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Germany, Factor #8: Spoilage and Waste

### **Germany's Attack on Food Spoilage and Waste**

Germany is a federal republic of an immense diversity of climate, culture, language, and people. Despite a turbulent 20th century, Germany has overcome numerous obstacles and now has the fourth largest Gross Domestic Product in the world, (Global PEO Services, 2020). According to Worldometers, Germany has a population of 83.7 million that grows approximately 0.3% every year, so there are many people to feed (2021). Of the almost 84 million people in the German population, approximately 21 million have a migrant background, as stated by Deutsche Welle (2020). This means that either the person themselves or one of their parents was not born with German citizenship. Furthermore, the German climate remains temperate and is not subject to dramatic changes in temperature or precipitation. This relatively consistent climate makes Germany an ideal place for agriculture. During the colder months, however, there is an overcast that causes the sky to appear darker than it actually is. Also, since Germany encompasses such a vast swath of the European continent, different regions of the country have different climates relative to each other. To attack two of the most pervasive problems in the sphere of German agriculture: food waste and food insecurity, Germany could create an initiative of reduced-price grocery stores and restaurants to divert food waste without sacrificing the dignity of its citizens and migrant populations.

Not unlike the United States, the average nuclear family size in Germany is two parents with two children, and the reason for this statistic is because approximately 53% of families have only one child (Zech, 2020). Families are predominantly composed of a mother and a father who are married, which is similar to the United States. Approximately 28-30% of the population has a bachelor's degree, compared to 43% in the United States (Russell Sage Foundation, 2013). Unlike the United States, Germany has universal health insurance, a program that was instituted by Otto von Bismarck in 1883. Approximately 86% of the population is currently enrolled in this healthcare system (Blümel & Busse, 2020). Overall, most Germans have secure sources of food, but approximately 1.5 million people in Germany do not know where their next meal will come from. Unfortunately, the wealth disparity between the wealthy and poor is growing in Germany, much like other countries. CNN states, "The percentage of Germans at risk of poverty rose from about 12% in 1995 to roughly 16% in 2014, according to a government report published earlier this year." The report also found that income inequality has risen in tandem (Vonberg, n.d.).

The average German farm is 60.5 hectares, which is approximately 149.5 acres (Appunn, 2018). Surprisingly, over 50% of the German territory is used for agriculture (Orth, 2019). Germany is the largest producer of dairy products in the European Union. According to Encyclopedia Britannica, most of the crops grown on these farms are grains, harvest plants, trading crops, and permanent crops such as fruit trees (1998-2021). In fact, over one third of German farmland is dedicated to growing different types of grain (Orth, 2019). Also, a vast percentage of German farmland is used as permanent grass fields, which helps absorb carbon from the atmosphere. The German government recognizes the climate impact that agriculture has, so it has rolled out the German Climate Action Plan 2050 in accordance with the United Nations Framework Convention on Climate Change (2015). The German Climate Action Plan 2050 implements measurable goals to decarbonize the world economy, and specifically what Germany will do.

Relative to the size of the country, Germans are typically less food insecure than Americans. As mentioned, the nonprofit organization Tafel provides food to Germans who need it, so on the average day, most Germans have access to food. Last year, in 2020, the unemployment rate in the United States was 6.9%, while in Germany, the unemployment rate was approximately 5.9%. This means that proportionately to the size of the population, more Germans are employed. While both the US and Germany do not have a statutory minimum wage law, the average minimum wage in Germany is 8,50 EUR (\$10.32 USD), while the minimum wage in the US is still \$7.50 USD. The cost of living is also more reasonable in larger cities in Germany than in the United States, meaning that Germans are spending less of their income on housing, or making more income to begin with. This frees up funds to pay for food and other necessities.

According to Feeding America, \$218 billion worth of food worldwide is thrown away annually. Food waste is a challenge that can be tackled with proper organization and incentives to be less wasteful. Germany does not experience a lot of food spoilage, but rather food waste. The Food and Agriculture Organizations of the United Nations (FAO) defines food waste as “the decrease in the quantity or quality of food resulting from decisions and actions by retailers, food service providers and consumers.” Surprisingly, the country in Europe that throws away the most food each year is Denmark, but Germany comes in at third place. The Merkel administration recognizes the severity of this issue, so they have rolled out plans to cut Germany’s food waste in half by 2030 (Albustin & Taube, 2019). This plan includes decreasing the size of food packages, creating a system of gauging when food is still edible, and encouraging consumers to make shopping lists to avoid unnecessary purchases, as well as to not go shopping hungry. The hope is that consumers will start making changes in their habits, which will decrease the amount of food waste. The issue lies not in the supply chain itself, but in the consumer. This solution is proving to be successful in cutting food waste, but Germany as a whole is not entirely food secure.

Because the typical family has access to food on a daily basis, Germany is considered one of the wealthiest countries in Western Europe. Due to this position, Germany plays the role of the “leader” in the European Union. Prior to Brexit, both Germany and the United Kingdom led the EU, but this political shift has caused Germany to take on more responsibilities. It is important to remember that the population includes the 12% that were born outside of Germany (World Population Review, 2021). Since the 1990’s Germany has had a much more relaxed immigration policy than most other countries in the Western world. Between 2014 and 2018, Germany received almost 1.7 million applications for asylum from Syrian refugees alone (Trines 2019). The primary motivation for the acceptance and integration of refugees into Germany is to bolster the aging population, whose growth rate is low compared to other countries. All of these extra people, many of whom are starting fresh with little to no resources, need food to eat. How can Germany tackle a problem this large?

To provide some context on why the refugee population in Germany is so large, one must look no further than the raging civil war in Syria. This began with the Arab Spring, which started in 2010 in Tunisia. The Arab Spring was a series of protests that challenged the authoritarian governments of many Arab countries in the Middle East (NPR Staff, 2011). While Syria was not directly involved in this movement, protestors were inspired and began protesting the Assad regime in 2011. The Assad regime started in 1971 when Hafiz al-Assad became the President of Syria (Editors of Encyclopedia Britannica, 2020). The Syrian people wanted a President who would reform the economy and decrease the wealth disparity, but neither Hafiz al-Assad nor his son Bashar al-Assad, who succeeded him as President, carried out their campaign promises. Also, a massive drought caused many to become impoverished. Furthermore, there is

another important layer to this conflict: religion. The protestors were Sunni Muslims, while the minority that held power were Alawite (Shi'a Muslims living in Syria). The combination of religious tension, environmental disaster, and political differences resulted in a hostile environment between the majority of the population and those in power. There were many peaceful demonstrations that were met with violence. Eventually, a full-on civil war broke out in September of 2011. Since then, peace and war have come and gone, but the unstable, war-torn country has been in shambles for a decade. This is why so many people fled to places such as Turkey and Germany.

The German government has spread refugee populations fairly evenly among cities in an effort to “evenly distribute” them. This plan backfired, as the refugees moved into conglomerates with other refugees, as they felt safer and more comfortable. For example, in the city of Essen, there is a large population of Syrian refugees that has grown exponentially since 2015. The uneven numbers of refugees are putting a strain on the relatively few resources of German food pantries (Bennhold, 2018). Since so much food is wasted in Germany, it is important to find some way to divert food that would otherwise go to waste into meals for the refugees. A possible solution would be to create discounted grocery stores or restaurants that could offer meals at a reduced price. A solution such as this is not designed for any population in particular, because there are Germans who are food insecure, as well as refugees. This would help solve the issue of food waste, as well as solve the dilemma of food insecurity for refugees. Funding could possibly come from both private donations supplemented with public assistance, and the food could come from grocery stores and restaurants who would throw the unsold food away anyway.

Germany, a nation of great diversity in climate, demographics, and cultures, faces the problem of food waste and spoilage. Although the problem lies mainly with the consumer, as most people do not face food insecurity and there are no outstanding issues with the supply chain, food waste is still a glaring problem in the otherwise gleaming German economy. While the German government has taken statutory measures to ameliorate food waste, there are still segments of the population who are not affected by food waste because they do not have access to food. If there was a way to divert food waste into meals and snacks for refugee populations in need, this would be a major step in solving two of the most pressing issues in Germany.

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