Equitable Food Oriented Development Case Study El Departamento de la Comida, Puerto Rico



WORLD FOOD POLICY CENTER

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EQUITABLE FOOD ORIENTED DEVELOPMENT CASE STUDY: EL DEPARTAMENTO **DE LA COMIDA, PUERTO RICO**

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Front Cover: El Depa members working in their garden in the community center in San Salvador, Caguas, Puerto Rico. Credit: Denise Rebeil

Back Cover: Countryside near El Depa's community center in San Salvador. Credit: Denise Rebeil

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Contents

Executive Summary	
Introduction	6
Historical Timeline	3
Extractive Policies Shaping Puerto Rico's Reality 1' Annexation as a U.S. Territory 1' 1917 Jones Act Undermines Economic and Social Stability 1' Unemployment, Over-reliance on Tourism 1' Climate Change and Disaster Capitalism 1' Limited Power to Influence U.S. Policy for Puerto Rico 1' Food Insecurity in Puerto Rico, Reliance on Imported Food 1'	1 2 3 5
Barriers to Sustainable, Resilient Food Sovereignty in Puerto Rico 18 Isolation During Emergencies 19 Lack of Access to Land, Degraded Environment 27 Limited Land Availability, Corporate Land Ownership 27 Extractive Agricultural Practices, Lack of Environmental Protections 27 Administrative Burden of Farming 24 Aging Agricultural Workforce, Lack of Workforce Pipeline 25	9 1 3 4
El Departamento de la Comida (El Depa) 26 El Depa as an Example of Equitable Food Oriented Development 28 Key Strategies 30 Locally Grown Food Delivery System (2010) 30 Restaurant, Kitchen, and Storefront (2012-2017) 32 Brigadas: Gathering Volunteers to Help Local Farmers Rebuild (2017–2018) 32 Agroteca (2017–2018) 32 Centro Comunitario (2019–Present) 34	8 0 1 2 3
Conclusion: What can we learn from El Depa?38Resilient, Adaptive Food Systems Require Intentional Design39Adaptive Food Models Serve Communities36Reclaiming Culture and Agriculture is an Act of Resistance37Building Networks of Mutuality Strengthens Local Capacity38Championing Food Sovereignty Requires Systemic Action39Call to Action40References47	5 6 7 8 9



El Depa farm in San Salvador, Caguas, PR. Credit: Denise Rebeil

Executive Summary

Puerto Rico is a commonwealth of the United States. Geographically located in the hurricane belt, Puerto Rico is subject to routine natural disasters. The political position of Puerto Rico first under Spanish colonial rule and then under commonwealth status of the United States have negatively impacted the island through a history of extractive policy and disaster capitalism.

This case study of El Departamento de la Comida (El Depa) highlights the assets of the people and the land in Puerto Rico. It speaks to the power of connection, of relationship, and of adaptability. It names both what it is and what can be through localized food systems, led by and accountable to the people they serve.

El Depa works to build food sovereignty, local resilience, and to improve nutrition and food access through innovative, community-responsive, market-focused strategies. El Depa's work over multiple years embodies Equitable Food-Oriented Development as defined by the EFOD Collaborative. El Depa successfully:

- connects communities with smallholder farmers to strengthen local food systems
- creatively supports farmers and communities after natural disasters by organizing work teams, providing tools and equipment for common use, as well as agricultural educational materials
- creates market-based options to sell food, or to donate food at risk of being wasted, including a restaurant and community supported agriculture (CSA) food delivery
- support aging small-scale farmers in advocating for food sovereignty and preserving culturally-relevant agricultural traditions
- works to counteract the flight of young people from Puerto Rico, and promotes agricultural and food system careers in multiple ways

Key Findings

- Without local consultation, the U.S. government has rented or sold the most favorable agricultural properties in Puerto Rico to multi-national corporations. Foreign landowners, not Puerto Ricans, now hold a high proportion of cultivable land. This makes entering agriculture as a small-scale farmer unnecessarily challenging, and limits locally-owned farming that could support food sovereignty. El Depa offers education about government restraints on island land, and works to provide support to local farmers attempting to prosper despite tremendous barriers.
- Disaster capitalism allows foreign organizations to exploit Puerto Rico. Foreign disaster organizations undermine Puerto Rican grassroots organizations that are connected to community, and who know how to serve communities during disasters. El Depa is a community-rooted^{™1} and community accountable organization. Their existence and work on the island, particularly disaster relief services, counteracts the usual paternalistic Non-governmental organizations (NGOs) who work without true local understanding.
- 3. The Jones Act² has had a devastating and farreaching impact on the island's independence. The policy has limited the local economy, reduced the availability of healthy, local food on the island, and has negatively impacted local agricultural systems. Through adaptive and locally responsive food models and programs, El Depa builds more sustainable food systems on the island that are both profitable and healthy for residents on the island.
- 4. The current supply chain on the island leads to nutrient loss in food, and negative health impacts. The length of time that transpires from when food is harvested by farmers, handled, and transported to the tables of people in Puerto Rico is unnecessarily lengthy. This is a direct result of the Jones

Act and capitalist, U.S. protectionist practices constraining the island's food system. Community members involved in the Puerto Rican food sovereignty movement wish to create a thriving, independent, decolonized food system to replace dependence on the current U.S. government-controlled food system.

- 5. El Depa has supported multiple locally-owned and run food hubs and established their own food hubs as a first step in building a functional, sustainable food system that can expand commerce and services across the island.
- 6. Puerto Rico will continue to experience natural disasters and contend with loss of imported goods during these times. A self-sustaining decentralized food network on the island can help to establish and ensure food security in Puerto Rico during challenging times. El Depa's food hubs provide ongoing connection to healthy food, especially in times of disaster.
- 7. Similar to the United States, Puerto Rico is dealing with an aging farmer population, with few younger farmers coming in to take over in the next generation. As these aging farmers pass away, agricultural traditions could be lost. As a result, the island could become even more dependent on outside food and resources. El Depa has organized volunteer teams called brigadas to aid smallholder farmers during times of need, as well as an agroteca that provides needed tools and educational materials.
- 8. Educational systems in Puerto Rico do not have a robust agricultural curriculum. This contributes to a diminishing agricultural workforce, and does not inspire young people to pursue agricultural careers. El Depa is working to counteract this through training and education to inspire people of all ages to get involved in agricultural and food system careers by offering workshops and hosting internships.

Introduction

El Departamento de la Comida (El Depa) provides community-rooted solutions to address local food production, food sustainability, and to increase food security through food sovereignty on the island of Puerto Rico. This case study will describe the organization's origin, sustainability models, and approaches so that other community-rooted organizations fighting similar struggles can learn from their experience and illuminates how food sovereignty in a U.S. territory looks different than in U.S. states.

El Depa is a non-profit organization in Puerto Rico whose strategies leverage community residents' existing expertise and resources to directly address the root causes of conditions. Community-rooted organizations are accountable to and work to build capacity for community development. Community-rooted organizations differ from community-based organizations that may marginalize community voice, limit capacity building, and neglect systemic community issues.

El Depa's core goal is to achieve food sovereignty for their community. Food sovereignty in this context is defined as "the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts the aspirations and



Borikén

The Taino people who inhabited the islands before Spanish colonization called the islands Borikén or Borinquen.⁶⁴ The term that will be used throughout the case study to identify people from Puerto Rico is Boricua, and the homeland will be referred to as Borikén.

needs of those who produce, distribute, and consume food at the heart of food systems and policies rather than the demands of markets and corporations."³

El Depa has evolved over time, creating and leveraging different food and farming models to support local food production and incentivize sustainability in Puerto Rico. El Depa has successfully built relationships with local farmers, plugging into the food movement in the community, and connecting with the diaspora of Boricua for cultural preservation. El Depa is responsive and nimble, having evolved and reconfigured in response to the needs and necessities of local communities, particularly during hurricanes and other natural disasters.

Methodology

During the Summer of 2022, a bilingual Duke student researcher spent three weeks with El Depa in Puerto Rico. Interview conversation flowed from English to Spanish, and was transcribed. In this report, information originally provided in Spanish is presented in translated English and Spanish. Information provided in English has not be translated into Spanish. The researcher attended El Depa meetings, held informal conversations with residents, helped El Depa members with different initiatives, toured El Depa and local farmer spaces. The researcher also attended work meetings, farmers markets, and community events; and learned about local farms and gardens near the community center in El Salvador, Caguas, Puerto Rico. Interview questions were developed from the researcher's time on the island and guided by informal conversations with El Depa members. El Depa members spoke openly and broadly about issues they were facing, both as an organization and as individual people living in Puerto Rico. Interview questions were meant to aid in further discussion and in understanding the issues on the island.

The researcher used a deductive coding approach for interview analysis. There are four main analysis themes: Capitalism, Imperialism, Sustainability, and Resilience. The themes represent systemic issues and approaches to solutions in Puerto Rico. The themes connect different interviewees and create a coherent story. They also provide high-level contextual guidance for how to best support an organization that is fighting dispossession, as El Depa is doing.

Research Constraints

Hurricane Fiona touched down on Puerto Rico in 2022 as interviewees for the project were being identified. The resulting destruction caused El Depa members to appropriately focus on their members and communities' well-being before focusing on this project. This caused delays in scheduling interviews through El Depa and contacting farmers. This also limited the researcher's communication with El Depa members after leaving the island. El Depa and the Duke World Food Policy Center identified five key individuals for case study interviews, including four El Depa members and one farmer. All five interviewees are residents of Puerto Rico who are involved with the food movement, understand the U.S. territories food system from a local's perspective, and who receive input on solutions from people in their community. The interview questions and process were approved through the Duke Internal Review Board process.

Themes

Capitalism: an economic system based on the private ownership of the means of production and for-profit operation. Central characteristics of capitalism include capital accumulation, competitive markets, price system, private property, property rights recognition, voluntary exchange, and wage labor.

Imperialism: extending a government's power politically through diplomacy or military force or dominance through force. This includes practices to maintain power over said state, colony, or territory through economic restraints, legal constraints, resource constraints, political constraints that serve the nation state but not the territory in this instance. Puerto Rico experienced imperialism under Spanish rule and now through U.S. governance.

Sustainability: pratices, initiatives and steps being proposed and/or implemented to help improve the environmental impact of the food system, economic justice through agriculture, and food access on the island.

Resilience: actions to bring awareness, address issues, propose solutions and/or actions aimed at changing inequities on the island.

Historical Timeline



Listing of hurricanes is incomplete. Tropical storms not depicted.

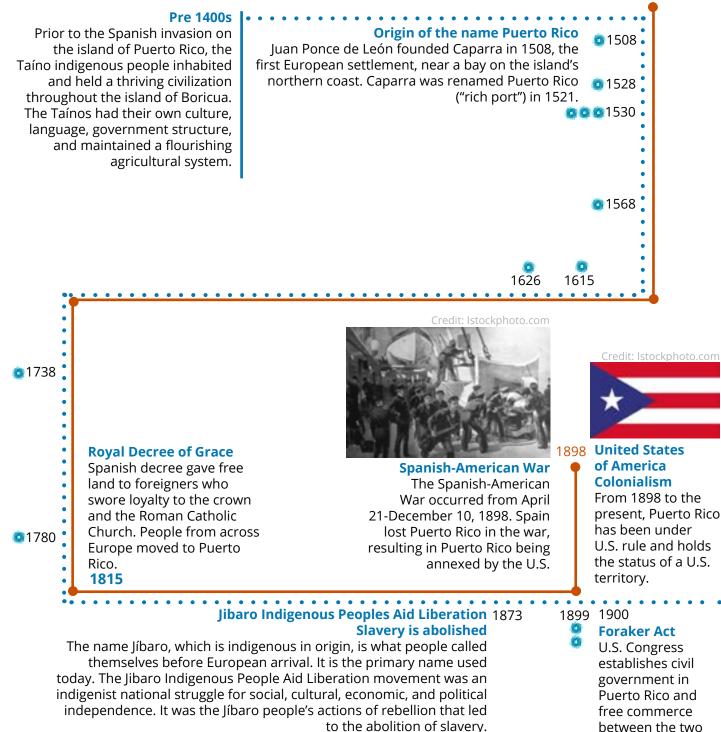
Spanish Colonialism

Puerto Rico was invaded and fell under Spanish rule when Christopher Columbus claimed the island for Spain in 1493. Spain exploited Puerto Rico's resources, brought enslaved African people to the island, spread disease, and forced indentured servitude across indigenous people residing on the island.

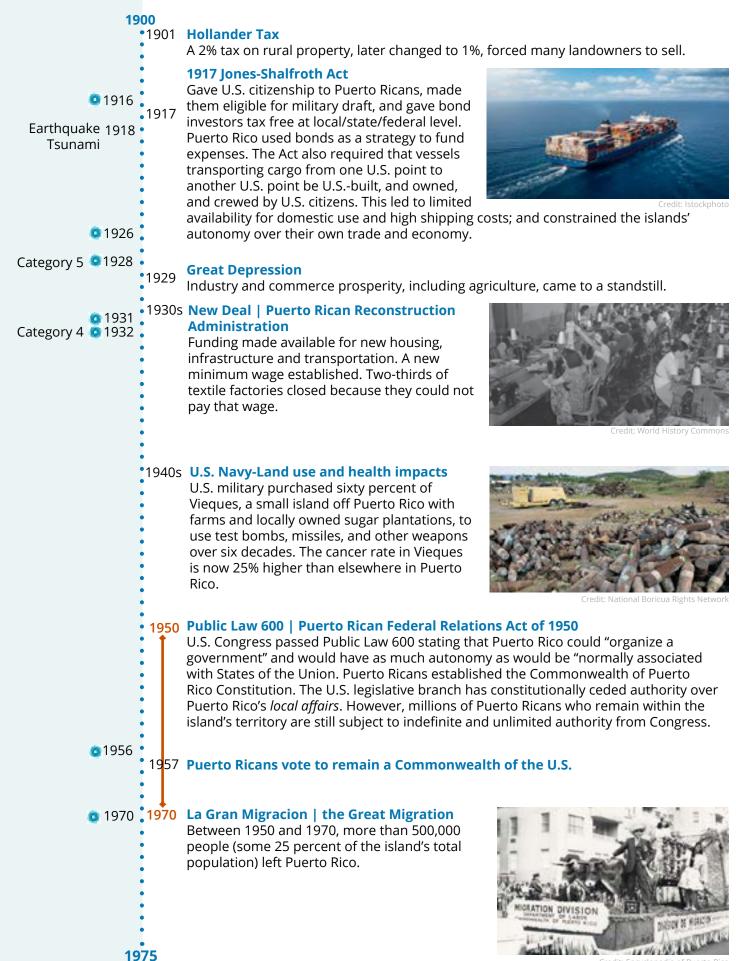


Late 1400s-1898

countries.

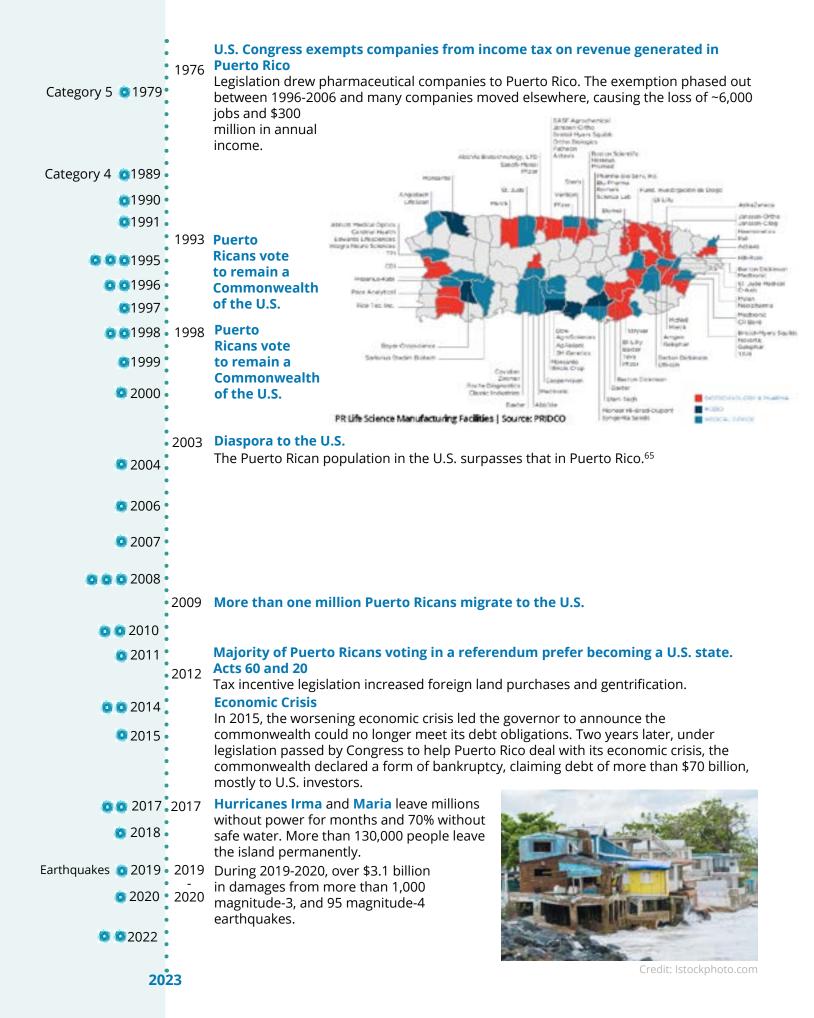


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8—Equitable Food Oriented Development Case Study: El Departamento de la Comida, Puerto Rico
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^{9—}Equitable Food Oriented Development Case Study: El Departamento de la Comida, Puerto Rico

Credit: Encyclopedia of Puerto Rice



Extractive Policies Shaping Puerto Rico's Reality

This section presents specific examples of how historical and current U.S. policy undermines Puerto Rico's food system.

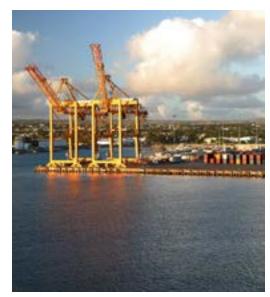
Annexation as a U.S. Territory

Between the late 1400s –1898, Spain invaded and took control of the island.⁴ Spain exploited Puerto Rico's resources, brought enslaved people to the island, spread disease to islanders who had no natural immunity, and forced indentured servitude on indigenous people residing on the island.⁵ The Spanish-American War took place in 1898. Spain lost Puerto Rico in the war, leading to the annexation of Puerto by the U.S.⁶ From 1898 to the present, Puerto Rico has been under U.S. rule and holds the status of a U.S. territory.⁷

After the U.S. took ownership, it began exploiting Puerto Rican land for agriculture, food production, government missile experimentation, and as an outlet for corporate tax breaks. These actions have led to the destabilization of the island that compounds the negative impact of Spanish colonial occupation.

1917 Jones Act Undermines Economic and Social Stability

In 1917, the U.S. passed the Jones Act. This legislation gave U.S. citizenship to Puerto Ricans and created a triple tax exception for bond investors.⁸ The act also provided significant maritime trade protections for U.S. shipyards, U.S. domestic carriers, and American merchant sailors. It required that vessels transporting cargo from one U.S. point to another U.S. point be U.S. built, owned, and crewed by U.S. citizens.⁹ The Jones Act unnecessarily forced Puerto Rican and all non-U.S. ships to first dock at U.S. mainland ports, even if goods are intended specifically for the island. Research shows that this practice leads to high domestic ocean shipping costs and constrains the availability of ships for domestic use.¹⁰ Additional taxes due to transportation of outside goods (85 percent of all consumer goods including food) makes food prices 21 percent higher in Puerto Rico than on the U.S. mainland.¹¹ The exorbitant import costs diminish revenue that can come from the island.



There is consensus amongst the case study interviewees that the Jones Act is the most debilitating U.S. policy for the island. The legislation prevents economic autonomy and forces the island to depend on primarily imported goods. In addition, an unnecessarily lengthy supply chain negatively impacts the nutrient value of food.¹² As an interviewee explained:

...[the Jones Act is] maintained to this day, but there's no military logistical reason. It's not a safety concern at this point. It's more you follow the money. It's the WHO is benefiting off of that and who's suffering because of it. And somebody out there is making a lot of money off of sending ships from Jacksonville, Florida to Puerto Rico in order to basically be the lifeline of what was 85% of all food in Puerto Rico and that then became like 98% after the hurricane coming into the island... RESIDENT 4 INTERVIEW Tax revenue from Puerto Rico totaled more than \$4 billion during the 2021 fiscal year.¹³ According to the Council on Foreign Relations (CFR), residents of Puerto Rico are subject to multiple taxes, including federal payroll tax, Social Security, and Medicare taxes.¹⁴ However, they do not pay federal personal income tax on income earned in Puerto Rico.¹⁵ Instead, residents pay local taxes, such as property taxes and sales tax to fund the Puerto Rican government's operations.¹⁶ Because residents of Puerto Rico are exempted from paying federal income taxes, they are not eligible for some of the governmental services offered to residents of U.S. states.¹⁷ For example, Puerto Rican residents are not eligible for the Earned Income Tax Credit and on average earn less in Social Security and Veterans' benefits.¹⁸

Similar tax exemptions apply to corporate businesses. These exceptions have permitted external multi-national corporations to capture large amounts of land on the island. This in turn has led to the exploitation of the island's resources without a corresponding contribution to the local economy. Puerto Rico has had to contend with enormous debt, government scandal, and corruption.¹⁹

Unemployment, Over-reliance on Tourism

The unemployment rate in Puerto Rico has stayed at almost twice the U.S. national average for the past decade.²⁰ In addition, average household income is about one third of the U.S. average, and the poverty rate is more than twice that of the poorest U.S. state of Mississippi. ²¹ Although Puerto Ricans are U.S. citizens, they do not have access to the same governmental programs, and do not hold the same rights as those on the mainland.

Many islanders and mainlanders believe tourism is the biggest economy of the island. An interviewee said this is not true. The tourism economy has limited employment options and constrained residents of the island to low-paying jobs. This furthers the profit of larger corporations and maintains unlivable wages for islanders.



Credit: Deena Arts

Tourism doesn't actually make up that much of Puerto Rico's GDP [Gross Domestic product] or whatever it's called. But the income of Puerto Rico, I think it's only 7% or 8%. Which is not a huge amount, but there's been a really big push. It started since before the hurricane, and then it went through a little pause, and then it came full steam back. And now post COVID, it's back full steam again - really trying to market and invest in Puerto Rico as a top destination for travel, and vacation. This big push for the visitor economy and tourism and all this stuff... You're basically creating a lot of service industry jobs that are not going to be paid well. You're kind of taking all of the cultural assets and just making them digestible or consumer-ready for outsiders to come in and experience them...I feel like the areas in which industry and jobs are incentivized here is also usually a part of some extractive scheme to end up disempowering Puerto Rico and Puerto Ricans in the long run, even if it may seem that there's a short-term gain or opportunity. I don't think that the visitor economy is good for the future of Puerto Rico. RESIDENT 4 INTERVIEW

Climate Change and Disaster Capitalism

As an island in the hurricane belt, Puerto Rico is susceptible to natural disasters such as severe tropical storms, hurricanes, and earthquakes, as evidenced in the timeline.²² Due to climate change, it is expected that Puerto will be hit more frequently by natural disasters in the future.

There are two significant differences in natural disaster response in the states as opposed to Puerto Rico: timeliness in obtaining aid and funding to rebuild.²³ Hurricane response on the mainland is typically faster than response to Puerto Rico, in part due to the challenges of transporting aid and personnel to an island.²⁴ The federal government has allocated less funding for hurricane relief and recovery in Puerto Rico compared to mainland states impacted by hurricanes.²⁵ The reduced funding has delayed rebuilding efforts (or stalled reconstruction altogether), and overall provided less support for affected communities.²⁶

Federal Emergency Management Agency (FEMA)

FEMA is a government agency whose mission is to serve people after a natural disaster by providing financial compensation or other types of resources and support to restabilize communities. Puerto Ricans are often not informed of their right to claim disaster relief or are met with barriers that force them to either give up or pursue legal action. This is particularly devastating given victims of natural disasters are already in financially precarious and vulnerable situations and may be forced to spend more time seeking legal support.

At the same time, "disaster capitalism" has thrived after hurricanes on the island. Disaster capitalism refers to the exploitive practice of profiting from natural disasters or economic crises to advance corporate interests and implement neoliberal economic policies.²⁷ This often involves using the chaos and confusion of a disaster to push through policies that would not be possible in normal circumstances, such as privatization of public services, deregulation, and austerity measures.²⁸

Disaster capitalism impacts Puerto Rico in several ways, most recently in the aftermath of Hurricane Maria in 2017.²⁹ After Maria, there was a rush to contract out rebuilding efforts to private companies, many of which were inexperienced and ill-equipped to handle the scale of the disaster.³⁰ This rush led to cost overruns, delays, and substandard work.³¹ The government was criticized for failing to prioritize the needs of Puerto Ricans in the rebuilding process. Disaster capitalism also includes wealthy individuals and businesses sweeping in to buy homes from people who cannot afford to rebuild after a hurricane. This has been happening more and more on the island, which is leading to gentrification. A community organizer explained:

...Disaster capitalism of like what happened in New Orleans and happens elsewhere of like people taking advantage of the chaos and the rebuilding and reconstruction to grab a bunch of land and develop it into something else. And that is something that a lot of land has been bought up and it's unclear at this point how much, but I think the coming years will continue to show how much land has been bought by non-Puerto Ricans here and what's going to be done with it.

RESIDENT 4 INTERVIEW

Disaster capitalism also comes in the shape of foreign nonprofits ostensibly seeking to help during emergencies and/or natural disasters. However, only a small portion of the relief money they obtain goes to those directly impacted on the island. As an interviewee said:

There's a swarm of foreign nonprofits invading the island. We now have more nonprofits per square mile than many places, with zero exit strategies. We have like the Clinton Foundation, we have World Central Kitchen, we have the Red Cross. We have all of these big corporate nonprofit orgs that came in the name of we're going to help the Puerto Rican people posthurricane, FEMA and all of this. And there was an invasion on top of the invasion that was already happening. And that really affected grassroots organizing that really affected like the local advocacy and the local networks that had been really doing a lot of the important work from the bottom-up pre-hurricane.

RESIDENT 5 INTERVIEW



Hurricane Maria damaged homes, businesses, farmland, and service utilities across the island. Credit: IStockphoto.com

Limited Power to Influence U.S. Policy for Puerto Rico

As a commonwealth, Puerto Rico is a selfgoverned, unincorporated territory of the United States.³² Its residents are subject to U.S. laws and pay income taxes to the U.S. government.³³ However, as a U.S. territory, the island does not have voting power in Congress.

Puerto Ricans are denied voting rights in U.S. national elections. This includes presidential elections and applies to U.S. citizens residing in Puerto Rico or any of the other U.S. unincorporated territories.³⁴ Puerto Rico has one member of the U.S. House of Representatives, known as the resident commissioner, who represents the interests of the island.³⁵ Committees of both the Republican and Democratic Parties in Puerto Rico are allowed to select voting delegates to the parties' national presidential nominating conventions and state presidential primaries or caucuses. However, U.S. citizens living in Puerto Rico or the other territories cannot vote in federal elections unless they also maintain a legal voting residence in one of the 50 states or the District of Columbia."36

Local policymakers continue to argue that Puerto Ricans are unequal citizens who belong to but are not a part of the United States. These unequal conditions in politics and status of the island affirms this U.S. constructed inequality.

Differing Visions for a Better Puerto Rico

Unlike the U.S., Puerto Rico has six active political parties including Popular Democratic Party (PPD), New Progressive Party (PNP), Puerto Rican Independence Party (PIP), Working People's Party (PPT), Puerto Rican for Puerto Rico Party (PPR), and Sovereign Union Movement (MUS).⁶⁶ Puerto Rico's political parties advocate for the political standing they believe the island should hold (some parties do refuse to take a stand). The options are: remain a US commonwealth, seek statehood, or become fully independent. The three most popular parties are PPD, PNP, and PIP. The Popular Democratic Party (PPD) advocates to maintain the current political status of Puerto Rico and to remain as a U.S. colony.⁶⁷ The Progressive Party (PNP) advocates for statehood or for Puerto Rico to become a state of the U.S.⁶⁸ The Puerto Rican Independence Party (PIP), advocates for the independence of Puerto Rico.69

In 2020, residents of the island of Puerto Rico voted to assess social perceptions of the island's ideal political status.⁷⁰ About 52% percent of residents voted for statehood and 47% percent voted against it.⁷¹ Only 52% of eligible voters participated in the referendum conducted by Puerto Rico's election commission.⁷²

Food Insecurity in Puerto Rico, Reliance on Imported Food

The USDA's Economic Research Service (ERS) holds the power, responsibility, and influence to raise issues regarding agriculture and food insecurity. Food-insecure households are defined as those having difficulty at some time during the prior year providing enough food for all members of the household due to a lack of resources.³⁷ While the USDA ERS provides critical data and analyses of the United States, data collected on Puerto Rico is not particularly robust, particularly when it comes to measuring food insecurity. USDA ERS informs U.S. national policy but does not accurately measure Puerto Rico's level of food insecurity. Constraints to collecting accurate data range from the sources not being readily available, challenges from the island's geographic isolation, economic challenges, and ongoing recovery efforts from natural disasters. Such shortcomings ultimately exacerbate existing inequities.

The lack of accurate federal tracking of the island's food insecurity constrains the allocation of appropriate support and advocacy for improvement. George Washington University surveyed 1,400 households in Puerto Rico to assess food insecurity during the pandemic.³⁸ They concluded that prior to the pandemic 38 percent of island residents were experiencing food insecurity and during the pandemic 40 percent were food insecure.³⁹ Consequently, food insecurity on the island could be far worse than available data suggests.

In addition to inaccurate measures of food insecurity on the island, food quality is also a critical issue. Puerto Rico's reliance on imported goods has reduced food quality and exacerbated food insecurity. According to the United States Department of Agriculture, Puerto Rico now produces only 15 percent of its own food, and imports 85 percent of their goods.⁴⁰ The current food system and lack of policies aimed at the wellbeing of Puerto Ricans has led to nutritional issues and worsening food insecurity. A result of these challenges is that during the pandemic and Hurricane Maria, supply chain issues caused delays in receiving necessary supplies. The food system was severely compromised, leading to food insecurity across the island and reliance on the small network of local food producers.

The businesses profiting from Puerto Rico importing 85 percent of goods do so at the cost of low-level food nutrition for residents. This has led to poor health outcomes to the Puerto Rican people. A farmer/ community organizer expressed:

2

It's all imported, here there are a lot of imports, there are many canned goods. Here, a lot of food since the [19]60s or before, since the farms were moved to industrial production, instead of food for the people, since then we are used to eating fast food, I say that everything is to kill hunger. And so that is the mentality by which most people also approach food as something that is to appease hunger or pain or need, but not necessarily to nourish us or give us energy, or to heal us or fight some disease. In truth, that is not the lens through which we look at food, nor is it how it is not sold by this government or corporations. It is not the type of consumption that they want us to have with food. I can tell you that it doesn't work because people go hungry here, but another type of hunger, nutritional hunger, quality hunger, hunger for access to clean food." **RESIDENT 2 INTERVIEW**

Es todo importado, aquí hay mucha importación, hay muchos enlatados. Aquí, mucha comida desde los [19]60 o antes, desde que se movieron las fincas a una producción industrial, en vez de alimentos para la gente, pues desde entonces estamos acostumbrados a una alimentación como rápida, yo digo que todo es para matar el hambre. Y así eso es la mentalidad por la cual la mayoría de las personas también se acerca a la comida como algo que es apaciguar el hambre o el dolor o la necesidad, pero no necesariamente para nutrirnos o darnos energía, o para sanarnos o combatir alguna enfermedad. En verdad, ese no es el lente por el cual miramos a la comida, ni tampoco es como no las venden este Gobierno o corporaciones. No es el tipo de consumo que quieren que tengamos con la comida. Te puedo decir que no funciona porque aquí se pasa hambre, pero otro tipo de hambre, hambre nutricional, hambre de calidad, hambre de acceso a alimentos limpios. ENTREVISTA CON EL RESIDENTE 2

As one interviewee says:

For me it is an abusive system, mostly and that responds to market and extraction needs, because here it is planted to extract seeds and to send them elsewhere, to experiment. But here the food system is not seen as something to strengthen our society or give it a level of creating opportunities and also improving our quality of life. We do not see food as a key to improve our level.

RESIDENT 2 INTERVIEW

Para mí es un sistema abusivo, mayormente y que responde a unas necesidades de mercado y de extracción, porque es que aquí se siembra para extraer semillas y para enviar a otro lado, para experimentar. Pero aquí no se mira al Sistema Alimentario como algo para fortalecer nuestra sociedad ni darle un nivel de crear oportunidades y también de mejorar nuestra calidad de vida. No vemos la comida como una llave para mejorar nuestro nivel. ENTREVISTA CON EL RESIDENTE 2

Street stand for fruits and vegetables in San Juan, PR. Credit: Jennifer Blount



Barriers to Sustainable, Resilient Food Sovereignty in Puerto Rico

Although small-scale, local food production and a largely agrarian society once supplied the majority of food consumed on the island, governmental policies favoring industrialization, tourism, and reliance on federal food assistance programs, have destabilized the local food sector.⁴¹

Research published in the journal *Agriculture and Human Values* emphasized concerns with a decreasing agricultural sector and highlighted how small-scale farmers can help to alleviate these trends.⁴² The research team note: "In Puerto Rico, a diminished agricultural sector and resulting food import dependence have been implicated in reduced diet quality, rural impoverishment, and periodic food insecurity during natural disasters. In contrast, smallholder farmers in Puerto Rico serve as cultural emblems of self-sufficient food production, providing fresh foods to local communities in an informal economy and leveraging traditional knowledge



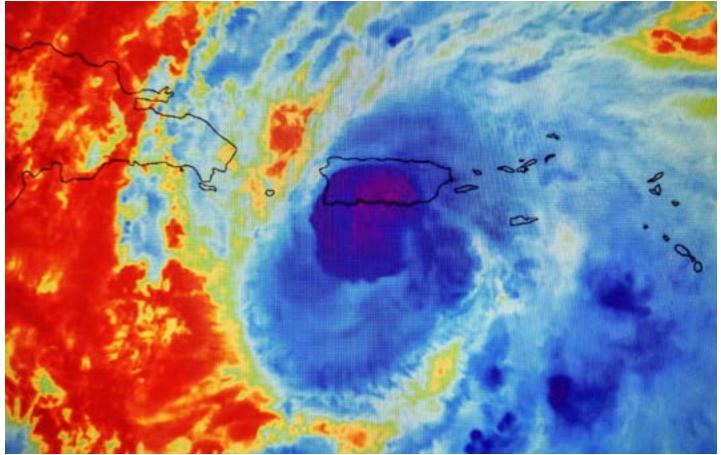
systems to manage varying ecological and climatic constraints."⁴³ Consequently, local farming is an important strategy to help offset food insecurity on the island. Sustainable and resilient agriculture is critical to a strong and independent island.

Food Assistance Programs

The Supplemental Nutrition Assistance Program (SNAP) provides resources to people in all 50 states, the District of Columbia, and the U.S. territories of Guam and the Virgin Islands. Puerto Rico is not served by SNAP. Nor is American Samoa, or the Commonwealth of the Northern Mariana Islands. The three U.S. territories who have the highest poverty rates are excluded from SNAP. In 1982, the U.S. replaced the old food stamp program in Puerto Rico that functioned exactly like the U.S. mainland program with the Nutritional Assistance in Puerto Rico (NAP).⁷³

NAP is a block grant program that provides lower funding than SNAP and has a funding cap. This has been described as "Congressional discrimination against territories."⁷⁴ In addition to nutrition assistance, other public benefit programs are different in Puerto Rico than in the United States. When it comes to Medicaid, Puerto Rico has, "lower eligibility levels, lower federal funding, fewer mandatory benefits, lower provider payments, and lower spending per enrollee."⁷⁵

Additionally, Puerto Ricans do not qualify for the Supplemental Security Income (SSI) and Earned Income Tax Credit (EITC). Differences in federal entitlement programs between the U.S. and Puerto Rico are a glaring inequity. Policy sponsored change could serve to rectify this fundamental injustice.



Hurricane Fiona moving towards Puerto Rico. Credit: Peter Blottman

Isolation During Emergencies

Aid and delivery of food and supplies are most needed when Puerto Rico is cut off from the outside world by emergencies such as the Covid-19 pandemic, hurricanes, or other natural disasters. Hurricane Maria in 2017, for example, killed 3,000 people and caused more than \$90 billion in damage.⁴⁴ Lack of formal documentation of land ownership for Puerto Rican residents makes it difficult to quality for government support after natural disasters.^{45,46}

A hurricane hits, ships don't come, we lose contact with the rest of the world. Hell, we lose contact with people living beyond this mountain. This community was left on its own, completely isolated, because the roads were shut down because there were trees. You know, shutting them down. So really, at the end of the day, when [expletive] hits the fan, as the climate continues to react to our irresponsible use of our ecosystems, you know, we're going to get hit by stronger winds. And so, when those winds hit, we're really going to, like, our immediate communities, are going to become smaller and smaller and smaller. And those are your neighbors, the people that are with you. That's really, like the people... And the scale of what I feel should be in the vision of food sovereignty in the future, be it for Puerto Rico or be it elsewhere. Puerto Rico has more of like microclimate scale, because we're a smaller archipelago of islands.

RESIDENT 5 INTERVIEW

The situation is even worse for communities who live far away from the major ports where imports are funneled to the island. An interviewee explained these challenges:

Yeah, it depends where they live, what area you're from, what political party you're affiliated with, because all of those things play into the timing of an emergency. Unfortunately, since everything is imported here, everything will enter through San Juan, or through Ponce, or through Mayagüez. Most will enter through San Juan, which is the largest port. By itself, that's why you just limit the rest of the island from immediate access to food, help, first aid resources, hospitals. Here, anything that happens, an emergency that cannot be attended to in your area hospital —which is a lot of things— they will be transferred to the Medical Center, which is in San Juan. **RESIDENT 2 INTERVIEW**

Sí, depende de dónde viven, qué área eres, qué partido político estás afiliado, porque todas esas cosas influyen en el momento de una emergencia. Desafortunadamente, aquí como todo es importado, todo va a entrar por San Juan, o por Ponce, o por el Mayagüez. La mayoría va a entrar por San Juan, que está el puerto más grande. Ya de por sí, por eso nada más limitas el resto de la isla de acceso inmediato sea a comida, ayuda, recursos de primeros auxilios, hospitales. Aquí cualquier cosa que ocurra, emergencia que no se pueda atender en tu hospital de área —que es un montón de cosas— los van a trasladar a Centro Médico, que es en San Juan. ENTREVISTA CON EL RESIDENTE 2

During disasters, food becomes even more important, and island residents have turned to local food networks. A farmer talked about their experience being a frontline worker. This farmer and the farmer's coworkers risked their lives to deliver produce to Puerto Ricans during the pandemic. Local food producers like this farmer helped fill a glaring need despite limited capacity as food insecurity increased during the pandemic. He said:

We were one of the few, before the pandemic, who did that kind of... delivery to customers and precisely, when the pandemic hit, that was a boom. That was crazy. The volume of work was unsustainable... And we were alone, and obviously, since it was the beginning of the pandemic that we didn't know how the disease worked, obviously everyone was in a panic. So we still went out afraid to feed the world, because we said: "If we don't do it, who is going to do it?" So we went out with fear, but we went out.

RESIDENT 1 INTERVIEW

Nosotros éramos uno de los pocos, que antes de la pandemia, que hacíamos ese tipo de... entregar a los clientes y justamente, cuando llega la pandemia, eso fue un boom. Eso fue una locura. El volumen de trabajo era una cosa insostenible...Y estábamos solos, y obviamente, como era principio de la pandemia que no sabíamos cómo funcionaba la enfermedad, obviamente todo el mundo estaba en pánico. Entonces nosotros salimos aún con miedo a alimentar al mundo, porque nosotros decíamos: «Si nosotros no lo hacemos, ¿quién lo va a hacer?». Entonces salíamos con miedo, pero salíamos.

ENTREVISTA CON EL RESIDENTE 1



Credit: Ashia Jewell

Lack of Access to Land, Degraded Environment

Puerto Rico's agricultural sector is declining. Between 1998 and 2018, the number of farms declined by more than half (58.7%), and the amount of farmland declined by 43.6%.⁴⁷ Agriculture comprised only 0.67% of Puerto Rico's Gross Domestic Product in 2021.⁴⁸

Agricultural sales are mostly comprised of smallholder farmers in the island's interior mountainous region, with 83% of farms in Puerto Rico having less than 50 cuerdas (about one acre) and 53% generating less than \$5000 in earnings per farm per year.⁴⁹

Limited Land Availability, Corporate Land Ownership

Land ownership is a precious commodity in Puerto Rico. There are no restrictions on who can buy land on the island. Land titles can be purchased for a small fee in the name of an individual or a corporation. Two pieces of legislation that passed in 2012 incentivized land investment in exchange for tax exemptions: Act 60 and Act 20. After Hurricane Maria, the tax breaks were repackaged to attract finance, tech, and other investors. It is critical to note that Puerto Ricans do not qualify for the tax exemptions.⁵⁰ As corporations The vast majority of our best lands in Puerto Rico are already occupied by large farms that are often not even Puerto Rican...the government here gives them, among other things. And it's unfortunate, because the problem is that, as I told you, they have almost 10,000 acres. They are not theirs, but they rent them for 10, 15, 20 years. They are, they are, but they can't keep giving them more land and more seed companies can't keep coming, because then we small and medium farmers are left without the best land in the country. Because not only do they have land, but they have the best land.

RESIDENT 1 INTERVIEW

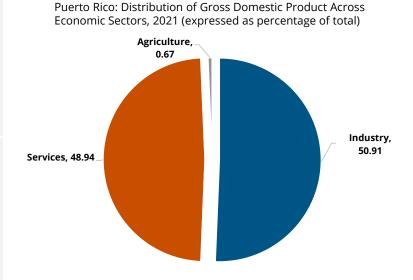
Las mejores tierras de nosotros en Puerto Rico, la gran mayoría están ya ocupadas por grandes granjas que muchas veces no son ni siquiera puertorriqueñas...el gobierno aquí les da a ellos, entre otras cosas. Y es algo lamentable, porque el problema es que como te digo, casi 10 000 cuerdas, ellos las tienen. No son de ellos, pero ellos las rentan por 10, 15, 20 años. Sí están, ya están, pero no pueden seguir dándoles más terreno y no pueden seguir llegando más semilleras, porque entonces nos quedamos los pequeños y medianos agricultores sin las mejores tierras del país. Porque no solo que tienen terreno, sino que tienen las mejores tierras. ENTREVISTA CON EL RESIDENTE 1 and wealthy individuals have taken advantage of the incentives, the legislation has driven gentrification. The results have pushed home ownership and land ownership out of reach of many Puerto Ricans.⁵¹ Ultimately, this contributes to displacement and residents leaving the island. Corporate tax exemptions made huge land acquisitions by external market actors a regular practice. Most of the land has been sold or rented to big corporations, particularly the most agriculturally productive landscapes.

Local agricultural ownership and expansion is particularly challenging. Good, fertile land is expensive and often inaccessible. A farmer explains:

Farmers who need more bearable land to work it, find it difficult to access, because the best farms are very expensive and there are not many that are accessible. At least the flat farms. The farms that you can work with machinery are very scarce here." INTERVIEWS

Agricultores que necesiten un terreno más llevadero para trabajarlo, se les hace difícil el acceso, porque las mejores fincas son bien costosas y no hay muchas accesibles. Por lo menos las fincas llanas. Las fincas que tú puedes trabajar con maquinaria, son bien escasas acá.

ENTREVISTAS



Source: World Bank



A local farm in Puerto Rico provides a tour of their farming practices. Credit Denise Rebeil

22—Equitable Food Oriented Development Case Study: El Departamento de la Comida, Puerto Rico

Extractive Agricultural Practices, Lack of Environmental Protections

Puerto Rico has experienced a century of extractive agricultural practices that served the needs of foreign interests without regard for sustaining or preserving the island. Such practices have devastated much of the island. Spain established sugarcane plantations along the rural coast that were later taken over by the United States. As the sugarcane industry declined, agricultural workers faced high unemployment and poverty.⁵² In the mid-1950s, oil refineries and energy-generating plants were established in the Southern region of Puerto Rico.⁵³ Coal ash pollution became an ongoing problem. Pharmaceutical companies also permeate the island, adding more environmental impact to the island's natural resources.



In the journal *Social Justice*, researchers report "respiratory health problems attributable to industrial emissions from local factories. Fishers and other ecosystem resource users for decades have reported environmental degradation effects on important natural resources. In summary, local residents receive a limited share of the benefits, but most of the social and environmental costs, of industrial development."⁵⁴

Water contamination caused by industrial manufacturing has been a problem on the island since the 1970s.⁵⁵ Interviewees spoke about how tax exceptions and lack of regulation over large pharmaceutical companies led to contamination of both water and the land. As a community organizer explained:

...in the '80s and '90s there was a lot of tax incentives for pharmaceutical companies to produce their pharmaceuticals here. And there was essentially no regulation on the runoff and toxic waste and [expletive] that they were producing, so a lot of the land and water waste here have been polluted by that.

RESIDENT 4 INTERVIEW

Not only have large companies been careless with the resources of the island, the government has incentivized the exploitation by providing a zero cost water exception, to attract and keep private companies on the island. As a farmer explains:

Many of them do not even pay for water. The water, the government cedes to them, something as important, vital, as water.

RESIDENT 1 INTERVIEW

Incluso, muchas de ellas ni siquiera pagan agua. El agua, el gobierno se las cede a ellos, algo tan importante, vital, como el agua. ENTREVISTA CON EL RESIDENTE 1 Deforestation has also created significant ecological loss for the island. From 2001 to 2021, Puerto Rico lost 178,162 acres (72.1kha) of tree cover due to clearing, and an additional 8,525 acres (3.45kha) of tree cover lost as a result of fires.⁵⁶ A farmer describes the changes to the landscape:

I was living in a historically agricultural, rural community. Everything you see here [San Salvador, Caguas, Puerto Rico], in the 1940s was mostly deforested and dedicated to tobacco production for the Americans, including this farm and including areas adjacent in Cayey and Aibonito. You know, in the 1930s and 40s, it was mostly tobacco production...coffee, tobacco, sugarcane, more than 80% of Puerto Rico was deforested at that time.

RESIDENT 5 INTERVIEW

Administrative Burden of Farming

Many of Puerto Rico's farmers are subsistence farmers, where nearly everything produced is used to support the farmer's family and livestock, leaving little for retail sale.⁵⁷ Regulations requiring documentation - while intended to ensure food safety and farming accountability - create an outsized burden for subsistence farmers with little to no return for the effort. Interviewees characterize the regulations to run a farming business as complicated and burdensome. As a farmer expressed:

You have to give information, what is the accounts, what is this... A business plan is for a gigantic business. It's like stripping naked in front of an audience that you don't know. If that idea of *yours... someone else comes and steals it, because it has happened, and it* happens a lot. It's like getting naked *in front of an audience and everyone* seeing your blemishes, and then everyone takes the good stuff, and the blemishes make them better. It is about that.... More support is needed, but the requirements should be made a little more flexible. Because, for example, initially a person who wants to start a farm is not going to have the time to gather all those documents, don't make it so difficult. If you are really interested in planting, obviously you have to go through a certain process, but they should make it a bit more flexible. And follow up, if the farmer does not comply with what is established in time... **RESIDENT 1 INTERVIEW**

Tienes que dar información, que si las cuentas, que si esto... Un plan de negocio es para un negocio gigantesco. Es como desnudarte frente a un público que tú no sabes si esa idea tuya... Viene otra persona y la roba, porque ha pasado, y pasa mucho. Es como desnudarte frente a un público y que todo el mundo vea tus imperfecciones, y entonces, todo el mundo coja las cosas buenas, y las imperfecciones las mejora. Se trata de eso.... hace falta más apoyo, pero que flexibilicen un poco más los requisitos. Porque, por ejemplo, inicialmente una persona que quiera comenzar una finca no va a tener el tiempo de estar reuniendo todos esos documentos, no se lo hagan tan difícil. Si realmente tienes el interés de sembrar, obviamente tienes que pasar un cierto proceso, pero deben flexibilizarlo un poco. Y darle seguimiento, si el agricultor no cumple con lo establecido en el tiempo... ENTREVISTA CON EL RESIDENTE 1

Aging Agricultural Workforce, Lack of Workforce Pipeline

Agriculture requires labor and the island is struggling to retain its people. The departure of Puerto Rican youth from the island means the aging adults must manage efforts to increase food sustainability. In 2021, the U.S. Census Bureau calculated the percentage of the population that is under 18 years old is 16.7 percent.⁵⁸ This is the lowest percentage of individuals under the age of 18 years old compared to states on the mainland.⁵⁹ The USDA National Agricultural Statistics Service reports that in 2018, 42% of all farmers are age 65 or older.⁶⁰

El Depa recognized the challenges of the age dynamic and responded by working closely with aging populations in agricultural sustainability and development. El Depa reports deep concerns about what will happen when the current generation of farmers pass away. The local farmer populations are likely to continue diminishing, ultimately ceasing to exist. Such loss would devastate the already insufficient local, small-scale farming movement.

Without new generations of farmers, the island is at risk of losing invaluable knowledge from the aging adult population who disproportionately comprise small-scale farming. As a community organizer explained:

Because the workforce, still on traditional farms and on many small farms, are older people. A large part of them are older people who do not leave the farm and are not in these discussion spaces, nor are they going to depose, nor do they go to public hearings. But young people are coming out... Which is not necessarily sustainable either...

RESIDENT 1 INTERVIEW

Porque la mano de obra, todavía en las fincas tradicionales y en muchas fincas pequeñas, son personas mayores. Gran parte son personas mayores que no salen de la finca y no están en estos espacios de discusión, ni van a deponer, ni van a vistas públicas. Pero los jóvenes sí están saliendo... Que no necesariamente es sostenible tampoco...

ENTRAVISTA CON EL RESIDENTE 1

Championing local agriculture is essential for the survival and sustainability of Puerto Rico. Currently, the education system does not include an aspect of agricultural education. Adding this component to K-12 education would provide a foundation for caring for the ecosystem and sustaining the island. It would impact students' perceptions of careers in agriculture and teach the value of preserving and sustaining the island. An interviewee shared their experience being one of the few entering this field of study:

...agriculture, especially considering that it wasn't a common job, especially at my school. It is a private school and most people were looking for engineering, law degrees, medicine and all that. And I came and said: "I want to work on the farm." RESIDENT 3 INTERVIEW



El Depa members working in the communal garden. Credit Denise Rebeil

El Departamento de la Comida (El Depa)

El Departamento de la Comida (El Depa) is a community-rooted organization seeking to address poor nutrition and to fill a service/support gap not being met by the government. The organization founders wanted to build something deeply embedded in community and responsive to the unique context of areas to which they provided aid. An interviewee described this vision:

[El Depa] vision is that we are able to provide support to all stages of the food system in Puerto Rico and do so in a way that can become a replicable model that other places in Puerto Rico elsewhere can adopt and adapt the ways in which we have been able to successfully provide these resources and do so in their localized context. Because yeah, food systems in order to be sustainable, need to be mostly local and that involves a certain level of community that needs to exist, which involves culture, which involves very particular context.

RESIDENT 4 INTERVIEW

Founding El Depa members were aware of the U.S. Department of Agriculture and the Federal Drug Administration working at the federal level, but there was no group or department at the local government level in 2009 to determine how food and nutrition was impacting the people of Puerto Rico. Feeling this tremendous absence in services, two self-identified queer women began to take action to address the need. These queer women were active in spaces of food and nutrition and noticed how vacant the movement was of femme-identifying people. The absence was apparent across sectors including high levels of government like the Department of Agriculture, restaurant owners, chefs, food distribution, and local organizations in and around food. El Depa was born to address this void. The name, "El Departamento de la Comida" is intentionally designed to call out what was not being addressed by the government. The founders experienced government action less in the form of creating systems to address food issues than in absorbing money without much resident input or observable community change. El Depa is working to create a strong food ecosystem that can meet a variety of food demands, reduce food waste, and help provide needed labor to small farmers. Their approach represents an "adaptive strategy focused on community and farming social networks" that can improve local farming capacity, particularly in light of Puerto Rico's risk of experiencing natural disasters.⁶¹ In a report published in *Frontiers in Sustainable Food Systems*, researchers describe adaptive capacity as multidimensional, with determinants spanning individual attributes, such as gender and financial assets, to material and governmental resources.⁶²

Interviewees shared several examples of how communication and interdependence strengthen key aspects of local food networks. A local food market owner/farmer explained how they check in weekly with other local suppliers when they are out of certain produce:

We already have a weekly list of farmers that we see each week communicating what you have this week, what you have available. They deliver products to us, the farm is sought. That's the dynamic of the week.

RESIDENT 1 INTERVIEW

Semanalmente tenemos ya un listado de agricultores que nos vemos todas las semanas comunicando qué tienes esta semana, qué tienes disponible. Ellos nos entregan productos, se le busca a la finca. Esa es la dinámica de la semana. ENTRAVISTA CON EL RESIDENTE 1

El Depa formalized as a nonprofit organization, led by femme, queer, and bilingual (Spanish and English) identifying Boricua. El Depa's core objective is to achieve food sovereignty on the island, which "is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts the aspirations and needs of those who produce, distribute, and consume food at the heart of food systems and policies rather than the demands of markets and corporations."⁶³

Self-preservation was emphasized by interviewees as vital to long-term work and efforts in the food movement. A community organizer discussed radical self-care:

El Departamento de la Comida as an organization is starting to take on is how can we do this work in ways that are also really understanding radical hospitality, radical care, radical transformation of conflict.

RESIDENT 5 INTERVIEW

El Departamento de la Comida as an organization is starting to take on is how can we do this work in ways that are also really understanding radical hospitality, radical care, radical transformation of conflict.

ENTRAVISTA CON EL RESIDENTE 5

El Depa's biggest successes have been building relationships with different local farmers, plugging into the food movement in the community, and connecting with the diaspora of Boricua people for cultural preservation—both those who reside and those who no longer reside on the island. They are an organization known for being nimble and evolving to meet the needs of the community, especially during hurricanes.



A market featuring locally produced goods from Puerto Rico. Credit: Denise Rebeil

El Depa as an Example of Equitable Food Oriented Development

The Equitable Food Oriented Development Collaborative is a multiracial coalition of communityanchored food system practitioners driving food-oriented development as vehicles for shared power, cultural expression, and community asset building.⁷⁶ El Depa is a partner organization in the EFOD Collaborative. To meet EFOD criteria⁷⁷ as defined by the collaborative, organizations' work must support:

- 1. Equity and justice for historically marginalized communities
- 2. Place-based work that supports a communities' history and connects to social justice
- 3. Market-based, business strategies to develop new markets, enterprises, and real and sustainable economic opportunities
- 4. Community leadership development and community organizing
- 5. Community ownership

EFOD CRITERIA

Earlier we noted external NGOs coming to Puerto Rico and benefiting from disaster capitalism. A distinctive difference of El Depa is that it is a community-rooted organization that practices the principles of EFOD, where needs and solutions are determined by community and directly benefit community.

EFOD CRITERIA	EL DEPA EXAMPLES
Equity and justice for historically marginalized communities	 El Depa both identifies as part of and serves the Boricua people on the island, and Boricua diaspora El Depa seeks to preserve ancestral teachings El Depa is led by primarily femme-identifying individuals who have historically been excluded from conversations around food systems
Place-based work that supports a communities' history and connects to social justice	 El Depa is an organization created by and for Boricua people of the island El Depa seeks to preserve important ancestral knowledge regarding agriculture and create new practices with social justice in mind El Depa engages locally and contextually with different projects and people across the island to best serve the needs of the Boricua people
Uses market-based, business strategies to develop new markets, enterprises, and real and sustainable economic opportunities	 El Depa has established in a variety of food hubs and networks to build a local food ecosystem by and for the Boricua people El Depa continuously evaluates new models and initiatives for locally led and sustainable food strategies, adapting based on community needs
Community leadership development and community organizing	 El Depa develops and leads education, local advocacy, awareness campaigns; and supports cross-issue collaboration El Depa supports and organizes with groups of other minoritized identities on the island to grow a network of mutuality and collective sustainability
Community ownership	 El Depa was founded by and is led by femme- identifying Boricua people El Depa projects are developed and led by majority Boricua and femme-identifying people El Depa adapts its models in response to the agricultural community of Boricua people El Depa creates context-sensitive solutions that support local food security El Depa supports smallholder farmers in ways that allow them to retain farm ownership

Key Strategies

El Depa has experimented with different types of food hubs and models, re-imagining agriculture through responsive support for local farmers; emphasizing waste reduction, creating space for queer, femme, and trans-people; improving local nutrition; educating community about local food/goods; and promoting the importance and viability of agriculture as a career.

El Depa created a variety of initiatives to address the food issues on the island. Throughout their evolution, they have prioritized local food production and sustainability. The work is outlined in the following timeline.

Locally Grown Food Delivery System (2010)

El Depa started as Puerto Rico's first multi-farm Community Supported Agriculture (CSA). Initially, the founding members began aggregating produce from a member's family farm as well as from neighboring farms, selling it at artist events. Building on the success of this initial endeavor, they then borrowed \$10,000 to begin aggregating and distributing produce with wider reach on the island.

In 2010 they began distributing weekly boxes with seasonal goods in addition to an educational newsletter that included details on how to use the herbs and vegetables in the boxes. The CSA minimized on-farm waste by picking up produce from farms that would otherwise throw it out. They serviced an average of 10 farms per week and distributed to 150 clients at drop-off locations in San Juan, Caguas and Ponce. The CSA model, while prevalent in U.S. states, was not common practice in Puerto Rico, and became a popular produce delivery system on the island.

With time this business grew and eventually they expanded the educational component in their food deliveries. Their informational pamphlets taught consumers about the different local produce that is grown and how to use it in their meals. Eventually the business grew larger than they had employees to support it, and they were unable to meet the demand. Expanding to an online model was more efficient, but they realized this was not where they wanted to put their efforts in food. The lack of staffing caused El Depa to re-evaluate and to shift their operating style in

Key challenges at the time

- Need to help farmers prevent food from going to waste
- CSA was unfamiliar business model
- Staffing to meet demand for service

Major success as defined by El Depa

- Community embraced the CSA
- Reduction in wasted food
- Created means to educate community about local produce and how to use it



Credit: El Depa

a way that honored the capacity of the people on the team. The original members decided to pivot into creating something physical. This ability to shift based on need and opportunity established a key way of being for El Depa.

Restaurant, Kitchen, and Storefront (2012-2017)

El Depa expanded into a storefront, kitchen, and restaurant dedicated to local sustainable produce. They hosted events, cooking classes, and urban farming workshops.

The sourcing model for the restaurant was to rely primarily on local produce supplied by small-scale farmers. The food served was seasonal, with a focus on minimizing on-farm and in-restaurant food waste. The ethos of the restaurant served as another educational opportunity around seasonality of food as well as creative recipes to integrate as much produce as possible. The restaurant also provided a labor model that compensated the farmer a livable wage and allowed employees of the restaurant to choose how they preferred to be

Key challenges at the time

- Preventing food waste
- Paying farmers a living wage

Major successes as defined by El Depa

- Flexibility to pay restaurant employees through food, housing, or financial compensation
- Restaurant became a community nexus for cooking classes and workshops
- Ability to pivot after Hurricane Maria destroyed the restaurant and surrounding farmlands

compensated based on their need, whether that was through food, housing, or financial compensation.

In 2017, Hurricane Maria destroyed the restaurant. El Depa members were unable to rebuild due to lack of funding and a decimated supply chain. The team shifted their focus to supporting local farmers recover from Maria. A community organizer and a farmer speak to the value of the restaurant:

The idea of the kitchen, it was like, well, food waste was always a big thing with El Depa, that El Depa was able to minimize a lot of food waste by buying whatever ingredients farmers had and having chefs that knew how to cook with a lot of things and just make delicious meals based on what was available. And so they were able to act responsibly to whatever these farmers sold them, so we followed on that thread of saying that like, "How could we ensure to farmers that we can purchase on a regular basis crops from them and have a way to process and distribute them so they don't go to waste?" RESIDENT 4 INTERVIEW

We were a restaurant, we were the only, the only commercial kitchen on this whole island that used 85% of its purchasing budget on local agroecological crops from people we knew on a first-name basis. So we were not a vegetarian restaurant that focused on having rice staples, tofu... That was later. And we minimized and we were very, like, specific around our purchasing power. I tracked, you know, I would buy \$7,000 a month from local sustainable farmers. I would track that money fair... Fairly paid. You know, so it was, like, really, those models are the ones that I want to, like, put down on paper, draw them to explain how it actually functioned beyond the idealizations, beyond the talk. That's what I think is going to be important because a lot of people graduate. We want to start these projects and we don't have, like, actual physical models. We don't have that like, you know, starting a really radical, responsible food sovereignty... Amazing Queer Business for dummies. Like how to do that. That's what, like, I'm really interested in doing. **RESIDENT 5 INTERVIEW**

Brigadas: Gathering Volunteers to Help Local Farmers Rebuild (2017–2018)

After Hurricanes Irma and Maria destroyed the restaurant, El Depa shifted their focus to helping the community rebuild the local food system through "solidarity brigades."

These volunteer groups were called brigadas. The goal of brigadas was to aid small struggling farmers who could not afford to pay employees to cultivate their land by providing volunteerbased labor exchange. El Depa worked with farm partners, coordinating and fundraising brigadas for over 60 food projects around the islands. As a result of this effort, they brought in hundreds of local and international volunteers and raised over \$200,000 for relief.

An interviewee describes the brigadas:

Brigada is used as a group of people who come together and work together, usually physically on some project involving manual labor or task to accomplish something as a team that would normally take somebody much longer or be difficult. It's sort of a collective force to work on a project together.

RESIDENT 4 INTERVIEW

Organized brigadas centered around supporting the small-scale farming population on the island. An interviewee elaborated on this:

> There were many small efforts and from the hurricane onwards and the pandemic, well, a little more of that community of farms has been seen joining or training school programs such as Josco Bravo. Also, small groups of farmers who come together, make brigades, mutual support. There is a lot of small effort that, although they don't know each other, are applying very similar models of organizing.

> > **RESIDENT 2 INTERVIEW**

Key challenges at the time

- Organizing amidst crisis
- Learning through improvisation and experimentation within unpredictable conditions

Major successes as defined by El Depa

- Providing immediate response to projects that were not receiving aid or attention from government or large NGOs
- Mobilizing a mutual aid network of support, from individuals to institutional partners, to organize and implement meaningful direct aid



Había muchos esfuerzos pequeñitos y desde el huracán en adelante y pandemia, pues se han visto un poquito más de esa colectividad de fincas uniéndose o programas de escuelas de formación como el Josco Bravo. También pequeños grupos de agricultores que se unen, hacen brigadas, apoyos mutuos. Hay mucho pequeño esfuerzo que aunque no se conocen entre sí, están aplicando modelos muy similares de organizarse. ENTREVISTA CON RESIDENTE 2

Agroteca (2017–2018)

After Hurricane Maria, El Depa made community organizing a consistent part of its model, as they experienced continued need for this kind of collective action. The brigadas also brought to light a need for tools and educational materials.

To meet this need, El Depa created an agroteca – a library of tools, seeds, and books that can be used by farmers and the community. The agroteca came out of the local community needing seeds to replenish their fields after disasters, books to become better-informed farmers, and tools to work the land and/or clean debris after a hurricane. The agroteca has an extensive book collection, a wide assortment of seeds donated and/or retrieved by El Depa members, and a range of tools for use.

Key challenges at the time

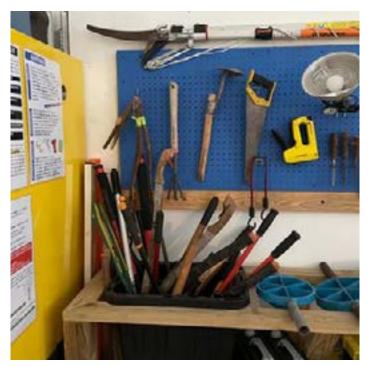
- Disaster recovery required physical tools and seed stock for rebuilding
- Farmers needed instructional materials and educational resources to address the devastated landscapes

Major successes as defined by El Depa

- Centrally organizing both brigadas and supplies created efficiencies and speed in recovery
- Communally sharing tools helps reduce expenditures by farmers and families

In 2018, brainstorming visioning, the intention was to continue to support farmers on the ground in the wake of the hurricane, which was still very much present. Also, thinking about long term we could still be, like how could we make these tools? Brigadas still have been a part of the culture before the hurricane and will continue to be. So thinking like, "How can we support the food system at these different levels?" So the hurricane was what got us directly involved with the brigadas, tools, that sort of thing. And the agroteca is what came out of that as the concept for how that could be a more long-term program.

RESIDENT 4 INTERVIEW



Credit: El Depa

An interviewee discusses what the agroteca holds:

[In the] Agroteca we have a lot of hand tools, safety materials. So we have gloves, machetes, axes, hoses, shovels, all the things that you would need to do basic farm work or construction work. We have multiple versions of all those different tools so that if we are working with a farmer to organize a brigade, we can provide, based on how many people are going, we can make sure that everybody has a set of gloves, everybody has a shovel if that's what they need that day. So that has been one resource.

RESIDENT 4 INTERVIEW

We have a woodchipper, which are very hard to find in Puerto Rico, especially after the hurricane. And particularly at that time when there was a lot of debris, that was a tool that was...Part of the reason we got that tool early on was because it was something that farmers expressed to us going in around to different farms and doing a farmer survey to gather information. That was the tool that was very in demand and very unavailable. So we were like, "Okay, we'll prioritize this tool to support farmers." We have a tractor that we do educational brigades, so it's kind of like people get trained on how this tractor works because a lot of people have not used it. Then we do work with that tractor on somebody's farm. I feel that brigades and part of the culture of brigades is that it is a skill sharing, experience sharing type of thing, and sometimes more formal than others. And we also have a bunch of seeds and a bunch of books in the resource library. **RESIDENT 4 INTERVIEW**



Credit: El Depa

Centro Comunitario (2019–Present)

After Hurricane María, El Depa reopened as a non-profit collective for food sovereignty in Puerto Rico. The collective acts as an alternative agency, supporting many food projects that do not fit into the services offered by many federal agencies, big non-profits, and the industrial food market.

El Depa's most recent initiative is in San Salvador, Caguas, Puerto Rico, where the primary population is aging adult farmers. Here they are establishing a long-term, physical space within an agricultural community that creates a sustainable home for the agroteca. The government was unable to meet the needs of the

Key challenges at the time

 Gathering resources and developing programs to support the needs of local food systems

Major successes as defined by El Depa

- Establishing a long-term, physical space within an agricultural community
- Developing and deepening relationships with farmers, cooks, and neighbors
- Providing workshops, brigadas, and events that connect, educate and employ locals

crumbling infrastructure after the hurricane, which led El Depa to step forward to meet this need. In this community, they were able to buy equipment to help the locals clear out the debris from the aftermath of the hurricane as well as purchase farming equipment. They have a seed bank, an educational library on many food and agriculture-related topics, a small kitchen, a small garden, and a community space to hold educational training. They have also organized and conducted brigadas to work the harvest on small-scale farms that do not have staffing capacity. This space is both educational and operational, offering an array of support for farmers.



El Depa members creating a timeline of their work. Credit: Denise Rebeil.

Conclusion: What can we learn from El Depa?

Resilient, Adaptive Food Systems Require Intentional Design

El Depa is working to create a strong food ecosystem that can meet a variety of demands, sustain under shifting circumstances, reduce food waste, and help provide labor to small farmers. Interviewees shared several examples of how communicating and interdependence strengthens the ecosystem. A local food market owner/farmer explained how they check in weekly with other local suppliers when they are out of certain produce:

We already have a weekly list of farmers that we see each week communicating what you have this week, what you have available. They deliver products to us, the farm is sought. That's the dynamic of the week.

RESIDENT 1 INTERVIEW

Semanalmente tenemos ya un listado de agricultores que nos vemos todas las semanas comunicando qué tienes esta semana, qué tienes disponible. Ellos nos entregan productos, se le busca a la finca. Esa es la dinámica de la semana.

ENTRAVISTA CON RESIDENTE 1

Adaptive Food Models Serve Communities

The optimal supply chain on a hurricane-prone island is a self-contained decentralized network, independent of major cities and ports. Food hubs need to be spread throughout the island and tailored to meet the unique needs of communities across the island, whether it be in the rural mountains, small beach towns, or mid-size cities. El Depa's strategy of decentralizing food creates an ideal model to serve those more vulnerable, remote communities. The decentralized model creates additional markets for both producers and consumers across the island. Most importantly, a decentralized food network across the island would serve to maintain food security when increasingly common natural disasters occur.

Adaptive and locally responsive food models are better equipped to serve the specific needs of diverse communities and variable circumstances. Ultimately, the goal of experimenting with different food model approaches is to find what works best in the context of the local area. As an interviewee adds:

There's no way it [food hub] can look the same everywhere, and I think what we want to do is be able to model what that looks like in this context and be able to identify what elements are maybe universal or what questions to ask, because maybe there are some places where having a tool library doesn't make sense and maybe there are some places where a processing kitchen [works].

RESIDENT 4 INTERVIEW

An interviewee discussed the importance of continuing to experiment with different food models to help develop the most efficient and sustainable ones. Ultimately, the goal of experimentation is to find the food hub or model that works best in the context of the local area. Having a multitude of these across the island is a step towards a more optimal food network.

El Depa, we've been experimenting with trying to really create sustainable models. And so I can share what, like, you know, as close as I got to a sustainable multi-farmer CSA. Small scale. Everything local, agroecological, or in transition, fairly paid to those who sold the crops. Fairtrade margins, you know, fairly paid to the employees, like, all of that was a very dreamy sustainable model."

It's always been a food hub, just different iterations of a food hub model. And even now... Right? What is, yeah, and this is a food hub that is integrating, really, more resources for farmers than consumers. So there are certain shifts. There's a huge shift pre-Maria and post-Maria. Pre-Maria I feel that it ended up, like, yes, we were supporting farmers, but it was very consumer-focused. I think that we are much less consumer, and when I say we try to blur, right, between producer-consumer, but it was much more. It was in San Juan, we had customers and stuff like that. And I feel that a shift, a major shift has happened both in the model of the food hub, and the context of the users. It is less consumer-based now and is more producer-based now. And so the system or the, the structure of the food hub reflects that. Both intentionally. Now a food hub has communal seeds, and the resource library, and yes, a kitchen, but it's a kitchen that is less focused on the end, right, on that plate and the beautiful lunch. And it's more thinking from the perspective of the crops and the farmers. And those are some shifts that have really changed the model.

RESIDENT 5 INTERVIEW

Reclaiming Culture and Agriculture is an Act of Resistance

When reflecting on a history of oppression and contemporary challenges characterizing Puerto Rico, it is surprising more people have not already left. Choosing to stay is one of the biggest acts of resistance. As an interviewee [Resident 3] says, "if you really love the island... have to make an effort to...make it work and stay." To refuse to be pushed off the island by the mounting obstacles is refusal of assimilation, gentrification, and an act of preservation.

El Depa works from the framework that an important component of preservation is maintaining the Puerto Rican identity and reclaiming ancestral history as resistance to imperialism. As a community organizer expressed:

I would say that it also begins with a mental strengthening of the educational system and I think that appreciation of our history as an agricultural country has been lost, because it is not presented to us as if it were something, also a profession or a space for growth and scope. in which we can feel super proud to work and be a part. Also access to a diverse education, with a more than agricultural approach, of appreciation and respect for our resources. Not as a resource, but also to see nature as a resource... And it is to break a bit, I create that disconnection with nature, with what gives us life and with a vision of life."

RESIDENT 2 INTERVIEW

Yo diría que comienza también con un fortalecimiento mental del sistema educativo y creo que se ha perdido la apreciación a nuestra historia como un país agrícola, porque no se nos presenta así como si fuese algo, también una profesión o un espacio de crecimiento y alcance en el cual nos podemos sentir superorgullosos de trabajar y ser parte. También el acceso a una educación diversa, con un enfoque más que agrícola, de apreciación y respeto a nuestros recursos. No como un recurso. también hacer ver a la naturaleza como un recurso.... Y es romper un poco, yo creo esa desconexión con la naturaleza, con lo que nos da vida y con una visión de vida. ENTREVISTA CON RESIDENTE 2

Another interviewee emphasizes acknowledging how generational trauma on the island and resisting a destructive capitalistic system of production, can allow more healing through food.

...future of food systems, we're also understanding that the ways that we are growing food and interacting and cooking with food have to be ways that are healing. They have to be ways that are also supporting our nervous system, our spiritual and emotional growth, and healing. Because we're born with so much generational trauma and we're living within really difficult, hyper-sensitive, oversaturated, very fast-paced times. And so I see in the future of food systems a major component which is really taking on overall health and understanding nutrition from a much broader and holistic perspective.

RESIDENT 5 INTERVIEW

Building Networks of Mutuality Strengthens Local Capacity

A distinctive difference between El Depa and a typical NGO is reciprocity. El Depa creates a network of mutuality and focuses on leveraging the existing assets and strengths of the community. This kind of work builds local capacity and stability by focusing on what is already working as opposed to creating dependency on aid. Further, it makes it possible for community to thrive in Puerto Rico, as opposed to emigrating away from the island as NGOs generally do. An interviewee explains the vision of true reciprocity on the island:

[El Depa's] vision for the future of food in Puerto Rico is that more people can have access to land, that we can share more resources, that we can share more tools, that we can share more farms, that we can share more kitchens, that we can share more responsibilities, and create our own economies.

RESIDENT 5 INTERVIEW

The interviewee further emphasizes how the most important thing is not organizational growth but instead multiple projects arising around them to better serve unique needs and El Depa as an entity, continuously transforming to best serve community.

I hope that Depa is able to sustain itself and continue to transform itself as the ecosystem needs. And I, I feel like, yeah, what I was saying earlier around creating safe spaces that are economically and ecologically and a relationship sustainable, I would really like that, for that, to be in the future. I don't see growth in terms of, like, I don't see a scaling up of El Depa. I really just feel that in the future it's not even about El Depa. It's I feel that if there were a future for Depa is that it be surrounded by more projects that are proposing radical and alternative models.

RESIDENT 5 INTERVIEW

El Depa has developed networks that have cultivated local commerce and helped proliferate local farms and food businesses. Investing intentionally in communities in Puerto Rico and elsewhere through an EFOD framework ensures resources go to affected community, outcomes are supported by community, and long-term economic and social stability directly benefits community.

Championing Food Sovereignty Requires Systemic Action

El Depa is place-based and was created by and for the community in Puerto Rico to achieve food sovereignty. The majority of members identify as femme and are working to create a sustainable system outside of U.S. imperialist policy. El Depa has built strong relationships with the food movement on the island to support other leaders in food sovereignty and to continue to strengthen networks across the island. El Depa understands the importance of these human networks but also equally weighs in the nonhuman component to true food sovereignty. An interviewee summarizes:

I feel that food is a human right, and I feel that food is not only a human right... It is a species right. It is a non-human right. I am very interested now in what the rights of nature are. I'm very interested in understanding food sovereignty from a non-human perspective...These structures and systems have been particularly forgetting that humans are not the only beings on this planet that need to eat. And, because we have been forgetting that food sovereignty is for all, and I don't mean just all humans. Food sovereignty is for birds, for pollinators, for river systems... And that is really what I feel is important to think about right now as we're transitioning our human food systems... Is really taking into consideration that all of our food is within the same food systems that other beings and species are also eating and feeding from and creating. So, you know, within the context of a farm, to put it very, like, bluntly, you're growing food on a farm where also fungi lives, birds, pollinators, animals, sometimes domestic reptiles, insects, trees, and plants themselves, eat and feed. And so I feel that that's something really important to understand when we're going into sustainable food systems from a production level, from a planning level, and from a grassroots organizing level in terms of sustainable agriculture, I feel that we really need to understand that what we're doing and the work that we're doing is not only for human food sovereignty. That's where agroecology comes in. And just to think about that future, I want food to be free...

RESIDENT 5 INTERVIEW

El Depa understands each community both on the island and on the mainland each face their own unique struggles as well as carry their own histories/culture. People from the community will know best what serves their needs. Locally adaptive food initiatives are a step towards building the right food system for each specific context. "It's not about El Depa, it's about radical and alternative models," said Resident 5.

If external organizations or individuals want to support the island there are more intentional, less invasive ways to join the Puerto Rican food communities. A community organizer who is from the mainland spoke about how to mindfully support and become involved with the food movement on the island.

...listening and following what is already happening. I think I've seen a lot of people arrive here and before meeting and learning about her work, already thinking like, "Oh, what could I do? What could I bring and support?" But the reality is there's so much happening on the ground already and so much work being done and organizations that in any space are already doing related work that I think finding a group that you can first just figure out how you can plug in to meet their needs in some way of what they're already doing to supplement it, because then you're going to actually build relationship with people, you're going to learn directly from the people involved what their vision is, what their needs are, because yeah, you're not going to have the same vision and it's not going to be aligned most likely with what theirs is.

RESIDENT INTERVIEW

The case study captures the ongoing displacement with which Puerto Rican people contend, and their immense resiliency. Their work supports local farmers, strengthens food networks, encourages local consumption of goods, preserves and honors local culture, elevates important representation in the food movement, and encourages harmony with all species. Their objective is to help support the island move towards food sovereignty.

Call to Action

While El Depa's focus is community and the island's preservation, for people outside the island there are multiple ways to support:

- Donate to El Depa
- Ensure donated funds are not given to disaster capitalistic organizations
- Volunteer for a brigada
- Buy local goods when on the island
- If staying in an Airbnb or other rental property on the island, ensure it is locally owned
- Share El Depa's and Puerto Rico's story

El Depa plans to continue trying different approaches to address food and injustice on the island. Their key lessons are evolving as communities' needs change, and they understand not every food model will work in every context. Their goal in participating in this case study is to share their models and experiences with other community organizers and food system practitioners. The case study is also a resource for philanthropic foundations to understand the importance of supporting local, community-rooted organizations over large, external NGOs who are not from the affected communities.



Credit: El Depa

40—Equitable Food Oriented Development Case Study: El Departamento de la Comida, Puerto Rico

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