

Jackson Sloan
Upper Arlington High School
Upper Arlington, OH
Zimbabwe, Factor 2: Water Scarcity

Zimbabwe: Solving the Water Crisis

The Famine Early Warning System Network, FEWS NET, identifies Zimbabwe as a stressed country on the verge of a food crisis. The Network acknowledges Zimbabwe's situation would be even worse without the current humanitarian assistance they receive ("Famine Early Warning Systems Network"). Zimbabwe suffers from droughts and unemployment that have become all too synonymous with African famine ("New Year, Same Old Problems").

Zimbabwe is located in southern Africa between South Africa and Zambia. Within its 390,757 square kilometers of area, this landlocked country has a tropical climate that is moderated by altitude ("The World Factbook"). The winter season is from May to August, and the summer season goes from November to March. The country usually has its rainy season during the summer ("CultureGrams Online Edition"), although the current droughts are making this rainfall very scarce ("New Year, Same Old Problems"). The population in Zimbabwe is above fourteen million people, and it is growing at a rate of 2.21%, about 2.5 times faster than the U.S. population growth ("The World Factbook").

In rural areas of Zimbabwe, the typical family unit is composed of a husband, his wife, their children, and members of the extended family, all of which are living under the same roof ("Countries and their Cultures"). The total literacy rate in Zimbabwe is 86.5% and the school life expectancy for boys and girls is about 11 years ("The World Factbook"). Afterwards, a child in rural Zimbabwe can go on to study at a higher education. Most rural families tend to be proud of children going into higher education, but this rarely happens ("Countries and their Cultures").

The most common meals eaten in Zimbabwe are typically products of corn, soybeans, and rice ("Zimbabwe: Agriculture Data"). Of all the meals served in Zimbabwe, sadza, a stiff porridge made from white maize, is the staple food served at most meals ("CultureGrams Online Edition"). The typical food and/or waterborne diseases in Zimbabwe are bacterial and protozoal diarrhea, hepatitis A, and typhoid fever ("The World Factbook"). Rural areas often lack plumbing ("CultureGrams Online Edition"). Only 30.8% of the rural population has access to an improved sanitation facility. The doctor density in the country is incredibly low, about 0.08 physicians for every thousand people ("The World Factbook"). Even if a family finds a clinic, it is usually understaffed and/or poorly supplied. The people of Zimbabwe often turn to traditional healers for illnesses like HIV/AIDS (Zimbabwe has one of the world's highest rates of HIV/AIDS infection) ("CultureGrams Online Edition").

42.5% of Zimbabwe's land is agricultural. However, since 31.3% is used as permanent pasture, only 10.9% of that land is arable. Of its over 386 thousand square kilometers of land, the amount of land irrigated in Zimbabwe is only 1,735 square kilometers (less than 1% of their agricultural land). The remaining 0.3% of that agricultural land holds permanent crops. The usual crops grown in Zimbabwe are tobacco, corn, cotton, wheat, coffee, and sugarcane ("The World Factbook"). In Zimbabwe, there are four major farming sectors: large-scale and small-scale commercial, along with communal and resettlement. Large-scale commercial farms are owned mainly by white farmers, and more than half of them (55%) are located in high potential areas. Small-scale commercial farms occupy the smallest land area. The communal and resettlement farming sector has the highest human population density, but most of these sectors' land (74%) resides on infertile soils with low rainfall ("Gambiza, Nyama"). The usual technique used for farming in Zimbabwe is broadcast seasoning; this is where farmers toss seeds and fertilizer at

random throughout a field (“Ernst Conservation Seeds”). However, this method can result in low, uneven plant densities (“Quitkin, 275”).

For farming, each family member must work to support the family. While men do most of the work to secure a family’s financial support and food supply, women and children of a typical rural family also have plenty work to do with agriculture. Women, despite having plenty of work as caretakers of their household, might also have to work the fields, at the expense of their schedule. These women spend plenty amounts of time on post-planting weeding (“Quitkin, 275”). Children, at the expense of their education, also may be required to work in the fields, or sell their family’s crops on the streets (“CultureGrams Online Edition”).

Sixty-six percent of the labor force in Zimbabwe is employed in agriculture, but only 20.1% of Zimbabwe’s gross domestic product is earned by agriculture (“The World Factbook”). The irrigated land is prone to be attacked by recurrent droughts, resulting in a series of poor harvests that can heavily affect the rural population (“World Food Programme”). The rural areas of Zimbabwe contain more than 67% of the country’s population (“CultureGrams Online Edition”). The amount of population below the poverty line is over 72% (“The World Factbook”). Nearly three-quarters of the rural population lives on 1.25 US dollars a day (“10 Facts about Hunger”).

In the 2014 Human Development Index, Zimbabwe is listed under the category of low human development at rank #156 (“2014 Human Development Report”). Reasons for this low rank include the country’s low gross domestic product (GDP) and the amount of population living on degraded land. Zimbabwe’s GDP is low. There are also more people living on environmentally degraded land than other countries. 29.4% of Zimbabwe’s population lives on degraded land, while the top ten developed human countries have less than 10% percent of their people on inferior land (“Malik”).

Zimbabwe also has highly volatile food prices that can increase more than 30 to 40 percent each season. This price instability restricts households’ ability to access adequate food year round (“10 Facts about Hunger in Zimbabwe”). Even buying new fertilizer to grow the crops in the first place is a challenge to rural farmers because of the high costs (“World Food Programme”). With its poor crop output, the people of Zimbabwe are subject to a lack of adequate nutrition, especially for the youth culture. This causes stunted growth for many children under the age of 5, and thousands of children to lack a supply of healthy red blood cells (anemia) (“10 Facts about Hunger”).

One important factor to Zimbabwe’s problems is its current water scarcity. Without its rainy season, the crop yields in Zimbabwe tend to be very low. A series of recurrent droughts is one of the main reasons why in recent years Zimbabwe has been unable to grow sufficient crops; this has caused an increase in dried-up irrigated land (“World Food Programme”). It has gotten to the point where rural families in Zimbabwe cannot produce enough food to provide themselves with adequate nutrition or even money, forcing them into poverty and hunger.

The status of this water scarcity is very severe in Zimbabwe, especially in 2016. All throughout southern Africa, rains have been between 10 to 50 days late and below average. Most of Zimbabwe has experienced less than 60% of average rainfall this season. If this trend remains the same in the future, Zimbabwe is going to have one of the driest growing seasons ever. The more degraded the environment becomes, the less likely Zimbabwe will be able to grow successful crops. This means the people of Zimbabwe will have to spend more time trying to make successful crops. This is to the disadvantage of the women and children of rural lands since it forces them to help grow food, taking them away from their household duties or education.

The trends for this scarcity in Zimbabwe are worsening. This can be seen mainly in the amount of area cropped this year. The Famine Early Warning Systems Network reports that a late start of the rains and prolonged dryness in the country has led to cropped area being low in comparison to previous years. It is reported that the maize cropped area is currently less than a third of the area cropped during the same time last year (“Famine Early Warning Systems Network”). This indicates that the situation is changing from bad to worse. Water scarcity is likely to get even worse since the forecast of an extreme El Niño is expected to cause more droughts in Zimbabwe this year (“New Year, Same Old Problems”). The plight of a typical rural farm family in Zimbabwe is going to be worse in 2016 because these families rely heavily on rainwater to grow their crops.

If the droughts in Zimbabwe were mitigated by other sources of water, or better water conservation was made possible, this could relieve the country’s population from its recurrent food shortages or at least protect them from it. More specifically, it would allow the country to grow much more crops out of the little farming land they have available to them. Additionally, with an increase in water, more land could potentially become farmable. This would give even more people the chance to grow crops.

If more people in Zimbabwe are able to grow more crops, more people will be able to sell their crops on the market for money. This money would assist the problem of Zimbabwe’s poverty rate. Families can achieve more income for themselves. With this money, they could improve their quality of life and be happier. It would allow women to focus on jobs other than farming, like raising their children, caring for other family members, or working in a different industry. Children will be able to have more time in school and, with this education, could allow them to be more productive in life. All of these improvements to the quality of life could be achieved with a more stable water supply in Zimbabwe.

Climate change is one of the main reasons why Zimbabwe is suffering from water scarcity. Zimbabwe is a landlocked country that is prone to land degradation (“The World Factbook”); it is a dry country plagued by recurrent droughts. The extreme El Niño this year is likely to keep those droughts in place (“New Year, Same Old Problems”). If this forecast holds true, most of Zimbabwe’s water supply from its rainy season will not be renewed, furthering the crisis of water for crops and people.

Population growth is also a factor to Zimbabwe’s water scarcity. The population in Zimbabwe is growing at a rate of 2.21% (“The World Factbook”). Since more people in Zimbabwe will be in need of a sanitary water supply and food, it increases the problem of water scarcity in the country. This growth in population can severely reduce the amount of water for a rural family in Zimbabwe, impacting their crops and their lives. Zimbabwe’s water scarcity is also impacted by the country’s sanitation and urbanization. In terms of diseases, the risk of getting infected with a waterborne disease in Zimbabwe is very high. Only 36.8% of the population has access to a functioning sanitation facility (“The World Factbook”). Without proper sanitation, the water can become infected. This can result in catching a water contact disease such as schistosomiasis, a parasitic disease carried by snails that is known to cause anemia (“Global Network”). Another typical waterborne disease in Zimbabwe is Hepatitis A (“The World Factbook”), a liver infection that can spread very easily (“World Health Organization”). This is even worse in areas of growing urbanization. 32.4% of Zimbabwe’s population is urban and it is growing at an annual rate of 2.3% (“The World Factbook”). Because urbanization involves squeezing many people into a tight city without adequate sanitation systems, it is likely that some people in these urban areas will spread disease among the water supply, making it unsanitary for others to drink. Aside from the quality of water, urbanization also increases problems with the demand for water. As more people crowd into these urban areas, they will be needing clean water, resulting in more and more water from underground sources to be extracted (“Three Factors Driving Water Scarcity”). These increasing demands drain Zimbabwe’s water supply. Untreated wastewater also leaves what’s left behind as an unsanitary source for anyone willing to drink it or try to grow crops with it.

There are many ways people can help fix this problem in Zimbabwe. Zimbabwe can manage and upgrade their agricultural structures to increase food production. This includes upgrading their irrigation systems, the method of transporting water to crops to maximize the amount of crops produced. Many irrigation systems do not use water to their full advantage. By upgrading and maintaining irrigation systems, such as using groundwater irrigation, it is possible these irrigated areas can be expanded to increase the amount of crops produced. Water can also be managed through the use of weirs (dams built across a stream or river used to raise the level of water in a given area or change the direction of its flow towards a cropping-area) and sand dams (a low-cost cement wall built across a seasonal sandy river that retains rainwater and recharges groundwater ("Sand Dams)). These two rain catchment systems can provide much needed water to areas like Zimbabwe, where rain is inconsistent ("Sentlinger").

To get these innovations into Zimbabwe, the rural community will need the help from many sources including charities. The Water Project, a non-profit charity based out of New Hampshire, is addressing the water scarcity issue successfully in other areas such as Kenya, Uganda, and Sierra Leone. All of these countries are also located in Africa, and they have experienced the same water scarcity issues as Zimbabwe. In these countries, the Water Project has helped to build wells at schools, churches, and community centers. Once water is found, the team from The Water Project trains the local community on how to use their new resources. The Water Project works closely with local in-country teams and partners like Living Water International, Bridge Water Project, and the African Sand Dam Foundation to develop water programs that last ("The Water Project"). If we get at least one of these groups interested, Zimbabwe can be strongly assisted in gaining enough water to grow more sustainable crops and have better drinking water for their community.

The rural farmers of Zimbabwe can also help prevent water scarcity by improving their ways of agriculture. One of the better agricultural practices is crop rotation, where different crops are grown in the same area in a rotating system ("Mondal") modified each year ("Rodale's Organic Life"). This method is well-known to help replenish soil ("Mondal"). If rural Zimbabwe is able to change its ways in terms of agricultural practices, along with use these new practices on the new technologies from charities, it will likely replenish the country's land, making it able for water to pass more freely through the fields for healthy crops.

The government of Zimbabwe could also decrease water scarcity and other problems causing it by focusing more money on the problem. In 2014, just 16.6% of the Zimbabwe's GDP was spent by the government on expenditures for purchasing goods, services, national defense, and security ("The Global Economy"). This government spending is less than the 21% that the United States spent that year ("The World Factbook"). Plus, gross domestic product is much smaller in Zimbabwe than it was 10 years ago (21%) ("The Global Economy"). This lack of spending may change because President Robert Mugabe has declared a state of disaster in many rural areas of Zimbabwe, due to the recent intense droughts ("Zimbabwe Declares State of Disaster"). If the government is going to get involved with this crisis in rural Zimbabwe, it is going to have to invest more money on irrigation systems to avert future food shortages ("Zimbabwe Appeals for Funding"). Also, the President and the government could allow more funds to be put into new and improved sanitation systems that could help Zimbabwe reuse more of its wastewater.

What the rural population can do for the water scarcity is push the government to consider spending money on these sanitation systems and technologies used to collect water. Whether it is through a petition or just speaking out about specific problems in these areas, the rural people must get their government's interest so they will take action and spend money on resources to help decrease the scarcity. Once they have these resources, the rural population of Zimbabwe must use them wisely to make it work. This is where the knowledge and training from non-profit organizations will be very helpful. Together, they must make plans and backup plans on how to improve the water supply to protect themselves and their food

supply against the droughts. They must also learn to use the new and improved resources properly, or else, conditions in Zimbabwe will never improve.

Once Zimbabwe grows more crops and is able to sell the surplus, the people will need to find a way to safeguard and save their money. In 2014, The United Nations' World Food Programme provided mobile money (via the 92% of cell phone coverage in the country) to several areas of Zimbabwe. Each month, these districts would get an SMS text message via their phones and SIM cards, indicating that each person had \$4 in their electronic wallet. People could then go to the nearest EcoCash (a Zimbabwe mobile payment system) agent to convert this to actual cash payments. The farmers who did this found themselves able to pay for useful items for their fields like grains to make more food ("Mobile Money Food Assistance Program"). If the United Nations could expand this local project onto other rural areas in the country (give more rural farmers cell phones, and plant EcoCash businesses in these areas), the organization could be able to positively impact the lives of the rural population, in terms of growing more crops and saving more money.

The government can also provide funds to charities like "The Water Project" to assist the building of technology able to improve the water supply in Zimbabwe. If the government participates with these charities, then the charities could do more to assist the rural population of Zimbabwe on projects such as planning and building sand dams and weirs. This will decrease the risk of water scarcity for Zimbabwe's rural population because the new technology can provide water during droughts. The partnership between the government and charities will also certify that the new water systems are used properly to secure the water supply. The government can even set national restrictions or guidelines on how to use these resources properly.

For-profit corporations can also pitch in to help increase Zimbabwe's water supply. John Deere could donate earthmoving equipment to help build the earthen dams, and oil companies, like Exxon, could provide the tools to dig deep water wells. However, the best long-term solutions really happen when companies teach the local people how to maintain these systems on their own. Caroline Fiennes explains, "While the first iteration of corporate social responsibility (i.e. charity) was often built around handing out donations to local schools and community groups, most companies recognize today that they can be far more effective by using their key skills and non-financial resources to leverage change ("Corporate Giving")." By providing the equipment and teaching the local population how to use it, for-profit corporations can positively impact water scarcity in Zimbabwe.

Zimbabwe is a country where its rural people are plagued by a lack of crops. This is due, in large part, to water scarcity caused by the country's many recurrent droughts, along with other contributing factors ("World Food Programme"). The country has a very low amount of arable land ("CIA World Factbook"), and many of people live on degraded land in the rural areas ("Malik"). The population growth in Zimbabwe leads to more demand for crops that can not be grown with current farming techniques, and the lack of sanitation in the available water sources in many rural areas of Zimbabwe makes them unusable to grow crops. Even when these rural people are successful growing crops, the country has highly volatile food prices that prevent farmers from selling them ("10 Facts about Hunger"). This has led to much of the rural population living below the poverty line ("CIA World Factbook") and many people lacking adequate nutrition, especially the youth culture ("10 Facts about Hunger").

There are many ways the country's rural areas can get a larger water supply for growing crops. Zimbabwe could improve their sanitation systems or their agricultural practices. They could build new agricultural technology to preserve water (the country can enlist charities and for profit companies to help build them). To implement these ideas, the country must dedicate more resources to the problem. The rural population can persuade the national government to get involved in funding for charities, new technology, etc. Once the rural population has the tools they need to create and preserve water for crops, they must

plan ahead and consider what is the best way to use them, in terms of efficiency (the government, along with charities and for-profit organizations can help with giving suggestions). If Zimbabwe's droughts could be mitigated by more water supply, more crops will be able to be grown by people who currently do not have jobs.

In the end, solving water scarcity, and the food shortages and poverty it creates, will require a coordinated effort by the people of Zimbabwe, their government, charities, for-profit companies, and other organizations. Working as a team, these groups can help end water scarcity in Zimbabwe and raise the quality of life for everyone slowly, but efficiently.

Works Cited

- “Anticipated below Normal Seasonal Rains Will Constrain Food Access in the South.” *Famine Early Warning Systems Network*. United States Agency for International Development, n.d. Web. 25 Feb. 2016. <<http://www.fews.net/southern-africa/zimbabwe/food-security-outlook/october-2015>>.
- “Area Cropped for the 2015/16 Season Is Expected to Be below Average Due to Dry Conditions.” *Famine Early Warning Systems Network*. United States Agency for International Development, n.d. Web. 25 Feb. 2016. <<http://www.fews.net/southern-africa/zimbabwe>>.
- “Corporate Giving: Philanthropy without the Money.” *The Guardian*. Guardian News and Media, 2016. Web. 17 Feb. 2016. <<http://www.theguardian.com/sustainable-business/blog/corporate-giving-charity-philanthropy-without-money>>.
- “Crop Rotation.” *Rodale’s Organic Life*. Rodale, 2016. Web. 15 Feb. 2016. <<http://www.rodaleorganiclife.com/garden/key-keeping-rich-vegetable-patch>>.
- “Culture of Zimbabwe.” *Countries and their Cultures*. Advameg, 2016. Web. 25 Feb. 2016. <<http://www.everyculture.com/To-Z/Zimbabwe.html>>.
- “Current Programs Where You Can Help.” *The Water Project*. N.p., 2016. Web. 8 Feb. 2016. <<https://thewaterproject.org/programs>>.
- “First Time Mobile Money Food Assistance Program Reaching Zimbabweans in Need.” *Food for Peace: Voices from the Field*: 50-51. United States Agency for International Development. Web. 2 Mar. 2016. <<https://www.usaid.gov/sites/default/files/documents/1866/Food%20for%20Peace%20-%20Voices%20from%20the%20Field%20-%20online%20version%20rev.pdf>>.
- Gambiza, J., and C. Nyama. “Zimbabwe.” *Food and Agricultural Organization of the United Nations*. Food and Agricultural Organization of the United Nations, 2016. Web. 20 Jan. 2016. <<http://www.fao.org/ag/AGP/AGPC/doc/Counprof/zimbabwe/zimbab.htm>>.
- “Hepatitis A.” *World Health Organization*. World Health Organization, 2016. Web. 17 Feb. 2016. <<http://www.who.int/mediacentre/factsheets/fs328/en/>>.
- Malik, Khalid. “Sustaining Human Progress: Reducing Vulnerabilities and Building Resistance.” *Human Development Report 2014*: n. pag. *Human Development Reports*. Web. 13 Feb. 2016. <<http://hdr.undp.org/sites/default/files/hdr14-report-en-1.pdf>>.
- Mondal, Puja. “Land Degradation: Meaning, Causes and Prevention of Land Degradation.” *Your Article Library*. N.p., 2015. Web. 15 Feb. 2016. <<http://www.yourarticlelibrary.com/land-degradation-meaning-causes-and-prevention-of-land-degradation/12338/>>.
- “New Year, Same Old Problems for Zimbabwe.” *Country Watch*. CountryWatch, 2016. Web. 8 Jan. 2016. <<http://www.countrywatch.com/Intelligence/CountryWireStory?UID=6821115>>.
- “Partnership & Sustainability.” *The Water Project*. N.p., 2016. Web. 8 Feb. 2016. <<https://thewaterproject.org/partnership>>.

- Quitkin, Megan. "The Miracle of Mulch: Conservation Farming in Zimbabwe." *The Hungry Continent: African Agriculture and Food Insecurity*. N.p.: Howard G. Buffett Foundation, 2011. 275-77. Print.
- "Sand Dams." *The Water Project*. N.p., 2016. Web. 7 Feb. 2016. <<https://thewaterproject.org/sand-dams>>.
- "Schistosomiasis." *Global Network*. Sabin Vaccine Institute, 2015. Web. 3 Feb. 2016. <<http://www.globalnetwork.org/schistosomiasis>>.
- Sentlinger, Katherine. "Water Scarcity and Agriculture." *The Water Project*. N.p., 2016. Web. 7 Feb. 2016. <<https://thewaterproject.org/water-scarcity-and-agriculture>>.
- "Severe Drought in Southern Africa Expected to Drive Large Food Assistance Needs in 2016/17." *Famine Early Warning Systems Network*. United States Agency for International Development, 2016. Web. 26 Jan. 2016. <<http://www.fews.net/southern-africa/alert/january-22-2016>>.
- "10 Facts about Hunger in Zimbabwe." *World Food Programme*. World Food Programme, 2016. Web. 18 Jan. 2016. <<https://www.wfp.org/stories/10-facts-about-hunger-zimbabwe>>.
- "Three Factors Driving Water Scarcity throughout Much of the World." *Alternet*. N.p., n.d. Web. 3 Feb. 2016. <http://www.alternet.org/story/154530/three_factors_driving_water_scarcity_throughout_much_of_the_world>.
- "Tools & Seeding Methods." *Ernst Conservation Seeds*. Ernst Conservation Seeds, 2014. Web. 1 Mar. 2016. <<http://www.ernstseed.com/resources/planting-guide/tools-seeding-methods/>>.
- "2014 Human Development Report." *United Nations Development Programme*. United Nations Development Programme, 2016. Web. 17 Jan. 2016. <<http://www.undp.org/content/undp/en/home/presscenter/events/2014/july/HDR2014.html>>.
- "United States." *The World Factbook*. Central Intelligence Agency, 11 Feb. 2016. Web. 25 Feb. 2016. <<https://www.cia.gov/library/publications/the-world-factbook/geos/us.html>>.
- "Weir." *Dictionary.com*. N.p.: Dictionary.com, 2016. *Dictionary.com*. Web. 25 Feb. 2016. <<http://dictionary.reference.com/browse/weir>>.
- "Wells for Uganda." *The Water Project*. N.p., 2016. Web. 8 Feb. 2016. <https://thewaterproject.org/wells_for_uganda>.
- Wogan, J. B. "Can Cities and Rural Counties Come Together?" *Governing*. N.p., 2016. Web. 2 Mar. 2016. <<http://www.governing.com/topics/politics/gov-can-cities-and-rural-counties-collaborate.html>>.
- "Zimbabwe." *The World Factbook*. Central Intelligence Agency, 11 Feb. 2016. Web. 25 Feb. 2016. <<https://www.cia.gov/library/publications/the-world-factbook/geos/zi.html>>.
- "Zimbabwe." *World Food Programme*. World Food Programme, 2016. Web. 19 Jan. 2016. <<https://www.wfp.org/countries/zimbabwe/overview>>.

- “Zimbabwe: Agriculture Data.” *Country Watch*. CountryWatch, 2016. Web. 9 Jan. 2016.
<<http://www.countrywatch.com/Intelligence/CWTTopic?Type=data&CountryID=190&Disc=7&TableId=1>>.
- “Zimbabwe Appeals for Funding to Avert Food Shortages.” *Country Watch*. CountryWatch, 2016. Web. 10 Feb. 2016. <<http://countrywatch.com/Intelligence/CountryWireStory?UID=6826227>>.
- “Zimbabwe Declares State of Disaster over Food Shortage.” *Country Watch*. CountryWatch, 2016. Web. 10 Feb. 2016. <<http://countrywatch.com/Intelligence/CountryWireStory?UID=6825918>>.
- “Zimbabwe: Diet.” *CultureGrams Online Edition*. ProQuest, 2016. Web. 13 Jan. 2016.
<http://online.culturegrams.com.ref.ualibrary.org/world/world_country_sections.php?cid=180&cn=Zimbabwe&sname=Diet&snid=13>.
- “Zimbabwe: Family.” *CultureGrams Online Edition*. ProQuest, 2016. Web. 16 Jan. 2016.
<http://online.culturegrams.com.ref.ualibrary.org/world/world_country_sections.php?cid=180&cn=Zimbabwe&sname=Family&snid=11>.
- “Zimbabwe Government Spending, Percent of GDP.” *The Global Economy*. N.p., 2016. Web. 9 Feb. 2016. <http://www.theglobaleconomy.com/Zimbabwe/Government_size/>.
- “Zimbabwe: Health.” *CultureGrams Online Edition*. ProQuest, 2016. Web. 13 Jan. 2016.
<http://online.culturegrams.com.ref.ualibrary.org/world/world_country_sections.php?cid=180&cn=Zimbabwe&sname=Health&snid=22>.
- “Zimbabwe: Land and Climate.” *CultureGrams Online Edition*. ProQuest, 2016. Web. 13 Jan. 2016.
<http://online.culturegrams.com.ref.ualibrary.org/world/world_country_sections.php?cid=180&cn=Zimbabwe&sname=Land_and_Climate&snid=1>.
- “Zimbabwe: Population.” *CultureGrams Online Edition*. ProQuest, 2016. Web. 17 Jan. 2016.
<http://online.culturegrams.com.ref.ualibrary.org/world/world_country_sections.php?cid=180&cn=Zimbabwe&sname=Population&snid=3>.

