Climate change threatens imports and increases Puerto Rico's food vulnerability [1]

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This file image shows a banana plantation ruined after Hurricane Fiona in Peñuelas (Ramón "Tonito" Zayas).

Forest fires, torrential rains, droughts and extreme heat affect the countries that supply the archipelago, forcing an increase in local production, according to experts.

On an island that imports 85% of what it consumes, seeing the shelves full of products in supermarkets, despite the fact that the last natural disaster was a year ago with Hurricane Fiona, does not hide an irrefutable fact: Puerto Rico is at the mercy of the ravages of climate change in the countries that supply it with food, agreed multiple voices consulted by El Nuevo Día.

Forest fires in Canada, torrential rains in China and India, droughts in Spain and Costa Rica and extreme heat in the Dominican Republic and Mexico are just the most recent examples that the climate crisis is not exclusive to the archipelago, but planetary.

According to a report published in April by the U.S. Department of Agriculture (USDA), it is precisely these jurisdictions that are the most important food exporters to Puerto Rico. Rice, meats, coffee and plantains, the main staples of the Puerto Rican diet, are on the list. Therefore, any restriction imposed by governments -for example, to ensure local consumption-, or the

interruption of production after an extreme weather event, would jeopardize food security in Puerto Rico and further expose vulnerability.

In the opinion of Puerto Rican doctor Uriyoán Colón Ramos, who is an associate professor of nutrition at George Washington University, the perception that there is no reason to be alarmed is not due to the absence of "agroecological awareness," but rather to the dissociation in each individual act and public policy of the country's nutritional capacity in the face of climate change.

"In Puerto Rico, it is not difficult (to understand the risks of climate change), because we see it every day with tornadoes and things that were not seen before. We see it more frequent, more intense... people are feeling the effects personally," he said.

The -almost immediate- response of consumers by crowding supermarkets, when alerted of the proximity of a cyclone, is an example of Colón Ramos' approach, because the population knows -because they have lived it- that phenomena like these can alter the stability of food distribution, as happened after Hurricane María, in 2017.

"When we talk about our (nutrition) vulnerability, it is not determined by looking only at the borders of Puerto Rico, but stretches to where the products we consume in Puerto Rico come from and come from," said researcher and Environmental Health expert Pablo Méndez Lázaro, a member of the Committee of Experts and Advisors on Climate Change (Ceacc).

Colón Ramos, who works as a researcher in nutritional security and public health at the global level, said that in order to make changes that will guarantee a better position for Puerto Rico in the face of food supply threats, society has to accept that the current food chain system "cannot continue like this because it has been getting worse.

"For more than 70 years, (the import system in Puerto Rico) has been getting worse and we haven't realized it. If we continue like this, I don't know how we are going to eat," he questioned.

Agriculture calls for adaptation

The Secretary of the Department of Agriculture, Ramón González Beiró, said that, at some point, all major agricultural producers have faced weather events, which have forced them to restrict exports, so that "the market is supplied from other places".

"Climate change has been happening for millions of years and this is not something that is going to happen overnight, so, in order to face it, we have to continue adapting. One of the areas of our lives that has been adapting for all those millions of years is agriculture. Our seeds, our crops, our eating habits are changing," he said.

In a study published in 2019, the Puerto Rico Institute of Statistics defined food security as "the availability at all times of sufficient supplies of basic foods." Precisely, it was here that the last estimated percentage -85%- on imports to the island was included.

Where does Puerto Rico import?

Outside the United States, most imports to Puerto Rico come from the European Union (EU), according to the USDA. From there, alcoholic beverages such as wine and beer, pork, cereals and processed vegetables, among other foods, arrive.

As a clear manifestation of climate change, EU governments warned last year that 64% of the bloc's land area was experiencing "the worst drought in at least 500 years". As recently as June, Spain reported that, due to the lack of rain, olive oil production was down by almost half compared to the annual average, driving up the price of the product.

Canada, the Dominican Republic, Mexico and Chile are also important sources of imports.

González Beiró indicated that one of the products that Puerto Rico imports the most is rice, and said that the archipelago has a stored inventory of the grain for about 60 days. "It is very important that when people hear the news, they don't run out because it empties the shelves and disrupts the supply chain that is already programmed," he said.

Last month, India announced that it will drastically reduce some rice exports due to the effects of the El Niño phenomenon, which caused panic buying in the United States. In Puerto Rico, shortages have been ruled out.

Climatologist Rafael Méndez Tejeda emphasized that "the productivity of these (exporting) countries can be affected" by phenomena such as El Niño. "Therefore, if they don't have (products), they can't sell to us," he said.

He analyzed that, even if Puerto Rico maintains food production at 15%, its dependence on imports puts the island's nutritional capacity at a disadvantage, and stated that "denying it is not going to make it go away."

"We are at the mercy of how the climate may affect other regions," said the director of the Atmospheric Sciences Research Laboratory of the University of Puerto Rico (UPR) in Carolina and member of Ceacc.

Climate change not only impacts production, but also the transportation of products, said Myrna Comas Pagán, retired professor at the UPR Mayagüez Campus and former Secretary of Agriculture. "Agricultural products tend to be highly perishable. Refrigeration systems have to be more effective to counteract temperature increases," she said.

ncendios forestales de la provincia de Quebec, desde una calle en el centro de la ciudad de Toronto, Canadá. EFE/J
nd) virtually invisible due to smoke from wildfires in the province of Quebec, from a street in downtown Toronto, Cana

Challenge for farmers

The high dependence on imported food has created "a vulnerable and unstable environment of food supplies and availability," according to the Statistics Institute study.

"For us, it is indispensable to increase that food production thinking about the fact that we are an island, that we are in a hurricane zone, that Puerto Rico is in a hot zone," Comas Pagán said, adding that strategies must also be developed to store food.

For local farmers, meanwhile, climate change brings challenges, such as planning plantings and harvests in the face of the lack of rain and identifying animal breeds that can better cope with the high temperatures, he said.

Cattle rancher Héctor Cordero Toledo, president of the Puerto Rico Farmers Association, said that this year, the heat that is typically expected between September and October "came early in May.

"That took us by surprise, to a certain extent, and what it has done to us is to have to advance all strategies and all protocols to control the heat issue," he abounded.

In the same vein, Méndez Lázaro exposed that abrupt changes in the weather threaten the stability of the agricultural sector, because it forces farmers to incur unbudgeted expenses to maintain their production capacity in the midst of a sales competition that he described as "unfair" against imported products.

Resilience to climate change

Agroecology is a tool to face the challenges of climate change, said Ian Pagán Roig, of the Josco Bravo Agroecology Project in Toa Alta.

Agroecological practices, he explained, are aimed at conserving natural resources and typically involve polyculture, or harvesting different foods on the same land, and limiting or avoiding the use of pesticides.

"It's a way of farming as if planet Earth were the only planet we have," expressed the agronomist and farmer. "We can't damage it, we can't damage its resources," he added.

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