

SRI: A WIN-WIN-WIN OPPORTUNITY

“SRI”, a *Mantra* for Food Security & Resource Conservation



Background & Objectives

Rice production needs to be increased dramatically in the next decades to meet the demands of a growing population. This increase must be accomplished with less land per capita, smaller and less reliable Water supplies, less degradation of the environment, and less drain on the resources of Smallholder farmers. The System of Rice Intensification (SRI) is perhaps the best current example of options available to farmers to promote community-led agricultural growth, while managing soil and water resources more sustainably and even enhancing their future productive capacity. SRI represents an unprecedented opportunity for developing economies to enable farm households to be more productive, secure, and self-reliant, while buffering and even reversing the trends that contribute to climate change. This is a win-win-win situation for rural households, countries and the planet.

Tripura is one of the States in the country, which has successfully adopted and popularized the system of rice intensification (or SRI) technique, also known as the Madagascar method. The system is based on principles, which are different to

conventional rice cultivation method. They include developing nutrient-rich and un-flooded nurseries; ensuring wider spacing between rice seedlings; preferring composts or manure to synthetic fertilizers; and managing water carefully to avoid plant roots from saturation.

Intervention

Department of Agriculture, Tripura started the SRI on an experimental basis with just 44 farmers. Large-scale adoption of the method started in the 2006-07 with conjunctive use of State Plan funds and funds under the Centrally Sponsored Scheme of Macro Management of Agriculture.

However, SRI intervention got a major fillip with the advent of RKVY. Over the three years from 2009-10 to 2011-12, Rs 30.48 crores has been provided for SRI in Tripura, making it one of the flagship interventions under RKVY.

Capacity building of farmers by organizing extensive trainings on SRI techniques for farmers from village level upto district level.

- **Selection of interested farmers** with the help of panchayat bodies
- **Technical interventions under SRI and their benefits include:**
 - Growing seedlings on raised beds and transplanting them to main field in 8-12 days instead of one month;
 - Requirement of 5 kg seed instead of 50 kg / hectare due to single seedling planting;
 - Transplanting one seedling at 25 x 25 cm spacing with the help of markers especially prepared for SRI method of cultivation; less time required for transplanting due to fewer seedlings;
 - 35 -40% less water is utilised for irrigation since the field is not continuously flooded;
 - Reduced cost per hectare, as there is less seeds, less synthetic fertilizers, no herbicides or pesticides, and less labour is required after practice of 2-3 seasons;

- More tillers/plant as there is no competition from other seedlings that leads to more panicles and grains.

Outcome

Tripura has adopted SRI with the objective to increase productivity of rice with reduced requirement of water, seed, synthetic fertilizers, pesticides, herbicides and often labour inputs.

RKVY enabled coverage of 2.17 lakh hectare gross cropped area under SRI in the 3 years from 2009-10 to 2011-12, benefiting over 6.52 lakh farmers during the 3 crop years (farmers may avail assistance for more than 2-3 seasons/year). Water usage has reduced by an average of 35-40% and average additional productivity of rice due to adoption of SRI is reported to be 825 kg/hectare, which increased average total productivity to 2752 kg ha in Tripura.

IMPROVED HOUSEHOLD FOOD SECURITY

Smt Jaya Sinha, Woman SRI Farmer and President of Farmers Club, Raghna, Dharmanagar, North Tripura.



Comments:

After adopting SRI method in half an acre out of the 1.6 acres of my land, I found that I not only needed less amount of seed, fertilizer and water, but one male and one woman labourers were enough to complete the transplantation. I got more paddy when compared to the earlier years, and one and a half times more green fodder. This means, from this year onwards I can ensure that my family eats more food while saving on some of the costs of cultivation.



Shri Abu Sarkar, Baikhora, Tripura (1st SRI Farmer of the State) :

“For example, one conventional plant produces 8-10 panicles [fertile tillers], one SRI plant produces 18 -24 panicles. Each conventional panicle contains 100-120 full grains while each SRI panicle has 180-200 full grains. Surely, SRI is a winner. It rightly responds to the pressures of high input costs and low margins in this tough business where many farmers have suffered. They heavily applied chemical fertilizers, thus, soil becomes unfertile. The overuse and abuse of herbicide spray makes the rice plants become unhealthy and more susceptible to diseases and less productive.