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## **Introducing the System of Rice Intensification (SRI) to Haiti**

**Training programs with farmers in three regions of Haiti**

**June 2010**



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## Executive Summary

This initiative to introduce SRI to Haiti grew out of discussions between Better U Foundation (BUF) and the Sustainable Rice Systems program of the Cornell International Institute for Food, Agriculture and Development (CIIFAD), responding to the concern for Haiti's post-earthquake development. SRI could help Haitians in restoring food security and increasing the profitability of growing rice to meet their needs for food and income. BUF offered funding for a first phase of introducing SRI to Haiti which would: i) establish an understanding of how well the practices perform under local conditions, ii) work through established development organizations in Haiti which could carry the work forward, and iii) lay the groundwork for a larger-scale extension effort to the extent that first-phase results justify this.

This initiative runs from June through December 2010, with three stages: i) SRI training of farmers and technicians in three regions of the country (June 2010), ii) accompanying and monitoring of the SRI field tests in the three regions (July-October, 2010), and iii) evaluating the SRI trials and formulating a Phase II program for expansion in the next season starting January 2011 (November-December, 2010).

This report covers the training phase, which extended from June 1<sup>st</sup> through June 25<sup>th</sup>. Training was conducted in three departments:

- South Department: Les Cayes, in cooperation with the International Organization for Migration (IOM), and the Service of Evangelisation, Education and Development (SEED) Center;
- ii) North East Department: Ferrier, in cooperation with World Hunger Relief, Inc. and World Hunger Relief-Haiti; and
- iii) Artibonite Department: Verrette, in cooperation with the Center of Training of Lévêque, *Organisation de Développement de la Vallée d'Artibonite* (ODVA), Oxfam Intermon, Mennonite Central Committee (MCC), the Church of Brethren, Center of Father Armand Francklin and Kore Pwodiksyon Lokal (KPL).

The training approach consisted in providing an introduction of the SRI principles; benefits and impacts of SRI practices; and showcasing examples from different countries obtained around the world. Practical training comprised all the important technical steps needed to set up a SRI plot: soil preparation, organic matter application, seed preparation, nursery establishment and management, and finally the exercise of transplanting young seedlings to a plot.

A total of 123 farmers and technicians assisted in the 2-4 day training events. Additionally, two SRI workshops were held for 80 SEED students and staff, local NGOs, and faculty, and students from UNDH (Université Notre Dame d'Haiti) in Les Cayes, and with six agronomists from the Haitiano-Taiwanese Rice Project.

A prototype of a conical weeder was developed from a technical drawing by a welders shop in Cap Haitian in collaboration with World Hunger Relief, Inc. This prototype was tested during the training session in Ferrier and improved twice before being reproduced and shipped to the three sites to be used in the SRI plots.

In Port-au-Prince, meetings were held with a number of development organizations in order to identify interest and potential commitment to carry on the extension of SRI practices next year. Meetings were held with the country representative of the Mennonite Central Committee (MCC), the Director of KPL, the head of the Food Security Department of Oxfam Intermon, and with the Director, the Deputy Director and the head of Rural Development Department of the USAID-funded project WINNER. WINNER is introducing SRI practices to three sites this season. With this, there are a total of six SRI sites in Haiti where SRI is being tested this cropping season.

In each of the three training sites, a large SRI demonstration plot was installed with the SRI nursery established during the training. The collaborating partners in each of the sites are in charge of managing the plots, and will encourage and assist farmers who participated in the training to implement their own SRI plots. As of now, the total number of SRI plots is not known. As next steps, a follow-up technical visit is proposed during the cropping season, and then an evaluation and planning workshop with interested partners is planned to design the way ahead.

## **Introducing SRI to Haiti**

### **1. Introduction**

This initiative to introduce SRI to Haiti grew out of discussions between Better U Foundation and the Sustainable Rice Systems program of the Cornell International Institute for Food, Agriculture and Development (CIIFAD), responding to Jim Carrey's concern for Haiti's post-earthquake development. He thought that SRI could help Haitians in restoring food security and increasing the profitability of growing rice to meet their needs for food and income. BUF offered to provide funding for a first phase of introducing of SRI to Haiti which would: i) establish an understanding of how well the practices would perform under local conditions, ii) work through established development organizations in Haiti which could carry the work forward, and iii) lay the groundwork for a larger-scale extension effort if first-phase results justify this.

This first phase was planned to run from June through December 2010, with three stages:

1. SRI training of farmers and technicians in three regions of the country (June 2010)
2. Accompanying and monitoring of the SRI field tests in the three regions (July-October, 2010)
3. Evaluating the SRI trials and formulating a Phase II program for expansion in the next season starting January 2011(November-December, 2010)

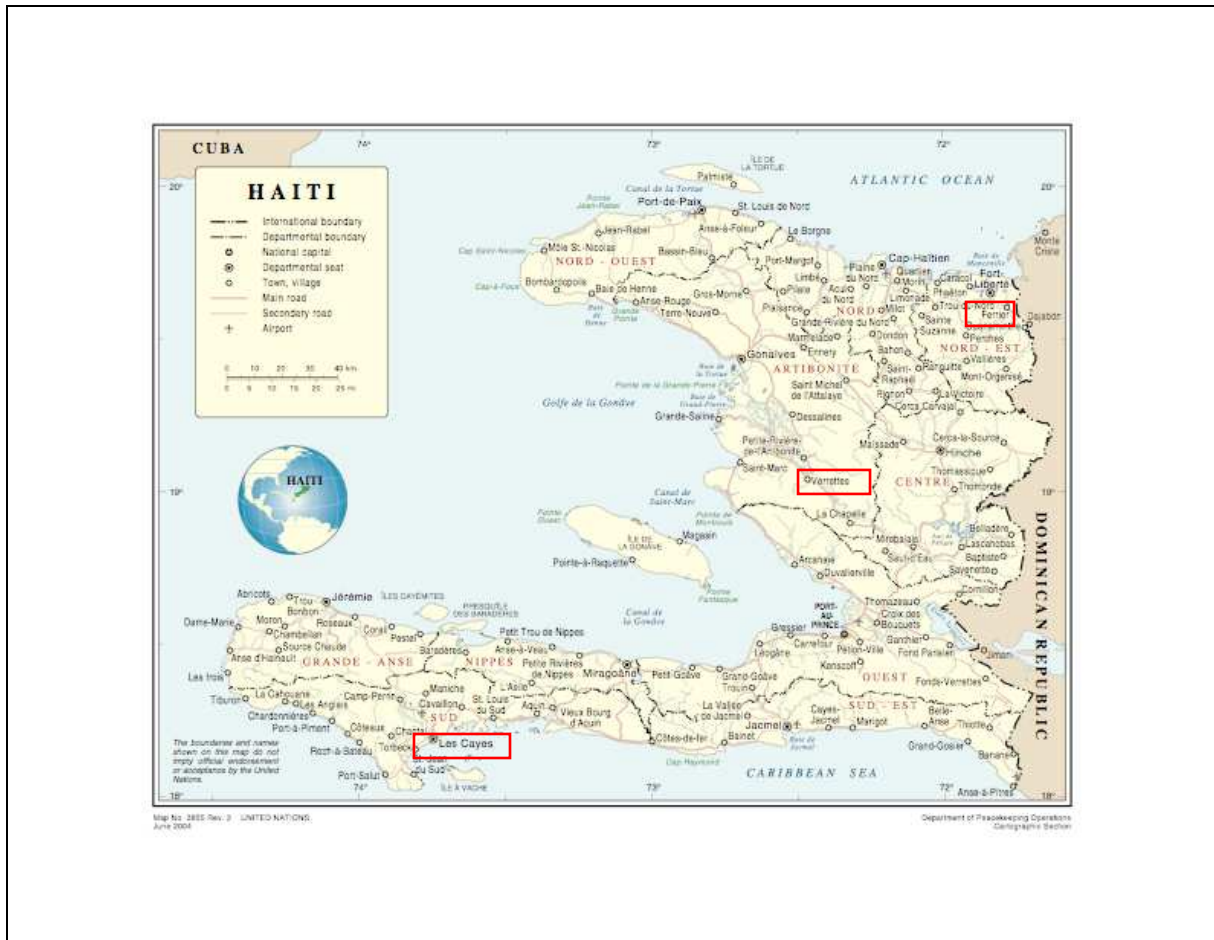
During all of these stages, discussions with different organizations take place with a view to program development. This report covers the first part of Phase I, the training phase, which extended over the month of June. Joeli Barison was in charge of all three trainings. He was joined by Erika Styger during the second training who also contacted and met with several organizations in Port-au-Prince and discussed with them their potential involvement in SRI for subsequent stages and the next year.

### **2. Training of farmers and technicians**

Training sessions took place in three regions from June 1<sup>st</sup> to June 25<sup>th</sup>, in association with the following organizations:

1. South Department: Les Cayes, in cooperation with the International Organization for Migration (IOM), and the Service of Evangelisation, Education and Development (SEED) Center.
2. North East Department: Ferrier, in cooperation with World Hunger Relief Inc. and World Hunger Relief-Haiti
3. Artibonite Department: Verrette, in cooperation with Oxfam Intermon, the Center of Training of Lévêque, *Organisation de Développement de la Vallée d'Artibonite* (ODVA), the Mennonite Central Committee (MCC), the Church of Brethren, the Center of Frère Armand Francklin, and KPL.

A description of each organization can be found in Annex 2. The three sites can be found on the following map.



## 2.1. Training approach

The training approach combined classroom training and practical training. Classroom training included the introduction to the SRI methodology and its principles; results obtained around the world; benefits and impacts of SRI practices; and showcasing examples from different countries. This was done with powerpoint presentations and the screening of a SRI film from Madagascar. Much time was given to discussions, driven by participants and their questions. The trainers questioned the participants about their current practices and constraints in rice farming, and focused the exchange on the adaptation of the SRI practices to local farming conditions.

Practical training comprised all the important technical steps needed to set up a SRI plot: soil preparation, organic matter application, seed preparation, nursery establishment and management, and finally the exercise of transplanting young seedlings to a plot. Participants learned also how to make and use wooden markers and to prepare planting strings. The training program for all three sites is presented in Annex 1. There was also instruction on the use of soil-aerating weeders, although such weeders were only available for actual demonstration in Ferrier. Arrangements have been made for weeders to be made available in Les Cayes and Verrette.

## 2.2. Les Cayes, South Department, June 1-5

### Characterization of the area

Les Cayes area is characterized by marshy soils used for rice planted in rotation with vegetables, maize, beans, or sweet potatoes. Main growing season is between May and December. Most rice production is in the plain of Torbeck, where the government institution ODVA in collaboration with the Taiwanese Cooperation is promoting rice intensification based on improved varieties, mechanization and the use of chemical fertilizer. IOM has invested in irrigation scheme rehabilitation, which allows for improved water management. Average land size per household is about 1.8 hectares. Lack of financial resources, following the January earthquake, forced farmers to reduce the area under cultivation. Rice produced in the Torbeck plain is consumed locally.

### Training

Joeli held three training sessions with different audiences over a period of 4 days.

- First SRI Workshop for 80 participants: SEED students and staff, local NGOs, and faculty and students from UNDH (Université Notre Dame d’Haiti)
- SRI presentation given to the Taiwanese team of six agronomists in the Hitiano-Taiwanese Rice Project in the Torbeck plain.
- Practical training over 2 days was given to 45 farmer leaders of planters’ associations in the South Department. They came from the Communes of Les Cayes and Torbeck, the main rice production area in the South Department. IOM has been working with 11 planters’ associations in this area to rehabilitate irrigation canals.



### **Updates on SRI plot installations**

- During the training, a plot of 106 m<sup>2</sup> was transplanted on June 5 with 11-day-old seedlings raised in a traditional nursery. This was to demonstrate transplanting.
- The seedlings produced in an SRI nursery during the training were transplanted into a 213 m<sup>2</sup> plot on June 15 (10-day-old seedlings), to be the SRI demonstration plot.
- Heavy rains impeded establishment of other farmers' plots (until June 30)

### **Updates on technical follow-up**

- Follow-up on SRI plots is being done by an agricultural technician from IOM and one technician from the SEED Center in a team effort.

### **Recommendations and further follow-up**

- It is recommended that more plots be established with trained farmers as soon as possible.
- It is not clear whether the Taiwanese have established a SRI plot, as they agreed to do. Collaboration with the Taiwanese should be further developed as they are the main technical advisors in Les Cayes as well in Artibonite for the government's extension service.
- SEED agriculture students will spend one year in rural areas, working on a specific project during their final year of training. It would of interest to integrate these students in the implementation and supervision of future SRI extension efforts.

### **2.3. Ferrier, North Eastern Department, June 7-12**

**Characterization:** The area around Ferrier is one of the few areas of Haiti with under-utilized land resources. It includes the third largest flood-irrigated area in the country, and as such holds the potential to produce significant quantities of rice, the staple food of many Haitians. Rice production can create additional jobs as the crop is processed, transported, and marketed to consumers.

Rice is the main crop here, grown in monoculture. Other crops such as manioc, sweet potato, corn, gombo, and some vegetables complement rice. These crops are grown on different fields than rice. Rice-growing extends from January to October. If planted in January/February, the highest yields can be expected. Farmers can plant up to July, as long as their harvesting can be done by October. In Ferrier, farmers have mastered the technique of ratooning (cutting the rice plant at its base after harvest, making the plant resprout from its base, and producing another crop). This can allow them to produce up to three harvests from a single crop planting.

The rainy season presents a risky period (June-September), as flooding can be intense and unforeseen, when rainwater collects from the deforested surrounding mountains, creating floods of various depths in the rice plains. The risk of rice fields being completely submersed by floodwater and subsequently destroyed exists. Dependency on renting machines for soil preparation owned by Dominican farmers or from merchants creates an



unfortunate situation, as it can delay farmers' start of their cropping season, and it often creates high debts that are difficult to pay back. Rice straw is most often burned. Farmers depend on chemical fertilizer and also have snail pest problem, which they try -- not very successfully -- to control with pesticides.

## **Training**

Joeli and Erika held a four-day training program for 25 farmers from one of the farmers' associations in Ferrier. Jackson Nelson (World Hunger Relief-Haiti) and Neil Rowe Miller (World Hunger Relief, Inc.) were present. The agricultural service of Ferrier was invited to participate in the training, which its staff did for two days. The 25 farmers in the training program cultivate in different zones of the Maribaroux plain, such as Manuel, Godame, Ferrier, Saint Jean, Lagaraine, Massacre, Ocamou, and Souche et Polplain. These different zones are characterized by different degrees of water control.

## ***Nursery establishment and seeding***



Establishment of the SRI nursery bed and application of manure to the soil surface



Seeding of pre-germinated seeds: We tested three different seed preparation treatments: i) seed soaking for 24 hours, ii) seed soaking and pre-germination under heated conditions, iii) seed soaking and pre-germination under non-heated conditions. It seemed that there was not a remarkable difference between the treatments. Farmers can thus adopt the simplest technique of seed soaking only.

## *Transplanting*



Our demonstration plot for transplanting was on the other side of this river. The water level rose quickly after rainfall the previous night in the mountains. With the water current being rather strong, we did not opt for crossing and had to find an alternative for the transplanting exercise.



We improvised by creating a small plot next to a water pump in Jackson Nelson's field. First, we tilled the land by hand, irrigated it, and leveled the field with water present (picture).



In the first half of the plot, we practiced the transplanting after using the marker to create the gridlines



Second half of the field was transplanted with the aid of a planting string, which seemed easier for the farmers.

## **Manufacturing of conical weeders**

Near Cap Haitian, in the Distillery Larue, a welding shop had reproduced a conical weeder for use in weed control with SRI from technical drawings as the weeder sample to be shipped from Sri Lanka did not arrive due to disastrous flooding in Sri Lanka in early June. We tested the first prototype in the field. The design was fairly all right, and we agreed on some minor adjustments regarding alignment of the elements. The shop had used steel that was too heavy for it to be a good tool, so we asked the shop to look for somewhat thinner steel, and to reproduce the first 10 weeders.

## **Updates on SRI plot installations**

With the SRI nursery established for the training, a demonstration plot of 1/8 hectares was transplanted on 21 June. It is expected that 6-10 farmers will install their own SRI fields.

## **Updates on technical follow-up**

Two farmers among the trainees were identified to do the technical follow-up on all SRI plots. As World Hunger Relief-Haiti does not have any staff for agriculture, we decided to work with selected farmers as technical supervisors. Neil will be in weekly phone contact with them.

## **Recommendations and further follow-up**

- In this training, farmers from one farmer association were invited, although there are several such associations in Ferrier. It will be important to open up links to the other associations in the following season, if farmers obtain positive results with this first test.
- The internationally-known Haitian musician Jackito is native to Ferrier, returns often to Ferrier, and runs the Jackito Foundation for children. He also plants rice and is marketing it in Port-au-Prince as Jackito Rice. His popularity enhances the attractiveness of this product. Unfortunately, he was not in town during our training week. We recommend to establish contact with him, and to introduce him to SRI.

## **2.4. Verrette, Department of Artibonite, Juin 23-24**

**Characteristics:** The Artibonite valley is considered as the rice basket of Haiti, with a total of 28,000 hectares of rice fields. The Artibonite River originates in the Dominican Republic. Two dams create water supplies to irrigate the rice fields in the Artibonite valley, which is divided into eight communes (units of local government):

- The communes of Lachapelle and Verette are located next to the hills, where water can be very well-managed. The cropping system is characterized by an annual rotation of rice (June to December), beans (January to March), and maize or sweet potatoes (April to May)
- In the communes of Petite Rivière de l'Artibonite and Marchand Desaline, water is moderately well-managed. These communes have 50% of the irrigated land in the valley. Here, rice planted in the main cropping season between March and October is rotated with beans (in Petite-Rivière) or vegetables, such as onions, tomatoes, egg plants (in Marchand Desaline) during the off season.
- In the communes of Esterre, Desdunes, Grande Saline and St Marc, rice is cultivated year round, without a crop rotation (main season: May-December and 2<sup>nd</sup> season: December-May).

The cropping calendar is very tight. Large amounts of chemical fertilizer are used here. On an annual basis, up to 500 kg/ha of chemical fertilizer is used. This increases considerably the cost of production, despite fertilizer subsidies from the government. (Subsidized fertilizer costs 500 grds/ 50 kg bag; non-subsidized fertilizer costs 3,000 grds/ 50 kg bag). Average land area per household is 0.5 ha.

**Training**

Several difficulties accompanied the organization of this training session. Initially it was envisioned that the farmer association RAKPABA would be our partner in the training and would organize this, but it decided late in the preparation phase not to be involved. Its partner Oxfam Intermon, which had agreed to support the training, was able to help us make connections with Prof. Vilna Josaphat, director of the Training Center of Lévèque, who helped us organize this training at his center within a few days. Vilna has long ties with the *Organisation de Développement de la Vallée d'Artibonite* (ODVA), so he knew the most innovative farmers in the Artibonite region who could be invited on short notice.

A total of 52 farmers and technicians from different organizations participated in the program: the Training Center of Lévèque, the Mennonite Central Committee (MCC), the Church of the Brethren, Oxfam Intermon, the Training Center of Frère Armand Francklin (Pandiassou, Hinche), Kore Pwodiksyon Lokal (KPL, which stands for ‘Support Local Production’). It is hoped that RAKPABA and other organizations in the region will decide to join in the SRI initiative when they see the results from this first season’s trials and demonstrations.



Participants of the SRI training



Madame Marie-Denise Samson from Intermon Oxfam addressing the trainees



Agronomist Franco working on establishing the dry SRI nursery



Farmers prepare the seedbed of the SRI nursery



Transplanting of a traditional plot



Transplanting of the SRI plot

### Updates on SRI plot installations

The first SRI plot with seedlings produced during the SRI training will be transplanted on land of the training center on a 250m<sup>2</sup> plot.



Circled in red in center, the location where the SRI demonstration plot will be installed

Further sites that were identified by the end of the training:

- 2 ODVA sites are planned to be installed:
  - A SRI site of 5,000 m<sup>2</sup> in Morlette Gérard, Commune of Désaline, with a Group of Rice Seed Producers. Oversight will be by Agronomist Franco who works with Vilna
  - A SRI site of 200-300 m<sup>2</sup> on the experimental farm of MAUGER. Oversight will be by Agronomist Armand Hency.
- 
- Farmers in:
  - Poste-Piérrot, commune of Desaline,
  - Sodo-Plateau of the Grande Savane, working with *Eglises des Frères in Haiti* (the Church of the Brethren)
  - MCC technicians agreed to do a test plot of their own
  - Farmers near Verrette, to be identified by Vilna and by Douby Exantis (program officer of Oxfam Intermon)

### **Updates on technical follow-up**

Vilna Josaphat who is a professor in the School of Agronomy at the State University of Haiti and is also the director of the Training Center of Lévêque, has agreed to manage the technical follow-up with his technicians of the various installed SRI plots.

### **Recommendations and further follow-up**

The challenge of this third site will be to achieve good follow-up with all involved organizations and locations. The distances between the locations where the trainees come from are considerable, but it is not very clear yet how far apart the trials will be. It remains to be investigated how to best develop technical follow-up. Also, Oxfam Intermon should be kept informed on all efforts, as Oxfam will be an important partner for the future. It has to be seen how to integrate the association RAKPABA into this initiative in the future, as its members include many rice farmers who may be interested in SRI, even though we have not had good communication with their leaders. This discussion could be led through Oxfam. It is anticipated that Oxfam America may also become involved as its program in Haiti expands, including agriculture.

### **3. Major discussion points and challenges for the development of SRI practices in Haiti**

This section will evolve as we get to improve our understanding on the rice environment in Haiti, but here is our first analysis:

- Production of organic matter: Availability of organic matter to fertilize SRI plots is a constraint mentioned in all three regions, and strategies to produce and use organic matter efficiently need to be developed that go beyond manure collection and compost establishment. This will certainly have to become a major focus when SRI practices are promoted. Given the tropical environment of Haiti, in principle it should be possible to collect and utilize substantial amounts of biomass.

- Water control: Water control is in many places not guaranteed. Among the many reasons are: irrigation infrastructures are not well maintained, siltation of irrigation canals, flooding of rice fields, often due to environmental degradation higher up in the watershed. Opportunities for SRI will have to be developed within this larger framework of constraints that people are not able to control for at the individual plot level. This can be, for instance, regrouping of SRI plots in suitable areas, installing drainage systems or creating raised beds, both at the plot level.
- High production costs: labor costs and equipment costs are very high in Haiti. Farmers often do not have the financial resources to cultivate the available land. This can become a good opportunity for SRI, as it will allow farmers to increase productivity and income per cultivated area to the extent SRI can be made labor-saving as it is in some Asian countries. By using organic matter, expenses for chemical fertilizers can be saved.
- Pest and diseases: These are localized constraints, and need to be studied on a case by case basis. In Ferrier, for instance, farmers apply pesticides to control snails, but snails seem to have become resistant to the pesticides, and farmers do not see any other solution. SRI practices can help in thinking about controlling pest and diseases through an integrated management approach. Philippine farmers have developed a number of snail-control methods that might be useful in Haiti.
- Rice varieties: Haitian farmers grow a large number of varieties from short-cycle varieties, such as PRO6K7, PRO6K8 and TCS10, to long-cycle varieties, for example PROSE15. Some varieties, such as Shela and Shelda, are highly appreciated due to their taste and sell in the local market at a higher price. Nevertheless they both have a relatively low yield, which discourages farmers from growing them. It will be important to evaluate SRI yield increases for the different varieties grown in Haiti.

#### **4. Meetings with development organizations in Port-au-Prince, 14/15 June by Erika Styger**

##### **4.1. MCC: Kurt Hildebrand**

*Meeting with Kurt Hildebrand, Country Representative of the Mennonite Central Committee (MCC).* The person in charge of the future agriculture program is Sue Brown, who was unfortunately absent at the time. MCC is in the process of expanding its current range of activities in Haiti, which is currently just reforestation and peace building, to include agriculture - with a long-term horizon of 10 years for agriculture. As it has worked in Artibonite for three decades now, MCC is very interested in SRI, and if this first season brings good result, they can foresee integrating SRI seriously into their agricultural program. Their financial resources have been increasing after the earthquake, thus they seem to be confident to have funding available to get invested in SRI.

#### **4.2. KPL: Ari Nicholas**

*Meeting with Ari Nicholas, founder of Kore Pwodiksyon Lokal or KPL (translated: Support Local Production), a local Haitian organization, which is producing video clips for TV, encouraging people to buy and consume local products. The clips are done in Haitian style, and have been streaming on TV for two years now. KPL has had much success with these clips, people love them, and Ari is becoming a ‘local’ movie star. With the awareness raising that local products are good - versus the common belief that everything coming from the outside or the US is better – people are now demanding local products, and can often not find them.*

Ari is thinking about making clips about production and how to connect consumers better with producers. SRI seemed to interest him very much, and we agreed that he would come along to visit SRI farmers once we are organizing follow-up field visits. As he seems to be a great communicator, he may be important down the line in the extension of SRI practices in Haiti. KPL has a blog. <http://buylocalhaiti.blogspot.com/> . Click on video clips to get an idea what they are producing; the videos also play on *youtube*: for instance watch this: [http://www.youtube.com/watch?v=npvx4F9JZyo&feature=player\\_embedded](http://www.youtube.com/watch?v=npvx4F9JZyo&feature=player_embedded) or this: [http://www.youtube.com/watch?v=CvmwPYG9dOw&feature=player\\_embedded](http://www.youtube.com/watch?v=CvmwPYG9dOw&feature=player_embedded)

#### **4.3. Intermon Oxfam: Marie-Denise Samson**

*Meeting with Marie-Denise Samson, head of the Food Security Program, Intermon Oxfam, which is the Spanish affiliate of Oxfam International. Intermon Oxfam has been active in the rice sector in the Artibonite valley for 10 years, and this same program will continue for another 5 years. Haiti’s rice sector has been heavily damaged by subsidized rice imports from the US. 80% of all consumed rice is today imported. Intermon Oxfam is working on improving the local rice sector with a value-chain approach.*

Local rice is not well-milled, making it difficult to compete with the imported rice, even though it tastes much better. There is also a big price difference between Haitian good quality rice grown in Haiti which is much more expensive compared to imported rice. Intermon Oxfam is very interested in SRI, and sees the 5-year window as an opportunity to work on SRI extension in Artibonite, and possibly also beyond that region. This is definitively a strong partner, we should build on.

Before the June training started, Norman Uphoff had a phone conversation with Dr. John Ambler, director of programs for Oxfam American in Boston, who knows about SRI from Oxfam America’s successful SRI initiatives in Cambodia and Vietnam in Southeast Asia. In principle, Oxfam America is also interested in joining in an expanded SRI program beyond this first phase if the results on farmers’ fields are good.

#### **4.4. WINNER project: Mario Kerby, Roosevelt Decimus, Jean-Robert Estimé**

*Meeting with Mario Kerby, Deputy Director, WINNER project; Jean-Robert Estimé, Director of WINNER project; and Roosevelt Decimus, Head of its Rural Development Program*



WINNER is a very large project funded by USAID (US\$ 125 million in total, for all sectors). One of the objectives is to create agricultural growth. Rice is considered to be a key crop for food security, and WINNER has started training farmers and technicians in SRI practices already in three sites during May 2010, through Joeli Barison. In each of the three sites, a SRI demonstration plot is installed on a farmer's field, and different varieties are being tried out. WINNER is working close to Port-au-Prince and in Gonaive, which is also in the Artibonite valley. With the three WINNER sites operational, there are a total of six sites where SRI is introduced this cropping season.

WINNER has substantial resources and is willing to contribute to SRI extension, workshops, exchange visits, publications, production of audio-visuals, etc. in order to move SRI forward in the future. Awaiting our results from this first season, and also our recommendations, they are willing to consider funding proposed activities. Erika agreed with Decimus to do a field visit of the three WINNER sites during her next follow-up visit.

An unfortunate side-event involved WINNER helping to distribute donated hybrid corn seeds and vegetable seeds from Monsanto after the earthquake. There has been a large farmer-led opposition to this, spurred by a number of national and international NGOs. Oxfam let us know that it would not like to be associated with WINNER at this stage because of the controversy. Right now, this does not present a problem, and it needs to be seen how this contretemps plays out.

## **5. Outlook**

It is recommended that Erika undertake a follow-up visit to Haiti in late July/early August, visiting all the SRI fields and doing a follow-up on the technical issues in the field in the three regions. She also can visit the three WINNER sites, and continue discussions with the various organizations. A third visit is recommended during/after the harvest to undertake a systematic evaluation of the achieved results.

A workshop bringing all partners together to develop a program for next season would conclude this first phase of the SRI Haiti Initiative. It should involve donor and government representatives as well as the farmers and NGOs involved in this first phase, to build a multi-pronged, multi-partner program for further SRI evaluation, demonstration and extension.

Perhaps in the next phase there can also be more attention to extending SRI concepts and methods to other smallholder crops to help the agricultural sector in Haiti become more productive, low-cost and oriented to the health of people and the environment.

## Annex 1: Calendar

<b>SRI Training in Les Cayes, South Department by Joeli Barison</b>	
June 1, Tuesday	<ul style="list-style-type: none"> <li>- Travel to Les Cayes</li> </ul>
June 2, Wednesday	<ul style="list-style-type: none"> <li>- Orientation meeting and organization of the training with Brian Flanagan, IOM</li> <li>- Orientation meeting with SEED Center staff</li> <li>- Field visit of demonstration plot for planting practice close to SEED Center</li> <li>- Field visit with Agronome Rosemondo (IOM staff) to the UNDH (Université Notre Dame d’Haiti) to prepare technical training sessions</li> </ul>
June 3, Thursday	<ul style="list-style-type: none"> <li>- SRI Workshop for 80 participants: SEED students, local NGOs, faculty and students from UNDH: Introduction to SRI, and SRI film screening.</li> <li>- Preparation of farmer training with SEED and IOM staff</li> <li>- SRI farmer training, including SEED students, on seed sorting, seed soaking and pre-germination procedures.</li> </ul>
June 4, Friday	<ul style="list-style-type: none"> <li>- Farmer Training: Introduction to SRI: powerpoint presentation and story telling from different experiences across the globe. Farmers coming from various areas of Les Cayes followed with discussions</li> <li>- SRI film screening from Madagascar, followed by discussions</li> <li>- Field practice               <ul style="list-style-type: none"> <li>o Pre-germination of seeds</li> <li>o Setting up and preparing a SRI nursery</li> <li>o Preparation for planting: making a marker and preparing strings</li> </ul> </li> </ul>
June 5, Saturday	<ul style="list-style-type: none"> <li>- Field practice               <ul style="list-style-type: none"> <li>o Seeding pre-germinated seeds in prepared SRI nursery and discussion on nursery management</li> <li>o Soil preparation of SRI field, field leveling, and use of marker</li> <li>o Transplanting based on rake-maker method and with strings.</li> </ul> </li> </ul>
<b>SRI Training in Ferrier, North East Department, by Joeli Barison and Erika Styger</b>	
June 7, Monday	<ul style="list-style-type: none"> <li>- Travel by plane to Cap Haitien, and by car to Ferrier</li> <li>- Meeting and preparation of training with Neil Miller (World Hunger Relief Inc.) and Jackson Nelson (World Hunger Relief-Haiti)</li> <li>- Visit workshop GRADES-Nord en route to evaluate weeder prototype</li> </ul>
June 8, Tuesday	<ul style="list-style-type: none"> <li>- Farmer training of 25 farmers from the farmer association Ferrier</li> <li>- Introduction to SRI and discussion on Ferrier rice cropping systems</li> <li>- Field practice               <ul style="list-style-type: none"> <li>o Seed sorting and cleaning</li> <li>o Seed soaking</li> </ul> </li> </ul>
June 9, Wednesday	<ul style="list-style-type: none"> <li>- Visit of direct-seeded rice field of Jackito (famous Haitian pop star)</li> <li>- Attempt to visit rice fields and demonstration plot failed due to inundation</li> <li>- Manufacturing a marker</li> <li>- Nursery establishment (1m x 6m)</li> <li>- Sowing of soaked seeds (24 hours) into SRI nursery</li> <li>- Pre-germination test within heated and non-heated pit hole</li> <li>- Discussion on organic fertilization</li> <li>- Screening of SRI film from Madagascar</li> </ul>

	- Testing of weeder prototype
June 10, Thursday	<ul style="list-style-type: none"> <li>- Attempt to visit to farmers' rice fields, including practice of soil leveling of the SRI demonstration plot failed due to inundation of the area.</li> <li>- In-depth discussion on adaptation of SRI practices to the rice cropping system in Ferrier</li> <li>- Sowing of the pre-germinated seeds</li> <li>- Preparation of a plot (plowing, puddling and leveling) for the transplanting exercise, as the selected demonstration plot could not be accessed due to inundation</li> </ul>
June 11, Friday	<ul style="list-style-type: none"> <li>- Preparing of the strings for transplanting</li> <li>- Transplanting seedlings according with a marker and with strings</li> <li>- Debriefing session with farmers</li> <li>- Field visit of rice fields in the Maribaroux Plain</li> </ul>
June 12, Saturday	- Travel to Cap Haitian by car, and to Port-au-Prince by plane
<b>Meetings in Port au Prince, by Erika Styger</b>	
June 14, Monday	<ul style="list-style-type: none"> <li>- MCC representative Kurt Hildebrand</li> <li>- KPL director Ari Nicholas</li> <li>- Intermon Oxfam: Marie-Denise Samson, Head of Food Security Program</li> </ul>
June 15, Tuesday	<ul style="list-style-type: none"> <li>- WINNER: <ul style="list-style-type: none"> <li>o Director Jean-Robert Estime,</li> <li>o Assistant Director Mario Kerby</li> <li>o Rural Development Program Director Roosevelt Decimus</li> </ul> </li> </ul>
<b>SRI Training in Verrette, Artibonite Department, by Joeli Barison</b>	
June 21, Monday	Organization of training in Port-au-Prince
June 22, Tuesday	Organization of training in Verrette
June 23, Wednesday	<ul style="list-style-type: none"> <li>- Meeting with ODVA (Organisme de Développement de la Vallée de l'Artibonite)</li> <li>- Training : Introduction to SRI</li> <li>- Field practice <ul style="list-style-type: none"> <li>- Seed sorting and cleaning</li> <li>- Seed soaking</li> <li>- Nursery establishment</li> </ul> </li> </ul>
June 24, Thursday	<ul style="list-style-type: none"> <li>- Exchange and discussion with participants</li> <li>- Field practice <ul style="list-style-type: none"> <li>- Pre-germination of seeds</li> <li>- Seeding of SRI nursery</li> <li>- Making of a marker and preparation of planting strings</li> <li>- Transplanting of seedlings into a rice paddy</li> </ul> </li> </ul>
June 25, Friday	Organization of follow-up in Verrette, travel back to Port-au-Prince

## Annex 2: Participating organizations

### Les Cayes :

- **SEED Center:** SEED is a faith based agriculture/ bible training center. The director is Frantz Clotaire, who studied at Texas A&M in agronomy. They have a hands-on approach to teaching agriculture with a program that is 3 years long (two years at the training center in Les Cayes , and one year spent in a rural community working with local churches and local groups.) SEED has a long history with ECHO, and many of its students and staff have studied at ECHO in the past.
- **IOM (International Organization for Migration):** IOM has a suboffice in Les Cayes where it oversees a USAID-funded project called PREPEP (Programme de Revitalisation et de Promotion de l'Entente et de la Paix). Since the summer of 2008, IOM / PREPEP has been working with local organizations and local governments to improve the agricultural infrastructure, focusing on irrigation / drainage systems and rural roads.

### Ferrier

- **World Hunger Relief, Inc. and World Hunger Relief Haiti:** World Hunger Relief Inc. is an international NGO based in Waco, Texas. World Hunger Relief Haiti is its national affiliate, and is currently an independent organization that is managed by Jackson Nelson, and funded through ECHO Mission. WHR started to get interested on rice cultivation following the increase of rice costs of production and unreliability of water sources in Ferrier Region. WHR is planning a 2-year program oriented to SRI cultivation methods and promotion of oxen traction

### Artibonite

- **MCC:** Mennonite Central Committee has been working in Haiti for over 52 years and in Artibonite for over 30 years. In response to the earthquake, MCC is developing a more holistic approach to food security development, compared to its previous program, and plans to begin investing in agriculture. See : <http://mcc.org/stories/news/mcc-plans-long-term-recovery-haiti>
- **OXFAM Intermon:** This is the Spanish affiliate of Oxfam International, a confederation of 14 national NGOs that work with 3,000 partner organizations at national and local levels in 100 countries.
- **Church of Brethren:** One of the historic 'peace' churches like the Mennonites and Quakers that place special emphasis on service to fellow men and women and avoidance of (non-participation in) conflict and war
- **Eglise Frère Armand Francklin:** A Catholic church led by Father Armand Francklin who founded the Order of Little Brothers and Little Sisters of the Incarnations (des Petits Frères et des Petites Soeurs de l'Incarnation) with an activist and engaged orientation.
- **ODVA:** *Organisation de Developpement de la Valle d'Artibonite* is the government-supported extension service in the Artibonite Valley.
- **Training Center of Lévèque:** run by Professor Vilna Josaphat, promoting improved agricultural techniques in the Artibonite Valley.