The farmers participatory action research (FPAR) trained farmers are enthusiastically building strong networking with other farmers in their communities and nearby villages and showing keen interest in setting up more SRI learning and adoption sites. Blending of the local knowledge with that of SRI practices, positive part of such involvements, fueling innovations and development of locally adapted rice production technologies that is reducing their dependence on external inputs to further reduce the cost of production.

More than five-thousand (5,000) rice farmers in Cambodia, Thailand, Laos and Vietnam are adapting and learning SRI method of rice production at 172 sites in 32 districts of 11 provinces this year. Despite the delayed monsoon this year, felt across the LMB region, the SRI crop were able to cope up with harsh weather vagaries. Similar to the past experiences SRI managed crop captivated small rainfed farmers with its potential, resulting in better crop production and more tolerance to droughts, pests and diseases. The SRI techniques that include transplanting younger seedlings or direct seeding with low seed rate, wider spacing between plants and keeping the soil preferably moist during vegetative growth stage have provided farmers with hope of better yield and healthy crops this season too.

Smart farming with SRI can be a sustainable approach for rice production in Lower Mekong River Basin (LMB) ...

These smart farmers are supported at every stage of crop growth and development by ensuring proper observation and documentation by local, national and regional project staffs. The observations are debated and discussed at all important crop development stages among participating farmers and their neighbors so that the newly developing suit of technologies are well understood and easily adopted by one and all. Not only the crop development parameters are being observed and recorded but also the economic parameters are recorded to help understand the cost and benefit of new suit of technologies.

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Message from Team Leader

Theories and practices interact. Theories are insight where as principles are extracted from practices. With regard to SRI one may choose to observe and apply a practice, which has given spectacular yield in one location, without adapting it to its current practices in another location. The approach is straightforward but practitioners that adopt this strategy often struggle because new practice does not fit in their current ones. To avoid such misfit, one may consider what the principles are behind and accordingly they can adapt variant of those principles according to their needs thereby preserving the SRI inspiration rather than trying to replicate the practices. The SRI-LMB encourages having such ‘adaptation’ in thinking and approach for learning and innovation needed to make rainfed agriculture more smart and resilient.

- Dr. Abha Mishra
**Thailand**

At fifty-two (52) field sites covering 3 provinces of Thailand, i.e., Surin, Uttaradit and Sisaket, smart farmers have set up SRI learning and adaptation sites involving members of their communities during ongoing wet season 2015. Delayed rain in most part of the project areas this year resulted into water shortage which delayed sowing/transplanting resulting into above normal weed infestation. However, the continuity of rainfall since early September provided needed moisture for good growth of rice crops. It also helped to suppress the weeds in general but better in SRI field.

This year, the Project has provided hand-held rotary weeders to the farmers to see whether this could be effectively used to manage weeds. Similarly, drum seeders were made available at the beginning of the rice-planting season for testing purposes since most of the farmers prefer direct seeding due to labor shortage in the project area. The drum seeder uses 6-8 Kg of rice seed per rai (0.16 ha) compared with 25-40 Kg seed/rai in conventional manual broadcasting by farmers.

A one-day transplanting workshop in Fak Tha, Nam Pat and Thong Saen Khan districts of Uttaradit province was organized by Vocational Training and Development Center for Thai People along the Border Areas (VTDC), Uttaradit and AIT in order to provide common understanding of SRI techniques for new smart farmers followed by setting of the SRI demonstrations.

Similarly, in Sisaket province, 100% organic manure-based SRI production system (manure @ 1Tons / Rai) are being evaluated at all demonstration sites. In pre-planting discussions concerns from farmers like different spacing measurement, weed management, possible market reach and support on data collection were discussed involving newly joined farmers. Good stand of SRI crop compared to the conventionally grown rice is providing high hope to the farmers that they would be able to harvest a profitable and healthy rice using SRI technique.

**Cambodia**

This year the Project has set up SRI learning plots at seventy-two (72) farmer’s locations. All demonstration locations, spread across three provinces, i.e., Kampot, Kampong Speu and Takeo are being led by trained farmers. Half of these sites are new sites while remaining half are the same sites where last year SRI crops were grown. Once again the prolonged drought until early September forced farmers to delay the transplanting and in some cases change of variety from medium to short duration rice. Most farmers preferred “Phka Rumduol”, a local photosensitive variety, winner of 2014 best rice of world award. Even with delayed sowing of this variety, which is normally transplanted in July-August, the crop stand is in excellent condition and most farmers hope to harvest higher yield and profit. Refuting the drought some farmers are adapting SRI principles by dry broadcasting paddy seed at low seed rates for their local conditions. Farmers are eagerly awaiting the final result of their hard work to learn how these adaptations fare in their local conditions.
**Lao PDR**

Capacity building trainings for farmer trainers and local farmers were successfully completed in two more provinces - Savannakhet and Khammouan in Laos this season. The trainings involved both men and women farmers to sense the local problems, set adoptive experiments, hone the observation skills, use of farmer’s diary to record field observations and summarize and compile the outcomes based on compiled observation at 4 critical crop growth stages, i.e., transplanting, tillering, flowering and at harvest. During this process they also learned the key aspects of the SRI principles and set-up demonstration plots to learn about SRI technique.

In addition, 36 SRI experimentation sites, 12 in each 3 provinces (Savannakhet, Khammouane and Vientiane province) were set up this year. TDK 8 and Lambak, which are popular glutinous rice variety in Laos, were grown by farmers. In Khammoune province many SRI fields were set-up without any chemical fertilizers as commonly practiced. At the time of reporting crop stands were excellent. Farmers are expecting good harvest and higher profit.

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**Vietnam**

Twelve (12) FPAR sites were set up in three (3) districts of Bac Giang province this wet season 2015. With the SRI learnings from FPAR trainings, the smart farmers have come forward to encourage involvement of more local farmers from their communities. These trained farmers are providing trainings on field data collection using farmer diary, optimum use of fertilizers, use of green manures and problem solving mechanisms using SRI techniques using season-long training process. Such ‘learning by doing’ trainings motivate small-scale farmers and encourage them to take informed action for profitable and healthy rice production.

While farmers at Ha Tinh, another project province, are gearing up to set up SRI learning and adaptation plots in coming spring season, which is common rice production season for this province.
**Women farmers in Cambodia - seeding their way with SRI**

**Mrs. Tea Sarim**, one of our smart farmers in Kampot province of Cambodia is delighted to share her SRI adaptation experiences working with SRI-LMB project. A 57 year old farmer enlightened many women farmers with SRI farming techniques in her small village called Deim Pour in Angkor Chey district. She was selected to participate in a season long training for farmers called CFPAR and later became one of the smartest farmer trainers to transfer knowledge of SRI techniques to other farmers in her community by conducting various FPARs.

Khmer women farmers are very hardworking and have hectic worklife supporting their family needs, daily household jobs and other agricultural works. Sarim too is one of those who is responsible for feeding her family. She experienced her workload being reduced after adapting SRI in her fields. Today, she produces more than 6 tons per hectare by spending less costs on seeds, water, labour, and other resources.

Having practiced conventional farming for five years, Sarim was unable to feed her family well and conventional farming consumed lot of time and labor. In three years span, after adapting SRI, she has watched her sticky rice field grow well with tillers producing many seeds and reduced about 20% of her workload. Today, she is very happy with the results of SRI and able to support basic & other commercial needs of her family.

Sarim is one of the popular SRI farmer trainers in her village and wishes to help many other women farmers in her neighboring villages to improve their economic condition.

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Organic SRI taking root in Sisaket province...

After the successful collaboration with Big Plot project (an initiative of Ministry of Agriculture and Cooperatives (MoAC), Thailand to produce high quality rice following the HM the King’s Sufficiency Economy philosophy), SRI-LMB team provided trainings and backstopping visits to the farmer groups in Sisaket province during wet season 2015. A total of fourteen (14) SRI demonstration plots were setup involving more than 400 farmers to integrate local organic rice production with SRI crop management technique.

The project is working in collaboration with Surin Rice Seed Center.

Pure (100%) organic manure based production is being followed in all the fields with enthusiastic and positive responses from the farming community. The smart farmers are adopting various spacing options (25 x 25 cm, 30 x 30 cm, 40 x 40 cm etc.) between row-to-row and plant-to-plant and are very much keen for getting better yield and practical learning from their field trials. Moreover, access to irrigation canals in the vicinity of many of the demonstration fields eased early season drought. Based on observation of growth and development of crop, the smart farmers and local farmers are highly motivated and are hopeful that SRI technology would help not only to produce high quality organic SRI rice but also help to cut cost and increase net profit.
Thirsty Rice Fields - Lower Mekong River Basin suffers worst drought in decades

Vulnerability of Asian agriculture is on rise due to weather vagaries notably water shortage for important crop like rice. Since past many years farmers are witnessing delayed arrival of monsoon and also receiving patchy rainfall. Clearly, there is disturbance in spatio-temporal patterns of rains affecting farming at large.

The delay are resulting in to early season drought, late season flooding and also affecting the growth and development of highly preferred photosensitive rice varieties usually grown and preferred by local and export markets.

Still many farmers in the lower mekong region are unaware and do not have access to modern production technologies such as SRI for growing healthier crops to resist uncertain climate change condition. More hopes still arise as better technology could bring better yields, markets, incomes and sufficient food supplies if all stakeholders involved in food supply chain work together.

SRI-LMB project farmers and network is leading a way on developing suit of locally appropriate technologies to meet these challenges in their localities. Some of these included changes of variety, delayed broadcasting of seeds, delayed transplanting, maintaining right spacing to reduce late-season blight problems, use of farm ponds and many others. It is expected that during the course of project many of these technologies would be repeatedly tested and validated and become available to the rice farming communities for ‘climate proofing’ of their rice production.

SRI showing better tolerance to Neck Blast disease in Cambodia...

SRI grown rice is fighting the epidemic of Neck Blast (Magnaporthe oryzae) in Kampong Speu Province, Cambodia. Delayed rain resulted in the delayed transplanting of rice to the month of Mid-September. Rainfall continued until the last week creating a very favorable micro-climate in densely planted conventional rice in the farmer's field. 50-70% ear heads are currently showing symptoms (drying off) in farmer's field.

However, in the next field where FPAR is ongoing and farmers have set-up SRI demonstration by following a wider spaced (25 x 25 cm), single seedling, 15 days old seedling crops, the disease incidence is only counted in the range of 20-25% Thus providing a very important learning to the rice farmers in the changing dynamics of weather patterns especially late-rainfall and transplanted rice in Kampong Speu province.
SRI leamings shared at the 2nd International Conference on Global Food Security

Dr. Abha Mishra, presented a paper on "Managing rainfed production system for contributing towards food security & rural development through sustainable agriculture intensification" at the 2nd International Conference on Global Food Security, Cornell University, Itacha, NY, USA held from 13 to 15 October 2015. In her presentation, she highlighted on efforts to make SRI practices available on wider scale to increase productivity and economic growth of rainfed farmers for addressing food insecurity and promote & provide cost effective farming techniques. She also emphasized on the small investment needed to make the rainfed system more productive and resilient.

The conference aimed in achieving global food security challenges as per increase in demand side from impacts of population and urbanization to innovate research options in wider scale. The conference also provided possible opportunity to ensure science-oriented supports to the advent of the sustainable development goals.

During the conference, Dr. Mishra shared some progressive results from 60 action research sites spread across 5 provinces in Cambodia and Thailand under SRI-LMB project. She presented that the net profit achieved with SRI management was almost double, due to the higher yield coupled with reduced cost of seed, seedlings, and pesticides, and also due to the higher quality of the grain produced, commanding a higher market price.

In addition, a seminar on "Farmer Adaptation of SRI Methods in the Lower Mekong Basin Region" was also organized by Cornell University on 12 October 2015 where Dr. Mishra shared the ongoing progress and learnings from SRI-LMB project.

Read More at: http://www.triplepundit.com/2015/10/intensifying-rice-crop-per-drop-stop/
Thai Smart farmers beating drought with SRI technology

Thailand experienced the worst drought in decades resulting in huge loss of rice crop production and affecting many provinces in Northern & Central Thailand this year. Many rice farmers were asked to delay planting their crops until August 2015 by Ministry of Agriculture and Cooperation (MoAC), Thailand due to water shortages and delayed rainfall. This delay costed about 60 billion baht ($1.8 billion) losses resulting in heavy debts for farmers.

However, many smart farmers in Surin, Uttaradit and Sisaket provinces have regularly monitored and followed up weather conditions from the Thai Meteorological Department using various media like radio, weather forecast mobile apps and television. Moreover, farmers applied various backup plans to use adequate water in their fields by preparing container ponds and reservoirs.

In Sisaket province, farmers used mulch, rice straw, and plastic and also grew legumes and vetiver grass to maintain the soil moisture. In Uttaradit province, some smart farmers approached governmental officials and were supported with water supplies for irrigation purposes.

Ms. Amompan Khoisungnoen

joined as a Training Associate for PMU Thailand for the SRI-LMB project. She is currently supporting field experimentation and ensuring data collection from field experimentation in Uttaradit, Surin and Sisaket provinces working closely with Ministry of Education (MoE), Thailand provincial teams, Local Management Units (LMUs) and Rice Seed Center team. She is also responsible for documentation of the results obtained from field experiments. She is a graduate of AIT from Agricultural System and Engineering field of study.

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