

2017

Burundi : Water Scarcity

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Salas, Isabel. "Burundi : Water Scarcity" (2017). *Global Public Health*.
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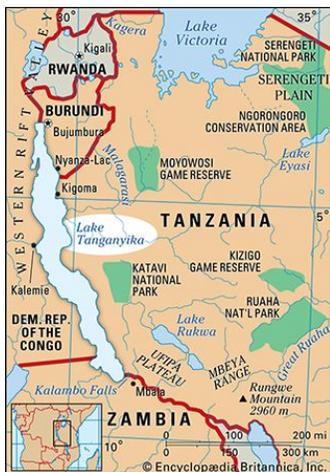
Water Scarcity and its Effects on Communicable Disease

Country Characteristics

The country of Burundi, or rather Republique du Burundi, is located near the African great lakes region of East Africa. The population of this country is currently 10.52 million people. Their official country language is Kirundi and French. About 85% of the nation are of Hutu decent, 15% are Tutsi, and less than 1% are Twa (Eisa, 2010). This nation mostly exercises the Roman Catholic practices. These people are mostly made of low income families and that is why Burundi is one of the poorest and hungriest nations across the globe. The political structure throughout Burundi is of a unitary republic government. Through this system there are three strong parties: Party of the liberation of the Hutu people, Burundi-African Alliance for Salvation, and Green party-intwari (Eisa, 2010). The country of Burundi face many struggles from external to internal. Some of these internal obstacles they face are healthcare and water scarcity. The health care in Burundi is almost non-existent. They have about 5 doctors, 28 nurses, and 1 pharmacist per 1,000 people (Nation, 2017). Most families don't live close to these healthcare facilities which is why communicable disease is common among the nation. About 65% of their nation is affected by the lack of clean water (Nation, 2017). The effects of unclean water creates a rise in communicable disease throughout the nation due to the lack of sanitation systems and other health practices. An external effect throughout the nation would be the location of the country. The exportation of coffee and other materials are lower in cost compared to the importation costs which rise yearly. We can conclude that it costs the country more money to import than to export products like food and water. This is a never ending cycle between the country and their people thus resulting in changes that may need to be made in order for the nation to improve.



Public Health Issue of Burundi



Africa is one of the most rapidly urbanized nations throughout the last two decades and because of this most of the population has experienced water scarcity and an increase in communicable disease. Water shortages are mostly found in the rural areas of Africa. The water throughout the nation of Burundi are mostly contaminated by Phytoplankton which are affected by sea surface temperatures. Throughout these lakes there are hotspots which have an effect on the increase in Phytoplankton and cholera outbreaks. These hotspots have been located within the great Kalemie and the Upper Congo River Basin both of these are located in Katanga which is in close proximity to Lake Tanganyika. It has been determined that there is a correlation between the hotspots and cholera outbreaks. The families among these lakes are being directly affected by water cuts. Water cuts are when companies controlling the water decide to cut back on the amount of water available for these households. This then induces many families to get more water from external resources such as wells and lakes; these families go from using a regulated water source to an unregulated source without the knowledge of what is

in the water. The decline in water quality reduces the sustainability of water that is used for drinking, agriculture, and industrial use (Santos, 2017). It also has been shown that there is a high concentration of uranium in the water. The uranium concentration source is from the granite sand that is found on the shores of the lakes and within the wells (Vassallo, 2017). This also plays a role in the poor quality of the water.

Basic Epidemiology

The most affected group throughout the nation of Burundi are families that live in the rural areas of the great lakes. The challenge with this public health issue is the increase in groundwater natural contaminants and how hard it would be to extract because of the size and constant water demand around the town. They need to try and preserve enough water to efficiently provide water for the whole town resulting to water cuts (Vassolo, 2017). Some suggestions may be to supply more clean water to all households so they don't have to try and transport water from other nearby lakes and wells. If this is not possible they should try to educate the families and teach them to boil off the water before any use to try and possibly kill off some bad bacteria. In addition to this many families should be taught proper sanitation exercise in order to maintain a healthy environment.

Conclusion

Burundi is one of the lowest income nations along with this malnutrition and water scarcity with its inducements of cholera outbreaks are just some of the results of the contaminants. These are affected by multiple hotspots throughout these lakes thus increasing the reproduction of Phytoplankton. The lack of water throughout the household thus lets families to search for external water resources. Through research it has been found that the country of Burundi is being greatly affected by water scarcity which increases the number of cases of communicable disease. Other suggestions should be considered in order to change the everyday life of these low income families.

Burundi - Climate. (n.d.). Retrieved October 19, 2017, from <http://www.nationsencyclopedia.com/Africa/Burundi-CLIMATE.html>

Burundi: Electoral System. (2010, April 28). Retrieved October 19, 2017, from <https://www.eisa.org.za/wep/bur4.htm>

Nkoko, D. B., Giraudoux, P., Plisnier, P., Tinda, A. M., Piarroux, M., Sudre, B., . . . Piarroux, R. (2011). Dynamics of Cholera Outbreaks in Great Lakes Region of Africa, 1978-2008 . 2026-2034. Retrieved October 19, 2017

Santos, S. D., Adams, E., Wada, Y., De Sherbinin, A., Bernhardt, E. M., & Adamo, S. (2017). Urban growth and water access in sub-Saharan Africa: Progress, challenges, and emerging research directions . *Science of the Total Environment*, 608, 497-508. Retrieved October 19, 2017

Vassolo, S., Tiberghien, C., & Baranyikwa, D. (n.d.). High uranium concentrations in groundwater in Burundi . *Procedia Earth and Planetary Science*, 17, 524-527 . Retrieved October 19, 2017

Vassallo, S., Tiberghien, C., Baranyikwa, D., & Miburo, D. (2017). Weathering and evaporation controls on dissolved uranium concentrations in groundwater-- A case study from Northern Burundi . *Science of the Total Environment*, 607, 281-293. Retrieved October 19, 2017

Winde, F., Brugge, D., Nidecker, A., & Rue, U. (2015). Uranium from Africa-- An overview on past and current mining activities: Re-appraising risks and chances in a global context . *Journal of African Earth Sciences*, 129, 759-775