

# Building a Decentralized Food Supply Chain in Puerto Rico

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## Leveraging the Collective Strength and Wisdom of Remote Communities

While there are several similarities to food system disruptions across communities, islands like Puerto Rico and its municipality, Culebra are presented with unique impacts and challenges when it comes to securing their supply chains. This innovation brief focuses on examples from Puerto Rico and shows how decentralizing supply chains can move food more equitably using diffuse, and therefore more resilient, infrastructure. This work is often led by community-based organizations who are helping to reframe our understanding of supply chains. Two such organizations are Mujeres de Islas based in Culebra and El Departamento de la Comida de Puerto Rico, which is based in the southeastern town of Caguas.

The experiences outlined in this brief reflect those particular to the small-scale agricultural communities found in the mountainous regions of Puerto Rico, and as such, the small-scale solutions offered to supply chain disruptions will not be applicable to all geographies. The processes necessary for fostering equitable resilience look different for every community and no single program, policy or model will work everywhere all the time. However, as the examples from Puerto Rico will show, systems are strongest when built by and for community members to reflect geographic specificity and context.

### ➔ ISSUE

Geographically remote communities, like those located in the US territory of Puerto Rico, face distinct challenges in disaster and disruption. Challenges include securing palatable, nutritious foods for emergency provisioning, higher transportation and distribution costs for remote communities, and vulnerable energy and other built infrastructure all contribute to heightened challenges for remote communities.

### ➔ INNOVATION

Adapting to both the physical and social infrastructure of island communities, local and regional food system leaders of Puerto Rico coordinated efforts to ensure valuable resources (capital, foods, seeds, equipment) were equitably distributed across the geographically distinct communities of the Island. Leveraging diversity and dispersion of community efforts as a strength, community leaders coordinated investments and activities via a hub and spoke model of knowledge and resource sharing informed by an ethos of mutual aid.

### ➔ OUTCOMES

Food systems leaders used a food sovereignty and mutual-aid-informed approach to community food security, leading island community food system leaders to emphasize decentralization, mutual aid, and the centering of community voices and desires in the design and implementation of disaster response efforts.

Unrestricted funds and flexible budgets are necessary components of a response system because they allow for adaptability of programming in response to community needs.

Off-grid capabilities are crucial for island, remote, or isolated communities to ensure the continuation of food production and distribution when responding to and recovering from a disruption.

El Departamento de la Comida de Puerto Rico is a non-profit collective that serves as an alternative to corporate, industrial supply chain models by supporting small, decentralized food projects across the island. They operate two primary programs: a resource library for sharing educational materials, tools, and seeds, and a shared kitchen with equipment run on renewable energy. In an interview, founder Tara Rodríguez Besosa explained that the food economy in Puerto Rico is made up of many small-scale farmers and producers who are working to combat climate change and corporate consolidation with wellbeing, sustainability, and equity at the center.

Based on the island of Culebra, Mujeres de Islas focuses on ensuring community voices and needs guide their programming. Supporting the remote island of Culebra off the east coast of Puerto Rico, Mujeres de Islas is a community-based organization focused on addressing food insecurity and building a sustainable food system. Speaking to how Mujeres de Islas has navigated a global pandemic and simultaneous climate crises, organizational coordinator Dulce del Rio-Pineda noted:

*“We are the eastern most part of Puerto Rico, so we usually get the weather before the rest of the archipelago. Hurricane Irma hit the Virgin Islands first and then it hit us, and then the rest of Puerto Rico. And what I think impressed me the most, is that it’s not resilience, it’s resistance and it is really strengthening us. I saw our community give everything we had for our neighbors of the Virgin Islands. Literally getting on a boat with towels, sheets, and food, and ice to take it to our neighbors. And then Maria hit us all. We need to do something that is beyond what has already been done. And that is why we call it resistance. We want to make sure that we continue the quest to have sovereignty for our food system the best that we can.”*

For Dulce, the need for food sovereignty across Puerto Rico was heightened after confronting the types of emergency food provided to the island archipelago after Hurricanes Irma and Maria.

The food boxes were not well-received or tolerated by the community for a variety of reasons, but as Dulce explained, “We did not want to disagree with the help we are getting.” This experience was repeated during the Covid-19 crisis and highlights how and what food is provided in times of emergency is crucial. As a result, Mujeres de Islas is fighting for better quality emergency food by listening and acting on community needs and wishes.

## Decentralizing Distribution and Processing

In response to the food systems disruptions heightened by Covid-19, El Departamento de la Comida de Puerto Rico implemented a decentralized food hub model across Puerto Rico. The decentralized food hubs are multi-purpose spaces – a combination of a shared kitchen and a mutual aid center where seeds, tools, available food, and infrastructure is shared and available to the community.

Working as an alternative to huge food hubs, these spaces are very small scale and serve as a sort of community hub where not only food but also medicine, tools, energy, and services are available. Speaking to how this model came to be, Tara explained:

*“Our space opened and then a week later Covid happened. We took the same funding that we had for our cooks in our little, tiny food hub and decided that, because of Covid, we needed to decentralize because we wouldn’t be as effective if we didn’t. We subsidized different cooks around the islands to then deal with their own cooking and preservation. We helped them to get more kitchen equipment, and we changed the programming so now our food hub only focuses on the immediate surrounding area. We redistributed funds to four other cooks around the islands so now there are more kitchens. This has been really effective in keeping the system going.”*

The shift to focusing on decentralized food efforts in Puerto Rico came after El Departamento de la Comida began working with a community mutual aid kitchen in a shutdown school that is supported from solar and rescued electricity and feeds 100 meals a week using volunteer labor. Tara explained that this partnership helped propel El Departamento de la Comida to decentralize within their own programming.

“We adapted a decentralized outlook on our use of funding and programming and created relationships with other community food spaces and helped by financing and subsidizing their ingredients. We connect these food spaces to farmers in the mutual region. We pay farmers and the center receives produce from farmers every two weeks depending on what they want. Working this way helps us to not become future gatekeepers. This process has helped us deepen our relationships with other food work in Puerto Rico and is not a one-way relationship. It is based on reciprocity and trust.”

Tara Rodríguez Besosa

In addition to the social dynamics important to the decentralized network, the physical set up of the hub is also important. For instance, food hub systems must have the ability to operate off-grid when needed (e.g., climate disaster, electrical shut off). For example, this means having a walk-in cooler that can run off solar energy and not be dependent on batteries.

## Moving More than Money

For the decentralized hubs to prosper, there must be the continuous movement and exchange of knowledge, seeds, food, and resources between the hubs. In Culebra, the sharing of seeds became a priority after the island was impacted by hurricane Irma in 2017. Dulce explained that prior to this event, the community had viewed seeds as something to get but not necessarily as something to save or understand. After Irma wreaked havoc on the island’s vegetation, Mujeres de Islas recognized that they needed to learn about the plants growing on the island, save Culebra’s seeds, and share them with community members. Now, there is a community-wide market every three months where people bring and exchange seeds. Dulce stated, “Seed sharing is an act of love and importance. It represents the gesture of understanding and giving into Culebra.”

Centering whole-body wellness is also a core tenant of El Departamento de la Comida de Puerto Rico and Mujeres de Islas because wellness is an often-overlooked aspect of disruption response. Extreme weather events and economic disruptions place drastic stressors on members of the community. In the aftermath of recent hurricanes, El Departamento de la Comida offered free yoga, massages, and acupuncture to farmers to integrate wellness as part of disaster response – highlighting how wellbeing and health are crucial for community resilience.

When asked what resilience meant to them, Tara noted, “The word resilience may not be used within communities because it is celebrating the fact that I survived something bad. We are trying to make sure that if we talk about resilience, we speak to an evolution beyond pure survival. In the future, wellness needs to be included in all food hub model programming and intergraded in USDA research.”

This is clear in El Departamento de la Comida's six prong programmatic strategy that includes rainwater collection, renewable energy, seeds, labor, reforestation, and wellness.

## Fewer Strings, Greater Impact

In terms of funding this work, both Tara and Dulce emphasized the need for receiving unrestricted funds. Tara noted, "We need to put more money in the hands of community organizations in the way of unrestricted funds that have flexibility in how they are used. There is power in having unrestricted funds, especially when disaster happens." For Tara's organization, this means asking for funding that allows for 20% of the budget to go towards the unexpected and unknown. This aligns with El Departamento de la Comida de Puerto Rico's mission of becoming an effective alternative to government programming or big non-profit offerings.

Tara and Dulce explained that the food systems solutions that work best in Puerto Rico occur when led by community organizations because "communities know best."

## The Importance of Scale

In Puerto Rico, geographic differences occur every 15 to 20 miles. Key to the success of the decentralization efforts discussed above is the fact that grassroots organizations in Puerto Rico recognize that conditions and communities change every 15-20 miles.

In times of a disaster or disruption, response systems must be set up to respond to the specific needs and solutions of each community to have resilience in the emergency. Despite their individual, localized focus, these food hubs do not operate purely in silos, instead, engaging in continuous exchange of knowledge across and between geographic areas.

According to Dulce and Tara, the decentralized efforts occurring in Puerto Rico have been successful because they are "In the hands of communities and from the community, up."

The conversations with Tara and Dulce illuminated how, in Puerto Rico, social and cultural infrastructure is as important as cold storage or an electrical grid.

"Solidarity is in the genes of the people of Puerto Rico... There is a feeling that connects the people of Puerto Rico beyond the food. We are going to provide for and feed each other. This solidarity is not just about the food, it is also about regaining our cultural identity."

Dulce del Rio-Pineda

Within decentralized food supply efforts in Puerto Rico, everyone has different roles and different functions in making the work succeed. When the community comes together out of true reciprocity- resilient, equitable, and place-specific systems emerge.

## Thanks for reading!

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For more information and resources on Local and Regional Food Systems Response to COVID: Recovery and Resilience, visit [www.lfscovis.localfoodeconomics.com](http://www.lfscovis.localfoodeconomics.com) where you can read innovation briefs, watch previous webinars, and check out resources put forth by other sectors of the local and regional food system.

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Dulce del Rio-Pineda – Mujeres de Islas

To learn more about Mujeres de Islas visit their website: <http://www.mujeeresdeislas.com/>.



Tara Rodríguez Besosa – El Departamento de la Comida de Puerto Rico

For more on El Departamento de la Comida de Puerto Rico visit their website:

<https://www.eldepartamentodelacomida.org/about>

