

PUERTO RICO: RESILIENT COASTAL COMMUNITIES/ NATURAL RESOURCES EDUCATION



FOR ISLAND COMMUNITIES

DENNET FLORES ELIZONDO

BIORESOURCE RESEARCH, COLLEGE OF AGRICULTURAL SCIENCES, OREGON STATE UNIVERSITY



Puerto Rico has had a history of natural disasters which cause islanders many complications. My goals for this trip was to learn first hand and dive deeper into some of the problems Puerto Ricans are faced with on a day to day bases.



AGRICULTURE:

You would think that Puerto Rico was filled with a variety of farms, growing all sorts of “tropical” produce such as mangos, coconuts, pineapples along with many more of our favorites. Come to find out that the majority of people rely on import goods from the United States.

Why you might ask?

The lack of experience that people have in growing their own farm and the idea of not gaining any profit from having a farm.

This is where people are mistaken agriculture is so much more than gaining income, although it is important, people can really benefit from growing their own food. On day 9 we got to visit a coconut farm owned and ran by Daniel Carrero, who mentioned that he doesn't grow coconuts to gain profit, he grows them to sustain himself. During difficult times, when hurricanes hit and people are limited to 1-2 items per family, Daniel is able to go to his farm and consume the food that he grows.

Where do we go from here?

We begin to teach people how to grow their own food, teach them about food substantiality, and about how they can really benefit from having their own farm. That they don't have to depend on others providing for them.

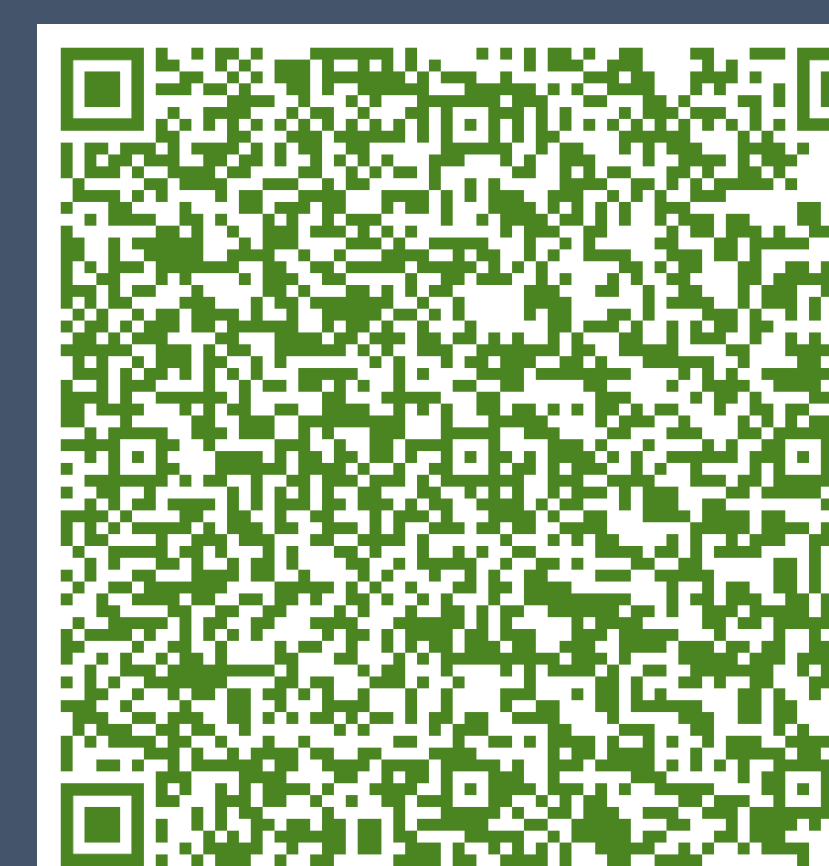


RESTORATION OF MANGROVES:

Hurricanes are very common in Puerto Rico and are one of the natural disasters that islanders are faced with. On day 11, we got to help Vida Marina restore a mangrove forest that was dried out by hurricane Maria back in 2017. But not all mangrove forests in danger due to hurricanes, urban development and waste water are another major reason. Mangroves are extremely important to the ecosystem, they provide protection against storms including costal erosion and hurricanes and assist in the collection of carbon (Yanira Del Valle Huertas, 2022).

For this project to be successful we had to plant the mangroves about 1 ft. off the ground to prevent the plants from drowning. We shoveled about 8 in. of sand at the bottom of these barriers and 8 in. of mud to stabilize the plant. We planted a total of 32 plants and got to name them. I can't wait to go back one day and visit them to see how they're progressing.

More information



REFERENCES:

Yanira Del Valle Huertas, L. (2022, March 23). *In Puerto Rico, a marathon effort builds to restore mangroves and dunes*. Mongabay Environmental News. Retrieved July 15, 2022, from <https://news.mongabay.com/2022/03/in-puerto-rico-a-marathon-effort-builds-to-restore-mangroves-and-dunes/>

BEACH CLEAN UP:



On day 10 we got to help the SURFRIDER foundation, which is a nonprofit, complete a pre survey of trash found at a local Puerto Rican beach. We collected data of each individual piece of trash and SURFRIDER would do a post survey of the beach the following day, which is was a holiday for Puerto Ricans. My group was in charge of creating grids, one was taken near the trash cans as shown on the left and the second was taken

just before the sand began. This data was collected to determine where trash cans needed to be installed. This would hopefully get people to throw their garbage away instead of polluting our beaches and having it blow into the ocean which causes damage to the reefs and aquatic life.

Garbage on an island is difficult to get rid of, where can we dispose of it? One of my fellow engineer colleagues is currently working on a project with technology that converts polyolefin plastic products into fuel. This would be beneficial to the island of Puerto Rico.



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