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Egypt and Its Water Loss

Egypt has a population of more than 98 million people living there. About 42.7% of the people live in the urban areas and 57.3% are from the rural areas in Egypt (Water Scarcity, 2014). Egypt has a Provisional government and Democratic Republic. The average household is about four people. The families get their food from farming and hunting. The houses are made of bricks and mud even the bricks are from mud.

Most of the foods that the people from Egypt eat are beans, bread, rice, fruit, and meat. Families have access to education for their children because it is free. The same goes for health care, but there is a small fee that is affordable. Some of the jobs are farming, craftsman, fisherman, and merchants. Not all families have access to clean drinking water.

According to the United Nations (2018), Egypt faces a serious water deficit and the country could run out of clean and healthy water by 2025. The United Nations World Water Development (2018) reported that Egypt is beyond the United Nations' threshold of water poverty, and what this means is the country is currently facing a serious water shortage. The water scarcity in

Egypt means there is a lack of enough clean water. The goal of this paper is to present solutions for the water crisis in the Egypt and make recommendations for finding a reliable source of safe water supplies.

The water crisis in Egypt affects an important issue, and that is agriculture. Due to the river dam being built in Ethiopia, the fear in Egypt is that they will lose more water and will lose the farms (Water Scarcity, 2014). Farmers will have to sell land or change the crops that they grow. The water scarcity will affect both rural and urban populations. The growing population of Egypt also affects the water supply causing the increased use of irrigation water needed to meet the increased demands for more domestic food produced by agriculture (Dakkak, 2016). Agriculture plays a big part in Egypt, and about 15 percent is responsible for the gross domestic product (Water Scarcity, 2014). The growing demand of water will continue to rise because of the plan to expand agriculture, industries, and urban centers into the Egyptian desert areas (Bedawy, 2014).

Economic growth also threatens the quantity and quality of Egypt's water resources. What this means is that the issue of the existing water challenge for Egypt stems from the groundwater contamination from industrial chemicals and excessive fertilizer and pesticide. As a result, farmers intentionally practice inefficient flood irrigation, which results in causing soil damage and rises in groundwater tables.

Wasteful irrigation practices and pollution contribute and impact Egypt's water challenges. Only half of the irrigation system in Egypt operates efficiently (El-Gindy, 2011). Research showed that approximately 40 percent of the water in Egypt is lost because of leaking pipes and drains. Additional water lost is due to lax regulations, lack of water treatment facilities, pesticides, untreated sewage dumped in the Nile River (Dakkak, 2016; Bedawy, 2014). These water challenges make water consumption a serious problem in Egypt.

Another great water challenge for Egypt is the issue of Ethiopia building a dam and hydroelectric plant upstream that may affect Egypt's share of the Nile. For some time a major concern for Egypt was Ethiopia's construction of the Grand Ethiopian Renaissance Dam (GERD) in the Blue Nile watershed, which is a main source of water for the Nile River. This creates major concern for Egypt because the dam could decrease the amount of water during dry months because not enough water will be released from the GERD; therefore, causing a decrease of the water received in the area.

The first solution is a treatment of the ground water used in agriculture. The second solution is improving the irrigation system. One solution is to save about 20-30 percent of water that comes during the raining season and clean the water to be used (Water Scarcity, 2014). If farmers try and save some of the water, then they can save the farms and land. If a clean water campaign is implemented this will increase clean and safe water to drink because not every family has drinkable water to use for

cooking and drinking. One suggestion is to store the unclean water in a container and then completing clarification, sanitation, and disinfection to the water. After the sanitation process, efforts should be made to get water piped into every house and neighborhood in Egypt.

Another recommendation is reduce the unnecessary loss of water as a result of the wasteful irrigation practice. The Egyptian government can invest in water saving devices, offer tax incentives to encourage people to conserve water, and implement a public awareness campaign to promote saving water in irrigation and daily domestic uses.

If Egypt try to save a little water and learn to clean the water then they will have more water for everyone. More important, the water scarcity in Egypt can be a really bad thing and can affect farming and agriculture all the same. If Egypt continues to lose water, then they will suffer the loss of food supply and even lives. Moreover, the lack of water is an important thing that is simply needed to feed our families and the animals we love. Therefore, it is in the best interest of the Egyptian government to find partners who are willing to invest at least 4 billion dollars to the Egypt's water crisis. Another solution is to partner with an organization like UNICEF to provide safe water through direct water connections to homes of the most deprived families. In addition, safe water and proper sanitation campaign would help raise awareness regarding hygiene and environmental friendly practices for local populations in Egypt.

Water is one of the most important resources that impacts political and social stability and economic development. As the demand for safe and clean water supplies increase in Egypt, the water resources system is considered an importance component and intermingles with politics, social, economic and environmental systems. This is clearly the case in Egypt; where the quantity and quality of water impose threats to the economic develop of Egypt. It is clear that the water demand has multiplied as a result of population growth, agricultural needs increases, as well as industrial development and a change in lifestyle. This paper addressed the current water status in Egypt and presented recommendation based on the available water resources and funding projects. The water uses, its efficiency use based on the political frameworks of water management system and the strategies and policies to address the water supply need to be researched in more detail. However, the controlling factors of water utilization and management in Egypt were discussed. Overall the research in this paper showed that Egypt currently suffers considerable water shortages and will probably continue in the near future. Recommendations to help overcome the water challenges and to enhance the available opportunities were provided.

Work
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