

## Technology enables marginalised smallholders to meet growing local market demand



Agricultural entrepreneurs help connect farmers to the growing organic market.

### High demand for vegetables, low supply from smallholders

Health food stores across India are struggling to meet the growing demand for the key products they need to attract a loyal customer base – fresh vegetables and dairy. Market studies confirm that these two categories are both most popular among consumers and most difficult to source by retailers. They also provide the cheapest source of nutrition for consumers and form the backbone of the growing ‘nutrient economy’, reducing malnutrition and creating rural jobs.

In India, middle class consumers are increasingly demanding organic produce, yet in Tamil Nadu, south-east India, poor farmers face obstacles in supplying this profitable market. Buyers and agricultural entrepreneurs (known as agripreneurs in India) have found procurement from smallholder farmers to be complex and time consuming.

Agripreneurs connect farmers to markets – they provide farming advice services and enable access to technology, products and information. Agripreneurs are themselves farmers so they understand the market they are operating in – however, they face particular barriers in linking smallholder farmers to buyers. Overcoming these can help more farmers produce and sell their organic vegetables more profitably.

### Eco-Veg: increasing production, connecting smallholders to markets

Change Alliance is supporting the Eco-veg programme which is improving the livelihoods of poor farmers from excluded communities, especially women, and is increasing availability of healthy food to consumers across Tamil Nadu by addressing smallholders’ barriers to market access.

Supported by Change Alliance Sustainable Agro Alliance (SAAL) is a consortium of three civil society organisations, Agrarian Development Institute for Sustenance and Improved Livelihood, Covenant Center for Development and MS Swaminathan Research Foundation. SAAL is training agripreneurs, who in turn each start by training 25 farmers to shift to sustainable organic farming – the farmers’ increases in organic production are meeting the growing demand. This approach has enabled the standardisation of production, procurement and marketing practices (under the SAAL brand) across the region.

SAAL has also created a smartphone application called ‘Farm Field’ for agripreneurs to capture and track information about farmers’ production activities through data and photographs – this enables agripreneurs to target their advice and reduces the need to travel to the central office to gather information as it is available live.

The data collected on the app also enables buyers and traders looking for organic vegetables to see projected yields and book orders from different farms to meet the volume required – this overcomes a major barrier to market for smallholders whose previous unpredictable, low production made them too complicated for buyers.

The information captured in the ICT platform enables data collection and aggregation, price information, subscriptions from buyers for vegetable availability, as well as the traceability that enables organic certification.

## An efficient, inclusive organic vegetable supply chain

The Eco-Veg programme has addressed barriers to market by putting in place a system that serves the entire organic vegetable supply chain. Working through agripreneurs helps local farmers reduce cultivation costs by introducing organic farming practices, while the Farm Field application improves profitability by making it more efficient for farmers to reach buyers. Sustainability of the whole approach is, however, key for long-term success.

Agripreneurs supply organic and biological farm inputs for commission, and advisory services for the group of farmers they serve for a fee. They can also procure the vegetables for sale under the SAAL brand for commission. This approach is ensuring the SAAL agripreneur approach is sustainable in the long term.

SAAL has also made strategic partnerships to enable it to have a long-term impact for smallholders. These include connections with retail chains for marketing, the biotech industry for farm products and technology, and banks for financial support for producers. SAAL is also connected to the Tamil Nadu Agricultural University which is delivering an agripreneur

training programme in association with SAAL – the university aims to train 250 people in the first two years of its organic farming course. These first graduates will then reach 6,250 farmers.

So far, 488 smallholder farmers have registered for organic farming through the programme, producing over 351 tons of organic vegetables in one season. They are already seeing increased profits from their products, improved soil health and reduced water consumption and a healthier natural environment for wildlife. Consumers are accessing quality pesticide-free vegetables and all stakeholders in the organic vegetable market are benefiting from a growing market and an efficient supply chain.

SAAL plans to scale up the programme in the next two years to reach 5,000 smallholders. They will also be strengthening their own supply chain by investing in warehouses and retail markets. Together they will continue to ensure marginalised smallholders have the opportunity to be included, and benefit from the thriving local organic vegetable market.



## Switching to organic saves money and pays dividends

Jesudoss is a farmer from an excluded community based in Thankalacherry village who is farming on eight acres of leased land. He developed an interest in organic farming after being affected by chemical pesticides. He was looking for ways to change his farming and discovered that a fellow villager was involved in training and promoting organic farming. After guidance, he began to apply organic principles in his own cultivation of okra, tomato, onion, bitter gourd (bitter melon) and aubergine.

When the Eco-veg programme began, his trainer involved Jesudoss. Because he had already started to develop organic farming, it was easy for him to adopt the entire organic cultivation process. Jesudoss was able to prepare most of his own organic farm inputs and growth promoters; including fish extract and farm manure using cow dung, as well as natural pest repellents.

His first yield was very good and cropping extended for a longer duration. Vegetable quality was good and customers prefer his organic vegetables

Jesudoss' aubergine field input cost for organic farming per acre was INR 23,250 (\$364). When compared to the average input costs using chemical farming INR 34,512 (\$540), his savings are quite significant.

He is convinced that organic farming is the way forward. Jesudoss wants to produce a wider variety of vegetables to be able to meet SAAL's needs and demands.