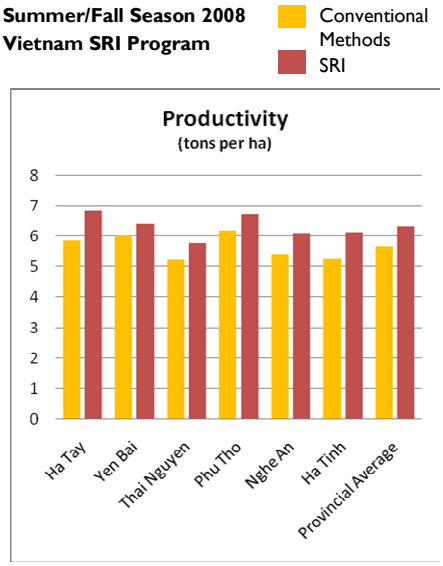
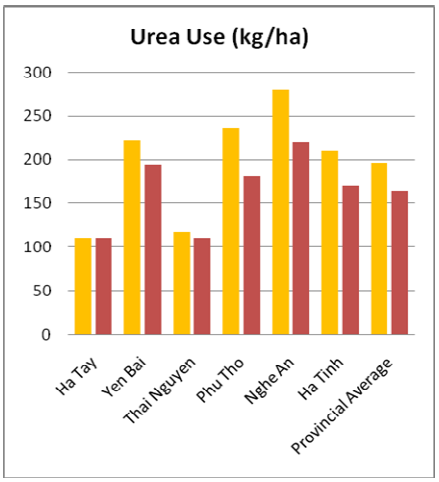
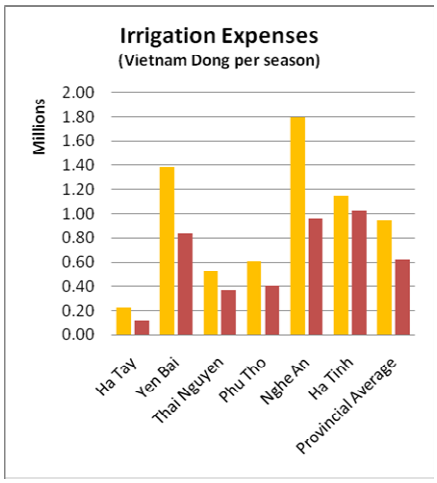
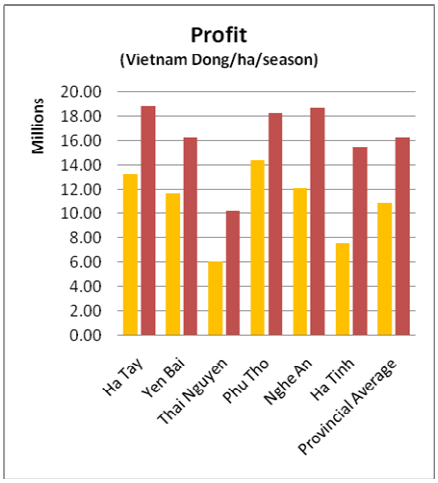
Summer/Fall Season 2008
Vietnam SRI Program









SRI IN VIETNAM: AN UPDATE

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On behalf of: Oxfam, PPD, and SRD

Rice production plays a key role in the economy, society, and culture of Vietnam, but conventional cultivation practices rely heavily on pesticides, herbicides, and chemical fertilizers. Recognizing the potential contribution of SRI to livelihoods, food security, and environmental protection, Vietnam's Plant Protection Department (PPD) began conducting SRI trainings as part of its FAO-funded integrated pest management (IPM) program in 2003. This training was delivered through Farmer Field Schools, allowing participants to trial SRI methods in experimental fields and witness their potential first hand. Follow-up trials in additional areas were funded by the Biodiversity, Use and Conservation in Asia Program (BUCAP) and DANIDA.

To date, the greatest achievements in SRI adoption have been in the province of Ha Tay, near Hanoi. This success has been due in part to the efforts of the PPD, the enthusiasm of the provincial government for SRI, and the contributions of Oxfam America, which has worked with the PPD on SRI promotion in targeted districts since 2006. The rapid spread of SRI in Ha Tay has also been aided by its historical role as a center of rice seed production, since local techniques for seed production overlap significantly with SRI principles. In total, SRI was being fully applied on over 19,000 ha in Ha Tay as of 2008.

Building off this success, in 2007 Oxfam America launched a multi-province, multi-partner SRI program in Vietnam. With funding from Oxfam, SRI promotion and training is now being carried out in the provinces of Ha Tinh and Nghe An by Oxfam Quebec, in Phu Tho and Thai Nguyen by the Centre for Sustainable Rural Development (SRD), a Vietnamese NGO, and in Yen Bai and Ha Tay by the PPD. Training in all provinces follows the Farmer Field School model and works with existing extension staff from the Plant Protection Sub-Departments (the provincial counterparts of the PPD).

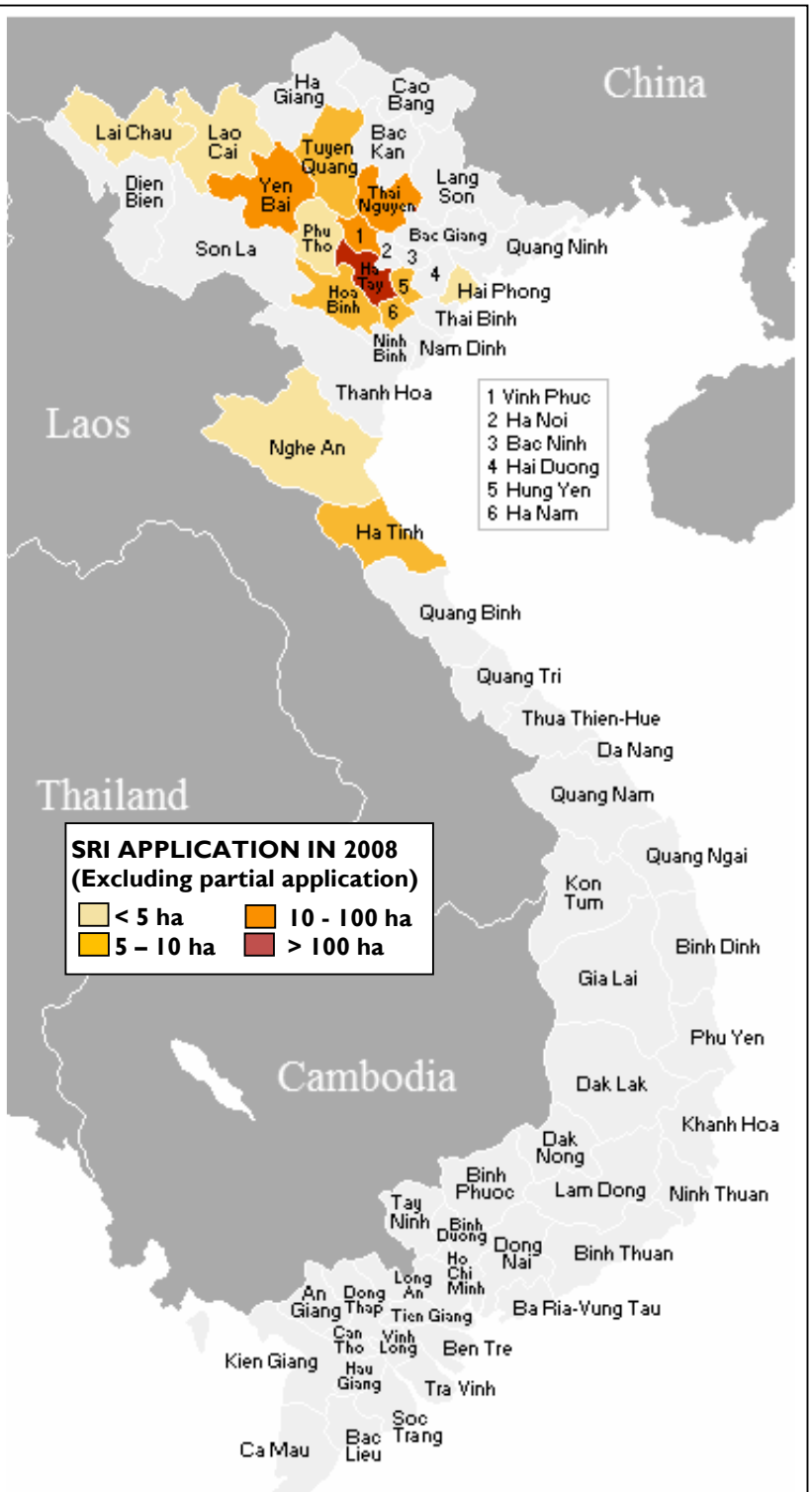
Oxfam's Vietnam SRI program follows three key principles: empowerment, equity, and awareness-raising. By empowering farmers to take the lead in experimentation and to guide the learning process, the program builds both confidence and capacity at the local level. After completing field schools, many participants become "key farmers" responsible for promoting SRI and assisting their neighbors in its implementation. The program's commitment to equity means that it works to develop the livelihoods of small farmers and to strengthen the social and economic power of rural women, who make up 76% of the program's key farmers. To raise awareness of SRI principles and of sustainable agriculture in general, the program has conducted community-level workshops for farmers and local officials, as well as trainings-of-trainers for extension staff. In addition, the program has prioritized the development of print and multimedia communications tools for use in its community level awareness-raising activities.

After two harvests in these new provinces, a clear pattern of successful results is beginning to emerge. The charts to the left provide a statistical overview of the 2008 summer/fall season in the Vietnam SRI program areas. At an average of 6.3 tons per hectare, productivity exceeded conventional yields by an average of 11% across the program provinces. At the same time, urea fertilizer use decreased by approximately 16%, the frequency of pesticide applications by 45%, and average irrigation expenses by 35%.

This combination of input savings and output gains contributed to reported income increases of approximately 50%, or roughly 5.4 million Vietnam Dong ($315 USD) per ha per season. These results have been matched by rapid upscaling. In the winter/spring season of 2008, SRI was partially or fully applied on 307 ha in the program areas, with the participation of 2,068 farmers. In the summer/fall season, those figures jumped to 827 ha and 2,589 farmers. Over the course of 2009, the program intends to continue expanding into additional areas, in addition to intensifying application in existing districts.

On the national level, SRI is currently being applied in 14 provinces, as shown on the map to the right. Significant support for SRI has come from the FAO's IPM project, which recently funded a four-month training on SRI for IPM instructors from 11 provinces, and from the Vietnamese Ministry of Agriculture and Rural Development (MARD). In response to the well-documented success of the Oxfam-supported SRI trials in Ha Tay and the strong recommendation of the PPD, the Minister of Agriculture issued decision 3602/QD-BNN-KHCN in October of 2007. This decision acknowledges that SRI is a technical advancement and paves the way for broader local-level application of SRI.

Though the results achieved to date in Vietnam are encouraging, there remains ground to be covered. As can be seen from the map, SRI adoption has been limited so far to the northern and central regions of Vietnam, and has not yet taken hold in the Mekong Delta. This is partly because the NGO sector has focused its SRI promotion efforts in poorer and more remote areas, including those inhabited by ethnic minorities. The spread of SRI in Vietnam has also been challenged by the prevalence of direct seeding in Vietnam, especially in the Red River and Mekong Deltas. Direct seeding is often accompanied by heavy use of chemical herbicide, and both practices are indicative of the relative scarcity of agricultural labor in these areas. To adapt to local conditions, the program is working to integrate direct seeding into SRI and to popularize labor saving techniques, such as the use of weeding machines, currently uncommon in Vietnam.



Province	Source of Funding	SRI Hectares
Ha Tay	Local government, OXFAM US, BUCAP	19,025
Thai Nguyen	OXFAM US, Local government	14.7
Phu Tho	OXFAM US, Local government	4.7
Nghe An	Local government, OXFAM US, BUCAP	1.8
Ha Tinh	OXFAM US, Local government, BUCAP	6.2
Tuyen Quang	Local government	10
Yen Bai	OXFAM US, BUCAP, Local government	15
Lao Cai	BUCAP, Local government	4.3
Lai Chau	Local government	5
Hoa Binh	BUCAP, Local government	10
Ha Noi	Local government, BUCAP	52
Hai Phong	Local government	4
Hung Yen	WorldVision, Local government	6
Ha Nam	Local government	7
	Total	19,166

The potential for broader SRI application is large, however, due to the success of the nationwide "Three Reductions, Three Gains" (*ba giảm*, *ba tăng*) campaign. This government and IRRI sponsored public education campaign overlaps considerably with SRI, promoting the reduction of seed, fertilizer, and pesticide inputs to achieve improvements in productivity, rice quality, and profit. In many areas, SRI techniques are already being incorporated into this campaign, and the remaining areas are fertile ground for the promotion of SRI as an "add-on" set of techniques that build on and magnify the impacts of existing practices.

Mr. Lieu (above) shows the root structure of non-SRI and SRI plants (below).

Case Study 1:
Mr. Nguyen Huy Lieu, Phu Tho Province

"If only I'd known about SRI earlier…"

These are words that Mr. Nguyen Huy Lieu repeated many times during a field-day workshop to evaluate the application of SRI. Mr. Lieu is one of the first 30 farmers in Kinh Ke commune, Lam Thao district, to participate in SRI trials for the 2008 spring crop. In the beginning, despite the training he received from experienced technicians and the field visit he paid to successful SRI fields in Ha Tay, Mr. Lieu still doubted that SRI techniques would improve his yields. Traditionally, rice seedlings are transplanted when they have four or five leaves and four to six tillers per cluster, as opposed to only two leaves and one tiller with SRI. Out of curiosity, though, he decided to try SRI in one *sao* (360 square meters) of his family's rice paddies.

Taking note of the instructions and information that he had received, Mr. Lieu realized that he could decrease his expenses on seeds and transplanting labor, as well as on fertilizer and pesticides. On top of these reduced inputs, he could potentially increase the productivity of his fields, which normally produce around 200 kg per *sao*, by one-third or more. "Doing the calculations, I realized that using SRI would increase my profits by 120,000 VND per *sao*. What's more, the SRI grains look plumper, shinier and even cleaner," reported an enthusiastic Mr. Lieu.

With the spring crop producing encouraging results, Mr. Lieu has become convinced of the benefits and effectiveness of SRI, and for the autumn crop, he and his family are planning to apply SRI in 3.6 *sao*. At the moment, his SRI crop is in the "red tail" phase, with about 18 to 20 strong, long, and grain-rich flowers per cluster. To Mr. Lieu, this is a sign that his SRI field will be much more productive than his other fields. Having gained both technical instruction and practical experience in the application of SRI, and having seen the results of SRI first-hand, both in his fields and in the fields of others, Mr. Lieu has now become a strong advocate for SRI in his community, encouraging others to overcome their hesitation and embrace the new technique.

Case Study 2:
Ms. Do Thi Nhan, Thai Nguyen Province

Since completing a Farmer Field School last year, Ms. Nhan has become a strong advocate for SRI adoption. Together with the four other key farmers in her village, she has worked to spread SRI by educating her neighbors and guiding them in its implementation.

Ms. Nhan's goal is to see SRI applied in her entire village. This winter season, she is close to reaching her objective, with 97% of the village's 15 hectares of paddy land now being cultivated according to SRI. This high level of coordination also helps minimize costs and maximize the efficiency of SRI application, since communally-owned irrigation systems can be used according to the timetable of SRI.

In the two seasons that SRI has been used in Ms. Nhan's community, she has seen great benefits. Productivity per hectare has gone up from 4.9 to 5.4 tons among SRI farmers, while expenses on seed have declined nearly 70%. Pesticide applications have decreased from three to two per season, and expenses on fertilizer have declined by 12%. These reductions and gains have combined to boost profits per hectare by 45%, to about $650 per hectare per season. The benefits of SRI are not just economic, however. As Ms. Nhan explains, "no one wants to spray a lot of pesticides, since they have a negative effect on people's health. With SRI, we can reduce that risk."

Through the leadership and innovation of key farmers like Ms. Nhan, SRI is being adapted to meet local conditions and local challenges. Two of the biggest problems facing farmers in Thai Nguyen are poor soil and frequent cold snaps during the winter/spring season. To help reduce the risks of using young seedlings in this environment, Ms. Nhan and the other key farmers have popularized the practice of "doubling-up" seedlings into clusters of two, thus maximizing the chances that at least one plant will survive.