

Water Footprint In Sudan

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Introduction

Water is a very vital resource for men and the whole world at large, the truth behind the most common saying is water is life. Water, or the lack thereof, has built and destroyed nations, and it is very important, therefore, to study, analyze, and comprehend this very important resource. When looking into this resource, it is important to look at it as any other form of energy; it is as important or even more important. There also has to be then the consideration of the quantity available. The quantity available has to be studied with respect to the demand for the same resource. The form in which it is availed must also be noted. Water can be either in the form of precipitation or in forms of surface water like rivers, lakes, and dams. It may also be in the form of underground water, in which case wells have to be sunk so as to access it.

I am going to look into the water footprint in Sudan. Sudan was a single country up until the year 2011, when it split into two countries, South Sudan and North Sudan. It is a country in Eastern Africa, on the Northern side just below Egypt. It borders the Red Sea to the east and extends to the Sahara desert on the western side. The river Nile, which is the longest river in Africa, goes right across it; in fact, the two main tributaries to the river Nile.

The Blue Nile and the Nile join in South Sudan before streaming down to the Mediterranean Sea through Egypt. Because of its position in latitude, it is a tropical country and its climate ranges from being hyper-arid in the north and wet-and-dry in the south-west. The temperatures recorded in Sudan do not vary as much, however, but what varies is the length of the rains during the rainy season and the length of the dry seasons. Sudan has a tropical sub-continental climate that has been over the study for the last 20 years. The climate extends from the desert climate in the northern part of the country through a belt of summer-rain climate to semi-dry climate conditions. The recorded average annual rainfall shows the rain to be at 250 mm, but with ranges that vary from 25 mm in the dry northern parts to 700 mm in the southern parts. The country has not had a history of having sufficient rainfall. With the current United Nations predictions that water use is bound to increase to close to twice the normal usage, it is alarming for this nation. This should raise awareness for people to start using water sustainably, with practices such as recycling being emphasized.

The Historic Trend In Water Consumption

In Sudan, like many other countries, agriculture has been the main consumer of water. Historically, there were many cultivated areas that have since shrunk due to climate change.

The water consumption rate in Sudan was low in the past but however, but the consumption has been on the rise. The rise in consumption can first be attributed to the increased population. The population has risen from 28 million in 2000 to an estimated 42.1 million in 2017. Every new child has his own contribution to the water footprint of the country, and with a population increase of close to 14 million, an equal increase in demand is expected. That is a 50 percent increase in demand for water without the same increase in water availability. This means that there is currently an increased pressure on the available water points for water (Fanack.com, 2018).

There are many settlements along the river Nile, the Blue Nile, and the White Nile. These settlements were here due to the ready supply of water from the rivers. This enabled them to plant crops and be able to irrigate them whenever there was a lack of water.

Water Footprint By Consumption

The water footprint is the amount of water that is consumed by human activity, as well as other activities that use up the available water. The main use of water, as seen in Sudan, is the domestic use of water. This includes drinking water, water used for bathing, water used for cleaning, and water used for other domestic purposes. Agricultural use is the highest consumer of water in Sudan. Being a dry region pre-dominantly, there is a need in many areas to substitute the water available to plants by precipitation with water from other sources through irrigation, This however much of a consumer it is has been necessitated by the need for food in plenty. Industrial use is the other consumer of water. Water in industries has also been in demand, thereby increasing pressure on the water sources that are already scarce as it is. Industries are the source of almost everything used in the day to day life. Farm products processing industries are also considered as an industry on their own. Industries require water so as to clean the industries, used in cooling machines and also used as a component in production. Unlike other uses, however, industries mostly pollute the water after use as others dump their waste in the rivers, while some wait for rain and allow the consequent flow to carry their waste. Industries have a record of contaminating water sources and they should now change their practices so as to reduce the water footprint due to the increased pressure. Water, once polluted, requires a rigorous process of decontamination and recycling so as to make it reusable. Sudan is known for producing crude oil. Oil is a very hard contaminant to remove. Once it has entered the water, it is very hard to separate it from the water. A very expensive process like evaporation is needed to do so. It is, therefore, prudent to keep off any of the piping from all water sources (Clothier, 2000; Elgilany et al., 2013; Hightower, 2009; Omer, 2002; Omer, 2007).

Water Consumption By Category

The water footprint of a country can be categorized in either of two ways: internal footprint or external footprint. In this categorization, the internal water footprint is to be calculated from the quantity of water that the country will use in the processes that entail the production and

manufacture of goods and services. This will include agricultural uses, industrial uses, and domestic uses, mainly for goods and services produced and consumed within the countries. The external water footprint is not that different; however, this is the amount of water that goes into the processes that entail the production of goods and services that will be consumed by the people of the country but produced outside the country. This may, therefore, be looked at as the amount of water used in the goods that are imported to a country, in this instance, Sudan (Humanity's water footprint, 2012; Knoema, 2018).

Internal

The internal water footprint in Sudan is quite moderate. Sudan is not a very well-industrialized country. There are not many industries that produce goods locally that are used locally. The biggest industry in Sudan is the oil industry, which does not consume a lot of water. The agriculture industry, however, has a large water footprint. The larger footprint is due to the use of water in irrigation and demand by plants due to high rates of evaporation due to the high temperatures.

External

The external footprint in Sudan is quite high. The country imports a lot of goods. The goods they import range from the clothing industry to the food sector to the technological sector, among others. So as to produce these goods, a water footprint is left behind. Since, however, the goods that are produced are not used in that country but used in Sudan, the water footprint is added to Sudan's footprint.

Conclusion

All in all, the water footprint of a country is an essential statistic as it can very well show the way a country is doing. Water as a resource, a very vital asset, should be used properly, and the water footprint should be kept at a sustainable rate because, as a resource, it is essential, without which there is no life. The practices that have been used to conserve water and use it more effectively should be implemented all over in a bid to reduce water waste. There is overwhelming evidence to suggest, however, that there is an ever-increasing demand for water caused directly by the increase in population. The governments, therefore, should engage stakeholders and look for ways to increase the water supply to satisfy this demand. There have also been so many activities that individuals and industries have engaged in altogether that have contaminated the water, making it non-reusable. Such practices should be avoided altogether, and governments should indeed step in to control them and make laws that restrict such vices.

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