Jaci Larsen Burwell Jr.-Sr. High School Burwell, NE, USA Sierra Leone, Education

Shifting the Focus To Agriculture Education in Sierra Leone

Sierra Leone is a small, tropical country on the coast of Western Africa. The country of Guinea borders Sierra Leone to the North and East and the country of Liberia lies directly to the South. The Atlantic Ocean makes up the Western border. It is made up of 27,925 square miles, which is slightly smaller than the state of South Carolina and has a population of about 8.2 million people ("Population of Sierra Leone," 2021). The government is similar to the United States, a republic. Sierra Leone is rebuilding after a civil war which ended in 2002, leaving the country devastated. About 56.8% of its population lives in poverty, with rural rates at 73.9% more than twice as high as urban areas at 34.8% ("Poverty in Sierra Leone: 2018 Levels and Trends 2011 to 2018," 2018). Literacy rates in Sierra Leone are 43.21% for adults and ranks 10th least literate country in the world ("Top 10 Least Literate Countries in the World," 2022). In 2021, Sierra Leone was considered the 10th hungriest country in the world ("These are the World's 10 Hungriest Countries in 2021," 2021). Sierra Leone has struggled through civil war, yet is rich in resources, has support from the government and partners. These citizens are a group of people that would benefit greatly from education.

Even though devastation seemingly has consumed this country since the early 2000s, Sierra Leone is a country rich in natural resources, including minerals and fertile arable land for agricultural development (Amadu, Silvert, Eisenmann, & Mosiman, 2017). Major crops are rice, cassava, maize, millet, sorghum, sweet potato, and groundnut along with poultry, livestock, and fisheries. About 63% of women are employed in agriculture; however only 5.6% of women have a waged or salaried work ("Sierra Leone," 2018). Yet with all these resources, Sierra Leoneans struggle to have clean water or sanitation and only 22.7% of the population has access to electricity (Macrotrends 17). Despite the fact that Sierra Leone has one of the world's healthiest diets, it still has the world's highest malnutrition rates (Petri, 2015). Rice is the primary staple and is eaten at least twice a day. The problem with having a high rice diet is that the rice is not nutritious. Since rice is almost 50% of Sierra Leoneans' diet, children's growth has been stunted and the inability to purchase meat due to prices causes malnutrition (Amadu, Silvert, Eisenmann, & Mosiman, 2017).

Sierra Leone has incredible support from inside the government and partners around the world. During this rebuilding phase the government has pledged money for agriculture and education. The United Nations has guided a Sustainable Development Cooperation Framework UNSDCF and has prioritized four key areas of intervention: sustainable agriculture, food and nutrition security, transformational governance, access to basic services, and protection and empowerment of the most vulnerable ("How the UN is Supporting the Sustainable Development Goals in Sierra Leone," 2019). The UN has created a food-based dietary guideline and created opportunities for youth such as International Youth Day. Others such as Partners in Health are responding to malnutrition in Sierra Leone and the International Food Policy Research Institute works on a global level to connect research and food security. While this high level infrastructure is being built and urban areas improve, rural areas still lag behind.

Cultural beliefs in rural areas discourage girls participating in education. Many marry as early as age eleven. Gender roles are rigid in rural areas with a heavy work burden on women. Women take on specific work and are responsible for helping with the heavy farm work, domestic and reproductive chores such as cooking, cleaning, laundry and caring for sick, elderly and children. Poor water and sanitation also exposes rural people to disease as infrastructure and access to improved water lags behind urban areas, 48% to 57%. Women also have less access to extension services and technologies that have been introduced into areas targeted toward established farmers, predominantly men. Poor women who need this knowledge are neglected, somewhat because men are not comfortable having their wives around men. Sadly, gender capacity for agricultural development is absent from the task force; however it has been recommended from the Country Gender Assessment Series written by the Food and Agriculture Organization of the United Nations ("Sierra Leone," 2018).

A recurring theme of Sierra Leone is rebuilding. A priority for them is agriculture. The United Nations is supporting the effort through sustainable development goals. Topics that are being developed are hydroponic technology, meeting the challenges of fraud, and opportunities for women in tractor operation, along with empowering youth and women. These efforts need to be introduced all the way down to the rural areas experiencing the greatest levels of poverty and literacy. Technology needs to help the poorest and most vulnerable. By lifting those who need it most, it will improve the lives of all Sierra Leoneans.

USAID is also working in Sierra Leone. Their 2012 Landscape Analysis and integration of gender and nutrition within Agricultural Extension Services is another step in the right direction (Amadu, Silvert, Eisenmann, & Mosiman, 2017). More steps to disseminate technologies that improve rural women's lives and the lives of their families through nutrition are imperative. More extension workers who are female may alleviate the cultural tensions of gender roles and create a more cooperative culture of women helping women.

The connection between agriculture and health is an important one. The International Food Policy Research Institute has contributed to the ongoing research linking agriculture and health. In 2006, research included how agriculture and food production can contribute to positive and negative health outcomes ("Understand the Links Between Agriculture and Health Overview," 2006). Foods high in nutrition contribute to positive health outcomes while overuse of fertilizers and contaminated water are associated with health risks ("Agricultural Technology and HEalth, 2006). Current research shows the world is still struggling to end hunger, malnutrition, and food insecurity (2022 State of Food Security and Nutrition in the World report: Repurpose agricultural subsidies to make health diets affordable, reduce rising hunger, 2022). This report highlights the role the pandemic and Ukrainian war have played in the weaknesses in the supply chain. Extreme weather has also been a factor in food supplies and the rising cost of food. The big picture may look grim and daunting. However, sometimes the scale of efficiency is not bigger being better. As global partners work at the bigger picture, regional resources may be more efficient and partnerships on the local level may give hope to those working at improving health outcomes using food resources. One such collaboration in Sierra Leone is Partners in Health. Although agriculture and health is sometimes disjointed, this positive program may be a model for the country.

Partners in Health are also responding to the needs of Sierra Leone's malnutrition issues in Kono ("Responding to Malnutrition in Sierra Leone," 2021). As 75% of the rural people in this country live on \$3.20 a day, this success story targeted children with moderate acute malnutrition who were falling through the cracks. In the program, every two weeks children and their caregivers prepare mass amounts of homemade Bennimix – a blend of entirely local ingredients that contain the carbs, protein, calcium, and iodine children need to restore their health and nutrition. These success stories show great promise and need to be extended into other rural areas. Expanding this to other regions and creating a sustainable approach to growing and teaching caregivers to grow or purchase these lifesaving ingredients is an important next step.

Extensive work has been done by the Food and Agriculture Organization (FAO) of the United Nations to create programs, assessments, policy, and projects for Sierra Leone. FAO's mandates contribute to the United Nations Development Assistance Framework (UNDAF). Their Priority Area 1 is to increase productivity along the food system value chain, improve livelihoods, and nutrition outcomes through food and nutrition security and responsible agribusiness development. To achieve this there is a need to strengthen and complement existing efforts of government and partners ("Programmes and Projects," 2022). This is a complex and complicated priority, but if designed right would move this country in the right direction. The dynamics of the political side of Sierra Leone has shown to have a history of corruption. If agribusiness development focuses on established farmers and males, poverty and hunger will not improve. Taking this priority area to another level and developing agribusiness and technology to rural areas where poverty and malnutrition is high, will greatly help in turning the country into a sustainable, food secure nation.

Strategically, the framework has been put into place. Historically, Sierra Leone has struggled with war, disease, corruption, poverty, and hunger. As the years pass, rebuilding has put into place the infrastructure to create success; however, success is still out of reach in some areas. Literacy is still high. Infant mortality is 72 deaths per 1000 which declined slightly over the last year ("Sierra Leone Electricity Access 2004-2022," 2022). Politically, the will must be there.

Culturally, Sierra Leoneans have a high regard for people's beliefs, traditions, and values. Rural belief systems in the country puts an extremely heavy burden on women without the advantages of an education, specifically agricultural education, or ability to learn how to care for their families, use nutrition for health, or improve agricultural production. Interestingly, the country has a rich heritage of storytelling with people being well known for their friendliness and hospitality. By using humor and a variety of voices a story can drive home a message (DeVries, 2014). Usifu Jalloh is trying to preserve the oral tradition. The tradition is slowly dying in Sierra Leone; however, this tradition may hold a key to inspiring the rural people who struggle with poverty and literacy. By constructing stories with messages of health and nutrition, storytellers can pass on information in ways that rural people can understand and remember. Using their traditions to introduce these topics may help them not to feel threatened. It would be a first step toward stronger educational messages.

Education is still the most limiting factor for rural females ("Sierra Leone," 2018). First and foremost, learning basic life skills such as how to cook nutritious meals, basic healthcare and hygiene, and where to look for help if married early or kept home to work is imperative. Agriculture education and learning to

use technology to improve agriculture production or preserve food should also be a priority. The infrastructure created within the government, the United Nations, and other partners can be utilized and adapted to teach girls and women how to better their lives, feed their families, and improve their situations. Agriculture and healthcare would be natural partners in creating positive outcomes as the female population learned how to grow their food, make nutritious meals and decrease disease, malnutrition, and stunting in their children.

Consistently Sierra Leone has faced challenges of conflict, corruption, and disease. Partners such as the United Nations have worked to help eliminate inefficiencies, gaps in allocation, and management of public finances while ensuring funding for key priorities around education, livelihoods protections, and health must continue to guide decisions ("2022- A Year to Put Sierra Leone First," 2022). Ultimately, the way politics is played in 2022 really matters as it will determine whether the democratic consolidation is advanced in the coming years. Unfortunately, the 2021 signals are not promising ("2022- A Year to Put Sierra Leone First," 2022). COVID -19 has impacted the nation and now recovery from the pandemic should focus on the health system and improving the livelihoods of the children and women through education. Policy development has been an important step, however, creating the action and follow through to educate and improve citizens lives is critical to reducing food insecurity, disease, and malnutrition.

Positive outcomes are in Sierra Leone's future. The political structure of Sierra Leone creates uncertainty as corruption suppresses the progress of the country towards its priorities. The UN must push for continued stability and democratic progression in hopes for leadership, integrity, and economic prosperity ("Responding to Malnutrition in Sierra Leone," 2021). With that being said, education can make a dramatic difference in the lives of rural Sierra Leoneans. An investment in education, specifically ag education, and using innovative techniques such as storytelling as well as teaching rural Sierra Leoneans simple strategies and technology may have the power to move the country toward the outcomes they are looking for in terms of literacy, sanitation, food-security, and malnutrition.

Works Cited

- "2022- A Year to Put Sierra Leone First." *United Nations*. 2022 United Nations in Sierra Leone. 04 Jan. 2022. Web. 30 Jan. 2022.
- Amadu, Festus, Silvert, Colby, Eisenmann, Cortney, Mosiman, Katy & Liang, Ruiting. "Sierra Leone Landscape Analysis." *Feed the Future*. The U.S. Government's Global Hunger & Food Security Initiative. 6 July 2017. Web. 30 Jan. 2022.
- DeVries, Nina. "Sierra Leonean Storyteller Fights to Preserve Oral Tradition." *Deutsche Welle.* 2022 Deutsche Welle. 02 June 2014. Web. 06 Feb. 2022.

Hawkes, Corinna, Ruel, Marie. "Understanding the Links Between Agriculture and Health Overview." *International Food Policy Research Institute*. Focus 13. Brief 1 of 16. May 2006

- "How the UN is Supporting the Sustainable Development Goals in Sierra Leone." *United Nations.* 2022 United Nations in Sierra Leone. 13 Oct. 2019. Web. 06 Feb. 2022.
- Malhotra, Swati. "2022 State of Food Security and Nutrition in the World report: Repurpose agricultural subsidies to make healthy diets affordable, reduce rising hunger." *International Food Policy Research Institute.* 6 August 2022.
- Lipton, Michael, Sinha, Saurabh, and Blackman, Rachel. "Understanding the Links Between Agriculture and Health Agricultural Technology and Health." *International Food Policy Research Institute*. Focus 13. Brief 3 of 16. May 2006
- Petri, Alexandra. "The Countries with the World's Healthiest Diets are Mostly in Africa." *The Daily Meal.* 2022 Tribune Publishing. 27 Feb. 2015. Web. 06 Feb. 2022.
- "Population of Sierra Leone." *Statistics Times.* UN World Population Prospects 2019. 23 Aug. 2021. Web. 30 Jan. 2022.
- "Poverty in Sierra Leone: 2018 Levels and Trends 2011 to 2018." *Integrated Household Survey*. Statistics Sierra Leone. 2018. Web. 06 Feb. 2022.
- "Programmes and Projects." *FAO in Sierra Leone*. Food and Agriculture Organization of the United Nations. 2022. Web. 30 Jan. 2022.
- "Responding to Malnutrition in Sierra Leone." *Partners in Health.* 2009-2020 Partners in Health. 19 Nov. 2021. Web. 30 Jan. 2022.
- "Sierra Leone." *Country Gender Assessment Series*. Food and Agriculture Organization of the United Nations. 2018. Web. 06 Feb. 2022.
- "Sierra Leone." U.S Agency for International Development. U.S Agency for International Development 2022. 20 Jan. 2022. Web. 30 Jan. 2022.
- "Sierra Leone Electricity Access 2004-2022." *MacroTrends*. 2010-2022 MacroTrends LLC. 2022. Web. 06 Feb. 2022.
- "These are the World's 10 Hungriest Countries in 2021." *Concern Worldwide U.S.* 2022 Concerned Worldwide U.S. Inc. 14 Oct. 2021. Web. 30 Jan. 2022.

"Top 10 Least Literate Countries in the World." *Literacy Rate by Country 2022*. UIS 2022. 2022. Web. 30 Jan. 2022.