



MS Balasubramanian doesn't believe in conventional farming: "It is said that farming cannot be done without chemicals as we need to increase food production. When there is no food, there will be starvation, but is it right to feed poison to people?"

The seed savers from Tamil Nadu

In Nagapattinam district in the Indian state of Tamil Nadu, a group of organic farmers have set up a producer company on their own effort. These farmers have conserved 180 varieties of traditional rice eleven of which are produced today. They are seed savers, procure funds on credit loans, produce chemical-free food, and market it without any government support.

A narrow, winding lane dotted by solar-powered street light leads to MS Balasubramanian's house. Balasubramanian, who left Tamil Nadu's capital Chennai in the 1990s to practice agriculture on a four-acre plot in Pagasalai village near Sirkazhi, was among the farmers protesting against the Green Revolution. "Farmers dumped huge quantities of urea on their land, only to find later that this had neither solved the pest problem nor increased production," he says. "On the contrary, the soil hardened, reducing its capacity to retain water."

Having decided to go organic, Balasubramanian worked on encouraging the microbes giving life to the soil.

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Keen to learn more about seed saving, and natural pest control measures, he got to know the Centre for Indian Knowledge Systems (CIKS), an NGO, which has been working on traditional knowledge systems and organic farming for over 20 years in Sirkazhi town, in the Nagapattinam district of Tamil Nadu. Since 2001, the organisation has been working on a research project funded by the Department of Science and Technology (DST) to understand the principles of biopesticides, nutrient management, soil fertility and how these different components need to be packaged for organic farming. Subhashini Sridhar, Programme Director at CIKS, explains: "We tested these practices on farmers' land. As a part of research dissemination, we offered farmers training programmes on organic farming." By 2004, CIKS had demonstration farms with 40 farmers in 13 villages. The experiences gained there motivated farmers to pursue organic farming.

■ How the farmers' association evolved

Many farmers were enthusiastic about switching to organic methods and turned to CIKS for support, who suggested that likeminded farmers could get together and form a group, and in 2005, the Sirkazhi Organic Farmers Association (SOFA) was registered. The organisation not only provides technical support for the farmer members on organic farming and organic certification, but also credit support through revolving funds (given by CIKS under various projects) and marketing support for organic produce. The National Bank for Agriculture and Rural Development (NABARD) backed the scheme. "NABARD funded us for three years to gain technical knowledge. We travelled and learned organic practices and applied them in our villages," says Balasubramanian. From 2011 to 2014, the bank supported organic farming initiatives

by working capital loan, crop loans, and milch animal loan totalling 5.5 million rupees. This encouraged the farmers to bring more agricultural land under organic farming.

They covered marketing aspects like procurement, processing, value addition and sale of their organic produce. But they soon realised that for successful marketing, a certificate of guarantee from an accredited certification agency was necessary. In 2007, the group which had 170 members by then, registered for formal third-party organic certification from IMO Control Private Ltd, an accredited agency, under which the products were marked with the "Truthfully Tested Label" (TFL). In a unique approach, SOFA produced and marketed labelled 'Organic Seeds' of Paddy under the brand name of "Akshaya Seeds". The produce was taken from farmers by the procurement team of SOFA for 10 to 15 per cent more than the prevailing market rates. This enhanced the livelihoods of the farmers. The products are sold within 30 km radius of Sirkazhi, and to organic shops in the cities of Tamil Nadu. To ensure the quality of the produce, a few farmers were selected and trained to become internal inspectors.

A farmer who wanted to become a member of SOFA could register with Rs 200, and avail technical support, seeds, etc. Farmers were trained and guided by master trainers in the village until their land was certified organic. Witnessing the success of the organisation, Vedaranyam, a neighbouring coastal agricultural village, joined them. In 2013 they started their own group called Tirumaraikadu Organic Farming Association (TOFA).

■ A new source of income for community-based women groups

Farming inputs can quickly become a limiting factor in organic farming. SOFA members strongly advocate that farmers must produce their own manure. But when new members want to shift to organic and lack re-

sources, they can also request support from women community enterprises that have developed in the course of the organic movement.

Kanchana Muralidharan, who won the district's best progressive woman farmer award last year, started a community-based vermicompost unit with twelve other women in 2008 and underwent training for the purpose. "It was important to have our own cow to start this. NABARD gave us a cow loan for 15,000 rupees. Today, each member has a cow and sells milk for an additional income," she explains. "When new members enrol, they take orders from us for providing vermicompost and earthworms to them through SOFA to start organic farming. We also supply these to the neighbouring villages on orders." The women work for one to two hours a day for 15 days a month, earning Rs 250–300. Every member in the group could earn Rs 750–900 a month net, excluding labour costs. This has changed their lives, and now they support their families. From 2009 to 2014, this group has sold 42 tonnes of vermicompost and 225 tonnes of earthworms.

Like the vermicompost unit, there is a self-help group that produces biopesticides. Azhagu Nila, along with four women, makes neem oil soaps, and earns Rs 500 to Rs 750 net per month (excluding labour charges). There are other women self-help groups which make value-added products from traditional rice, such as rice flour, rice flakes, etc., creating more livelihood opportunities. Also, these women entrepreneurs display their products at a women's festival every year.

■ Economically sound, socially inclusive

Rats are a huge problem for farmers in this region. Instead of promoting rodenticides, the Centre for Indian Knowledge Systems roped in the Irula tribe, who are traditional rat catchers. This tribal community, who are nomads, migrated near Sirkazhi. Sixty six Irula families were registered with

the SOFA for rat catching. They not only received a community certificate (proof of one's belonging to a particular caste), but also found a way to earn income.

CIKS also successfully experimented with the barn owl box, another traditional rat control measure. "Within three months, an owl had occupied the box in our farm. Almost 80 per cent of the rat problem is solved," says Chellappa Sivalingam, a farmer who installed the barn owl box in his organic farm.

CIKS brought in traditional practices for pest management for environmentally sound and effective solutions and discussed them with SOFA members. "We need to target one pest and solve the issue, instead of using pesticides and killing good pests," Subhashini explains. To prevent crop contamination from chemical farms, the farmers grow barrier crops such as castor and sunhemp, which grow tall.

■ More of an effort, but many benefits

The farmers know that, largely, organic farming requires a greater effort than conventional farming. "Only when you are at the field and watch your farm can organic farming happen. This is not about a farmer walking in, throwing urea, and going away," says Balasubramanian. And he adds: "Chemical pesticides will not get spoiled with time, but biopesticides like panchagavyam, made from five cow products, have to be prepared on a constant basis for crop growth."

But farmers also realise the advantages of organic farming, especially when it comes to improving soil properties and handling increasing aridity. For example, using panchagavyam and earthworms ensures that there is moisture in the soil. Moreover, the traditional rice varieties grown by the farmers do not need much manure, and some of them are drought-resistant and contain medicinal properties. For instance, mappillai samba, a traditional rice variety, grew with only

6 cm of rainfall, when drought occurred at Vedaranyam in 2009/10.

Further, in 2014, the farmers started the Valanadu Sustainable Agricultural Producer Company Limited (VSAPCL), and SOFA and TOFA are now a part of this. The company has 2,620 shareholders in the Nagapattinam district. Women account for 41 per cent of the shareholders and 81 per cent are small and marginal farmers. A farmer can buy up to four shares at Rs 250 each. Since the farmers have credit loans to pay, the profit was decided to be shared after three years.

In the Nagapattinam district alone, where 1,230 women are entrepreneurs, there are 87 women self-help groups under CIKS. The total cultivable land here is 153,964 hectares, of which 1,600 hectares is the total productive area of the farmers. Within this, 391 hectares of land fall under organic, certified organic and non-pesticidal management (NPM).

■ What government could do...

The farmers have grown with the support of numerous international and national organisations and institutions including the Department for International Development (DFID), UK; Hivos International, Netherlands; the UNDP Global Environment Facility; Ford Foundation; Rabo Bank; NABARD; the Department of Science and Technology (DST), India; Friends of Women World Banking (FWWB); Ananya Finance; and Vrutti, a centre for sustainable livelihoods.

The farmers, though, pay a high rate of interest and there are no subsidies for organic pesticides. Balasubramanian explains: "We avail loans of Rs 10,000–20,000 to prepare biopesticides, and pay interest for the same. The government gives subsidies to farmers for urea at Rs 5.70 instead of Rs 40 per kilo. Such subsidies should not be encouraged." Subhashini Sridhar adds: "For an acre of land, pesticides will cost Rs 2,400. For organic farming, in say, 100 acres of land, farmers would need 20,000 kilos of

vermicompost, for which they have to take loans. If the government were to support the farmers, their cost of cultivation could be reduced by 30 to 40 per cent. The local Panchayats (village councils) do not support us either. We need changes in government policy, only then will the Panchayat support us."

The government is not buying the produce of the organic farmers because these are traditional varieties and are over 200 years old. The rule for buying produce by the government is that the parentage of the plant needs to be known and documented. "We do not know the parental details of traditional rice varieties," says Subhashini Sridhar. "However, at CIKS, we document the height of the plant, straw yield and other details. The government can do the same and procure rice from us. If there is support, production and supply of organic food will increase, and the price of organic rice can be on par with the regular rice in the next two or three years."

■ Protecting local varieties through the bio community protocol

About 180 varieties of traditional rice are produced by the farmers for conservation purpose, eleven of which are produced to be sold in the market. For protecting the local traditional varieties grown in this region, in 2010, the association started to develop a bio community protocol (BCP) through which it declares its rights over 21 traditional rice varieties con-



Azhagu Nila (l.) and Meera Chellappa display the neem flakes prepared at the women's self help group centre.

Photos: S. Balasubramanian

served by the community. Through the BCP, the community aims to address farmland conservation and affirm its rights to traditional farmland. "The patent for the community will give them a sense of security. Also, no one can come and take away these seeds from this land in future," says Subhashini.

The idea of making every village sustainable, from seeds to marketing, has been the focus of the group. This will ensure that local resources stay in the village. The 'Seed to Market' initiative of the Sirkazhi Organic Farmers Association, with CIKS's support, is an example of empowering communities to create their own development. This farmer-managed enterprise has promoted self-reliance among the community through regular and active discussions and making decisions through a transparent, democratic process. This effort shows how communities can be supported in developing technologies and processes that are environmentally sound, socially inclusive and economically profitable, a step towards a greener economy.