EVALUATION OF SRI EXPERIENCE IN CAMBODIA, 2001-2003

The Cambodian Center for Agricultural Studies and Development (CEDAC) has released an evaluation tracking the experience of 120 farmers who have been using SRI for three years. In that time, their average area under SRI has gone 0.11 ha to 0.47 ha, while their rice area has remained constant, with conventional rice cultivation going from 1.38 ha before starting SRI to 0.90 ha in 2003.

Increase in Income and Yields: Even with less than full adoption of SRI, gross household income has gone up from 460,700 riels/ha to 869,800 riels/ha, with SRI yields averaging 2.75 t/ha -- compared to 1.34 t/ha with conventional methods, a doubling.

Input Use: Compost use/ha has gone from 942 kg to 2,100 kg, while chemical fertilizer use has fallen from 116 kg to 67 kg. The number of households using chemical pesticides fell from 35 before SRI to 7 in 2003.

Costs of Production/ha: These have fallen from 231,300 riels before SRI to 113,140 riels in 2003. With gross income/household rising from 780,000 riels to 1,035,700 riels while costs of production/household declined from 330,000 riels to 155,900 riels, the gross margin (net income) per household went from 499,900 riels to 879,800 riels, a doubling while still using SRI on less than 40% of their land.

Constraints on Adoption: Most of those identified were similar to those affecting rice production everywhere: flooding, drought, insects and diseases, and weeds, with lack of biomass for compost and distance of rice fields from home being more specific to SRI. Lack of water management facilities was also another limiting factor mentioned.

Differential Adoption: Most of the SRI techniques were adopted very quickly, according to the report, however not all farmers plant in a square pattern, or plant just 1 or 2 seedlings, or not young seedlings. A separate evaluation found the average age of seedlings used to be 25 days, already a considerable reduction in seedling age, not 15 days or younger. So there is still considerable yield potential with full SRI application to be utilized by Khmer farmers.

Ease vs. Difficulty of Adoption, and Sales: 55 percent of the farmers considered SRI to be easier to practice, citing reductions in labor required for transplanting and other operations, while 18 percent said it was more difficult, because of requirements for water management and weeding. 27 percent said there was no real difference for them. The percent of households having a surplus of rice to sell has gone from 30% (selling 301 kg on average) to 50% (785 kg average).

Diffusion: The 120 interviewees said that they had, all together, promoted SRI among 969 households in their own villages, and among 967 households in other villages. Thus, on average, each cooperating farmer had extended knowledge of SRI practices and advantages to 16 other households. This helps to explain the rapid spread of SRI in Cambodia, from 28 farmers in 2000 to between 40,000 and 50,000 this year.

Future Plans: 80 percent of those interviewed said that they expect to expand their area under SRI further; only 7% said they would not do this; 70 percent said that they will adopt more of the recommended SRI practices; and 75 percent said they would begin intensifying their farming systems to grow more trees, raise animals, use more compost, etc., utilizing the land, labor, water and capital that is freed up from rice production by increases in factor productivity.