Food Security: Supporting Roots in Eleuthera

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Introduction

Food security is a very complex issue consisting of three main aspects: availability, access, and utilization. Availability is the presence of ample nutritious foods in a given area. Access refers to peoples' ability to get to that food easily. Factors that may limit accessibility are lack of money, lack of transportation, and other socioeconomic factors. Utilization is what happens to the food after it is accessed and obtained. Is it used in a healthy way or an unhealthy way? One factor that may limit optimal utilization is lack of education about nutrition and healthy cooking.

One group that is both particularly vulnerable to food insecurity and particularly relevant to The Island School is SIDS, or Small Island Developing States in the Caribbean and Pacific as defined by the United Nations Food and Agriculture Organization. They are vulnerable because many of them are more dependent on tourism than agriculture. They are also islands, which means they are very dependent on shipped imports. And finally, they are remote, which means that even once the food gets into the country by boat, distribution is made difficult by the seclusion.

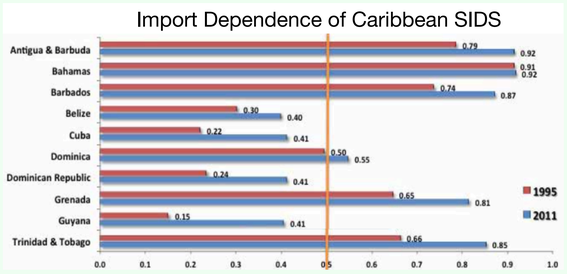


Figure 1: The Bahamas has one of the highest import dependences of all the Caribbean SIDS in the years 1995 and 2011, far above the 50% mark which is shown by the orange line. The reasons for this are as is discussed below (figure adapted from UNFAO).

For this research, food security at The Island School was measured as the quantity of food obtained within the Bahamas. Sourcing local food is not an easy task. The Bahamas struggles with very inconsistent rain fall which limits crop production. Poor soil quality also restricts the amount of farming possible in many areas. There are also social limitations. According to our interviews, there is a common trend in young people not seeing farming as a future career. All of these limitations have an impact on how food secure the Bahamas is, as well as The Island School.

This selection is an example of the 90 tons of food The Island School imports yearly.

Despite these challenges, the goal of this research was to make a plan for The Island School to become 50% food secure by 2025.

Methods

We split our methods into internal and external because the nature of our project required communicating with the Island School Kitchen as well as reaching out to local farmers and organizations.

Internal Methods

Internal methods included interviewing the Island School kitchen staff to collaborate on possible changes to our food purchasing and taking a closer look at kitchen receipts.

A previous semester's research group compiled all of the 2016 kitchen receipts into a Food Audit and we were able to use this data to compare food security from 2016 to 2019 from January to March.

The food security research team meeting with Jacquel Kemp, Island School kitchen manager.

External Methods – Farmers

The food security research team meeting with Lady Di, a local farmer in Gregory Town.

Working with farmers meant visiting North Eleuthera because the soil there is richer and more fertile. There is a higher concentration of farming there. We discussed with farmers what foods we could source from them specifically, and got the general feel for what farming on Eleuthera is like. We made connections with farms farther away by phone call.

External Methods – Organizations

We visited the Bahamas Agricultural and Industrial Corporation, which works with farmers and leases out government owned land.

We hope to represent The Island School in the South Eleutheran Farmers' Association and attend meetings to stay up to date on what is happening in the Eleutheran farming community.

The food security research team meeting with a representative from the BAIC in Hatchet Bay.

Acknowledgements

We would like to thank Katlin Tilly and Jacob Nelson, our research advisors, Cam Raguse for coordinating research class this semester, the Communications department for coming along on our adventures and photographing them, Jacquel Kemp and then entire kitchen staff for teaching us what it takes to feed this community every day, and all of the incredible local farmers that we interviewed and will continue to work with. **Thank you!**

Results

There are big changes between The Island School's food security in 2019 and our 2025 food security projections. Increases in the categories such as drink, fruit, and eggs are very noticeable, and there are no decreases in food security in any categories. A few categories are predicted to be 100% food secure in 2025. An in-depth explanation of how these predictions were set is in the discussion section of this poster. Looking to the future, we have developed a full step by step plan and document with all of the logistics and specifics for The Island School to follow to become 56% food secure over the next 5 years.

Current Island School Food Security and Future Projections

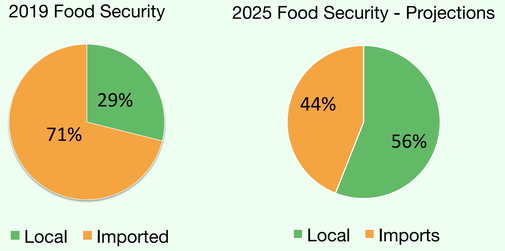


Figure 2: These charts show the current and projected food security at The Island School based on the amount of local and imported foods. The 2019 calculation was based on a review of purchasing receipts conducted during the months of January, February, and March. The 2025 calculation was based on the goals that we have set for the next five years.

Food Security by Category: 2019 v. 2025

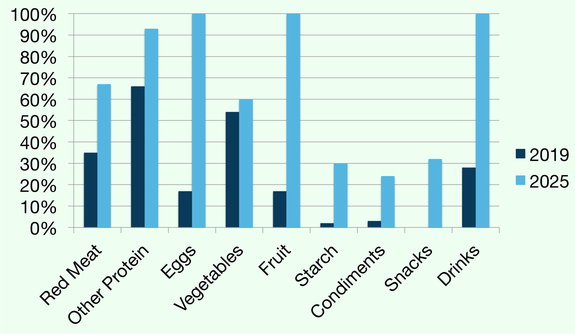


Figure 3: This chart shows the percentage of local food purchased in each category in 2019 compared to our projected purchases in 2025. The food is split up in to categories based on how it is used.

Literature Cited

UNFAO (2016). State of Food Security and Nutrition in Small Island Developing States, pp. 1-8

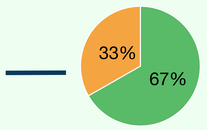
Jones A., Ngure F., Pelto G., & Young S. (2013). What Are We Assessing When We Measure Food Security? A Compendium and Review of Current Metrics. *Advances in Nutrition,* 4(5) pp. 481-505.

Wertheim-Heck S., Bossum J., Levelt M. (2018), Conference Proceedings-Long Paper Meeting the growing appetite of cities-delivering an evidence base for urban food policy, *Research Gate* pp. 1-15.

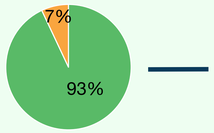
Discussion

Red Meat
By 2025 The Island School aims to be 67% food secure for red meat. We will stop importing beef until it can be sourced locally from Edrin Symonette. The amount of bacon purchases will also be halved.

2025 Red Meat Projections



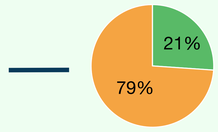
2025 Other Protein Projections



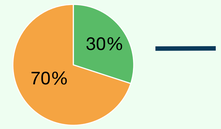
Other Protein
By 2025 The Island School aims to be 93% food secure for other proteins. We will replace all imported turkey with local chicken from Abaco Big Bird. Campus production of tilapia and mushrooms will also be increased.

Condiments
By 2025 The Island School aims to be 21% food secure for condiments. We will buy local jams, herbs and honey. Herbs will partially replace dry seasonings and be used for salad dressings. Honey will replace imported maple syrup.

2025 Condiments Projections



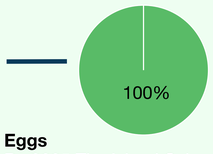
2025 Starch Projections



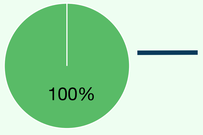
Starches
By 2025 The Island School aims to be 30% food secure for starches. We will decrease purchasing of imported starches and replace this with local starchy vegetables.

Fruit
By 2025 The Island School aims to be 100% food secure for fruit. We will stop buying imported apples, oranges, and grapefruits and instead source local fruit seasonally.

2025 Fruit Projections



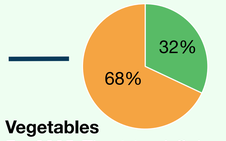
2025 Egg Projections



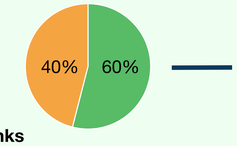
Eggs
By 2025 The Island School aims to be 100% food secure for eggs. We will achieve this by using the eggs from the chickens on campus and purchasing eggs locally.

Snack
By 2025 The Island School aims to be 32% food secure for snack. Local fruit and local vegetables will be provided for morning snack and afternoon snack will be eliminated.

2025 Snack Projections



2025 Vegetable Projections



Vegetables
By 2025 The Island School aims to be 60% food secure for vegetables. The Island School will work with local farmers to source more local vegetables seasonally.

Drinks
By 2025 The Island School aims to be 100% food secure for drinks. The Island School will replace imported teas, orange juice concentrate, and other mixes with local teas, coconut water, fruit juices, and ice water.

2025 Drinks Projections