Student Name High School City, State Country of Focus Factor # - Factor Title

Afghanistan's Innocent Poverty

Citizens of the United States take for granted how easy our lives are. When the average American child wakes up in the morning, he can grab a glass of milk from the refrigerator or an apple from the counter. Food and water is so easily accessible in the United States, that considering otherwise is unthinkable. At lunch, the student is served a balanced meal, although the majority of students will complain about the food not being filling enough or the taste not meeting their preferences. There are vending machines placed around the school with foods students and teachers can snack on throughout the day. Students in the U.S. have seemingly effortless access to food. However, this is not the case for all countries. In Afghanistan and many other countries, there is not simple access to food or water, the main source of transportation is walking, education is hard to access, medication is rare, and women are limited to what they can wear and where they can go. All of these issues are because of two factors: terrorism and the members of other tribes in Afghanistan.

Landlocked in South Asia, north of the equator, east of Iran, north of Pakistan, six times the size of Virginia, with the capital of Kabul, lies the Islamic Republic of Afghanistan ("Afghanistan" Funk). This country is arid with bitter winters and muggy, dry summers. There are seasonal variations due to the extremes in altitude. Temperature can vary from one hundred-twenty degrees Fahrenheit in mid-summer to negative nine degrees Fahrenheit in the dead of winter ("Afghanistan" Funk). The majority of this country is mountainous terrain. The few parts of the lowlands consist of river valleys that typically flood during the spring and desert regions which bring insane sandstorms (Pearson). Most of the land is rural, however, there are some large cities, including the capital.

People depend on family in Afghan culture. The country is 251,827 square miles, with a population of 34,894,000 people. There is an average of about one-hundred-thirty people per square mile ("Afghanistan" Funk). Afghans tend to live in a village or with their tribe. An Afghanistan tribe is not what people think of when thinking of a tribe in today's time. It is basically the town they live in, not the same as Native American tribe with teepees and a tribe leader. Though Afghans are loyal to their tribe, family trumps everything. Family matters are private. If they share information with non-family members, it could bring shame to the family if others know their struggles ("Afghan"). With this, the average household is fairly large. "Afghan households are usually patrilocal (females move into their husband's home at marriage). In extended family households, three or four generations may live together" ("Afghan"). Marriage is a key component of life in Afghanistan. Feelings and emotions are not commonly considered when looking for a wife or husband. Parents arrange marriages for their children. The relationships are endogamous, meaning parallel and cross-cousin marriages are preferred. The daughters are "sold off" and traded for sheep or money. This happens at the ages of fifteen or sixteen years old. Therefore, they daughters will move away to live with their spouse's family and the son's wives will

move into their home. Afghan men are allowed to have more than one wife, as long as they treat them all fairly and do not show favoritism.

Though men are usually responsible for a family's income, each person in the household has a role. Women take care of the children, cook, clean, weave and sew, and tend the garden. Men look after animals, plow, harvest, thresh, and winnow the crops. Boys' right of passage is seven. They learn duties of hospitality and look after livestock. Girls help their mothers as soon as they learn to walk. All children are raised to respect their elders and do what they are told without hesitation. Gender roles are not only abided by in the house. Women may not leave the house without a man with them and without being completely covered with only the eyes, hands, and feet showing. Women are also expected to obey men and be modest ("Afghanistan" Countries).

Education is limited to children and typically only goes up to grade eight. "Only 28.1% of the entire population over the age of fifteen is literate" ("Poverty"). In rural areas, most children learn "from the village mosque and mullah or their parents" ("Afghan"). A mosque is where Muslims worship and a mullah holds the sacred laws of Muslims. They are only taught about their religion. Woman are rarely allowed to learn anything at all. If they are fortunate, their husbands will teach them everything they know. Therefore, the majority of Afghans cannot read, write, or do basic math.

Though there are tough growing conditions in some parts of the country, agriculture is Afghanistan's backbone. It is the main source of food and income. "In peacetime, the country usually produces enough food for its own needs and surplus for export" ("Afghanistan" Funk). They mainly grow crops such as wheat, corn, rice, barley, garden vegetables like okra, various fruits such as pomegranate, and nuts (Wasil, N). They also grow industrial crops such as castor beans, tobacco, cotton, and sugar beets. Sheep are raised for their meat and wool. There are also many camels, horses, donkey, cattle, goats, and poultry. Opium recently became the country's largest export. Opium is a red/brown addictive drug that is produced from the opium poppy, which is grown in Afghanistan.

Afghanistan is believed to be one of the poorest, least developed countries in the world. However, the reason for hunger in Afghanistan is not a common issue in other developing countries. The problem is not that they do not have enough money, or they do not have enough land to farm, or the climate prevents farming, or that the soil is poor. There are no climate or soil issues restraining Afghanistan from farming. Though they try their best, food scarcity is due to food supplies and food sources being destroyed or denied access.

Around the time of the 1970s, Russia invaded Afghanistan. The Russians wanted land all the way to the Indian Ocean. America helped Afghanistan fight them off. During this wartime is when most of Afghanistan's agricultural economy was destroyed ("Afghanistan" Funk). When they left, the Afghans who fought the Russians became a terrorist group who are known as the Taliban. The Taliban is mostly Afghans, but also have insurgents. Insurgents are foreign fighters from other countries (Wasil, N). If young boys or men are not sent to join the Taliban for financial reasons, most are forced by the Taliban to join. There are factors affecting farming aside from conflict, but conflict is the major influence.

The Taliban controls what Afghans do. The Taliban want all Afghans to be strictly Muslim. The Taliban follows the Sharia Law, also known as "Sharia" or "Islamic Law". These laws are based on the Quran, the Islamic sacred book, and words of Muhammad, which are linked. If it is discovered that they do not convert to being Muslim or they secretly practice other religions, they will be killed without hesitation (Wasil, N). The Sharia Law also has other death penalties such as criticizing or denying any part of the Quran, Muhammad, or Allah, encouraging others to convert, marrying someone non-Muslim, or a woman being found guilty of adultery. There are also many rules abolishing woman-rights. These consist of a woman being unable to speak alone to a man who is not her husband or relative or having the ability to testify in court against their rapist. Muslim men have sexual rights to any girl or woman not wearing a Hijab (headcover), and a man can beat his wife for insubordination, which is refusing to obey male orders. After Saudi Arabia and next to West Bank and Gaza, the Sharia Law is used in Afghanistan more than any other country ("Sharia").

Besides the Sharia Law, the Taliban forces Afghans to do other things, such as growing opium. Afghanistan has miles of opium fields. As said before, this is their largest cash crop. The opium poppy is a flower that has what looks like a ball in the center. This ball holds a liquid to make heroine, an addictive drug. They sell the liquid by draining it from the flower, which holds the ingredient for heroine (Wasil,N). With this in mind, crops are clearly capable of growing here. If the government tells a tribe to remove the opium fields and replace them with a nourishing food, they will. However, the Taliban will come and force them to exterminate the crops and begin growing opium for the money which comes from these flowers (Wasil, N). They do have small family or tribe gardens, but they cannot grow in the winter and are eaten by animals or destroyed by outside forces. Small gardens are simply not producing enough food fast enough. If the Taliban is not controlling their crops personally, then there are other obstacles they face.

Afghanistan has terrorist attacks similar to other countries, including the United States. The Taliban, along with other smaller, yet dangerous terrorist groups, have suicide bomb attacks in Afghanistan. These attacks permanently destroy the little crop fields they have, infrastructure, the small schools and colleges they are fortunate to have, and villages. But that is not all. In Afghanistan, you defend your tribe. If someone dishonors the tribe or a person in the tribe, they will have a fatal fight and attack each other. The only way to get back your honor is to murder the person or people that dishonored them (Wasil, N). In addition, "one of the biggest threats they face now are landmines, left from either the Soviet invasion or the fight against the Taliban" (Glasse). Therefore, gardens and crops are not only being destroyed by terrorists, but by other tribes. They are hurting each other, which potentially could hurt all of the Afghans if no one can grow food because it is either being destroyed or overruled by opium poppy. These conflicts put Afghanistan in an ongoing state of famine. "Food insecurity is exacerbated by political instability, conflict, and recurring disasters." (2 Nov.)

Famine affects more than just hunger and death rate. Afghanistan has high infant and maternal mortality rates. Children are malnourished and stunted due to the lack of food. One-fifth of women of child-bearing age are extremely underweight ("Poverty"). About 60% of children under five are stunted and more than a third of children are underweight. "Even in a typical year, many poor households experience difficulty in accessing sufficient food and maintaining adequate dietary diversity" ("Famine"). As of 2015, more than

1.5 million Afghans were severely food insecure. Along with that, another 7.3 million people in Afghanistan are moderately food insecure ("10").

All of Afghanistan's problems happen outside. They cannot control what happens outdoors. If the problem is outside, fix it inside, or with better cover. Since Afghan households are typically small mud huts made of mud and straw, they are built in clusters (Wasil, N). There will be four or five houses connected. They have just about everything they need for a successful outdoor garden, all they need are a few things to move them inside. If Afghans move all of their plants inside, not only will they will be more convenient, it will be more accessible and safer. They will have enough food to grow year-round with three simple, accessible steps to one permanent solution.

The first step to this solution is deciding what to put these plants in. Almost any plant can be grown indoors. Afghans can move their okra indoors along with strawberries, blueberries, carrots, onions, beans, salad greens, and all of the other plants they attempt to grow outside. These plants are smaller but nourishing. The best part is they do not have to purchase a specific pot to grow their plants in. The idea is container gardening. The concept is plants can grow in almost any container. They can be pots, tubs, barrels, or any other deep bowl sitting around can be useful for their fruits and vegetables to grow in. The container must have enough room to grow roots and get nutrients to support the growth of the plant. It is costless. All they have to do is fill these containers with the soil from the ground outside or leftover soil from the gardens. Since they have soft soil, all they have to do is drill a couple small holes at the bottom of the container for excess water.

One drawback to the first step of this solution would be Afghans not knowing how to mend or take care of these plants. However, they have had successful gardens and know how to take care of them. The plants repeatedly get destroyed and there is nothing they can do to stop it. Afghans already know the amount of water and access to sunlight they need. They know exactly how to take care of them. Moving the plants inside should not result in extra cost.

The next step is finding somewhere to put these plants. Most of these mud houses have windows, but they do not have detailed structure. When growing plants inside, most people think about putting them near a window or on a windowsill. These mud houses do not have windowsills. Even if they did, it would not trap the sunlight enough for plant growth, especially during the winter. The second part of this solution is concave mirrors. Concave mirrors are mirrors curved inward in the middle. They are common in stores to have views from many different angles. These will be used to produce heat for the plants and allow Afghans to put them wherever they want, as long as a window is in that room. The best mirror would be one that is curved almost exactly like a crescent. This will give it the best angle to reflect the light and produce heat. All they have to do is mount it in the corner of the room, pointing opposite of where the plants are. The larger, the better. The mirror also has to be mounted in the right spot. Say the window is in the center of the room. If the mirror is mounted on the center wall opposite the window, it will do no use. The light will just be reflected back outside. With the window still being in the center of the room, now say the concave mirror is to the left of the window on the opposite wall, but half of the mirror is visible to the window. The light will be reflected to the right side of the room. Therefore, the plants can be on that

side of the room and get the heat from the sunlight. This part of the solution gives the plant the correct temperature.

Getting access to a concave mirror could potentially be difficult. However, Afghans could import them. The average concave mirror is sold for fifty U.S. dollars. With the cost of importing the mirror, paying for shipping, etc., it comes out to be about 7000 Afghanis. Though that is somewhat expensive, each collection of houses only has to purchase one. One mirror could last years without having to buy a new one. Not only that, but if Afghans move their crops inside, they will not have to buy food to import. This will cut down spending money on food since it will be so much closer. Also, a flat mirror could also substitute a curved mirror, it just would not be as beneficial due to how much light it could reflect. One issue is not knowing how much exposure to heat these plants need. On an average day, the sun is in the sky for about twelve hours a day because of Earth's rotation. At noon the sun is at the top of the sky then continues to rotate, therefore the mirror will only be capable of being used for about six hours a day. Therefore, the mirror will be reflecting light, which will produce more heat than regular exposure to the sun. This will be enough heat for the plant to grow.

The last step to this solution is the sunlight. Although the mirrors reflect the light, that is mostly for generating heat. Plants still need sunlight. They can get all of the nutrients they would normally get from sunlight from LED lights called grow lights. This is only assuming that the family does not have access to any window or heat. There are a variety of grow lights they can use. It really comes down to what is affordable and available for the family. The first light is an incandescent light. This is the typical, popular light that was invented by Thomas Edison. This is the least expensive bulb. These will burn out quicker than the others, though. The most efficient light is the fluorescent light. These lights use one-fourth of the energy, lasts ten times as long, and produce more light than incandescent. The only drawback to these is they do not produce enough heat alone for fruits. However, with the help of the mirrors, they would produce enough heat for all plants. The third bulb accessible is the high-intensity discharge (HID). These are normally used for larger growing spaces, so will not be likely to use in Afghanistan. However, for the more fortunate Afghans, this could be a possibility. They have many options with the same outcome: food (Nickleson).

Alone, LED lights can give the plant enough sunlight. It would be expensive to keep them running, but it would work. These plants need twelve to fourteen hours of sunlight in order to properly grow. Therefore, if Afghans were to just use the lights, they would need to keep them running for a minimum of twelve hours, but fourteen is recommended (Nickleson). But with the help of the mirrors, it could cut the time in half. If they use the mirrors for as long as the sunlight can be reflected and the LED lights when the sunlight is not available, they will have strong, healthy plants.

The other problem is affording these concave mirrors or LED lights. Although opium is used to make a drug, it is still sold effectively. Not only is it sold in the country, but opium is also Afghanistan's largest cash crop. It is the country's largest export. A family can purchase these with money made from other jobs and never have to buy another or they will last long enough for them to still be financially stable. The tribes will not have to continually pay to rebuild gardens or crops if they are inside. Not only could this

improve the famine but could potentially improve the economy as well. If they cannot buy them, they could also trade opium for these mirrors and lights.

Afghanistan is recovering economically from conflict but is improving with help from other countries (Wasil, N). United States troops are still stationed in Afghanistan. They are helping fight off terrorists and rebuild the country. They have been supporting Afghanistan and getting them what they need to survive. A way to educate Afghans to use this method is through our United Sates troops. According to Nigel Wasil, younger Afghans get along with the United States troops and like to help them because they realize all we are trying to do is help them fight the war. The older Afghans still do not like us because of past disagreements. However, if we teach the younger Afghans (early 20s) about this method, they can pass it on. The first thing we need to do is educate our troops then they can pass it onto more Afghans. Not only could we help fund these solutions, but there are also many other charities working and donating to Afghanistan. These charities consist of *Afghanistan Humanitarian Aid, Afghanistan – Save the Children, Afghan Connection,* and many more. (Wasil, N).

The average child in Afghanistan is limited to what they can eat, drink, and do. They do not have all the privileges and opportunities people in the United States have. However, with closer and better-protected access to food, they will not have fears. They will be able to wake up in the morning, pick a sweet pepper off of its stem, and do their chores. With the help of container gardening, concave mirrors, and LED lights, it could fix more than just famine and hunger. It will positively affect nutrition, maternity and child mortality rates, stunted children, and economically poor villages. Population will increase, malnutrition will dissipate, and immune systems will become stronger. This solution is less vulnerable and less visible. Terrorists and other outside forces will have a harder time destroying their food. Not only will their health improve, but their economy as well.

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