“Basically, technologies are not an end in themselves; rather, they are a part of the broader toolkit of solutions. While making technological choices the farmer should be better informed about the pros and cons of the technology, and the appropriate context where it should be used. This is called ‘informed decision making’. Therefore, the extension system should assist farmers in making such informed choices rather than simply making sweeping claims about technologies. Unfortunately, that is not happening.”

Dr GV Ramanjaneyulu  
Executive Director  
Centre for Sustainable Agriculture, Hyderabad, India

PROMOTING SUSTAINABLE AGRICULTURE

For more than a decade the Centre for Sustainable Agriculture (CSA) has been focusing on developing and promoting locally adapted farming systems, non-pesticidal management of crops, sustainable farming practices and organic farming, building farmer institutions, and researching on public policies on farming. Drs Sreeram Vishnu and Onima VT recently interviewed Dr GV Ramanjaneyulu to understand the evolution of CSA and how it is promoting sustainable agriculture in different states in India. Excerpts from this interview are given below.

Dr Ramanjaneyulu, how did it all start?

Initially CSA was started as a desk at the Centre for World Solidarity. In 2004 it got registered as an independent organization, and its basic objective was to help farmers who are in distress. The philosophy of CSA is rooted in three major aspects: a) Understand the farmers ecosystem and the farming system as a whole, and then help farmers to adopt agro ecological approaches; b) Organize the smallholders by means of a Farmer Producer Organization (FPO) so as to strengthen their market linkages and bargaining power; and c) Influence policy makers to orient policies that support farmers.

You started working on pest management initially, but later moved on to address marketing of farmer produce. How did this shift happen?

We started our work with the concept of Non-Pesticide Management (NPM), and not Integrated Pest Management (IPM) of crops. This was mainly because, at that time external inputs, such as pesticides and fertilizers, were contributing to as much as 35-40% of the total cost of production, which was untenable. However, the situation changed with the cost of labour and land going up and prices of farmers’ produce becoming stagnant over the years (corrected to inflation). The net incomes of farmers started dwindling. One of the main reasons for this is the decreasing share owned by farmers in the consumer price. This led us to directly link the farmers and market their produce to consumers that helped farmers to get a better share in consumer price. To consolidate these linkages we started a farmer and consumer controlled value chain model, which then culminated as the FPO, Sahaja Aharam.
What is CSA actually doing to address these issues?

CSA is primarily aiming for farming, which is economically sustainable and ecologically secure. We advocate that farming practices be aligned with the principles of agro-ecology, like Non-Pesticidal Management, Natural Farming, and Organic Farming. Organically produced products are certified through the Participatory Guarantee System (PGS) and Third Party Certification to maintain both integrity and traceability. Moreover, we ensure that the producer gets at least 50 percent of the consumer’s price. Thus, in our model, farmers’ price realization has increased to more than 50 percent in the consumers’ price, while it is not more than 25 percent in conventional markets. In this way, we ensure economic sustainability for the producers.

We also have many institutional innovations to our credit, such as Community Managed Extension model, Farmer Field Schools (FFS) and Kisan Business Schools (KBS), which are working well. Basically, we learn from our own organizational experiences as well as from other prevalent best practices in the world. For instance, the concept of Sahajaharam was originally derived from the direct selling markets of the USA and the UK. It was then adapted to fit into the local context, and producer cooperatives were formed at the village level and consumer cooperatives in the urban area, and the FPO took up retail marketing. Today they are producing and selling more than 200 products in the market through their own retail stores, mobile stores, and online store (http://www.sahajaaharam.in).

Sahaja Aharam Outlet at Nagarjuna Nagar, Secunderabad

What are the elements of your Community Managed Extension Model?

CSA partners with various state governments in promoting this model. Currently, CSA is working with the National Rural Livelihoods Mission (NRLM), Society for Elimination of Rural Poverty (SERP) in AP and Telangana, Maharashtra State Rural Livelihoods Mission, North East Rural Livelihoods Program, Bharat Rural Livelihoods Foundation, Rytu Sadhikara Samstha of Government of AP, as well as NABARD in AP and Telangana.

Initially, a small group of farmers in the village were trained as Community Resource Persons (CRPs). These CRPs and the CSA staff organize FFS every week for a period of 45 weeks – spread over two seasons. The best performing farmers are picked up as CRPs for further scaling up. Many times, these FFS farmer groups become producer groups who are the building block of farmers’ institutions.
We have also recruited Kisan Mitras as CRPs who work with farmers to help them access all support services offered by the government. Not only are they a part of the community where they happen to work, but they also come to understand/recognize the needs of the community. They support the community in dealing with a wide range of activities/services: access to bank, subsidies, supporting distressed farmers’ families, attending distress calls, providing counseling, and organizing field level assistance.

Recruiting farmers as extension personnel is not new. This has already been attempted in many programmes. What is important is how to ensure their accountability to the community. We have initiated a process where the CRPs are managed by the farmer groups. We have linked their salaries to service delivery which is evaluated by the farmer group/cooperatives. In other words, having CRPs who are accountable to the same community is the way forward if we have to really organise relevant and effective extension support to farmers. It has always been our wish to see the government as an integral part of the community-managed extension model. The government should focus on ensuring proper funding for community-led extension models.

How do Kisan Business Schools operate?

We launched Kisan Business Schools (KBS) to make sure that the farmer’s understand markets and are capable of developing a production plan, a business plan, and establishing bank linkages. Like Farmer Field Schools (FFS), KBS also takes a ‘learning by practicing’ approach across a season so as to build capacities of our farmers and cooperative managers to structure them across the value chain. What is more, we understand the critical role played by women in agriculture. In our organizational set up we have tried to integrate women into the workforce to a great extent – for example, 50 percent of the members of management committees of FPOs are female.
**What about your interventions in the seed sector?**

We work on community seed banks and community seed enterprises to help farmers access the most vital agricultural input, i.e., seed. The farmer groups are involved in conservation and revival of traditional varieties, managing improved varieties, seed production, and sharing/marketing. In every agro-ecological region we collect data on Value for Cultivation and Use (VCU) for each variety, which is then catalogued. This helps farmers in taking a decision as to which variety suits their needs the best. To enhance access to seed varieties and to ensure benefit sharing with those involved in conservation, selection, breeding and maintaining the parental lines, an Open Source Seeds Initiative called ‘Apna Beej’ has been launched. This would ensure timely availability of quality seeds without depending on monopolistic seed markets. The farmers who save and share the traditional varieties should also benefit fairly.

**How is your call centre working? Is it part of the Kisan Call Centre (KCCs) funded by the Central Government?**

CSA has its own call center, which is unique, in the sense that it offers advisory and distress counseling to farmers by moving beyond just simple information support.

![CSA Helpline for farmers](image)

**What are the problems you see with the present day agricultural research system?**

Agricultural Scientists always take a technology-driven approach, ignoring the agro-ecological and socio-economic conditions in which farmers operate. It was cotton farmers who committed more than half of the farmer suicides that took place in the last twenty years. This is due to increasing costs and crop failures leading to increased indebtedness. Many of the problems that occur in farmer fields are droughts, pest attacks, and disease incidences. Cotton has spread to areas and soils that are not suitable for it and thus risk of failure has grown very high. Pest resistance has increased both for insecticides and Bt cotton. The bio safety issues with regard to pesticides or GM crops were never considered. Agricultural Scientists’ understandings on the relationship between technology and ecosystem are limited. Basically, technologies are not an end in themselves; rather, they are a part of the broader toolkit of solutions. While making technological choices, the farmer should be better informed about its pros and cons in order to make an informed choice. The extension system should assist farmers in making such informed choices. Unfortunately, that is not happening.
Besides these points, we have to broaden our understanding of technology promotion. For any technology to succeed there are a number of interplaying factors. The Green Revolution was a success in India not only because of the HYV seeds, but also because of many other support systems that were put in place- introduction of a proper extension system, nationalization of banks, launch of FCI for procurement of cereals, introduction of a Minimum Support Price (MSP), subsidized inputs, construction of large reservoirs for irrigation (dams), etc. Thus we should be able to see the wider canvas of changes and factors to really understand the agricultural system. Unfortunately, in the current context, several of these have become irrelevant. There were several fallouts of practices like agrochemicals, high water use, big dams etc. Economics is not working out in favour of small and marginal farmers, so we need to rethink and create new support systems for farmers, without which change may not be possible.

What are the major lacunas with the present extension system?

To begin with, lack of accountability is the major issue. Both public and private extension personnel are not accountable for the outcomes of their technical recommendations or claims made in promotion of a crop or a technology. Technologies are introduced without proper understanding of the context and the ecosystem in which the farmer operates. This has resulted from a lack of systems thinking. Another challenge is lack of sufficient feedback links/loops to feed into the research system about field level problems. One instance that immediately comes to mind in this situation is the ban on Endosulfan (a dangerous pesticide) in Kerala, which was not based on feedback from either the state agricultural university or the state’s Department of Agriculture.

Secondly, the extension system itself is information driven rather than knowledge driven. But the actual role of extension is letting the farmer know about various technological options, ecological contexts, as well as merits and demerits of each, and why they should go for a particular option. By using this method a farmer can make an informed choice; and thus the whole technology choice process can be made more democratic.
How can we make the extension system really effective?

I am really skeptical about suggesting specific measures. We might need a total revamp of the extension machinery in the present system— their role, governance, etc. We might have to move on to outcome monitoring rather than process monitoring. Currently, the success of any intervention is basically linked to the process rather than the outcomes. For example, under the public extension, the interventions are measured by the number of trainings/demonstrations conducted rather than the change it brings in farmers’ lives in terms of increased production or productivity, reduction in costs or enhanced incomes. Basically the system is lacking the problem solving approach, which is mainly required. Also we need to understand that the problems are multi-faceted. Often, poor market linkage is discussed as a major issue. However, we cannot say that assured market will always succeed in benefitting the farmer. Take the case of cotton and sugarcane. Both the crops have assured markets. But you know very well that the cultivators of both these crops are in distress, quite often. Even proper market linkages don't ensure assured fair prices to the producer. Finally, we really need to make more investments in agriculture as it directly impacts the livelihoods of a large section of people. However, the present level of investment is surely not adequate.

Do you think that the present focus of the Government (on doubling farmer’s income) is aligned with that of CSA?

‘Doubling farmer’s income’, this term itself is a misnomer. The current average income of 85% of farmers is Rs. 5000 per month per household; doubling it in 7 years does not make much of a difference to their lives. The ways and means articulated and proposed by the government wouldn't make any real difference in the farmer’s income. The main focus should be on reducing the cost of cultivation, enhancing crop productivity, and creating alternative methods for supplementing income generation opportunities for farmers. Today, the cost of production has multiplied manifold when we compare it to what it was 10 years ago. The cost of labour and marketing has increased tremendously. The government has to consider alternate ways to support producers, like payment for ecosystem services. By this I mean that they should be compensated for efficient use of water, land, etc., in addition to the normal cost. This would benefit the farmers as they would be incentivized for quality production and at the same time it would be beneficial for the environment.

In 2014 CSA received the Best Rural Innovation Award for Non Pesticidal Management at the Bihar Rural Innovation Forum

However, I quote often; governments are engaged in promoting populist schemes, such as loan waiver and free/subsidized food distribution, which are not really benefitting the actual cultivator. They have not reached the actual beneficiaries to a great extent. If the government is really serious about doubling farmers’ incomes, it should focus on real incomes and see that parity is built with other sectors. Otherwise, even if the income is doubled by 2022, it would be less than Rs18,000 which is less than the minimum salary of a government employee in 2018. Farmers have to balance their cost of cultivation with their cost of living, which is supported by

Dr Ramanjaneyulu quoted NSSO (2014) data to support his arguments.
services like payment of subsidies. However, this could also be strengthened by developing additional sources of income from subsidiary enterprises like dairying/poultry.

Can you mention some of the areas where you achieved success or made an impact?

As I discussed earlier we work through the FFS approach. Basically the FFS concept of the FAO was adapted to the local context to train the farmers, and the teams are managed by the local/Community Resource Persons (CRPs). CRPs organize weekly FFS meetings and group discussions are held on on-farm experiences and future course of actions. In this way, each farmer will become a resource person. FFS will help to inculcate both the knowledge as well as the skill of participants, unlike just demonstrations where the cultivators may or may not get chance to practice the skills. We have implemented the FFS-based approach of capacity building in more than 3000 villages within the period of 2005-2010. Through these FFS platforms, we strongly advocated the non-pesticidal management of crops. As a result, overall pesticide usage came down in Andhra Pradesh State in the subsequent years, which we count as our success.

Besides this we were successful in implementing our farmer institution-led extension model at a few locations. For example, in Kurnool district, all government organisations are linked to farmer cooperatives and all money from the government is channelled through them. Ultimately in our model, the farmers are feeling more satisfied than their counterparts in other places, which is a true measure of our success.

Non-pesticidal management and community managed sustainable agriculture models are replicated across the country.

The Sahaja Aharam model is seen as a model worth replicating and scaling up.

Many of the regulatory systems, for example on pesticides, seeds, GM crops etc., are also being improved based on the learnings from our work.

Can you share your experience with different State Governments?

Basically State Governments have two functions, namely, invest in things/ideas worth promoting and regulate others which need to be avoided. I already underscored the need for making further investments in agriculture. Some of the governments have already understood the need for making more investments and have moved ahead. Regulation is required to ensure the quality of agro inputs, like seeds. We initiate our work in each state with a set of clear objectives and have a clear exit plan. Presently CSA is active in 13 states. In six states we have our offices and work directly with farmers, in the others we support local groups. We enter into partnerships with different local organizations, especially with those who are like-minded and work on our own established proven model. We were successful in convincing a few of the State Governments that community-driven approach are one of the best solutions. In fact, we could influence many of the State Rural Livelihood Missions (SRLMs) to adapt our model. With good investments made, and with a strict monitoring role played by the community, agricultural interventions can be made more target-specific. Further, in the 13 states we work, we have different alliance partners. Our working relations are basically built around trust and common interest. In 2014, we won Best Innovation awards at the Bihar Rural Innovation Forum and the Maharashtra Rural Innovation Forum.
What are your future plans?

CSA is presently working on developing a decision support system (eKrishi) to help the farmers on making right decisions regarding production and marketing of their produce. It is a set of applications comprised of agricultural problem solving tips, problem diagnosis and solution, FPO management, and supply chain management. Broadly the domains of services offered are categorized into six groups viz., credit, insurance, subsidy, market, infrastructure, and extension. The system will tell how, where, and when to access these services. We plan to deploy Krishi service centers at the FPO level or cluster level, and it will be run by individual entrepreneurs.

*Dr Sreeram Vishnu and Dr Onima VT are Research Officers with the Centre for Research on Innovation and Science Policy (CRISP), Hyderabad.*