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ICO on who's leading the way in climate change mitigation

The Executive Director of the ICO Robério Oliveira Silvia on the case of Costa Rican Coffee Cooperative Coopedota.

In the July/August 2014 edition of GCR Magazine, we advocated for public-private partnerships to support climate change adaptation measures for coffee farmers.

In this issue, we want to look at how hands-on measures have been taken in Costa Rica to tackle the pervasive effects of greenhouse emissions in coffee production.

While we all recognise that providing coffee producers tools to adapt to a changing and increasingly extreme climate is essential, we should also consider what the global coffee industry (and the agricultural sector as a whole) can do to mitigate climate change. It is, after all, the other side of the coin and one that often gets neglected in view of the more urgent claims that adaptation imposes on coffee farmers worldwide.

What can the coffee community do to reduce greenhouse gas (GHG) emissions from seed to cup?

Enter the case of the small Costa Rican coffee cooperative that could, Coopedota.

Based in a region that Lonely Planet calls one of the world's top ten places to have a cup of coffee, Coopedota is a cooperative composed of 800 farmers.

For the last two decades, the group has transformed its operations to produce the world's first carbon-neutral coffee. Soon, they may make history in transforming Costa Rica by helping the country achieve its goal of becoming the world's first carbon neutral state by 2021.



The coffee cooperative from the Los Santos area of Costa Rica, Coopedota, was founded in 1960 by 96 coffee producers.

Today, its 800 members produce approximately 50,000 60-kilogram bags per year, mostly for export to high-end markets in the United States, Europe, and Japan.

Hortensia Solis, former Sustainability Manager for Coopedota, says that the cooperative's leadership began exploring methods of changing and improving their operations to become carbon-neutral upon seeing the negative effects of unforeseen climatic events

"Coopedota's efforts to reduce emissions started in 1998 when Costa Rica signed the Kyoto Protocol," says Solis, "But the damage caused by the changing climate in the last few years really compelled us to begin looking at community-level actions that could help our country and the global community fight and mitigate climate change."

In 2009, a drought – caused by the El Nino phenomenon – hit the region of Los Santos causing early flowering and uneven maturing. As a result, coffee production in Costa Rica dropped by 15 per cent compared to the previous year.

Then, in 2010, the Pirris River overflowed, destroying 80 per cent of the roads in the area, causing massive cracking and soil erosion in farms, and costing the municipality over US\$550,000 in repairs alone.

Globally, the agricultural sector accounts for 24 per cent of GHG emissions. It is estimated that the world coffee industry accounts for 1 – 2 per cent of this number. However, in Costa Rica, as Coopedota learned, the coffee sector was contributing as much as 10 per cent of the country's total GHG emissions.



"Finding out that 40 per cent of total emissions in Costa Rica was coming from the agricultural sector and that such a significant portion of that was from the coffee industry really opened our eyes," says Solis.

Coopedota saw an opportunity to demonstrate that actions could take place at the community level to reduce carbon emissions and increase the efficiency of their operations. But they also saw an opportunity to tap into a market of environmentally-conscious consumers who would pay a premium for such coffee.

"In 2009, when we decided to go carbon-neutral, we worked with key stakeholders to coordinate and execute the plan," says Solis. "We began by reducing our processing plant energy consumption by 40 per cent."

The cooperative substituted 95 per cent of its firewood used in the drying process by utilising the brushwood and husks leftover from the harvest and post-harvest processes of the coffee cherries. An energy management program and the installation of a micro-mill for smaller batches helped reduce electricity use by more than 50 per cent. Water use was reduced from 1 cubic metres per bushel to 0.2 cubic metres per bushel and discharges to the Pirris River were completely eliminated.

"We didn't stop at the cooperative's headquarters. With the help of our farmers and community leaders, we began a composting and recycling programme. Today, over 70 per cent of the community's waste is recycled," says Solis.

The cooperative's efforts paid off in 2011 when they certified the first carbon-neutral coffee in the world, under the PAS 2060 specification for demonstrating carbon neutrality of the British Standards Institution.

Encouraged by the success of their efforts and the recognition they received, Coopedota began engaging on climate change matters at an international level.

"We wanted to show that coffee could be a force for good in this global challenge," says Solis. "We wanted to show that farmers could do the things that the politicians at the international level were finding so difficult."

In 2011, Hortensia and Coopedota gathered a national coalition to brainstorm ways to create a Nationally Appropriate Mitigation Action (NAMA) proposal for the Costa Rican coffee industry. Under the Copenhagen agreement, NAMA proposals are a set of policies and actions undertaken by countries to reduce GHGs which can receive funding for implementation, if successful.

The group that was formed included representatives from the Costa Rican Ministry of Agriculture, Ministry of Environment, Institute of Coffee, and a local climate change non-governmental organisation called CO2.cr. They were aiming high.

"To start, we wanted to reduce emissions in the Costa Rican coffee industry by 15 per cent and help 100 coffee farms go carbon-neutral by 2015," says Solis. "Ultimately, we thought that if we could do this in Costa Rica, the rest of the world would follow."

"It took a lot of work, but we believed that it has been worth the efforts," she adds. "We needed to get lots of people on board with the idea and to make sure that we had key actors involved or else the NAMA would never receive funding."

"Over the last year, the Costa Rican coffee industry received funding from the United Nations' NAMA facility for a pilot project. From a humble start in Coopedota, Costa Rica is now leading the way towards making the best coffee for the world."

Today, as we prepare for the upcoming 'Climate Change: Time for Action' workshop during the 113th Session of the International Coffee Council in September, Hortensia and CO2.cr are working closely with us at ICO on developing a strategy to help our Member Countries plan and execute their own NAMAs. It may take time and much effort, but examples like Coopedota's show us that it is possible (and necessary) to bring civil society and the public and private sectors together to enable meaningful actions to mitigate climate change. Let us learn from this group of entrepreneurial farmers to engage for the future of the coffee industry and for the future of our planet.

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