Summary of the Proceedings & Recommendations of the National Consultative Meeting on Up-scaling SCI/SRI on 10 September 2016 at NAAS, New Delhi

Organised by the
NAAS and the National Consortium on SRI
Supported by NABARD, Mumbai (Convener: Dr. B C Barah)

Despite high economic growth in the last two decades and increased financial allocations for the social sector, India has not been able to fully achieve its development goals. The issues of Household Food Security, Environmental Sustainability, Climate Change, Producing More with Less, and Gender Equality loom large as critical national concerns. Focus on improved sustainable food security requires emphasis on environmental sustainability and gender equity. Indian agriculture today is characterized by its rain-fed nature (about 60% net cropped area), low productivity and decelerating increases, pre-dominance of small and marginal farmers (> 85%), combined with pervasive household food insecurity and agrarian distress. Under the circumstances, there is an urgent need to rethink our strategies to enhance food production (not forgetting the expediency to address production issues in pulses and oil seeds as well), addressing the real threats of water stress, increasing costs of inputs, and climate change. It has become very essential today to innovate and up-scale sustainable technologies such as SRI (now also called as SCI – System of Crop Intensification, as the SRI practices have been found to have dramatic impacts on many other crops such as wheat, maize, millets, mustard, soya bean, sugar cane, and vegetables) to mitigate the problems of agrarian distress. Currently, more than 3 million farmers across the country have recognized the benefits of SRI and adopted these practices.

The National Academy of Agricultural Sciences (NAAS) and the National Consortium on SRI (NCS) organised a one-day National Consultation on Up-scaling System of Rice Intensification (SRI), on 10th September 2016 at the NAAS, NASC Complex, New Delhi, in view of the increasing interest shown by the farmers and the growing support from various quarters like different State Governments, civil society organizations, donor agencies, research institutions, KVKs and the agricultural universities. The aim of the Consultation was to reach out to the policy makers and other stakeholders for initiating a massive effort at up-scaling SRI practices across the country.

The Consultation was attended by an array of stakeholders representing the Government, NABARD, ICAR, agricultural universities, civil society organisations and national research institutions. Dr. S.K. Pattanayak, Secretary, DAC&FW, Govt. of India New Delhi; Dr. H.K. Bhanwala, Chairman, NABARD, Mumbai; Dr. T. Mohapatra, Secretary, DARE & DG, ICAR; Dr. S. Ayyappan, President, NAAS; Mr. B. Rajender, Joint Secretary, DAC&FW and Mission Director, NFSM; Dr. Sudhanshu Singh, IRRI; Ms. Babita Devi, woman farmer from Bihar; and Dr. B. C. Barah, Convener, National Consortium on SRI, were among the participants in the discussions.

While highlighting the multiple benefits of SRI and NABARD's long-standing commitment, the Chairman tabled a proposal for a National SRI Initiative for Food and Nutrition Security (NSIFS) to be anchored by the Ministry of Agriculture, and supported by a host of institutions such as ICAR and NABARD, joined by other agencies including selected CSOs.

The Secretary, Govt. of India, speaking on similar lines, mooted the idea of the all-India SRI initiative to be taken up on a mission mode. He mentioned that the ongoing RKVY could be an important source of funding for a mission such as this, in addition to the NFSM. This idea was seconded by the Mission Director, NFSM. The DG, ICAR highlighted the need for more scientific research to validate the claims being made by the SRI community. The IRRI representative suggested the need for more scientific validations of various practices of SRI in various favorable areas in India. More research needs to be undertaken in agricultural universities in partnership with farmers and the relevant findings to be disseminated widely.

It was decided that the National Consortium on SRI would take lead in bringing together the multiple stakeholders to hasten the formulation and launch of the **National SRI initiative for Food and Nutrition Security**. The NCS will work with the Ministry of Agriculture in constituting a *Task Force* with expert members to develop the strategy and guidelines of the proposed Initiative. This T*ask Force* will provide strategic inputs to the MoA&FW in the design, roll-out, regular monitoring of the Initiative, and involve different stakeholders at the National and State levels; besides facilitating building capacities of implementing partners.

In addition, the following major highlights of the one-day long consultation have been captured. The proposed national SRI initiative could be developed around the contours of these recommendations summarized below:

a. Promote more research on SRI

Researchers should pay more attention to the experiences and knowledge generated by farmers. SRI should be made an integral part of on-station research, taking assistance from practitioners/farmers. Similarly, renowned institutions such as the IARI, Indian Institute of Rice Research (IIRR), Indian Institute Water management (IIWM) and SAUs who have carried out experiments should disseminate their findings widely.

Research protocols need to be established to create new knowledge on agro-ecology. Region-specific practices need to be developed for different water regime. On-farm trials need to be conducted under the guidance of agricultural universities and research institutions.

b. Ensure adequate and timely supply of appropriate equipment and implements

In the absence of a wide range of appropriate equipments, especially seed drills, transplanters, weeders and markers, for different farm sizes and soil-moisture conditions, the results become less attractive, especially for large farm sizes. Central Farm Machinery Training and Testing Institute, Bhopal, and IITs can be involved for developing efficient farm equipment and implements. Even local craftsmen and blacksmiths can be trained to manufacture equipments locally.

c. Promoting innovative technologies: Existing inappropriate institutions

Lack of state and national resource centres on SRI pose a larger constraint to adoption. SRI operates differently from the earlier input-intensive Green Revolution strategy. The existing NFSM or BGREI guidelines do not build adaptive capacities of famers and allow for their reskilling over a period of time.

For an agro-ecological innovation such as SRI, the extension paradigm must move away from a hands-off demonstration model in a distant plot for a single season, to a model of engagement with farmers over a period of time with stronger emphasis on peer learning. NFSM support for NGOs should be inadequately provided. Newer models of extension systems through intensive community involvement need to be worked out. Expert resource centres need to be empanelled, similar to that of NRLM model. Each state should plan its strategy by involving academic institutions outside the agricultural establishment. They also should create learning alliances and benefit from the synergy of knowledge originating outside present agricultural centres. These agricultural research centres need not reinvent the wheel but can build on, validate, and work with others in a consortium mode.

d. Focus on enabling farmer-led innovations

Extension in agro-ecology is not private-led or public-led, but has been essentially community-led. Extension reform has not tapped communities' potentials and capacities to solve their own problems through facilitation and co-learning or social learning. Groups and networks of farmers, farmer field schools, local non-governmental organizations, peer-based experimentation, farmer-to-farmer learning through cross-visits, and learning forums are all components of a proposed farmer-led innovation system.

e. Intensive skill development initiatives in agriculture

Agro-ecology requires new skills and continuous on-farm experimentation. Farmers need to be equipped to adapt to changing weather patterns that are ever-more frequent. With skills, farmer can recognize the additional contribution of SRI during drought/ floods and climate stresses. The extension system must be equipped with skills to "play with the monsoon". Climate-smart agriculture is less about addressing a particular trait or weather condition, but more enabling farmers to be more skilled and smarter to adapt to changes. This often needs a focus away from productivity alone to skilling and collective action.

f. Recognise the roles of women and labourers

Innovations today are mostly captured by male and resource-endowed progressive farmers. Women are usually not involved in reshaping agriculture. Yet we should appreciate and support that they are increasingly the key innovators and transmitters of knowledge, and their role needs to be recognized. Training programmes directed specifically at women, enabling them to handle newer processes and tools, needs to be strengthened. Gender-friendly equipment and implements need to be developed to liberate from drudgery.

The contribution of labourers in farming, through their skills and knowledge, not just their manual effort, needs to be valued by creating certification for their enhanced or newer skills that can lead to them having a share of the increased profits by farmers generated from SRI. Farmers and labourers should be working together for a new agriculture, where some of the coordination costs are met as in MGNREGA