Madison Kreifels Syracuse-Dunbar-Avoca High School Syracuse, Nebraska Nauru, Strip Mining Linked to Unhealthy Eating Habits

Hunger: Not Food's Only Problem

The country of Nauru is located in the Pacific Ocean, northeast of the Solomon Islands. It is a tropical island, but no major rivers or streams allow easy access to water. Due to this, the people of Nauru have created roof catchment systems that collect adequate drinking water, and they must also import freshwater, which serves as just one issue with which the people must contend (Kiste & Foster, 2020). In 2020, Nauru's population reached 10,800 residents (Hertz, 2020). The majority of the people are native Nauruans, 94%, while I-Kiribati, Chinese, Fijian, Solomon Islanders, and other ethnic groups make up the last 6% (Kiste & Foster, 2020).

The people of Nauru describe their families as "domestic units." The reasoning for this is that adoption is widespread, and in most cases, the children who are adopted get the same rights as if they were blood-related. Their inherited rights include land, trees, goods, songs, dances, and all possessions previously owned by their parents (Countries and their Cultures, n.d.). Families often express their care and affection towards each other, which is one of the primary reasons they have large families. The average number of people living in one household is eight.

Nauru signed a constitution in 1968 that brought freedom to their country. It combines parliamentary and presidential systems. Citizens who are twenty years and older can vote for their parliament, who then vote for their president. Lionel Aingimea, Nauru's current president, is both head of state and head of government. Another presidential duty is to elect the cabinet out of the parliament. The Nauru government also involves a tripartite judicial system: Supreme Court, District Court, and Family Court (Kiste & Foster, 2020). Essential health services and access to education are available for the people of Nauru; therefore, it is common for children to attend school. However, the age range for schooling is six through sixteen, so many citizens move to Australia or New Zealand to receive a higher education (Kiste, n.d.).

In 1999, Nauru became involved in the Commonwealth and the United Nations (Kiste & Foster, 2020). The Commonwealth, also known as the Commonwealth of Nations, was founded in 1968 and is run by Great Britain. It is an alliance of countries that value the British Monarch (The Editors of Encyclopaedia Britannica, 2021). The United Nations is a group that maintains peace and security; its primary goal is to keep peace with the countries that respect and promote human rights (Lynch, n.d.). Both of these groups benefit Nauru by connecting and creating harmony with other countries within our world.

The largest, most evident limiting factor that has caused Nauru the most problems is their current quality of land. Before the discovery of phosphate, many Nauruans were farmers and cherished agriculture. Due to strip mining brought on by the Europeans in the late 19th century, only 20% of their land is available, and most Nauruans have lost interest in crop production. Strip mining is a form of mining where layers of the earth are removed in order to find minerals. This form of mining is incredibly harsh on the

environment, leaving it infertile and unable to grow plants (Pariona, 2017). There were also many negative effects on Nauru's marine life due to the large amounts of runoff from the mining sites (Pariona, 2017).

Phosphate is essential for agricultural life and is one of the main ingredients in most fertilizers, so extracting the majority of the phosphate from Nauru's soil was not the best idea for the future of Nauru's crop production (OCP, 2020). This mineral can also be transformed into phosphoric acid, which can be used in various ways such as food, animal food, cosmetics, and electronics. Phosphate is found in sedimentary rock and takes millions of years to form. Over time, organic matter from the ocean floor gets compacted together and slowly makes this fertile soil (OCP, 2020).

A small portion of Nauru's land is suitable for agricultural life due to the continuous phosphate mining in the 1900s. Within this limited amount of land, the primary production is coconuts. Coconuts are rich in fiber and MCTs but are incredibly high in saturated fat and calories; therefore, eating too many coconuts has led to several health problems in the country of Nauru (Commonwealth Network, 2020). Although some families still own and run small gardens, the amount of agricultural knowledge in Nauru has decreased since the 1900s because people fail to realize the importance of agriculture. Some citizens believe it is too late to fix the many problems that the lack of knowledge has caused. With the poor quality of land and continuous droughts, growing certain crops beyond coconuts can seem impossible. Their other sources of food include large amounts of seafood, white rice, and other imported foods. Sugary drinks, such as soda, are prevalent, but healthier foods, such as vegetables, are not popular (Aguirre, 2019).

While the country was mining phosphate, the population began living in the moment—not thinking about how their actions could affect their future. Many people quit their jobs, bought fancy cars, and began living the "rich life." This caused them to become less physically active. Ultimately, the Nauruan people destroyed their own land, causing them to reach out and rely on other countries for food. These food imports from other countries mainly consisted of processed foods that can be very unhealthy, especially after consuming them over long periods of time (Editor, 2019).

Studies have shown that highly processed foods are inadequate to keep and live a healthy lifestyle. They are high in fat, sodium, and sugar and lack nutritional value. It is also common to consume more processed foods because they are highly addicting and do not give a person enough energy as whole foods (Fox, 2019). Another common food that is eaten in Nauru is fried fish, specifically the "Coconut Fish" recipe; fish are easy to access since Nauru is an island, and coconuts are one of the leading agricultural crops (Commonwealth Network, 2020). Although a traveler would find this recipe tasty, it is not an ideal everyday meal because it is highly saturated in fat and lacks the proper nutrients that one should have during the day. These food habits that Nauruans have created over time have caused the vast majority of the population to become obese. Obesity is a common, preventable, yet deadly condition that can cause other health illnesses (Overweight & Obesity, 2020). The leading case of disease present in Nauru due to obesity is type 2 diabetes.

Over 40% of the Nauruan population have developed type 2 diabetes from obesity due to their chronic, unhealthy lifestyles (Aguirre, 2019). "When I was a boy, it was so beautiful. There were trees. It was

green everywhere, and we could eat fresh coconuts and breadfruit. Now I see what has happened here, and I want to cry," said James Aingimea, a resident of Nauru (Editor, 2019). Type 2 diabetes, a preventable disease, can lead to other health problems, which is one of the main reasons why Nauru people do not live past the age of 60 (Aguirre, 2019).

The mining of phosphate in Nauru has helped the country in terms of wealth, which can be viewed as a positive factor. One byproduct of this is that the people of Nauru do not have to work as hard to make money, meaning they still need to regulate their physical activity and nutritional intake. These unhealthy habits are beginning to transition into their children's daily lives, causing 44% of the children of Nauru to be obese (Aguirre, 2019). If these unhealthy habits continue, the life expectancy of those living in Nauru will continue to shorten. The people of Nauru did not realize it at the time of the strip mining, but these first events has led them to have a large percentage of their population become obese and develop type 2 diabetes.

Type 2 diabetes is largely preventable, which means that Nauru can become a healthier country just by taking a couple of simple steps: consuming more nutritional foods and pushing themselves to get at least one hour of exercise a day. Some people might argue that the best way to get the Nauru population back to full health would be to restore the land, but this would take time. If the people of Nauru want to begin treating their obesity problem today, they need to start the process as soon as possible (Aguirre, 2019).

Beginning and pursuing an exercise journey can become extremely difficult. I firmly believe that with the help of education, more Nauru citizens will realize how important it is to balance physical activity and nutritional intake to keep our bodies functioning. Suppose schools in Nauru began offering health, wellness, and agricultural classes. In that case, I believe we could begin to persuade the coming generations to alter their current, unhealthy lifestyle, thus giving them a longer life expectancy and re-introducing them into the agricultural world. Not only would this plan help the citizens of Nauru get their health back on track, but it would also teach the citizens of Nauru to rely on themselves instead of imports from other countries.

Nauru currently has three main trade partners: Fiji, Japan, and Australia. Most of the imports include construction vehicles, tug boats, cars, and poultry meat (Ministry of Finance, n.d.). Notice how only one of the main imports is food-related, meaning that Nauru mainly relies on themselves to supply their country with food. This forces the citizens of Nauru to continue to consume unhealthy foods produced by their own country.

The United States is known for its many exports to other countries, including food. Several examples of the food we export include soybeans, beef, veal, pork, poultry, and fresh and processed fruits and veggies (American Farm Bureau, 2021). If the United States exported these main foods and some others to Nauru, their population's health would slowly bounce back to normal—and even more so if they began to exercise.

Nauru is one of the smallest countries in the world, with roughly 10,800 residents. If the United States stepped up in helping export healthier foods to help the people of Nauru, it would not have as large of an impact on our nation's exports, considering we are currently the largest food exporter in the world

(Dillinger, 2017). This would help the Nauruans life expectancy grow, type 2 diabetes rates decrease and help families become happier and healthier.

United States residents might argue that we do not have enough food to export to Nauru when, in reality, the United States throws away roughly eighty billion pounds of food every year (RTS, 2021). If even a relatively small percentage of the wasted food were exported to Nauru, the positive effects would almost immediately become evident. These wasted foods include foods that are perfect or close to perfect in nutritional value but have visible imperfections. This plan would help Nauru's obesity and type two diabetes problem and help the United States with our food waste problem.

Similar to the United States, Australia is another country that struggles with a large amount of food going to waste, being roughly 7.3 billion tons annually (Tackling Australia's, n.d.). With this being said, Australia could potentially follow in the same plan as the United States that I mentioned in the previous paragraph. With Australia shipping their nutritionally perfect but not visibly perfect foods to Nauru, there would be less of a financial impact due to the distance between the two countries.

Restoring Nauru's land will take time, but the process should begin as soon as possible so that Nauru's citizens can eventually rely on themselves. Although implementing the health, wellness, and agricultural educational system would be a stepping stone in helping Nauru become less reliant on other countries, their current quality of land is the main flaw holding them back. We do not want Nauru to learn to rely on the United States or other surrounding countries; therefore, a restoration process of the land needs to take place. The restoration process first includes placing the rubble over the destroyed land and then placing good-quality topsoil over the ruined land. After this is done, seeds will be planted so that the soil will stay in place. This takes time and a large number of financial resources (Adams, 2019). Our world has reflected on how strip mining has ruined Nauru and other bodies of land, so mining companies are now required to complete this restoration process.

One may ask, "who is planning to fund the food transportation and land restoration process?" This is a complex situation due to Nauru's state of wealth. A country once known as one of the wealthiest countries in the world is currently listed as one of the top five most impoverished countries in the world. Around 90% of Nauru's citizens are unemployed and seek help to better their state of life (An Insight, 2021). The people of Nauru want to work and make money, but they do not have the job positions available. We have the resources, and with a country the size of Nauru, we can make the lives of their people longer, healthier, and more stable with the return of their cooperation and labor.

Nauru, a country of about 10,800 citizens, needs help to become healthier, happier, and more physically active. A large percentage of their population is suffering from obesity, causing them to die at an early age from the stress that it puts on their body. Obesity can lead to heart disease, diabetes, strokes, and certain types of cancer (Overweight & Obesity, 2020). The United States and other countries can help Nauruans in their journey to success by completing simple steps to get them back on their feet, and I genuinely believe that this is possible.

References

- Adams, M. (2019, April 3). *The Dirt Issue: In Depth.* How to Restore a Million Acres of Strip-Mined Land? Bring in the Elk. Retrieved February 27, 2021, from https://www.yesmagazine.org/issue/dirt/2019/04/13/land-recovery-elk-wildlife-habitat-ap palachia/#:~:text=After%20the%20coal%20is%20stripped,will%20hold%20the%20grou nd%20together.
- Aguirre, J. (2019, November 22). *Blog Latest News*. 5 Facts About Nauru's Overweight Health Issue. Retrieved February 21, 2021, from

https://borgenproject.org/5-facts-about-naurus-overweight-health-issue/

American Farm Bureau For Agriculture. (2021). Does the United States import more agricultural products than we export? Retrieved February 21, 2021, from

https://www.agfoundation.org/common-questions/view/does-the-united-states-import-mo re-agricultural-products-than-we-export#:~:text=In%202019%2C%20the%20United%20 States,and%20veggies%20topping%20the%20list.

Commonwealth Network. (2020). Find Agriculture expertise in Nauru. Retrieved February 21,

2021, from

https://www.commonwealthofnations.org/sectors-nauru/business/agriculture/#:~:text=Na uru%20has%20a%20very%20limited,small%20inland%20lake%2C%20Buada%20Lago on.

- *Countries and their Cultures.* (n.d.). Nauru Marriage and Family. Retrieved February 21, 2021, from https://www.everyculture.com/Oceania/Nauru-Marriage-and-Family.html
- *diabetes.co.uk*. (2019, January 1). "I have seen so many funerals for such a small island": The astonishing story of Nauru, the tiny island nation with the world's highest rates of type 2 diabetes. Retrieved February 21, 2021, from
 - https://www.diabetes.co.uk/in-depth/i-have-seen-so-many-funerals-for-such-a-small-islan d-the-astonishing-story-of-nauru-the-tiny-island-nation-with-the-worlds-highest-rates-of-t ype-2-diabetes/
- Dillinger, J. (2017, April 25). *World Atlas*. Which Countries Export The Most Food? Retrieved February 21, 2021, from

https://www.worldatlas.com/articles/the-american-food-giant-the-largest-exporter-of-food -in-the-world.html

Editor. (2019, January 1). *diabetes.co.uk*. "I have seen so many funerals for such a small island": The astonishing story of Nauru, the tiny island nation with the world's highest rates of type 2 diabetes. Retrieved February 21, 2021, from

https://www.diabetes.co.uk/in-depth/i-have-seen-so-many-funerals-for-such-a-small-islan d-the-astonishing-story-of-nauru-the-tiny-island-nation-with-the-worlds-highest-rates-of-t ype-2-diabetes/ The Editors of Encyclopaedia Britannica. (2021, July 27). *Britannica*. Commonwealth. Retrieved August 9, 2021, from

https://www.britannica.com/topic/Commonwealth-association-of-states

- Fox, N. (2019, May). Laborers Health and Safety Fund of North America. The Many Health Risks of Processed Foods. Retrieved February 25, 2021, from https://www.lhsfna.org/index.cfm/lifelines/may-2019/the-many-health-risks-of-processed -foods/
- Hertz. (2020). World0meter. Retrieved February 21, 2021, from

https://www.worldometers.info/world-population/nauru-population/

An Insight Into The World's Least Visited Country: Nauru. (2021). Young Pioneer Tours. Retrieved August 10, 2021, from

https://www.youngpioneertours.com/worlds-least-visited-country-nauru/

- Kiste, R. C. and Foster, . Sophie (2020, December 8). *Nauru. Encyclopedia Britannica*. https://www.britannica.com/place/Nauru
- Kiste, R. C. (n.d.). *Britiannica*. Nauru. Retrieved August 9, 2021, from https://www.britannica.com/place/Nauru#ref54009
- Lynch, C. M. (n.d.). *Britannica*. United Nations. Retrieved August 9, 2021, from https://www.britannica.com/topic/United-Nations

- Ministry of Finance. (n.d.). Nauru Bureau of Statistics. Retrieved August 9, 2021, from https://nauru.prism.spc.int/economic/merchandise-trade/nauru-imports-by-major-tradingpartners-2012
- OCP. (2020). What is phosphate? Retrieved February 28, 2021, from https://www.ocpgroup.ma/what-is-phosphate
- Overweight & Obesity. (2020, September 17). Adult Obesity Causes & Consequences. Retrieved February 28, 2021, from https://www.cdc.gov/obesity/adult/causes.html
- Pariona, A. (2017, November 3). WorldAtlas. How Has Phosphate Mining In Nauru Led To An Environmental Catastrophe? Retrieved February 21, 2021, from

https://www.worldatlas.com/articles/how-phosphate-mining-in-nauru-has-led-to-an-envir onmental-catastrophe.html#:~:text=Discovery%20and%20Mining%20of%20Phosphate% 20in%20Nauru&text=Given%20this%20phosphate%20was%20of,which%20were%20ex ported%20to%20Australia.

- *RTS*. (2021). Food Waste in America 2021. Retrieved February 28, 2021, from https://www.rts.com/resources/guides/food-waste-america/
- *Tackling Australia's food waste*. (n.d.). Australian Government Department of Agriculture, Water and the Environment. Retrieved August 10, 2021, from https://www.environment.gov.au/protection/waste/food-waste