



# SRI AND ITS IMPACTS ON WOMEN

(Above) More than 300 women farmers meet with SRI-Rice to talk about their SRI experiences. Orissa State, India, 2011.

## Women and Rice Farming: Feeding the World

More women are involved in rice cultivation than in any other livelihood activity, an estimated **500 million women worldwide**. Their knowledge, labor and skill produce not only food and income for their families, but contribute to global food stocks. Growing rice is a labor-intensive undertaking, requiring physically-demanding work throughout the cropping season, performed usually in unsanitary conditions. Research and development strategies to raise rice production that focus mostly on new seeds and agrochemical inputs do not take into account the impacts that rice-growing has on women’s bodies, their time, their health, and their lives.



Throughout the world, the declining profitability of farming and particularly of rice farming has resulted in out-migration of men for jobs in cities and towns, leaving women with primary responsibility for farming. **The System of Rice Intensification (SRI) is gaining popularity around the world in large part due to its appeal to women.**

*These four Vietnamese women farmers, after they received farmer field school training on SRI, began visiting other villages, carrying SRI rice plants (right) and ‘normal’ plants (left) to show the difference to other women, who do the majority of work in rice production. They testified to the reduction in labor and to the increase in household production, food security and income, bringing SRI opportunities to their peers as an act of solidarity among rural women.*

## Women benefit from using SRI practices in many ways, including:

### I. Increased Food Security and Improved Nutrition

With SRI, productivity is higher. Yields are increased on average 20 to 50% and often doubled and tripled. Families can go from food-deficit to self-sufficiency and even surplus in several seasons. As most families produce rice primarily for home consumption, when they have enough for their own needs they can remove some land from paddy production and grow fruits and vegetables or raise poultry to supplement their diets and income.

## II. Increased Incomes and More Livelihood Options

Income improvements are achieved by lower input costs, higher productivity, more livelihood options, and in many cases fewer medical expenses. A study of the gender effects of SRI adoption in Cambodia, commissioned by Oxfam America, found female adopters reporting that savings from purchasing fewer seeds and using less fertilizer was a chief advantage [1]. The analysis found that by lightening the burdens of farming, SRI was making it possible for family members to seek employment beyond agriculture and for families to construct a more diverse portfolio of activities to improve their standard of living. Lighter workloads for women give them more time to do other things, such as backyard livestock-raising, fish-farming, and vegetable-growing. Cash crops like vegetables can generate more market income than rice [2].

## III. Less Unsanitary Working Conditions, Less Exposure to Chemicals

With fields no longer constantly flooded, women do not have to stand or squat in muddy water for hours, pulling up and transplanting seedlings or weeding. This reduces their skin irritations, gynecological ailments, and other illnesses that occur from prolonged exposure to water on body parts and to water-borne disease vectors (e.g. mosquitos, snails). Exposure to herbicides, pesticides and insecticides applied to paddies is also reduced. In Mali, below left, women spend days sitting in muddy water pulling seedlings for transplanting. With SRI, right, women are spared this, transplanting into aerobic soils fewer and younger seedlings that recover more quickly from transplanting shock.



(photos above by Erika Styger)

## IV. Less Work, Less Pain and Drudgery

Conventional rice cultivation requires about 250-300 8-hour days of labor to cultivate 1 hectare of rice. With SRI, the numbers of seeds and plants involved is reduced dramatically, as spacing between plants is widened and plant populations are only 10-20% as much as traditionally (next page, top right). This means women also have much smaller nurseries to manage. A study of the gender impacts of SRI for women in Odisha state of India found that transplanting operations go much faster in SRI rice production, with less painful labor for women [3].

Also, weeding, traditionally done by women by hand, is facilitated with SRI because a mechanical hand weeder is used (next page, top left). This greatly reduces the time required and permits upright rather than bent posture. A study in Andhra Pradesh, India found that mechanical weeders reduced women's labor time for weeding by up to 76%, also reducing physical discomfort from this work [4]. In some parts of India, men take over the task of SRI weeding because cultural norms expect them to do 'mechanical' work. A study in Tamil Nadu, India found that men's labor in rice cultivation was increased for this reason by 60%, while women's workload in rice production was reduced by 25%. Both genders gained from a 115% increase in net income per hectare [5].



### V. Enhanced Status within the Family and Community

Although not a direct result of adopting SRI practices, many NGOs that promote SRI as a strategy to reduce rural poverty specifically engage women. They create village self-help groups and develop training programs tailored to women. In Vietnam, it was found that women attend classes more regularly and share information and skills more broadly with family and friends than men do, thus accelerating impact [6]. Women are trained as farmer-leaders, gaining confidence and enhanced status in the family and community.

One of the effects of rural poverty is that women and girls are more vulnerable to exploitation. In both India and Cambodia, NGOs have used SRI to raise farm income and food security to reduce the incidence of human trafficking [7]. Much of the grassroots leadership for the dissemination of SRI has come from women who, on their own, have spread the word about SRI, and who have actively promoted SRI village-to-village [8]. One woman SRI farmer/trainer/ activist in Bihar state of India, coming from one of the lowest and poorest social groups in her society, has been elected as a member of that state's Legislative Assembly [9]. In West Bengal, women are starting to exert their influence in political arenas for policies that support sustainable farming [10].



*Above left: Orissa women rice farmers and laborers show graphically where on their body they experience pain (photo: Sabarmatee). This was part of village-level field research which identified and calibrated the discomfort and pain in rice production and the reductions when changing to SRI crop management [3]. On right: SRI's multiple benefits for families and women prompted a march of 5,600 women in Madhya Pradesh, India, in 2012 to demand access to more resources for improving their farming operations, including training on SRI [11].*

## REFERENCES

- [1] B.P. Resurreccion, E.E. Sajor and H. Sophea (2008). Gender Dimensions of the Adoption of the System of Rice Intensification (SRI) in Cambodia. Report for Oxfam America, Phnom Penh, December.  
<http://sri.ciifad.cornell.edu/countries/cambodia/cambOxfamSRIGenderEval08.pdf>
- [2] C. Hufstader (2014). Growing more, but working less. Oxfam America blog, January 22.  
<http://www.oxfamamerica.org/explore/stories/growing-more-but-working-less/>
- [3] S. Sabarmatee (2013). Understanding dynamics of labour in System of Rice Intensification (SRI): Insights from grassroots experiences in Odisha, India. Presentation of PhD thesis research, Wageningen University, Netherlands.  
[http://www.sri-india.net/event2014/documents/presentations/Presentation\\_2.pdf](http://www.sri-india.net/event2014/documents/presentations/Presentation_2.pdf)
- [4] A. Mrunalini and M. Ganesh (2008). Work load on women using cono weeder in SRI method of paddy cultivation, *Oryza*, 45: 58-61.
- [5] T.M. Thiyagarajan (2004). On-farm evaluation of SRI in Tamiraparani Command Area, Tamil Nadu, India. Presentation to World Rice Research Congress, Tsukuba, Japan, November 4-7.  
<http://sri.ciifad.cornell.edu/conferences/wrrc/wrrcppts/wrintnseveraju.ppt>
- [6] Nguyen Xuan Nguyen et al. (January 2010). Study on adoption of the System of Rice Intensification in Northern provinces of Vietnam. A report by commissioned by Oxfam America. Presented at the 28th International Rice Research Conference, 8-12 November 2010, Hanoi, Vietnam.
- [7] T. Rehman, Young girls face trafficking as lack of rains drives worsening rural poverty, May 5, 2010. AlertNet, Thomson-Reuters Foundation. <http://www.trust.org/item/20100505134500-w5jiz/?source=search>
- [8] Increasing options: Duddeda Suganavva, in *Farmers Leading the Way from Crisis to Resilience: Global Farmer Perspectives on the System of Rice Intensification (SRI) (2010)*. Africare/Oxfam America/WWF.  
[http://sri.ciifad.cornell.edu/publications/articles/Global\\_Farmer\\_Perspectives%20OxfamWWFAfricareSOrig.pdf](http://sri.ciifad.cornell.edu/publications/articles/Global_Farmer_Perspectives%20OxfamWWFAfricareSOrig.pdf)
- [9] (2012). Beyond the rat race. *Times of India*, Dec. 29. <http://timesofindia.indiatimes.com/city/patna/Beyond-the-rat-race/articleshow/7182371.cms>
- [10] A. Menon (2014). India: In Bengal, women agriculturists take charge. *The Citizen*, Oct. 13.  
<http://thecitizen.in/NewsDetail.aspx?Id=920&India:/In/Bengal,/Women/Agriculturists/Take/Charge>
- [11] P. Philipose (2012). Rural champions of change. *The Hindu*, Feb. 28. <http://www.thehindu.com/news/national/other-states/rural-champions-of-change/article2941702.ece?css=print>



FOR MORE ON SRI, PLEASE VISIT:  
[HTTP://SRI.CALS.CORNELL.EDU](http://sri.cals.cornell.edu)