REVIEW OF RESULTS AND PROGRESS WITH THE SYSTEM OF RICE INTENSIFICATION DURING 2003

Until 1999, there was little knowledge and no use of the System of Rice Intensification (SRI) outside of Madagascar, where it was developed in 1980s. Four years ago, the first SRI trials were done elsewhere, first in China at Nanjing Agricultural University, then in Indonesia by its Agency for Agricultural Research and Development. These showed that SRI changes in the management of rice plants, soil, water and nutrients can indeed increase yields substantially. Further evaluations have documented that SRI methods raise, all at the same time, the productivity of the land, labor, water and capital invested in growing irrigated rice.[1]

Over the past four years, SRI has been introduced in at least 20 countries, from Philippines to Peru, with positive results already reported from at least 17. The following reports from a range of countries around the world where SRI is beginning to be used will inform readers of its status and spread at the beginning of 2004, the International Year of Rice.

MYANMAR

2003 was the fourth year of SRI practice in the Kachin and Shan states of Myanmar, with more than 5,000 farmers now trained in its methods through farmer field schools (FFSs) operated by the local NGO, Metta Development Foundation. Probably again as many other farmers have already learned from the FFS participants. The acceptance and popularity of SRI is so high that it has become the centerpiece of attraction for farmer participation in FFS.

Each FFS has 10-15 farmers participating and learning the new practices. The yield gains that farmers get on their own fields are similar to those obtained on the FFS demonstration plots reported in Table 4. Data over three years show that the average yield increases on FFS fields have ranged from 100-300%, due in part to differences in local soils.

Table 1. SRI results from Farmer Field Schools in Kachin and Shan states, Myanmar

Year	No. of Farmer Field Schools reporting SRI results	Average SRI yield (t/ha)	Range of SRI yields reported (t/ha)	Average yield in area using standard practices (t/ha)
2001	25	5.45	4.0-7.9	2.0
2002	50	5.25	2.5-12.4	2.0
2003 [plots ≥ 1 acre]	121 [65]	5.38* [5.02]	1.4-15.0 [1.4-9.23]	2.0

* Average yield for plots where yield was estimated by crop-cuts was 5.13 t/ha (N=60); where the yield reported was from harvesting the whole plot (N=61), the average was 5.64 t/ha.

In December 2003, the project had an external evaluation to assess the direct results of its program activities, based on field visits and discussions with farmers in groups and

[1] For more information on SRI itself, see W. Stoop et al., "A review of agricultural research issues raised by the System of Rice Intensification (SRI) from Madagascar: Opportunities for improving farming systems for resource-poor farmers," *Agricultural Systems* (2002), 71, 249-274; and N. Uphoff, "Higher yields with fewer external inputs? The System of Rice Intensification and potential contributions to agricultural sustainability," *International Journal of Agricultural Sustainability* (2003), 1, 38-50; or consult the SRI homepage: www.ciifad.cornell.edu/sri/

individually. The evaluators found that individual farmer benefits from SRI vary according to the number of practices applied and the extent cultivated (average rice area is 1.2 ha). Using the complete set of SRI practices produces, on average, 2.5 t/ha more yield, while single practices such as use of young seedlings or compost alone give about 0.5 t/ha added output. A majority of the farmers are using 2-3 SRI practices, depending on their respective situations. Since only 10% of farmers are presently using the complete set of recommended methods, there is considerable scope for further increases in production as more practices get adopted.

As farmers are observing larger harvests obtained without having to purchase and use external inputs, particularly fertilizers, the program is starting to move to other parts of the country. In 2003, a new five-year project was begun in southern Shan State and in the northern part of Kachin State. Over 10,000 farmers visited the SRI fields in Shan State, where the project trained 50 facilitators to work in the new location. It is anticipated that SRI will find a better reception in Shan State because farmers there are heavier users of agrochemicals, and they have now seen that by using SRI methods, rice can grow well with few or no purchased inputs. (Reported by Humayun Kabir, agricultural advisor, Metta Development Foundation.)