Jerson Valenzuela North High School Des Moines, Iowa Sierra Leone, Factor 5 Sierra Leone- A New hope

With a land size that is no bigger than South Carolina, Sierra Leone is 71,740 square kilometers of fertile soil. With a long rainy season you would suspect that Sierra Leone would be excelling in its agricultural development and economic trade, but in fact, Sierra Leone is the second poorest country in the world with nearly 2.8 million living in poverty. Due to high population growth and a decade of civil war that ended in 2002, Sierra Leone is in a state of having little or no money or means of support. For any country, money and support work together to create a situation that is conducive for success and sustainability. However, in the case of Sierra Leone, the social and economic effects of a decade of civil war devastated the country, and more so the poor people in particular. Hence, this and the shortage of a means of support all work against Sierra's situation and potential for self-sufficiency. In the aftermath of the war, poverty has become pervasive and intensified and affected the sustainability of the entire country and people. Agricultural output has not only continued to decline, but the trend has resulted in drastic effects on good prices and rural incomes. In addition, the war disrupted education in many areas thus affecting the ability of the people as a nation to, not only be productive, but also utilize available resources to make their national produce more marketable. During the conflict, the dislocation of large segments of the population, the separation of families and loved ones, and the frequent violence against women, contributed to the spread of HIV/AIDS. (IFAD). Hence poor health also factors into the plight of Sierra Leone. Climate as well has an impact on Sierra Leone. The rainy season of Sierra Leone is enjoyed during May to December. However, from December to April, Sierra Leone suffers dry spells. The rainy season promises water for those in rural Sierra Leone. Villages, such as Kamba, definitely look forward to the rainy season. During the dry season there is a dire water shortage, where their 1 river and 1 well dry up. The people of Kamba Village depend on their river, using it for bathing, recreational swimming, laundry, and even for bathroom use. Not only is the dry season a problem, but also contamination presents its own challenges.

One of many of Sierra Leon's natural resources includes diamonds, which caused a decade of civil war within the country. Even though Sierra Leone has many valuable natural resources, such as titanium ores, diamonds, gold, and bauxite, it still remains in poverty. Their chief export crops include palm kernels, coffee, cocoa, ginger, kola nuts, and piassava. Along with a high population growth, the decade long war caused a sever economic decline and impoverished the country. During the years of war, research into natural resources stopped, expertise and information were lost, supply chains were destroyed, livestock killed, tools required to farm or fish were stolen, and few inputs were available. Household surveys conducted two years after the end of the conflict revealed that 70 per cent of the population lived below the national poverty line, and a quarter in extreme poverty. (IFAD) This means with a population of nearly 5.7 million, about 2.8 million are living in poverty. Although Sierra Leone posses potential, with it's substantial mineral, agricultural, and fishery resources, social and physical infrastructure has yet to recover from the war.

Most of the country's infrastructure's improvements were disrupted, due to the war that lasted a decade. In 2010 the IMF was approved of completing a Poverty Reduction and Growth Facility program, which would be worth 45 million dollars within 3 years. With political stability, off shore oil discoveries, and war recovery, Sierra Leone is looking at a successful economy. Of course, this will happen with time and patients. Using a system of cultivation in an effort to preserve soil fertility, more than three-fifths of Sierra Leone's population engage in agricultural production. Agriculture provides a way out from Sierra Leone's poverty.

One major issue is the incapacity to make use of crop surpluses after the growing season. From May to December, Sierra Leone enjoys its rainy season; however, from December to April, Sierra Leone suffers dry spells. Sierra Leone is left vulnerable to the world's climate change. With rising temperatures and associated unpredictable weather, small farmers could be pushed beyond their ability to cope. The result of a climate change can be longer dry seasons, and shorter rainy seasons for Sierra Leone. A lack of agroprocessing facilities leaves little option for post-harvest processing and the opportunity to add value to crops. Elan states, "Current average temperatures in Africa are leading to disastrous consequences: extreme dryness and expansion of desert areas in most of the region, but also excessive flooding in some parts of the continent." (Ewa Elen) With these extreme weather patters, they will impact crop and livestock production. This will pull back Sierra Leone's progress on achieving an acceptable economy. Sierra Leone holds a lot of fertile land. Simply moving crops to higher ground will help prevent the destruction of crops; however this does not seem effective when it comes to the increased dry season. Elan states, "If we continue to depend on past rainfall patters, food security will be compromised." (Ewa Elen) It is evident that there has to be another alternative.

The support of ecological resilience can help. The concept of resilience in ecological systems was first introduced in order to describe the persistence of natural systems in the face of changes in ecosystem variables due to natural or anthropogenic causes. Changing the farming system will not only support ecological resilience, but also it will also take back all of what was changed. Sierra Leone commonly practiced a farming technique known as shifting agriculture. Shifting agriculture is a system of cultivation that employs plot rotation in an effort to preserve soil fertility. The only thing which would need to change is the use of chemical fertilizers, which emit a lot of carbon and nitrous oxides into the air. It will not only enrich the soil for farmers to get more yield but it also helps to minimize the impacts of climate change. (Momadou Aba) Farmers need to pull away from growing really seasonal crops. If this is done, they need not worry about the dry season. During the dry season dry farming is always an option. Dry farming is practiced in arid areas without irrigation by planting drought-resistant crops and maintaining fine surface mulch that protects the natural moisture of the soil from evaporation.

These options can rebuild Sierra Leone's agriculture and bring the people out of poverty. Agriculture is not the only way out, there is also the rebuilding of Sierra Leone's social infrastructure. All is not lost for Sierra Leone. As Andy Ward explains:

In August 2007, five years after the end of the war, the first independent elections were held but poverty and corruption continue to blight the nation's potential for prosperity. Although diamond and mineral exports are helping to rebuild its economy, Sierra Leone's wealth lies not just in its minerals but also in its rich natural resources, which are necessary to aid a population in need of improved agricultural

production and revitalized rural communities. Rising people above the poverty will take time. But most importantly if peace and prosperity are to be achieved and the sparkle brought back to this beleaguered nation, their needs to be popular determination to bring about change. (Ward Andy)

Back during the times of conflict, research into natural resources stopped. The disruption of education and the migration of the Sierra Leonean's only caused greater damage to the country's agricultural development. Education does not come by cheap. This poses a problem for poor people in the rural areas of Sierra Leone. According to Stevie Mann, A multi-million pound DFID-funded programme aiming to maximize the poverty-reducing impact of existing research on natural resources has been launched at the recent FARA (Forum for Agricultural Research in Africa) General Assembly and Africa Agricultural Science Week in Johannesburg. Ministers from the UK, South Africa and Sierra Leone gave their support to the pioneering Research into Use (RIU) initiative, which will ultimately work in 10 to 15 focus countries in Africa and South Asia. Opportunities for intervention in six initial countries have been assessed during 2006-7. (Mann Stevie) He continues with: DFID's Strategy for Research on Sustainable Agriculture focuses on turning existing knowledge into practice, enabling greater numbers of the poor to benefit from its research. The RIU aims to reinforce existing national or regional programmes, processes and other development initiatives in order to increase agricultural production, add value and create new products and services. (Mann Stevie)

Educating those of Sierra Leone with innovative ideas will benefit greatly. With new agricultural practices, and the education of ecological resilience, the agricultural development will shorten the time Sierra Leone has to wait to overcome its poverty. This will also give chance to the poor that inhabit rural Sierra Leone. Education will also help with Sierra Leone's infrastructure; it will give chances to young men and women to continue the disrupted agricultural research.

With 2.8 million Sierra Leoneans living in poverty due to the country's civil war, there is nowhere to turn but to their own country for a solution. Recovering from a decade of war, Sierra Leone holds much potential when it comes to agricultural development; with it's fertile soil and long rainy season. Even with potential it is still the second poorest country in the world. Even so, Sierra Leone is able to pull itself out of poverty; however, this will come within time. Sierra Leone is looking at a great deal of improvement, it is also looking at a few problems as well. With climate change attacking small African farms, Sierra Leone is left to be one of the countries vulnerable. This is not the end for the country's agricultural development. This arises opportunity for those of whom have innovative ideas. Changing the way the farmers grow their crops can be beneficial to combating against climate change. Dry farming and switching to organic fertilizing techniques will contribute with Sierra Leone's ecological resilience. Sierra Leone is receiving help, so their problems are not being overlooked. With all these programs and initiatives going about, Sierra Leone will rise from it's poverty and once again become a prosperous beautiful country.

## Works Cited

"Sierra Leone." *Encyclopaedia Britannica. Encyclopaedia Britannica Online*. Encyclopedia Britannica, 2011. Web. 27 Sep. 2011. <a href="http://www.britanica.com/EBchecked/topic/543356/Sierra-Leone">http://www.britanica.com/EBchecked/topic/543356/Sierra-Leone></a>

"Activity Report on Chlorination of Traditional Wells-Nationwide." *Environmental Health Division Water and Sanitation Unit Ministry of Health and Sanitation.* June - July 2007. <a href="http://www.health.sl/drwebsite/publish/page\_312shtml">http://www.health.sl/drwebsite/publish/page\_312shtml</a>>

"Rural Poverty in Sierra Leone." *Ruralpovertyportal.org*." International Fund for Agricultural Development. Web. 27 Sept. 2011
<a href="http://www.ruralpovertyportal.org/web/gues/country/home/tags/sierra%20leone">http://www.ruralpovertyportal.org/web/gues/country/home/tags/sierra%20leone>

Sibanda, Lindiwe M. "Agriculture in a Changing Climate." *New-ag.info*. Jan. 2011. Web. 27 Sept. 2011. <a href="http://www.new-ag.info/en/pov/views.php?a=1851">http://www.new-ag.info/en/pov/views.php?a=1851</a>

"Sierra Leone - Infrastructure, Power, and Communications" *Nationsencyclopedia.com*. Web. 27 Sept. 2011. <a href="http://www.nationsencyclopedia.com/economies/Africa/Sierra-Leone-INFRASTRUCTURE-POWER-AND-COMMUNICATIONS.html">http://www.nationsencyclopedia.com/economies/Africa/Sierra-Leone-INFRASTRUCTURE-POWER-AND-COMMUNICATIONS.html</a>