Revolution in rice cultivation

Women play a pivotal role in promoting the SRI method of rice cultivation

Manikyamma felt a deep sense of satisfaction when she finally harvested rice in the kharif season of 2017. Some months earlier, on the advice of Vardhan Patel, Agronomist at WOTR’s Narayanpet office, she had decided to go in for cultivating rice on her plot of two acres of land under the System of Rice Intensification method (SRI) in Kamsanpally village of Telangana’s Mahabubnagar district. Many other villagers had criticized her decision and expressed doubt about the SRI method. “I too had doubts about whether there was any point in taking up SRI. It seemed so different from the traditional methods. Besides, the other villagers made fun of me,” she laughs and claps her hands cheerfully, as she talks to me in the courtyard of the village temple.

However, 38-year-old Manikyamma says taking up SRI cultivation of rice proved to be one of the best decisions she has ever taken.

“Earlier, I had a production of 20 to 22 bags of rice (one bag of rice is around 40 to 50 kg). But under this SRI system in the kharif season, I am able to get around 25 bags of rice. My inputs have also decreased, from four bags of DAP (Diammonium phosphate) fertiliser to just one bag. I would say my expenditure which was around Rs. 15,000 per acre, has reduced to between Rs. 5,000 and Rs. 6,000,” says Manikyamma. However, she admits that SRI requires more weeding and therefore can become time consuming.

Another such beneficiary under the upscaling of SRI is J. Narasimhulu Goud (62). He says “I grow paddy on one acre of the 5 acres I have. Under the traditional systems of rice cultivation, I used to get 20 to 25 bags from one acre of rice. Now under SRI, it’s gone up to around 40 bags of paddy per acre in the season. I receive Rs. 700 to 800 per bag of paddy. Effectively, I now get Rs. 32,000 against the Rs. 20,000 earlier.”

The reduction in expenditure and higher yields inspired many other farmers in Kamsanpally to take up SRI in the rabi of 2017. So much so, there was a huge rise in the area under SRI in the village from four acres to 87 acres between the kharif of 2017 and the rabi of 2017. While Manikyamma’s success was a factor, Ravi Prasad Mekala, Project Manager in WOTR’s Narayanpet office, explains there were other factors that caused this jump.

“In October and November 2017, there was a heavy storm in the village, where hailstones fell. It was observed that the SRI standing crop was relatively less damaged by the storm, as compared to the crops grown through conventional methods. A second factor was that we trained a team of women labourers in SRI techniques, who then taught other women and in turn other women learned from them. We created this team after observing that the burden of cultivating rice fell mainly on women. Third, though the SRI method, at least in this village did not lead to much higher yields, there is a significant reduction in expenditure. Farmers realized this and decided to adopt SRI in larger numbers. The total number of farmers under SRI has thus risen to 87 acres, one acre per farmer.”

Within India, WOTR has promoted the SRI method of rice cultivation in its project areas, especially in Telangana.
where a project in collaboration with the German development bank KfW the German Development Bank (The KfW) has focused on up scaling the area under SRI.

However, there are challenges to promoting SRI, points out J. Narasimulu Goud, a farmer. “I have planted SRI on one acre in the rabi and got 40 bags of paddy, versus the normal rate of 25 to 30. But in SRI mode of cultivation, the amount of weeds is also substantially higher and more time gets spent in weeding. The wider spaces results in higher weed growth. You need a cono-weeder machine for de-weeding, and in this village, there are only 14 such weeder machines for 87 people. This delays the de-weeding process and consequently the farmer loses some time.”

Another challenge, pointed out by a farmer, Sivaiah Goud (55), is the lack of any premium for rice grown through SRI methods, which is grown using organic farming techniques. Goud, a farmer with 5 acres of land on which he grows rice, while praising the higher yields under SRI, says “In Narayanpet and around it, we don’t get higher rates for organically grown rice. The nearest market is Hyderabad where there are stores which keep organic commodities but it takes 5 hours to reach there and not every farmer can take out time and spend money to go there regularly. There needs to be a marketing infrastructure to help the farmer go organic, if SRI methods are to be upscaled further.”

Another hurdle to greater adoption of SRI is that while rice grown through organic methods does fetch a higher price, farmers need to maintain organic methods for three years to get an organic certification from the state government’s Agriculture Department. This also means dealing with challenges like more time spent on de-weeding and labour charges.

On the whole though, farmers are quite happy with the SRI method of cultivating rice. They concur it has raised yields, and reduces expenditure and is more sustainable.

Ravi Prasad Mekala concludes “Hitherto, we focused on upscaling the area under agriculture. Going forward, we need to combine better farming practices, sustainable resource utilization and market linkages, through Farmer Producer Organisations for instance. If this is done, SRI will surely be successful in the longer term.”