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Roundtable 4 (English)

Maarten de Jong (Netherlands)

India: Feeding a population of over 1,3 billion people

Ivanna Palyvoda (Spain)

Local agriculture to overcome poverty in Puerto Rico: The potential of sugar cane

Gabriela Casimiro (Spain)
Women as potential agents of reduction of malnutrition and covid 19's consequences in Guatemala

Jaap Zoon (Netherlands)
Nigeria in 2050

Lucie Škarupová (Czech Republic) Growing phenomenon of human trafficking in Nepal

Joel Malec (Netherlands)

Indonesia, a land in need of a quick transit

Ilse Keuning (Netherlands) Food 4 Fiji

Fran Juras (Croatia)
India: Throwing food

Experts

Per Pinstrup-Andersen

Per Pinstrup-Andersen won the 2001 World Food Prize for personally initiating the research effort which enables several governments to reform their food subsidy programs and dramatically increase food availability to the severely impoverished. His research and teaching have focused on food policy and economics for developing countries.

Evi Vet

Evie Vet is UN Youth Representative Biodiversity and Food for The Netherlands. Evi is studying Nutrition and Health at Wageningen University.

Host

Imke van Smoorenburg

Ivanna Palyvoda Liceo Monjardín Pamplona, Spain Puerto Rico, economic crisis and agriculture

Local agriculture to overcome poverty in Puerto Rico: The potential of sugar cane

When you hear talk about Puerto Rico, what's the first thing that comes to your mind? Maybe you think of its traditional parties and festivals, or perhaps an image of its beautiful beaches comes to your mind. However, its music and landscapes hide a dark truth behind them.

According to the United States Census Bureau, the percentage of poverty in Puerto Rico is 43.1 percent (2018). Even though this is lower than in previous years, the island is still in a much higher position than the U.S. national rate of 13.1 percent and is more than double the poverty rate of 19.7 percent in Mississippi, which had among the highest state poverty rates in 2018. This means that almost half of its population is living in third-world conditions and overcome difficulties when it comes to covering basic services and needs. Indeed, Maricao is one of the poorest municipalities in Puerto Rico with 64 percent of poverty in its territories, which translates to an extreme impediment of proper nutrition and self care.

Conversely, some parts of the island such as Guaynabo have a much higher income. As a consequence, municipalities such as Guaynabo and San Juan double the average household income compared to neighbourhoods like Adjuntas and Lares. In other words, there is a lot of inequality throughout the island's territories.

Some of the basic food products that can be found in Puerto Rico are rice with green beans, chicken, bananas, avocados, etc. These are considered the cheapest products and meals, but are also high in calories. Additionally, Puerto Ricans also have their own type of fast food called "frituras", which translates as "stir-fry". These are small turnovers filled with rice, tuna and fried cod. To sum up, they are not an everyday meal due to their high amount of fat, but are typically seen in parties and celebrations.

The majority of Puerto Rico's fruits and vegetables come from the mainland USA. When it comes to meat, it is easy to find fresh chicken or pork meat in the local supermarkets. However, frozen meat is cheaper and offers a bigger variety.

Furthermore, Puerto Rico's population has been continuously decreasing. In 2011, its population was around 4 million people but at present, it is around 3.2 million citizens. Currently, 25.5 percent of the island's population is over sixty years old and the average number of children per couple is two or three. Also, families with a higher number of children are usually mid-low class.

Puerto Rico is a republic, which is defined as a "form of government in which a state is ruled by representatives of the citizen body. Modern republics are based on the idea that sovereignty rests with the people...", which means that the state is in the hands of a temporary governor who is chosen by the citizens.

In the past few years people have been unhappy about their situation; the emigrations, the financial crisis, natural disasters, ineffective governments and a tight relationship with the United States has made their lives much more difficult.

One of the most important events occured in 2017, when hurricane María devastated the Virgin Islands, the United States and Puerto Rico. This phenomenon is recognised as the worst natural disaster that has been through this area since hurricane Jeanne in 2004, with winds of 280km/h and more than 3.050 deaths. This event made a before and after separation since it limited the access of food supplies to the country, so the consumption of processed and canned food increased. Moreover, the tectonic plates under its lands, The Caribbean plate and the North American plate, suddenly broke along a fault in 2020. The sudden release of energy caused seismic waves that turned into earthquakes and traversed the island, destroying buildings and affecting important sectors such as

agriculture. This caused another source of problems and loss since this sector is one of the most relied on due to the resources and benefits that it provides to the population.

All these facts were followed by a political scandal that spread across the island and turned into a desire of the citizens to manifest their discomfort.

At this point, Puerto Rico is drawn into a major financial crisis. This country is an organized unincorporated territory of the United States and is under its jurisdiction and sovereignty, which means that besides having a governor, they are under the rule and command of the US president. This is very important to take into consideration because in contrast with its neighboring nations such as Haiti or the Dominican Republic, it has the direct support of the Federal Government of the USA. The current president of the United States, Joe Biden, has organised a program to reform and heal the region. In this program, he focuses on supporting the total recuperation and reconstruction of its infrastructure, investing in Puerto Rico's future through initiatives of economic development and family aid, providing relief to an unsustainable debt and expanding access to education.

When it comes to nutrition and grocery products, there is a limitation for the simple fact of being an island, so many products have to be imported. As this specific island is not a producer, it has to import vegetables and fruits which makes the price of these products rise. Consequently, families with fewer resources appeal to cheaper alternatives such as fast food.

Programs such as PAN (Plan de Ayuda Nutricional or Nutritional Aid Plan in English), help people with less income and resources have access to primary necessities. They achieve this goal by offering them a card in which a quantity of money is going to be earned each month. This way, an extra money is going to cover the basic needs of every person according to their situation. However, there is a procedure that ensures that the money is spent on products of extreme need and not supplementary products, for instance, alcohol or ready-made meals.

Nevertheless, there are many Puerto Rican resources that could be used to improve its economic situation and have not been taken into consideration yet.

Food and the agricultural sector can play an important role in the solution. Sugar cane cultivation has been its principal economic activity for a period of time known as its "golden age". This product was introduced to the island by Spaniards in the 16th century.

Since then, it had been growing to the point of being the most important sugar colony and biggest sugar producer along with Cuba. Consequently, Puerto Rico's economy increased and it produced an intense social and cultural economic activity. Finally, after the Spanish-American war (1898), Puerto Rico experienced its highest peak since prices rose and it became the principal international producer. Nevertheless, in the 20th century the price of the sugar decreased. The mechanisation of its cultivation plus the introduction of a new type of sugar, beet sugar, turned out to be facts that ended with most sugar cane producers. In 1964, sugar accounted for almost half of all agricultural sales on the island and 23 percent of all wages that Puerto Ricans earned.

This way less than two hundred producer estates were left and besides the fact of still being some cultivators that introduced the new technologies to their daily methods, within a few years the industry collapsed.

Mechanisation did not change the quality of Puerto Rico's land though.

Geographically, 83% of its lands are suitable for agricultural production. From that percentage of land, 15.8% is Mollisol land, which a type of soil suitable for sugar cane cultivation. This specific soil is soft and rich in organic materials which makes it better for agricultural activities. It is found in the northern and central part of the island.

Also, Puerto Rico has a tropical rainforest climate with an average temperature of 26 degrees. Whereas the temperatures drop to 21 degrees in the highest parts of the island, in other territories it rises up to 29 degrees with between 76.9% and 71% of humidity.

It is necessary to cultivate sugar cane in a tropical or subtropical climate in order to fit its requirements. According to Infoagro, these types of plants need between 16 and 32 degrees on average

during the whole year and very high humidity so they can grow and develop properly. Moreover, this plant can also be used as livestock fodder.

Across Puerto Rico there is a new wave of interest in food and farming. People are more interested in farmers markets and chefs are making a point of finding local sources of food.

According to Ricardo Fernandez, CEO of Puerto Rico Farm Credit, the largest agricultural lender on the island is a break from Puerto Rico's past. The USDA (United States Department of Agriculture) statistics show that the total sales from Puerto Rico's farms have declined by two thirds since 1964. Most of its agricultural land, previously used to grow sugar cane, sits idle. This territory imports 80% of its food and according to Agencia EFE, almost 100% of the sugar consumed in the island is imported. This fact reflects how Puerto Rico's land is being wasted.

Recently, most of Puerto Rico's news is unfortunate. Its government has declared that it cannot reply to its bondholders and will carry out drastic cuts in education and social services. Due to these declarations, thousands of citizens are taking to the streets to protest.

Javier Rivera Aquino, a former secretary of agriculture for Puerto Rico, traced it back to the island's history as a Spanish colony and made a very valid argument about its dependence on imported food: "They were taught to produce what they do not consume, and they were taught not to produce what they consume" he says. "That is the kind of dependence that was created under the colonial system".

A study carried out by the Federal Reserve Bank of Minneapolis proved that Puerto Rico's sugar cane industry was crippled by government policies that prevented sugar producers from getting bigger and more efficient because they could not compete with bigger sugar producers such as Louisiana. Nowadays, the government of Puerto Rico owns the land where sugar cane was once grown. A stated above, this land is available for investors to lease, yet much of it sits still idle.

Fernandez sees both economic and cultural reasons for this lack of investment. Economically, Puerto Rican producers had difficulty competing with large scale food producers in the rest of the United States.

"We did not protect ourselves," Fernandez says. "You can see it sector after sector" Besides the economic factors, Puerto Rico's population did not show much interest in locally grown products.

However, Fernandez also points out another fact: "The lack of entrepreneurial mindset among farmers". Or as Rivera Aquino interprets it, "we have been taught to work for somebody else. We have not been trained to deal with risk and become entrepreneurs".

In other words, both of their statements show the contrast between other countrie's mindset and the Puerto Rican one.

In addition, the economic crisis is forcing people to try new things. On the one hand, some citizens are willing to pay extra for food grown on their own land and on the other hand, many university students are already doing agricultural courses and degrees. This idea has broken down so strongly into its society that in 2017, a new agricultural school was built. Moreover, the reactions and results to this fact had been better than expected and the youngest part of the population is taking profit of these types of resources to create new future plans to use agriculture and farming as the new motor of the country.

As it has been proven the efficiency of these changes, Fernandez emphasizes: "There is a resurgence now because we have re-invented ourselves".

As most Puerto Rican products are imported, the rise of its economy and its undertaking will stop other countries' profits and benefits obtained from their situation.

An agreement, association, company or enterprise could be made between private farmers, Puerto Rican government and US government in order to join their possibilities and facilities. This way, all the involved sides will obtain benefits.

Sugar is a very demanded product all over the world. According to El Periódico, the main sugar purchaser is Indonesia. This country spends 35.55 million dollars in importing this product, which has been the highest quantity paid for sugar in an asian country since 1994.

The United States is also listed as one of the largest purchasing territories as they import over 1.65 million tones. Moreover, Mexico appears as their principal exporting country.

If Puerto Rico and the US make a commercial bond, both territories will have access to local products from one of the participants. This way, the United States will not spend that much money in exported sugar from Mexico and Puerto Rico will recover its economy.

In conclusion, the potential and resources of Puerto Rico have not been taken profit in a very long time. Since the 19th, century, sugar cane has been the main Puerto Rican economic activity that led the country to an intense social and cultural development. However, machinery and industrialisation caused a crisis that ended up with most of its farmers and cultivators. Since then, sugar cane has not been cultivated on that scale despite the perfect conditions of the region, thanks to its weather and kind of soil. All these characteristics make Puerto Rico a very competent country when it comes to the sugar cane cultivation industry. If these advantages were taken into consideration, Puerto Rico would be able to restore its economy and give a better life quality to its inhabitants.

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