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Ukraine, Factor 9: Water and Sanitation

Ukraine: Water and Sanitation

The focus of this paper is the country of Ukraine and the issue that will be addressed is water and sanitation (Khmelko, 6). Since the Chernobyl incident Ukraine's water has been slightly irradiated (Khmelko, 3). Radiation has caused increases in the cases of thyroid cancer in children since the incident (Khmelko, 5). Also it does not help that due to Ukraine having a poorer economy causes a lack of funds for proper water filtration (Khmelko, 9). Another issue that doesn't help is that the president there has made bad choices for his people by giving money to Russia instead of European Union (Khmelko, 3). This made the already poor country even less wealthy (Khmelko, 6).

A usual family size for Ukrainian people is four people (USCR, 4). It is made up of 2 children as well as the mother and father (USCR, 6). Most people in the Ukraine are properly educated (USCR, 12). However, there is are a few people that didn't attend school due to being from low social economic status families (USCR, 4). Even though Ukraine is a poor country it's people have access to health care so they don't have to fend for themselves when it comes to medical issues (USCR, 10).

The diet of an average Ukrainian usually includes: kovbasa, sauerkraut, varnyky, holubtsi, studel, breaded meats, cheesecake, and tarts ("Food", par 2). All of these foods are taken from other countries("Food", par 3). Kovbasa and sauerkraut have Polish origins. Varnyky and holubtsi were originally imported from Turkey ("Food", par 3). The cheesecake and tarts were carried over from Austro-Hungarian times ("Food", par 2).

The average size of a Ukrainian farm is 22.6 hectares (Bogovin, 1). Some crops that are grown in the Ukraine include: wheat, corn, sunflowers, sugar beets, tobacco, legumes, fruits and vegetables(Bogovin, 3). These crops make up 57% of the whole agricultural output (Bogovin, 4). Thanks to Ukraine annually producing 35 - 55 million tons of wheat, and its entire cereal production reaches 90 - 100 million tons making the Ukraine the 4th largest producer of world grain export (Bogovin, 6). The animals Ukrainians farm are: sheep, pigs, cattle, horses, and chickens (Bogovin, 6).

The species bred in the Ukraine are Red Steppe, Simmental, Black Speckled, Brown Carpathians, White Head, Ukrainian, Lebedynskaia, Red Polish, Pinzgau, and Grey Ukrainian (Bogovin, 4). These species were not being specialized until the 1970's. Ruminant Livestock Production Systems The thing that helped create these specialized breeds is by breeding cattle that were shipped to the Ukraine (Bogovin, 4). Due to the demand of food by the Russians over 330 Ukrainian farms have been raising 150,000 cattle (Bogovin, 4). To make sure they get the high grade beef they require they use specially bred embryos to get the cattle they want (Bogovin, 4).

The Ukraine's form of farming is very similar to the U.S.'s form of farming ("Agricultural", par 2). Simply by using pesticides and special fertilizers they bring out the maximum profit for their crops and rich soil ("Agricultural", par 4). Their soil known as Chernozem has failed to stay less harmed by the chemicals the Ukrainians use ("Agricultural", par 7). Another that helps out the Ukrainians is their diverse climate zone farming technics because they have a large variation of soil throughout their country ("Agricultural", par 3).

The fertility of the soil in the Ukraine fertilization and cultivation plans are easy to make ("Agricultural", par 2). Due to the large amount of fertile of soil Ukrainian farms can reach up to 10,000 hectares

("Agricultural", par 8). However, Ukrainian farmers lack the newest equipment and knowledge of sustainable farming practices ("Agricultural", par 8). To make a sufficient profit in Ukraine a farmer must export at least 3000 to 5000 metric tons ("Agricultural", par 8). Another issue that all farmers have in Ukraine is that they must have access to proper storage ("Agricultural", par 2).

As stated before Ukrainians do not have knowledge on the newest way to farm for profit and they do not have the newest equipment ("Agricultural", par 7). These problems hold back their ability to improve agricultural productivity ("Agricultural", par 7). If they do not improve they will fall behind like the Ethiopians who are still using plows to grow their crops. Also they are not using pesticides properly like we do in the U.S. ("Agricultural", par 3). In fact, the pesticides in use are so toxic that they drain nutrients from the rich Ukrainian soil ("Agricultural", par 7). A good way of preventing the spread of these pesticides and fertilizers through their water ways is to do what we do here in Iowa when it comes to conservation. This would mean planting a buffer strip between their fields and their water sources to prevent further contamination and help filter the water.

According to my interview with Ed Brinkman, an employee of Sukup Manufacturing, who went to Ukraine this year to set up an assembly line he got to know the Ukrainian people a little better. While he was talking to people about what a good job paid. The response was that Ukrainians who are highly paid is around \$18.00/hour. The other lower paying jobs would only get a Ukrainian around \$7.00 to \$8.00 an hour which is around our current minimum wage in the U.S. Most Ukrainians often get by with this relatively low wage bracket, but there is always that unfortunate few who do worse than the factory workers who Mr. Brinkman was able to talk to.

Ukrainians lack of income is also a result of their past Prime minister failing to bring in more economic growth to the Ukraine. His dealings with Russia have also not helped their economic growth currently in the Ukraine, but also they are locked in battle for Crimea. If this issue continues for the country it may be taken over by Russia. Ukraine is out resourced comparatively and are an easy target for Russia to take over. This would bring misfortune and terror to a country who has worked hard to gain independence and make some economic improvements to their agriculture economy.

Accessing food markets is not a major issue throughout Ukraine. Ukraine is a massive country that has a large amount of fertile soil that gave it the nickname the "Iowa of the Soviet Union". However due to lack of economic growth. Most agricultural workers are unable to feed their families unless they get a factory job like the Ukrainians that helped Ed Brinkman set up the assembly line for Sukup Manufacturing. Only time will truly tell if the Ukrainians can sort out this issue peacefully with the Russians, and get back to how things were going before these troubles.

Water sanitation affects agricultural productivity greatly. Seeing as how the current water is slightly irradiated due to the Chernobyl incident it does not affect fields, but more along the lines of the soil and fertile land outside of Chernobyl. The Chernobyl incident lead to a loss of land of about 20%. Also the radiation spread to soil, fish, water, and other forms of food leading to a large amount of radioactive exposure. Thanks to that exposure it is more common for children in the Ukraine to be diagnosed with thyroid cancer.

Water sanitation affects a typical family greatly. Thanks to the Ukraine's failing plumbing system their pipes have not been changed since the 1980's toxins and parasites can easily get into a family's water supply (Hubbs, par 3). This is just another issue that has been brought on by lack of money from the Ukrainian government. At this current moment in time the pipes are gradually deteriorating because no pipe lines can last forever. If they are not fixed more and more toxins and other bacterias can easily find a way into their water supply (Hubbs, par 3).

These conditions are worsening because as pipes deteriorate the constant threat of water contamination continues to be apparent (Hubbs, par 4). This constant decline of condition will cause severe problems down the road. These problems would include bacteria and water born virus outbreaks. The Ukrainians must figure out a cost efficient and quick way to get better filtered water to their people so they have less health costs to worry about.

Improving this factor would greatly improve Ukrainian life. They can drink their water safely without the fear of disease or infections. This would help create permanent water filtration jobs so they can ensure 100% clean water so they can not only boost their economy with more better paying jobs, but also help out their citizens livelihood. With better filtration the Ukrainian government can concentrate more on other issues such as the Russian occupation of Crimea or rebuilding the economy. The latest issue is that pro - Russian Ukrainians shot down a plane that had many people on it. This is continuing to deteriorate the relations that the Ukraine has with other nations. Ukraine needs to work more closely in forming tighter bonds with the U.N. so the country can prosper and get over this tragic accident. Ukraine has more large problems to solve like water availability and sustainability that are continually overshadowed by these large new stories.

General pollution is another factor that affects water quality greatly. Thanks to Ukrainian farmers using highly toxic pesticides to protect their fields it quickly spreads into the water supply ("Agricultural", par 7). Any form of run off from fields can severely contaminate the water and the failing filtration and water supply systems the toxins will have no issues spreading (Hubbs, par 4). Unless Ukraine sets up a better system toxins will quickly spread through their water supply.

To help out Ukrainian government should fund a way to replace all of the failing pipes. These deteriorating pipes should be replaced to help stop toxins and other chemical hazards from getting in their water supply. If the government fails to do it the pipes will continue to degrade spreading toxins and other factors through the water killing off a significant amount of their people if they do not seek medical attention. Hopefully the Ukrainian government sees these issues are major problems that need urgent attention. A great way to start this project is to raise public awareness and begin exercising small taxes to the citizens to get enough money to start this project.

Due to the country not making a lot of money at first the Ukrainians may not enjoy being taxed by their government, but after seeing their children get clean water they will hopefully change their tune. Also if the Ukrainian government were to ask for assistance from the U.S., or one of its other allies would be sure to assist them. A major obstacle that could appear would be a war with Russia. Since they thought it would be a good idea to try and take over Crimea which they had given to the Ukraine in the late 1800's they could set their sights on the rest of the Ukraine if the issue enlarges.

An example of a project that has had success is The Sosnivka Youth Soup Kitchen Water Filter Project a special program seeking to stop the issues of water pollution the Ukraine (Eco-Mercy, par 1). Also the group set up shop there because the coal mine in town has released highly toxic chemicals into the water (Eco-Mercy, par 1). In fact some children in that area have a pre - mature bone disease that is caused by the chemicals released by the coal mine (Eco-Mercy, par 1). They usually give out warm meals to the people who desperately need it, however due to lack of filtered water sources they have to use the contaminated water sources (Eco-Mercy, par 2). The purpose of this program is to buy a special water filter so the town can have proper drinking water as well as purchase a water tester to show people how toxic the water is currently (Eco-Mercy, par 5).

Radiation can be removed from the water reverse osmosis. It is able to remove 99% of all radioactive materials. It also manages to remove microbial contaminants throughout the waterway. It also able to be

automated. Also is great for compact systems so families can completely remove all radioactive materials with no concerns about radiation.

Communities could be volunteering to assist in this program to help the people of their town. Another thing community members can do is help out this cause by donating. The national government should start these programs should start these types of programs in every town and city around the Ukraine to help with the water quality issue. Also while they are working on that they can also swap out the old pipes they have with newer pipes that will last longer. The organization could spread the word about their cause and how people should try to set up their own organizations to get cleaner water.

The typical family can get involved simply by volunteering to help out these organizations. Also they can help spread the word by setting up flyers to see how they successfully helped this one town raise enough money to stop the spread of these chemicals. Also they can try to convince their city council's to consider the program to help their future generations. These council members would whole heartedly agree because it could help their town or city have healthier generations.

To conclude this paper the Ukrainian government must help their people to help combat the pollutants and slight radiation in the water. Ukraine should try to swap out their pipes that they still have from the Soviet Union days (Hubbs, par 5). These pipes are gradually deteriorating, and are not stopping the toxins caused by Ukraine's potent pesticides. The leader's of the Ukraine should swap out these pipes on the fact alone that they will help have healthier future generations who will have less diseases and health problems. Also they could add better filtration systems as seen in the Sosnivka Youth Soup Kitchen Water Filter Project. The Sosnivka Youth Soup Kitchen Water Filter Project is proof that if the Ukrainians work hard enough they can help their future generations have a better life in their country.

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