Yet, on the very day Egyptians were honoring their farmers, Ethiopia inaugurated the most dangerous project in Egypt’s modern history.

$3.1 Billion in Annual Agricultural Losses

Egypt’s annual share of Nile water stands at just 55.5 billion cubic meters—insufficient to meet domestic, agricultural, and industrial needs. The resulting water gap, estimated at more than 20 billion cubic meters annually, has been offset through desalination, treated wastewater, and groundwater extraction.

Nile water accounts for around 90% of Egypt’s total water needs, making any disruption or reduction in its flow a direct threat to all aspects of life—especially agriculture, which depends almost entirely on this resource.

Studies published four years ago warned that GERD’s impact on Egyptian agriculture would be severe. Wheat production, for example, could fall from 9.6 million tons to 6.7 million tons per year a loss of 2.9 million tons annually. Rice production could drop from 5.5 million to 3.8 million tons a 1.7 million-ton annual decline.

Total annual losses during the dam’s filling period were projected to reach 28 billion Egyptian pounds for field crops, 3.6 billion for perennials, 6.1 billion for

vegetables, and another 6.1 billion for fruits adding up to 43.8 billion pounds (approximately $913 million).

Losses in livestock and fisheries were estimated at 9.8 billion pounds annually, while the trade deficit driven by increased imports and reduced exports—was expected to widen by 97.8 billion pounds. The total direct cost to Egypt’s agricultural sector is estimated at around 151 billion Egyptian pounds ($3.1 billion) annually during the filling phase.

Redrawing Egypt’s Agricultural Map

In response to the looming crisis, the Egyptian government has been forced to reassess crop rotation cycles and the agricultural map. This includes reducing reliance on water-intensive crops, regardless of their strategic importance to food security.

Rice is among the thirstiest crops, requiring 6,000–7,000 cubic meters of water per feddan each season. Despite being a dietary staple, rice cultivation has faced steep cutbacks. Last year, the Ministry of Agriculture aimed to reduce rice cultivation by 25% to save water cutting down from 1.074 million feddans to just 800,000 this season.

Rice farming has steadily declined, from 1.3 million feddans in 2018/2019 to 1.07 million in 2022/2023. Consequently, rice imports dropped 88% in Q1 2024—from 3,425 tons in 2023 to just 416 tons, according to an Agriculture Ministry report.

Wheat, the linchpin of Egypt’s food security, may also see reduced planting. While not as water-intensive, shifts toward less thirsty alternatives like barley are anticipated.

Sugarcane, which demands 10,000 cubic meters per feddan, is likely to be gradually replaced by sugar beet and other less water-dependent crops, particularly in Upper Egypt.

Conversely, drought-resistant, export-oriented crops like olives, pomegranates, and citrus are expected to be prioritized, especially in desert regions relying on wells and favorable geology.

The dam’s repercussions extend beyond crop choices. Rising production costs are forcing the state to push modern irrigation methods such as drip irrigation, abandoning traditional flood irrigation.

But this shift demands massive infrastructure investment and technical training for smallholder farmers costs that will inevitably be passed on to consumers.

Moreover, reducing the cultivation of staple crops like rice, wheat, and sugarcane

means greater food imports further burdening middle- and low-income Egyptians already reeling from inflation.

Losing a Third of Egypt’s Farmland?

Egypt’s cultivated area is roughly 8.6 million feddans—just 3% of the country’s land. With a population exceeding 116 million (108 million inside Egypt, 8 million abroad), any loss of farmland exacerbates the crisis.

A recent study by researchers at Texas A&M University, published in the Journal of Hydrology, warned that GERD could lead Egypt to lose a third of its farmland annually during drought years. So far, Egypt and Sudan have not felt the full brunt of the dam’s impact thanks to unusually heavy rainfall, attributed to climate change, that has temporarily offset water retention.

Led by Dr. Mohamed Ahmed from Texas A&M’s Water Supply Studies Center, the study used eight types of satellite data to evaluate how the dam has affected water resources in Ethiopia, Sudan, and Egypt from 2013 to 2022, analyzing water storage, rainfall patterns, and changes in five major reservoirs, including GERD, Roseires and Merowe dams in Sudan, and Lake Nasser and Toshka in Egypt.

While some may dismiss these warnings as exaggerated, they sound an urgent alarm, painting a stark picture of what the dam could mean for Egypt’s fragile agricultural base.

Costly and Impermanent Alternatives

Faced with this crisis, Egypt has turned to temporary alternatives that serve as stopgaps rather than long-term solutions. Seawater desalination projects may ease pressure on freshwater resources, but they come with steep financial and logistical costs—especially when diverting such water for agricultural use.

Treated wastewater reuse has become another strategy, as seen in massive projects like Bahr El-Baqar and other major treatment plants. While environmentally controversial, these initiatives aim to reclaim substantial volumes for agriculture and industry.

The state has also expanded groundwater extraction to support new agricultural projects, but this risks depleting limited aquifers and increasing soil salinity.

Simultaneously, Cairo has introduced laws aimed at curbing water consumption, such as the Drinking Water and Wastewater Management Law passed by Parliament on May 26, 2025.

However, a close reading of the law reveals provisions that many consider draconian—tightening restrictions on public criticism of water services,

legitimizing privatization, and potentially placing low- and middle-income households at greater risk.

This legislative shift, critics argue, cannot be separated from the broader GERD context. It reflects an official pivot toward treating the dam as a fait accompli and seeking rapid, politically palatable ways to contain its devastating impact.

The inauguration of the Grand Ethiopian Renaissance Dam is not a passing event to be countered with populist statements and empty threats. It marks a watershed moment in Egypt’s water history—ushering in a reality where the fate of millions and the backbone of the national economy, the agricultural sector, are now subject to the will of an external actor.

Despite all efforts—cutting crop cycles, investing in desalination, water treatment, new laws—these measures remain temporary fixes. They fail to address the root of the crisis or offer lasting guarantees for Egypt’s water and food security.