# Agroecology leading the fight against India's Green Revolution

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Members of the Womens' Collective of Tamil Nadu in a forest area where they are growing fruits and vegetables. Photo: WhyHunger.

For the women farmers of Tamil Nadu life has long been a struggle, Sheelu Francis told Tristan Quinn-Thibodeau, all the more so following the advent of 'Green Revolution' industrial agriculture. So now women's collectives are organising to restore traditional foods and farming methods, resulting in lower costs, higher yields, improved nutrition, and a rekindling of native Tamil culture.

"Agroecology means that we are free from chemical fertilizers and pesticides, growing many crops together - grains, lentils, beans, oilseeds - to create biodiversity, using maximum input from the land within the farm in order to produce food."

So says Sheelu Francis, General Coordinator of the Women's Collective of Tamil Nadu in India. The Collective uses agroecology - which they also call 'natural farming' or 'zero budget' farming - to address the issues faced by women and their families.

"Natural farming was introduced to us in the late 1990s. We were working with a women's group... and we realized, from an expense analysis of their income, that most of their income

was being used for health, for medicine, because there were lots of health problems [in their families].

"When we were working with the women, we came across lots of cases of cancer, and we linked these health problems to their food intake, especially to food produced using chemical fertilizers and pesticides. This is why we thought to go back to natural and traditional way of farming.

"This was when we were introduced to 'zero budgeting', using no outside inputs, but using only resources from the farm like manure and things like that. We learned first how to enhance the available farm resources, using natural products, and then we learned how to increase production."

## Building ecological resilience to climate change

At the same time as Sheelu discovered how agroecology could help women economically, she was also involved in a 'participatory action research' project to study the impact of climate change on farmers. Her team learned that women in the community were managing climate change through growing millet, the traditional grain of Tamil Nadu.

"We asked women farmers in the community what seeds they had. Then we learned about millet. Millet seeds could be stored for many years and still germinate. In India, the South is made up of the Deccan plateau, which is elevated and dry land, and the people for the South all ate millet."

Sheelu and the Women's Collective learned more about millet and realized it "is nutritious and also solves the problem of water scarcity and erratic rains." Millet could grow without a lot of water, and water scarcity is always an issue in Tamil Nadu, so it grew well in Tamil Nadu without requiring a lot of inputs.

"We came to the conclusion that millet is the answer to climate change, for malnutrition, to water scarcity, for soil enrichment, for environmental safety, and so on. We decided that millet would be the center of our work, both in terms of production and consumption. Millet became our way of life.

"It is one of the 'safe foods' we focus on, and we have campaigns for government programs and policies to support these changes."

#### **Agroecology against the Green Revolution**

Millet also grows better when pulses like lentils and other plants are intercropped with it, adds Sheelu. "And that is how people have carried out their traditional agriculture systems. It is nothing new for farmers in Tamil Nadu. But because of the Green Revolution policies and technologies, farmers gave up all of those practices.

"Farmers were encouraged to grow all [rice] paddy, paddy, paddy, because of government subsidies which promoted growing rice, especially with hybrid seeds and chemicals. Rice paddies use lots of water, so when it is the dry season or when there is drought, there is no production at all."

"Before the Green Revolution, we had 14,000 different varieties of paddy, but the Green Revolution displaced those traditional varieties and introduced hybrid varieties which only grow if you use chemical fertilizers.

"The use of chemical fertilizers has hurt the health of the people. Not only the chemicals, but now the people rely on polished rice for their nutrition, which is not very nutritious - 46% of children are malnourished in Tamil Nadu, and women are malnourished as well.

That is why we are against the Green Revolution. It has impacted human health, children's health, environmental health, and it erased traditional systems."

### Multi-level education in health and farming

The Women's Collective works with families and communities to learn about the benefits of eating millet, as well as with the women farmers to discuss the reasons why they should grow millet and practice the traditional methods of saving seeds and agroecological farming.

"We are trying to educate people on different levels. Even if they are not producers, we are trying to educate them about the nutritious content of millet. Women are seeing the health of their family suffer, so when we offer millet as a nutritious alternative, they adopt it quickly. We have a high school and college program about millet, which includes a cooking contest that emphasizes nutrition.

"We say, 'in a week, there are 7 days, 21 meals. Eat millet for 7 meals.' In the public food distribution system people get rice, so we started a campaign to get millet into the public distribution system. Families saw that millet was improving nutrition and were more motivated to eat millet.

"Women, most of the women, are food producers. They cultivate vegetables, greens. The men grow cash crops, they are already lost. They want income, so they want to grow cash crops. GMOs were introduced first through cotton, a cash not food crop, and the men thought they would get income, but they didn't. This is why there are so many men farmers committing suicide in India."

"We tell farmers, 'if you lose your plant genetics [by buying GMO seeds and giving up traditional seeds], it is hard to get it back. If you use chemicals, you can revive your soil, your land, etc. But if you introduce GMO seeds, there is no turning back to your traditional seeds."

#### Agroecology and the struggle for Dalit and women's rights

Sheelu points out that the Green Revolution and the agricultural policies and practices that it promoted destroyed traditional farming that ensured healthy families and sustainable economies, exemplified in the shift from producing millet to producing rice.

But she also sees that race and caste oppression are responsible for this shift as well. Many of the women in Tamil Nadu that have traditionally grown millet are 'dalits', whereas rice is associated with lighter-skinned and richer castes.

"Millet grains are darker in color, so they are associated with dalits. It is poor people's food. In the temple they give rice as Prasad (a religious food offering to the gods). Paddy - white, shining rice - is seen as god's food. Racist thinking caused millet production and consumption to be marginalized.

"If you look at Tamil Nadu, traditionally and historically, before the Green Revolution, people consumed millet and only occasionally consumed rice. Rice was eaten as a special food during major religious festivals, about twice a year. This is why the gods got rice for Prasad in temple. The poorest of the poor had millet.

"In the process of trying to reach the upper caste, you change your diet, and then you change your agriculture. And the government policies pushed hybrid seeds and chemical fertilizers and pesticides for rice production, as well as a minimum support price for rice. This has pushed millet out of production. And everyone is maximizing water from the ground for rice. Even the government only distributes rice and wheat for people in need of food."

## Regaining culture through agriculture

"So we link eating millet to Tamil culture, because there is a strong group identity that is based in the Tamil language and in support of Sri Lankan Tamils. So we have linked the struggle for agroecology to our culture through the story of how we are pushed out of our culture of eating, which is why we are encouraging Tamils to eat millet. At Tamil meetings, millet is being served. There is a long way to go. But I have a strong feeling that we are on the right path.

"People who try to hold onto their ways of life are marginalized from their land, their seeds, and their way of farming. Now the industries are trying to take over, and to some extent they have succeeded. That is why we are strongly opposing Monsanto and Syngenta and the whole project of GM (genetically modified) seeds."

Caste and gender oppression also affects the women's lives directly. In Tamil Nadu, Dalit women farmers face have limited rights as women and have very few rights to access natural resources like land, water, and seeds.

"Land is a very big issue for us. Even among our membership, only 10% have their own land. 90% are landless laborers. And even when we can get land, there are problems. It is easy to get land the first year, but after the second year, once landowners see that we are producing, they take the land back. We are now advocating for the government to give long-term leases to single women on unutilized land owned by companies.

"We organize women farmers, particularly widows that are landless, into collective farms where they lease land and they grow millet, because we organize them for food security at the household level.

"The three things that we say, the first is land, the second is traditional seeds, which is very important, and the third is animals. And of course water. These are the things we are trying to focus on."