SRI Update

Purulia (W Bengal) According to a report by PRADAN active in Purulia district in W Bengal, the results of the SRI in the area has been very encouraging in 2005. The average productivity was high: 7.7 T/ ha in spite of high incidence of disease and pest attack coupled with dry spell, both during transplanting and in the grain-filling stages of the crop. 90% of the farmers had yields above 5 T/ ha, around 2.5 times the district average, with 60% of the farmers recording yields in the range of 5-9 T/ ha. The highest recorded yield was 16 T/ ha.

This year as the majority were new farmers, the average area/ farmer was below 16 decimals (one-sixth of a ha). It has been documented that with an increase in plot size under SRI, the productivity did not diminish, as was the general perception among farmers before. This leaves scope for each farmer to bring more land under SRI.

Summary Data on Yield

Yield Range (t/ha)	No. of families	%
1 to 3	5	3.1
3 to 5	13	8.0
5 to 7	48	29.4
7 to 9	52	31.9
9 to 11	33	20.2
>11	12	7.4
TOTAL	**163**	**100**

Per Farmer Area under SRI:

Area Range (decimals)	No. of families	%
<16	88	54.0
16-32	40	24.5
32-48	19	11.7
>48	16	9.8
TOTAL	**163**	**100**

Andhra Pradesh The demonstrations of SRI, confined to 15,000 plots last year, would be increased to 32,000 plots in 2006-7 with a subsidy of Rs 4 crores. (The Hindu 030506)

ICRISAT Soil biological studies in AP Studies on soil properties and yield assessments were made by ICRISAT scientists on fields of 27 farmers during 2005 kharif in Andhra Pradesh. Root studies (root mass and root length density), done for the first time on fields of 12 farmers, indicated that rice roots from SRI plots were more active (indicated by whiter colour) than those from conventional rice. Root length and mass studied on dugout plants were significantly higher for SRI plants when calculated on per plant basis but similar when converted to area basis. This was due to the fact that there were 15-plants/sq m in SRI and 38-plants/sq m in conventional rice. (WWF Dialogue April 2006)

Myanmar In a study by Humayun Kabir & Norman Uphoff on the results of a four-year evaluation of introducing the SRI in northern Myanmar through a Farm Field School methodology between 2001 and 2004, the experience of 612 farmers who had participated in 30 FFSs was studied, along with that of farmers in the same communities who had not gotten FFS training but who learned about SRI through farmer-to-farmer interaction.

Average SRI yield on FFS study-fields was 6.4 T /ha compared with average farmer yields of 2.1 T /ha using conventional means. Subsequently, even without the full use of SRI practices, average production on farmers' fields went from 2.0 T /ha per FFS household (pre-training) to 4.2 T /ha (post-training). To assess benefit-cost relationships realistically (because monetary prices and exchange rates were volatile during this period), all costs of production were converted into physical volumes of rice. Net production of rice/ ha before FFS training averaged 285 kg, only marginally profitable, whereas with FFS/ SRI training, this went up to 4,630 kg, a huge increase. In physical terms, the cost of production/ T fell from 868 kg/T of rice produced conventionally to 283 kg/ T using SRI methods.

Tracking rice yields of FFS participants after they had finished their training showed that SRI rice yields continued to go up even upto three years after the schools were concluded. Further, the use of SRI spread effectively. FFSs trained about one-third of the farmers in a given community; by the third year after training, almost 100% of farmers in the community were using SRI methods.

Other innovations promoted were adoption of better-suited rice varieties and selecting better-quality seed. These two innovations were compared with SRI effects, separately and jointly. These other improvements added 18-28% to baseline yield, and when used together they added 69%. Used by itself, SRI added 142% to yield above the baseline. However, when all three sets of practices were used together, the increase was 253%, demonstrating synergy among practices.

Madagascar R. Emmanuel in the Ministry of Agriculture, Livestock and Fisheries, Madagascar reports that rice yields with "improved" methods that rely very much on purchased inputs are 3.5-6 T /ha in Madagascar, whereas yields with SRI are "up to 10 T /ha (or more in some cases)." that in each of the last three years, when the Ministry of Agriculture organized rice competitions to promote rice production in the country, there have been contests at regional and national levels based on yield. In all three years, the winning farmers in each of the 22 regions and the best farmer at national level have been farmers who practice the SRI. In a separate communication, the Minister of Agriculture reported that over 200,000 farmers are now using SRI in Madagascar, with SRI yields averaging 6 T. This is three times the national average, and the average yield is equal to the top yield with more costly, input-dependent methods.

Indonesia Over the past three years, a major donor-funded irrigation project in E Indonesia has evaluated the SRI to assess its potential to reduce demand for irrigation water while rewarding farmers with higher production and incomes. This paper reports the results and conclusions from this assessment. In summary, comparison trials managed by 1,849 farmers on 1,363

ha and supervised by project staff have given an average SRI yield of 7.23 t/ha compared to 3.92 t/ha with conventional methods, an 84% increase. Water saving has been assessed to be around 40%, accompanied by an average reduction in costs of production per ha of >25%. (Paper presented at IRRI, March 2006 by the team leader of consultant for JBIC ODA loan for Irrigation in Indonesia)

International Dialogue on Rice & Water

An international dialogue on water saving methods was held at the International Rice Research Institute, Los Banos, Philippines from 6-8 March 2006 involving key international development agencies, research institutions, think tanks, regional bodies and professional organizations, besides farmers and non govt organizations.

The dialogue involved WWF, the UN Food and Agriculture Organization (FAO), two international agricultural research centres (IRRI and ICRISAT) and local hosts the Philippine Rice Research Institute and the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development. This was a very respectable and even formidable set of co-sponsors, as Prof Norman Uphoff of Cornell University noted.

Prof Uphoff has noted in April 2006 issue of WWF's *Dialgue*, "From the opening keynote by Undersecretary Fortunato de la Peña from the Department of Science and Technology (DOST), who spoke approvingly of SRI results in the Philippines, much of the specific discussion of water-saving opportunities revolved around this methodology. WWF reported on the evaluation of SRI methods it sponsored in the Indian state of Andhra Pradesh during the 2004 summer season. This study conducted by the state's agricultural university documented a 21.3% increase in yield accompanied by reduced irrigation applications, reporting that a similar study in Tamil Nadu calculated almost a four-fold increase in the productivity of irrigation water (kg of rice produced per cubic meter of water). The head of India's Directorate for Rice Research reported on several years of all-India evaluation where SRI yield increases were in the range of 7-42% (with hybrids showing an increase of 46-48%) while water saving was 20-24%. SRI evaluation in Eastern Indonesia reported by a Nippon Koei project engineer, based on 1,849 trials on 1,363 ha over three years, showed an average yield increase of 84% with 40% reduction in irrigation water use, and over 25% decrease in costs of production. The resulting increases in farmers' net income from lightly irrigated rice production made water saving very profitable."