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Sustainable Agriculture in Togo

Despite Togo being a leader in the export of phosphates, an essential component of fertilizer, the country is considered one of the poorest countries in the world, with children born in Togo being only 43% as productive as children in more developed countries. Furthermore, Togo also suffers from a significant disparity between rural and urban populations, with the rural poverty rate of 58.8% being nearly twice as high as the urban poverty rate of 26.5% (World Bank, 2021). Togo's usage of unsustainable farming practices contributes to the problem by preventing rural farmers from operating efficiently, harming the environment, and requiring significant amounts of labor. In this essay, the problem of unsustainable farming is examined and potential solutions are offered in order to counter the issue.

When compared to other low-income countries, Togo is unique in the extent to which it relies on just three crops to generate the majority of its economic output: cocoa, coffee, and cotton. As such, Togo imports most of its food and power resources from other countries such as Nigeria, with nearly twice as many imports than exports (Togo First, 2020). This is in contrast to most developing countries, where the majority of agriculture is subsistence farming and food production occurs internally. However, this also leaves Togo dependent on both high demand for its agricultural exports as well as a steady supply of imports in order for it to meet its energy and food needs. Because of this, Togo is much more vulnerable to destabilizing events such as COVID-19 when compared to other countries.

The government of Togo has been surrounded by controversy for a significant portion of time. Ruled by the Gnassingbe family since 1967, Togo is often considered an authoritarian regime. Some of Togo's political issues include widespread corruption, human rights abuses, money laundering, and drug trafficking (Koutonin, 2020). Despite attempts at governmental reform, there are few signs of progress towards resolving the issue.

A typical family in Togo will live in a family compound, typically made of locally available resources, Typical meals include corn or millet paste, rice and beans, and a variety of imported foods. While meat and fish is available, it is usually dried, with fresh fish only being available at larger towns (Peace Corps, 2021). Due to the lack of proper infrastructure such as roads, it is difficult to transport produce from larger cities into rural areas.

Unsustainable development has resulted in a number of repercussions in Togo. The burning of wood and coal have been linked to 3,448 premature deaths in 2013 (CCAC, 2020). The lack of water infrastructure and inefficient water usage results in only 38% of rural residents having access to clean water. The practice of burning away forests to make way for farmable land in Togo has also been linked to desertification (Nationsencyclopedia, 2022). While such practices might work in the short-term, across extended periods of time these unsustainable practices will lead to soil degradation and public health issues. Beyond the direct environmental and health-related issues with unsustainable development, current agricultural methods utilized in Togo are also extremely inefficient, with low crop yields. As a result, rural farmers in Togo have to make up for this deficit in crop yields by requiring more land and labor, which further harms the environment.

There is a strong connection between infrastructure and sustainable development (UNOPS, 2019). Despite this, infrastructure in Togo remains poor, with only 28% of households having access to electricity (Asledu, 2018) and only 16% of farms having access to fertilizer (Borgen, 2020). Because of this, the majority of rural farms rely on unsustainable methods such as wood-burning for energy production and agriculture. In order to transition from unsustainable to sustainable agriculture, one solution could entail the building of rural infrastructure in Togo. Such infrastructure would include solar panels, irrigation systems, and fertilizer. Solar panels are a viable alternative to the unsustainable practice of burning wood due to Togo's hot climate. Unlike other energy solutions, solar panels do not need to be connected to a power grid in order to function, which is important as most of Togo's rural areas are not linked to the main power grid. Irrigation systems can help counteract the issue of water pollution caused by misuse of water resources, which is a significant issue in rural areas. The use of fertilizers makes crop farming much more efficient, which would reduce the need for requiring more land.

The building of such infrastructure could take the shape of a loan program, in which each individual farm would be able to buy infrastructure in exchange for a portion of the annual crop yield of the farm. The program would include a four-week training and support for the farmers on how to use and maintain the infrastructure, culminating in a session where the farmers will install their purchased infrastructure under the supervision of their trainer. While the solar panels and irrigation systems are meant to be functional for an extended period of time, the loans do not provide access to fertilizer, the training program will include a section teaching farmers how to construct their own fertilizer from available materials. Alternatively, farmers can buy fertilizer from a nearby city instead. In order to prevent farms from buying more or less infrastructure than they need, the amount of solar panels and water pipelines available to purchase will be determined based on the size of the farm. Furthermore, instead of giving farmers money to buy infrastructure themselves, the loan would provide infrastructure for the farmers, which would prevent misuse of funds for non-farming purposes as well as poor selection of infrastructure which can lead to issues down the line. In order to prevent governmental corruption, the resources will be provided directly to the farmers without the oversight of the local or national government.

While initial adoption of such a loan program is expected to be low due to concerns over pricing as well as suspicion over the benefits of improved infrastructure, it is expected that the demand for such loans will exponentially increase when news about the success of farmers in the loan program spreads to farmers not in the loan program. When compared to the current, unsustainable methods of agriculture practiced in Togo, the sustainable methods of agriculture enabled by improved infrastructure will lead to greater incomes for farmers despite the portion of crop yields used to pay back the loan, as the overall crop yields will be substantially higher than with traditional approaches. Furthermore, the improved efficiency that comes with improved infrastructure also allows farmers to grow more types of crops on a similar plot of land as before, including excess food crops. This would solve the issue of reliance on foreign imports that Togo has. However, improving infrastructure is not an infallible plan. For one, it requires a stable government to work, as infrastructure is often destroyed during wartime. This has the potential to pose a problem given the unstable political climate that Togo faces in regards to the Gnassingbe family. Furthermore, infrastructure requires an extended period of time to build up, which is time that Togo might not have given the immediate impact of poverty and climate change. Because of this, while infrastructure can serve as a long-term solution for Togo, it requires additional support in the form of other solutions in the meantime.

A short-term approach that Togo could take in order to make rural agriculture more sustainable would be to adopt organic farming methods. Organic farming allows for much higher profit margins when compared to conventional farming, which allows farmers to grow fewer crops in more sustainable methods while still maintaining equal or higher incomes. Furthermore, such a program has the benefit of not needing extra infrastructure to function. Possible implementations of organic farming could include utilizing compost from animal waste to fertilize crops via a hybrid system, as well as reusing wastewater (Climate Chance, 2022). In an organic farming program, the initial teaching of organic farming would come from foreign volunteers. The organization Fly For Life has taught farmers in Togo about organic farming methods utilizing volunteers from outside the country (Lee, 2018). However, once the initial batch of Togo farmers learn about organic farming, they can then teach those methods to other farmers and communities, enabling spontaneous growth without much cost. As more farmers take up organic farming, they can then join cooperatives and combine resources in order to exert leverage. Despite the benefits of organic farming, the approach should not be considered on its own as a complete solution towards alleviating both Togo's issues of unsustainable agriculture as well as poverty alleviation. This is due to the fact that the success of an organic farming approach depends on the demand for organic produce overseas, which might not always be available. Since the crop yields for organic farming are low, such an approach would mean that Togo would rely even more on imports for food supply, which can be risky in the event of a supply shortage. Overall, organic farming is a viable short-term solution towards transitioning Togo towards sustainable agriculture, but should not be viewed as a long-term solution.

Despite the widespread nature and severity of the issue of unsustainable agriculture in Togo, it is a problem that is inherently solvable. Through programs that concentrate on spurring the agricultural practices of individual farmers to become more sustainable, repeated on a massive scale, Togo can resolve the bigger picture without losing sight of the local communities affected. Togo needs to reach out towards external sources, assess their failures in infrastructure and technical education, and address such failures. Togo needs to look at the natural resources available and use it to their advantage, such as implementing organic farming to take advantage of the fertile soil available. In order to solve such a pressing challenge, Togo needs to institute unique solutions. And by carrying such ideas out and implementing them into the field, Togo can transition towards sustainable agriculture.

Works Cited

Climate and Clean Air Coalition (CCAC), & amp; Togo. (1970, January 1). Togo. Climate & amp; Clean Air Coalition. Retrieved February 15, 2022, from https://www.ccacoalition.org/en/partners/togo

Corps, P. (n.d.). Living conditions. Living Conditions. Retrieved February 15, 2022, from https://www.peacecorps.gov/togo/preparing-to-volunteer/living-conditions/

First, T. (n.d.). In 2019, Togo's Food Import bill was CFA158 billion. Togo First - Actualité économique au Togo. Retrieved February 15, 2022, from

https://www.togofirst.com/en/economy/1509-6238-in-2019-togo-s-food-import-bill-was-cfa158-billion#: ~:text=The%20country%27s%20exports%20generated%20CFA647,than%20it%20did%20in%202018

Joutonin, M. (2020, February 21). Togo has long been mired in political crisis – and elections won't change that. The Guardian. Retrieved February 15, 2022, from https://www.theguardian.com/global-development/2020/feb/21/togo-has-long-been-mired-in-political-cris is-and-elections-wont-change-that

Kwasi Gyamfi Asiedu, C. (2018, June 29). An ambitious national solar power strategy to fix Togo's electricity problem might just work. Quartz. Retrieved February 15, 2022, from https://qz.com/africa/1318187/solar-power-in-togo-to-fix-electricity-shortage-amid-eyadema-protests-go-on/#:~:text=In%20Togo%2C%20the%20electricity%20access,supply%20some%20of%20its%20power.

NationsEncyclopedia. (n.d.). Togo - environment. Encyclopedia of the Nations. Retrieved February 15, 2022, from

https://www.nationsencyclopedia.com/Africa/Togo-ENVIRONMENT.html#:~:text=Water%20pollution% 20is%20a%20significant,to%20the%20spread%20of%20disease.&text=As%20of%202001%2C%20 7.6%25%20of,total%20land%20area%20was%20protected.

Overview. World Bank. (n.d.). Retrieved February 15, 2022, from https://www.worldbank.org/en/country/togo/overview#1

Project, B. (2020, September 9). The fight against hunger in Togo. The Borgen Project. Retrieved February 15, 2022, from https://borgenproject.org/hunger-in-togo/

Promoting organic and sustainable farming in Togo. Climate Chance. (n.d.). Retrieved February 15, 2022, from https://www.climate-chance.org/en/best-pratices/promoting-organic-sustainable-farming-togo/

Togo Agriculture Sector Support Project. Global Agriculture and Food Security Program. (2014). Retrieved August 19, 2022, from https://www.gafspfund.org/projects/togo-agriculture-sector-support-project-pasa

UNESCO. (n.d.). The critical role of infrastructure for the sdgs. UNESCO. Retrieved February 15, 2022, from https://content.unops.org/publications/The-critical-role-of-infrastructure-for-the-SDGs_EN.pdf

World Bank Group. (2018, July 18). Togo: World Bank supports efforts to improve urban infrastructure and management. World Bank. Retrieved February 15, 2022, from https://www.worldbank.org/en/news/press-release/2018/07/17/togo-world-bank-supports-efforts-to-impro ve-urban-infrastructure-and-management