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Japan: Hunger in a Developed Country

According to the World Population Review, a developed country is defined as "a sovereign state that has a developed economy and technologically advanced infrastructure when compared to other countries" (World Population Review, 2020). After reading that definition, do most people think developed countries have hunger issues? What about Japan, one of the most developed countries in the world? At first glance, most people would think Japanese people do not have a problem with food insecurity. However, hunger in Japan is a threat that is here to stay unless progress is made in the areas of population migration, food waste, and becoming more self-sufficient.

Before diving into the major food insecurity issues, it is important to get a brief overview of agriculture and life in Japan. Japan is an island country that has a population of 126 million (CIA, 2020) and the main agricultural product is rice, which is mostly grown in their own country. Other important agricultural commodities grown in Japan are soybeans, wheat, barley, fruits and vegetables. Japan is one of the largest fish-eating countries in the world (Hays, 2020). The typical Japanese household is similar to the United States but the number of single-occupant households is growing, which are situations where students live away for a while during school or go away for temporary jobs, leaving their parents. It is still common to see households with three, four, even five generations all living together (Brown, 2020). When Japan is mentioned, it is easy to think it is all about big cities. That is not completely wrong, considering that Tokyo is one of the largest cities in the world with a population of nearly 14 million people (Small Island, Big Appetite: Seven Facts About Hunger in Japan, 2016). Rural Japan is still an important part of the economy and life of Japan. However, a large portion of Japan's population is migrating to these urban areas and the population of the rural areas is decreasing. In 1960, the percentage of the population living in rural Japan was 37% and today it is a mere 8% (Japan - Rural Population, 2019). This is a serious problem that affects people in rural areas and urban areas.

When looking at the rural Japan problem the major issues are a little complicated. After graduating from high school, many people leave their house to go to college and a large percentage of these people go to larger cities. This leaves people with a median age of 48 to do all of the family farming if that household owns land. There were 4.81 million commercial farmers in 1990 but over time there has been a decrease and in 2012, it was down to approximately 2.5 million. Along with all of this, the percentage of those who are 65 years and older has gone from 33.1 percent in 1990, to 60.3 percent in 2012. The migration has decreased Japan's workforce in rural areas and has put more of a burden on those who remain. In addition to this, when large numbers of a young population permanently migrate to urban areas it can lead to stagnant communities and increased inequality among people (Addressing Rural Youth, 2016). However, if Japan can encourage these young people to eventually return to the rural areas to build a life,

it can actually turn this problem into something that is ultimately very helpful to the rural communities.

Along with this issue of the labor force moving out and not having enough agricultural farmers, food deserts are a concern in Japan. Food deserts can be created when a population leaves an area. A food desert occurs when the population does not have easy access to fresh foods. It can potentially cause several health hazards. It is said to be that "roughly 78,000 people have poor access to fresh food, including 17,000 or so aged 65 years and over" (Ikejima, 2015). This can lead to the possibility of poor health because of limited resources.

There is another major problem that affects both urban and rural populations, and that is food waste. There are not many who believe that people in Japan's population experience poverty, but close to 16 percent of two-parent households are not financially stable and cannot provide the amount of food their children need. This percentage is higher and is 32 percent when it comes to single parents trying to provide for their children. At the same time, there are 18 million tons of food being discarded each year, with 5-8 million tons of that discarded waste being edible. These wastes come from both the food industry and individual households (Water, 2013). All of this waste is the reason why Japan is running out of landfills to bury them. Later this paper will go into ways to solve this food waste problem.

Lastly, one other major problem that is contributing to this food security issue is Japan's ability to be self-sufficient. In 2013, statistics showed that Japan produces about 39 percent of the food they consume. This is a major decrease from 79 percent in 1960. Japan has the lowest food self-sufficiency ratio of developed countries and is now facing a problem where they rely too heavily on imports. They especially rely on meat products and even if they started to produce more meat in their own country, they would have to sacrifice 50 percent of the land to meet the demand for chicken and pork alone. Imports from the United States to Japan is more than 25 percent of Japan's total agricultural imports. For Japan to pay for all of their imports, they have to continue to export manufacturing goods such as electronic goods and cars (Economy and Trade Fact Sheet, 2020).

Japan is often viewed as a smaller country, and they need to have a reliable and fair trade. When countries sell more than they buy, the trade is not balanced. According to Klug (2019), the U.S and Japan signed a trade that would "eliminate tariffs and expand market access on farm, industrial and digital products". They even eliminated tariffs on agricultural products, which was both a good advantage for Japan and the United States. Even so, this does not include autos, which are a big part of Japanese exports. The Japanese Prime Minister Abe was worried that President Trump was going to slap new tariffs on automobiles (Klug, 2019), but President Trump assured that he would not place any more tariffs. Because of Japan relying on the United States for many products, this agreement was a success and was a big victory.

To solve all of Japan's food insecurity issues, there must be some solutions. There is no single solution to the hunger problems this country faces, but there are a variety of possibilities. Japan's greatest challenges stem from its population migrating away from rural areas and not returning. Some secondary problems are food waste in urban and rural populations and Japan's challenges with self-sufficiency. These

solutions could involve the youth of Japan, the government, local citizens, and the possibility of using drones to help food insecurity.

When looking at the migration problem there is no easy fix. However, the problem could actually be a part of the solution if Japan could make these migrations temporary as opposed to permanent. What could entice young people to want to move back to rural areas? One example that could be modeled after is western Kansas. In western Kansas, there are many incentives in place to encourage people to live in their cities and these incentives could be mirrored in Japan. For example, the USDA has rural development grants. The government can offer loan forgiveness programs and encourage individuals such as teachers. In the United State, young people who become full-time teachers at low-income schools can have their loans forgiven under the National Defense Education Act. This act was passed in 1958 and this act encouraged people to go into science, mathematics, and foreign languages. Medical workers and ag teachers can be qualified for this program as well (Student Loan, 2010). If Japan developed a similar program, it could draw many of those young people who left their rural Japanese communities to come back to their communities and ultimately improve them. As mentioned earlier, many single-parent families cannot provide enough food for their children. Single-Family Housing Direct Home Loans can help with this problem. This act helps families obtain a safe and healthy home.

The migration problem is definitely one of the most difficult problems Japan faces. However, food waste and poverty are also contributing to Japan's food insecurity issues. One solution that is already in place is The Food Recycling Law. The Food Recycling Law that was enacted in 2001 has helped some of the food waste. Food industries and businesses try to reduce the amount during production. There are eco-towns that are placed in some cities in Japan so that those companies and other industries have an opportunity to work together and try to improve the recycling system (Water, 2013). These eco-towns help the environment not only by reducing waste but also it is adequate for protecting the air and water system.

As said earlier, Japan produces a lot of rice but this fits the traditional lifestyle of Japan and not the Western-style. To fit the Western-style, they must produce more things such as corn, wheat, and beans. In order for this to happen, younger people in society must get involved. On one hand, Japan needs the youth to stay in the rural areas and be involved in farming but on the other hand, there must be youths in the urban areas to collaborate or partner with other agricultural organizations. Future Farmers of Japan, or FFJ, is a youth organization that provides young members with the knowledge of agricultural education and the opportunity to take part in various leadership development activities (Ishida 2014). When young people are in organizations like FFJ they become more concerned citizens and learn the skills to become leaders in their communities.

In addition to becoming better leaders, members of FFJ can also be exposed to agricultural businesses, which in turn could lead to having an interest in future agriculture careers. The 2018-2019 National FFA Officers spent some time with the FFJ members and learned about their culture as well as the officers teaching them what FFA is all about (FFA New Horizon, 2018). There should be more interaction between other countries and sharing their culture so that it can lead to the youth wanting to have an

agricultural career. There are chapter exchanges and activities between FFA in the United States but there is a need to push this even further and across the ocean. Students in FFA could get together and come up with a plan and raise money to maybe go to Japan and exchange ideas. This plan could work if people are willing to make the world a more peaceful and fair place and it is possible.

Japan is also already working towards a solution for those in poverty. Currently, there are some non-profit organizations, such as Second Harvest Japan, that are trying to provide for these families. This organization helps 100 families and 75 percent of these people are single mothers (Small Island, Big Appetite: Seven Facts About Hunger in Japan, 2016). Japan is a well-developed country but some families suffer and struggle to have a life where they do not have to worry where, when or even if they get their food.

Another solution could be delivering food to the poor or those who are needing it by drones. It is possible to deliver blood bags by drones so why not use it to deliver food also? A hospital in Rwanda relies on these drones to receive blood bags to help patients. Because of Rwanda being a hilly country, it would take hours to deliver blood to the patients by car. A company in Iceland, AHA and Flytrex has tested drone delivery in 2017 and they are still in the testing stage but this drone delivery system is "just over the horizon" (Kelso 2019). Some of these same techniques could be implemented in Japan. Since Japan is one of the largest fish-eating countries it is important to be able to deliver food, especially seafood in a decent amount of time and at a reasonable price. According to New Atlas, Yamaha and Japan Airlines have been working together to bring this idea to action. They conducted an experiment where they flew the drone that was carrying fish all the way from Goto Island which is 621 miles west from Tokyo to the middle of Tokyo. The drone flew about 22 miles and landed in the city of Saikai. From there it was loaded on a Japan Airline plane and was delivered to the restaurant in Tokyo. The 22-mile drone flight from Goto Island to the city of Saikai only took 40 minutes. This minimized the time of transportation, seeing that if it was carried by ferry it would have taken approximately three hours (2020). There are restrictions on using drones in Japan but the government is generally in favor of drones use for businesses

In summary, no one can argue that Japan is a developed country with many technological advances. Even so, Japan is not a perfect country and like many other developed countries, they also deal with food security issues. However, these problems are somewhat hidden and many people do not even think about them. It is imperative to be a part of the solution for the population decrease in Japan, especially in rural areas. And for farmers to take a look at what they are and are not producing. Trade plays an important role in all of this. Additionally, if we incorporated FFJ and FFA well into this situation there could be a brighter future waiting for all, a life without a high percentage of food insecurity. Relying on technology is not a bad thing and using drones could be a key. As the population keeps on decreasing in Japan, technology could play a bigger role than it ever did. It is important to use modern technology and new government laws to help decrease Japan's food security problems and in the end, change Japan for the betterment of all. We can't deny that food insecurity in Japan is a daunting issue but progress can be made if everyone does their part!

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