



*Sustaining and Enhancing the Momentum for Innovation and Learning around
the System of Rice Intensification (SRI) in the Lower Mekong River Basin (SRI-LMB)*

VIETNAM

COUNTRY STRATEGY PAPER



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European Union*



*A project implemented by the Asian
Institute of Technology*

ABOUT THE PROJECT

SRI - LMB, an EU - financed regional project, aims to contribute towards enhancing the resilience of rainfed farmers confronting climate change in the Lower Mekong River Basin (LMB) region. It brings various stakeholders together working at global, regional, national, and local levels. The purpose of the project is to increase crop yield, productivity and profitability on sustainable basis at smallholder farmers' field in rainfed areas of LMB. The project through its action aims to address the food security and livelihood issue of smallholder farmers by developing adaptive measures against climate change. The action is being implemented in four LMB countries: Cambodia, Laos, Vietnam and Thailand. The total period for implementation is 60 months (2013 - 2017).

The project is led by the Asian Institute of Technology (AIT) in partnership with FAO, Oxfam, SRI - Rice of Cornell University and University of Queensland together with many national partners coming from national universities, NGOs and ministries.

Within this larger context, the food security issue and challenges of rainfed smallholder farmers in Vietnam and possible way forward aligning with relevant existing national policies were reviewed by the Plant Protection Department (PPD), Ministry of Agriculture and Rural Development (MARD), Vietnam, selected research institute and local civil society organization (CSO) during the Regional Project Inception Workshop held at AIT in Pathumthani in April 2013. The results of the review suggested the need to support smallholder farmer's capacity building and empowerment based on the Government's new rural area development programme "Agriculture, Rural areas and Farmers" (called *Tam Nong*). The pillars of *Tam Nong* put people at the heart of development starting from local participation in planning, calls attention to the need to support rural livelihoods, sustainable natural resource management including biodiversity, providing access to and control of natural resources in agricultural production especially for women, increasing local government competencies in the context of globalization and global markets, implementing global agreements and conventions, among others. Strengthening key government capacity to innovate, implement and provide supports for quality farmer training as to achieve sustainable and profitable rice production are essential, particularly in upland areas dominated by rainfed rice-based production associated with widespread food insecurity.

As a part of this exercise, two food insecure rainfed provinces (Bac Giang and Ha Tinh), identified by the National IPM Programme of Vietnam, have been selected by the Plant Protection Department (PPD) for action implementation. Smallholder farmer dominates both provinces and rice cultivation is the main farming occupation in the selected districts. Work plan development was preceded by a series of problem identification exercises in these two provinces. In the National Inception and planning workshop organized in May 2014, major constraints in rice production were summarized based on the Participatory Rural Appraisal (PRA) survey and focused group discussions conducted in December 2013. Work plans for implementation of activities in two provinces were drafted and would be fine-tuned based on the detailed baseline surveys in June 2014 that would provide inputs for the development of crop calendars. .

The Country Strategy Paper is in two parts. Part A provides the background on the overall agriculture situation whereas part B details the activities and work plans as developed by the National IPM Programme and PPD during the National Planning and Inception Workshop.

CONTACT DETAILS

SRI-LMB is a regional collaborative effort that brings various stakeholders together working at global, regional, national, and local level. The project is led by the Asian Institute of Technology (AIT) in partnership with FAO, Oxfam, SRI-Rice of Cornell University and University of Queensland together with many national partners coming from national universities, NGOs and ministries.

For better collaboration and coordination at all level, the project has established it regional, national and local offices, which are called as Regional Coordination Unit at (PCU), Project Management Unit at country level (PMU) and Local Management Unit at provincial level (LMU) respectively. The newly established Institute-wide Center of AIT Asian Center of Innovation for Sustainable Agriculture Intensification (ACISAI) hosts regional coordination unit (PCU) of the project. The Country Office, i.e., Programme Management Unit (PMU) for Vietnam is hosted by the National IPM Programme lodged in the Plant Protection Department (PPD), Ministry of Agriculture and Rural Development (MARD). The office is located at the FAO IPM Office, Room 505, A1, Van Phuc, Ha Noi. The local management units, i.e., LMUs are located in Ha Tinh and Bac Giang provinces. Both provinces are selected for the implementation of the field activities. Contact details of key project personnel and staffs working at regional, national and local levels are given below:

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ACRONYMS

ACISAI	Asian Centre of Innovation for Sustainable Agriculture Intensification
AIT	Asian Institute of Technology
CFPAR	Central Farmers' Participatory Action Research
COMAC	Community Assistance Center
CSP	Country Strategy Paper
CSOs	Civil Society Organizations
EU	European Union
FAO	United Nations Food and Agriculture Organization of the United Nations
FFS	Farmer's Field School
FPAR	Farmers' Participatory Action Research
FT	Farmer's Trainer
GSO	General Statistics Office
IPM	Integrated Pest Management
LMB	Lower-Mekong Basin
M&E	Monitoring and Evaluation
MEI	Monitoring Evaluation and Innovation
MEL	Monitoring Evaluation and Learning
MARD	Ministry of Agriculture and Rural Development Vietnam
PRA	Participatory Rural Appraisal
PPD	Plant Protection Department (MARD)
PPSD	Plant Protection Sub-Department
NGOs	Non-Governmental Organizations
OA	Oxfam America
SRI-LMB	System of Rice Intensification in the Lower Mekong River Basin
SRI	System of Rice Intensification
TORs	Terms of Reference
TOT	Training of Trainers

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EXECUTIVE SUMMARY

The country strategy paper (CSP) summarizes and consolidates the inception part of the project in Vietnam. The process began with the development of a background paper by PPD-MARD on the current status of agriculture with a focus on rainfed agriculture and rice production. The paper was presented in the Regional Inception and Planning Workshop. An extensive discussion took place with various national actors on the background paper to critically analyze the overall situation in order to develop comprehensive and need-based work plans.

Continuing the process, two food insecure rainfed provinces (Bac Giang and Ha Tinh) identified by National IPM Programme of Vietnam were selected by the Ministry of Agricultural and Rural Development (MARD). Smallholder farmer dominates the selected districts in both provinces and rice cultivation is the main farming occupation. The selection of provinces and districts paved the way for the conduct of a series of detailed problem identification phase covering the crop production, resources use, and situation of women, landless / land poor. The project supported rapid Participatory Rural Appraisal (PRA) and focused group discussions undertaken by independent consultants from the local CSO Community Assistance Center (COMAC) and constraints identified in the detailed baseline surveys pointed to the need to develop knowledge and capacity of farmers to produce high quality rice using low inputs and at a low cost while focusing on conservation of the natural resource base, enhancing and sustaining soil fertility and enhancing water productivity. This should be approached using innovative sustainable rice production technologies based on indigenous knowledge and resource availability as the main actionable points to address the smallholder farmers' issues. Alternative sources of income should be addressed especially for landless laborers and as to make farming more attractive to young farmers who are moving to seek better employment opportunities in the industry and service sectors.

The National Inception and Planning Workshop was organized on 23-24 May 2014 for several objectives and planning of the activities were one of the major objectives of this workshop. The workshop was attended by 31 participants (15 women) representing AIT, FAO, national and provincial agriculture departments, universities and local civil society organizations (CSOs). The work plans for the entire duration of the project - with a detailed emphasis on first year planning - from Bac Giang and Ha Tinh provinces were deliberated, discussed and presented and form part of the Country Strategy Paper.

PART A: AGRICULTURAL BACKGROUND

I. GENERAL INFORMATION

Vietnam, located in the Greater Mekong Sub region in Southeast Asia, has a total area about 331,212 km², including 10,126,100 ha (rice 4,097,000 ha) used for agriculture. Vietnam is bordered by China in the north; Lao and Cambodia in the west; and with the sea in the east and south. The country is divided into four main parts: the northern mountainous and midlands; Red River Delta; central coast and Mekong Delta. Vietnam has 63 provinces/cities and a population of about 87,840,000, of which 70% live in the rural areas and are involved in agriculture production. Agriculture is an important economic sector of Vietnam.

Table 1: Actual state land use in Vietnam

Total land	Area (1000 ha)	%
Whole country	33097.2	100.00
Agricultural land	26371.5	79.7
Agricultural production land	10210.8	30.9
Annual plant area	6422.8	19.4
Paddy field	4097.1	12.4
Grass (for livestock)	42.7	0.1
Other annual plants	2283.0	6.9
Perennial plant area	3788.0	11.4
Forestry area	15405.8	46.5
Produce forest	7391.8	22.3
Defence forest	5851.8	17.7
Special forest	2162.2	6.5
Land for aquatic product	710.0	2.1
Land for salt product	17.9	0.1
Other agricultural land	27.0	0.1
Non-Agricultural land	3777.4	11.4
Household land	695.3	2.1
Urban area	142.9	0.4
Rural area	552.4	1.7
Special land	1884.4	5.7

	Head office, building land	19.9	0.1
	Defence land	337.4	1.0
	Non-agricultural land	273.7	0.8
	Public land	1253.4	3.8
	Religion land	15.1	0.0
	Cemetery land	101.5	0.3
	Rivers, lakes land	1076.9	3.3
	Other none agricultural land	4.2	0.0
Land still not use		2948.3	8.9
	Flat country land	230.0	0.7
	Hills and mountains land	2438.9	7.4
	Rocky mountain	279.4	0.8

Source General Statistics Office (GSO)

Weather and Climate:

Vietnam has a tropical-monsoon type of climate with an annual average temperature of about 22-27° C. Every year the country has about 100 rainy days and an average rainfall from 1,500-2,000 mm. The monsoon influence and complicated topography causes climates changes within a year and between years as well as between the northern and southern parts of the country. Vietnam also experiences typhoons, tropical depressions, floods and droughts that pose a threat to life and the agriculture sector.

Table 2: Average temperature in 2013 (by month) in selected areas

	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lai Châu	13.5	18.2	20.4	20.9	22.9	23.5	23.0	23.4	22.7	19.7	18.3	12.4
Sơn La	14.7	19.6	22.3	23.1	25.1	25.1	24.6	25.0	23.7	21.1	19.6	13.0
Tuyên Quang	15.0	19.7	24.1	24.9	28.2	29.0	28.2	28.3	26.5	24.1	22.1	15.1
Hà Nội (Láng)	15.3	19.9	24.0	25.0	28.9	30.0	28.8	29.1	27.0	25.6	22.8	16.3
Bãi Cháy (Quang Ninh)	15.5	19.1	22.6	23.8	27.6	28.3	27.8	28.2	26.6	25.1	22.1	15.3
Nam Định	15.1	19.5	23.1	24.4	28.5	29.3	28.5	28.8	26.4	25.0	22.1	15.4
Vinh	16.8	20.6	23.6	25.0	29.6	29.8	29.1	29.2	26.9	24.8	22.1	16.5

Huế	19.8	22.9	24.6	26.2	28.7	28.4	27.9	28.3	26.6	24.6	23.6	18.3
Đà Nẵng	21.9	24.4	25.3	27.0	29.2	29.6	28.6	29.3	27.1	26.0	25.2	20.8
Qui Nhơn	23.8	25.5	26.8	28.3	28.9	29.8	29.3	29.4	28.3	26.7	26.3	23.1
Pleiku	19.8	21.9	23.9	24.7	24.8	23.7	23.0	22.5	22.5	22.0	21.9	18.6
Đà Lạt	16.1	17.7	18.8	19.8	20.1	19.6	19.2	18.9	18.3	18.1	17.8	16.2
Nha Trang	24.7	26.0	27.1	28.8	29.1	28.8	28.5	28.5	27.7	26.9	26.3	24.4
Vũng Tàu	26.2	27.1	28.2	29.7	30.0	28.7	28.1	28.1	27.9	27.8	27.6	26.3
Cà Mau	26.5	27.5	28.5	29.3	29.3	28.2	27.3	27.6	27.7	27.5	27.6	26.1

Source: General Statistics Office (GSO)

Table 3: Rainfall in 2013 (by month) in selected areas

Place	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lai Châu	99.7	5.5	31.9	142.9	282.9	481.8	668.3	165.8	323.0	243.2	146.5	27.2
Sơn La	90.5	6.0	48.7	114.0	180.6	122.3	299.9	344.9	153.3	48.7	44.9	26.2
Tuyên Quang	51.1	18.7	36.6	104.7	256.5	162.5	687.2	367.8	184.9	27.1	73.0	25.2
Hà Nội (Láng)	20.3	16.5	16.9	31.8	387.7	268.9	388.3	478.1	54.7	77.5	34.8	25.7
Bãi Cháy	41.7	15.0	34.0	98.2	434.9	121.9	425.9	348.0	162.7	397.8	58.0	3.9
Nam Định	40.7	22.7	22.9	102.4	177.0	208.5	263.5	328.4	320.2	173.7	77.5	35.3
Vinh	57.9	30.7	37.5	19.0	289.2	125.1	84.9	140.4	721.5	60.7	230.0	95.6
Huế	155.9	76.1	17.4	51.1	216.1	20.4	25.4	168.9	436.1	409.2	489.1	304.3
Đà Nẵng	56.8	37.4	0.0	21.3	10.9	46.1	32.0	180.5	581.7	367.5	302.4	59.5
Qui Nhơn	104.4	40.1	17.4	170.8	9.7	51.2	114.2	103.2	378.4	177.3	229.2	87.1
Pleiku	6.2	15.5	5.7	91.1	173.0	526.1	454.2	392.4	397.9	126.3	19.1	
Đà Lạt	19.2	88.7	49.0	280.6	314.8	127.1	215.3	129.4	406.0	155.7	68.9	4.8
Nha Trang	98.8	28.3	118.7	148.8	92.4	24.3	151.1	29.6	444.6	140.2	370.3	34.6
Vũng Tàu	0.2	35.9	31.6	261.8	70.7	141.3	198.0	156.7	189.8	97.7	11.1	20.8
Cà Mau	7.3	24.4	233.7	136.7	249.7	166.3	288.5	218.4	533.3	192.4	91.4	11.8

Source General Statistics Office (GSO)

II. GOVERNMENT POLICY AND ON-GOING DEVELOPMENT PROGRAMMES

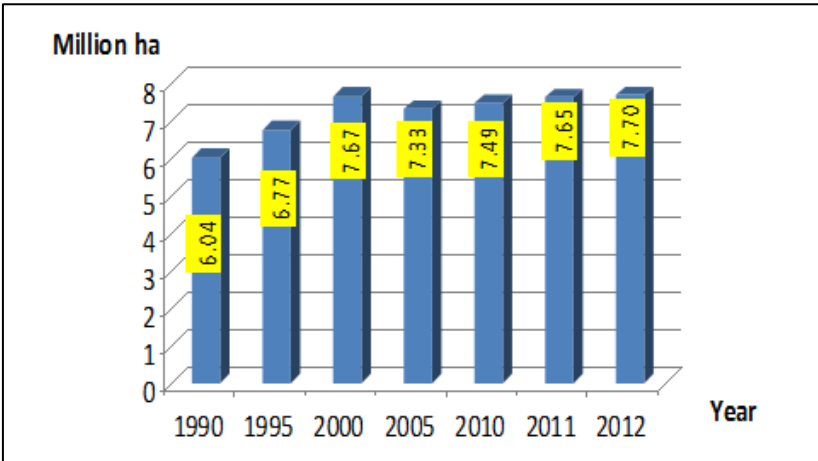
In July 2008, the Vietnamese Communist Party (CP) issued Resolution No. 26 on Agriculture, Rural areas and Farmers (called *Tam Nong*) to re-orient the country's socio-economic development in a new vision on the role of the agriculture, rural areas and farmers in the context of industrialization and modernization. A National Target Programme (NTP) on New Rural Area Development by 2030 was promulgated by the government and Ministry of Agriculture and Rural Development (MARD) was assigned as the coordinator of this NTP. The pillars of *Tam Nong* put people at the heart of development starting from local participation in planning, call attention to the need to support rural livelihoods, sustainable natural resource management including biodiversity, providing access to and control of natural resources in agricultural production especially for women, increasing local government competencies in the context of globalization and global markets, implementing global agreements and conventions, among others. The objectives of the SRI-LMB project are aligned with the pillars of the Government's New Rural Area Development programme.

III. RICE PRODUCTION AND ITS CONTRIBUTION TO NATIONAL ECONOMY

Rice is considered the most important crop in Vietnam. The development of rice production in the country has a long tradition and cultural history, plays a key role in national and local food security and has a big impact on people's livelihoods. About 4.5 million ha or 45% of the 10 million hectares of agricultural land area is devoted to rice production.

The area planted to rice increased from 7.44 million hectares in 2009 to 7.65 million ha in 2011. In 2012, the country had planted 7.7 million hectares of rice. (See Chart 1)

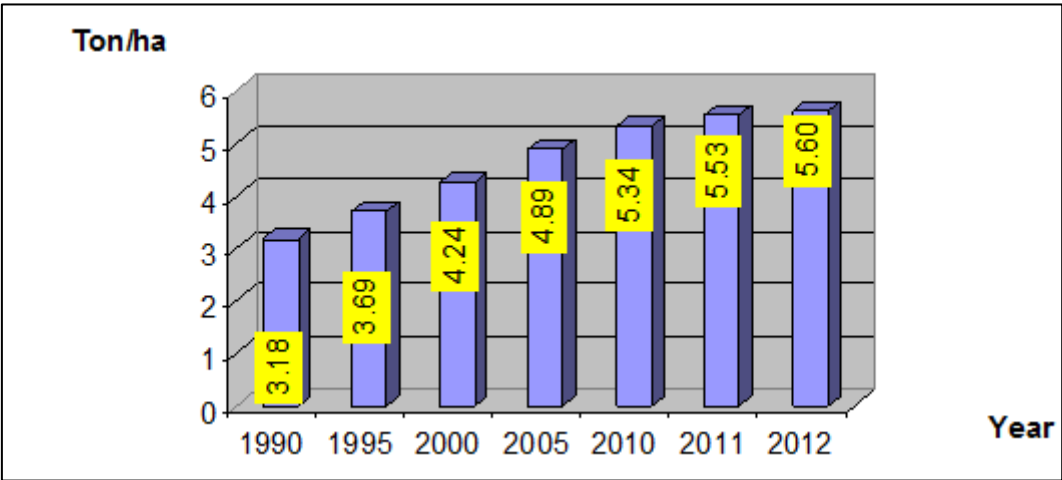
Chart 1: Area of rice cultivation in Vietnam (1990-2012)



Source: General Statistics Office (GSO)

Yields increased from an average of 4.2 tons/ha in 2000 to 5.3 tons/ha in 2010 and reached its highest level ever of 5.6 tons/ha in 2012. (See Chart 2).

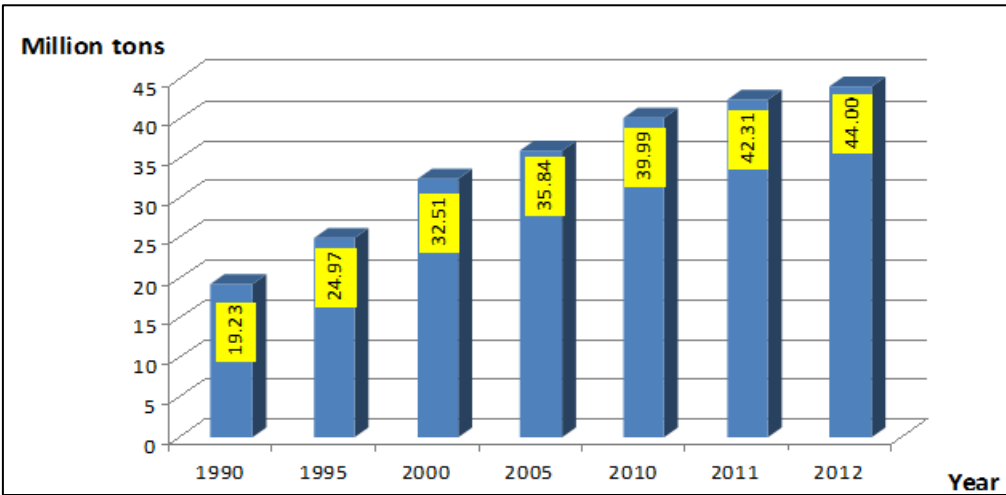
Chart 2: Average rice yields in Vietnam (1990-2012)



Source: General Statistics Office (GSO)

From 1990 to the present, Vietnamese rice production has experienced constant growth resulting from application of good cultivation techniques (e.g., IPM and SRI, etc.), increased productivity, the use of high yielding varieties and partly due to expanding the area cultivated annually (GSO, 2000 and 2010.).The latter being inconsistent with reports of reducing rice cultivation area. Rice production stopped at 19.23 million tons (in 1990) but by 2000 had reached 32.51 million tons. Vietnam produced 42.31 million tons in 2011 and 44 million tons in 2012. (See Chart 3)

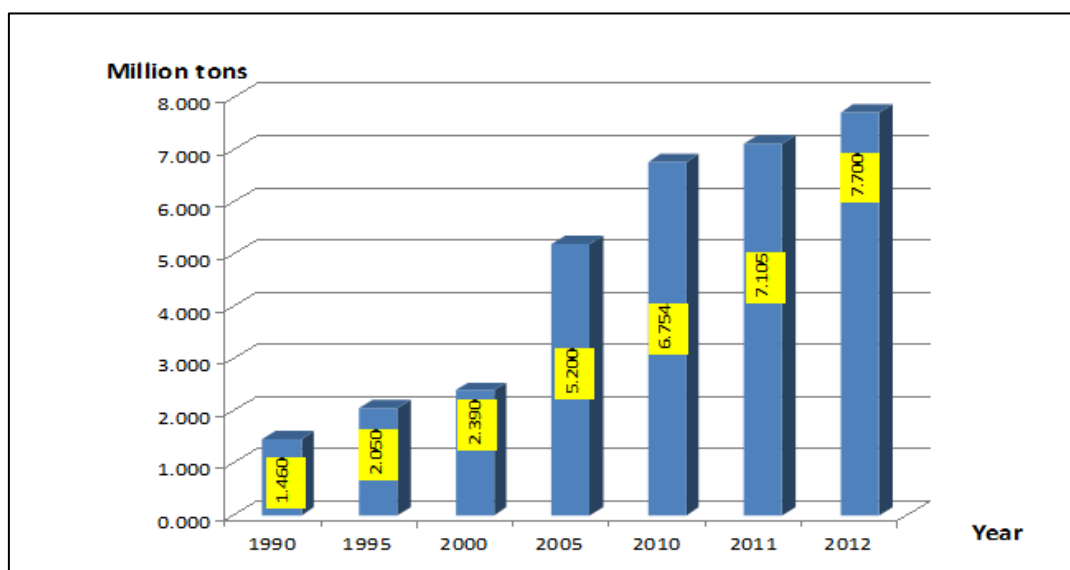
Chart 3: Rice production in Vietnam (1990-2012)



Source: General Statistics Office (GSO)

Since 1989, Vietnam has become the second largest rice exporter in the world. From exporting 3.5 million tons in 2000-2002 to 6.05 million tons in 2009. Export volumes have increased from 2010 (6.75 million tons) and 2011 (7.10 million tons) to 7.70 million tons in 2012.

Chart 4: Rice production export in Vietnam (1990-2012)

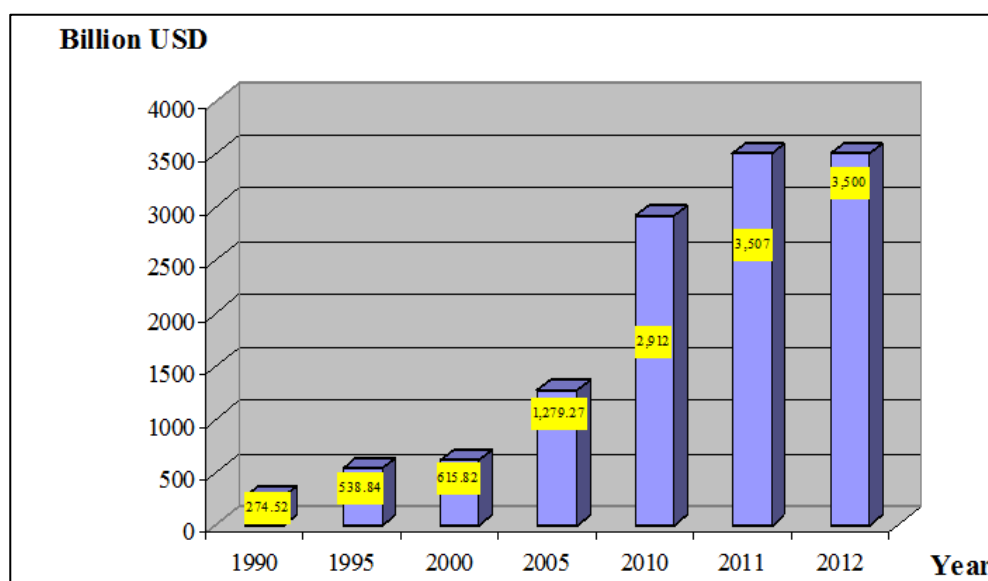


Source: General Statistics Office (GSO)

This has led to the improvement of the value of rice in Vietnam and growth of the agricultural sector of the country. Success in rice exports earned the country billions of dollars. In 2005, income from rice exports amounted to \$1.3 billion and in 2011 the country earned \$3.51 billion. In recent years, Vietnam has been moving away from the expansion of the cultivated area to rice production in the direction of increasing quality: export quality rice and high value rice.

Vietnam plays an important role in contributing to global food security. Vietnam's rice exports have provided a stable and affordable supply of carbohydrates for 120 countries worldwide. Agriculture in general and rice production in particular has had an outstanding, stable and fast development. Rice production and export income has helped improve and enhance the lives of farmers. This has led to the improvement of the value of rice in Vietnam and growth of the agricultural sector of the country. Success in rice exports earned the country billions of dollars. In 2005, income from rice exports amounted to \$1.3 billion and in 2011 the country earned \$3.51 billion. In recent years, Vietnam has been moving away from the expansion of the cultivated area to rice production in the direction of increasing quality: export quality rice and high value rice.

Chart 5: The total value of Vietnam's rice export (1990-2012)



Source: General Statistics Office (GSO)

IV. RICE PRODUCTION IN SELECTED SRI-LMB PILOT PROVINCES BASED ON PRA SURVEY DONE BY COMAC IN 2013

1. Agriculture production structure

Rice cultivation: In Ha Tinh, the main income is from rice cultivation. For instance, in SongLong commune of Thanh Ha district, rice cultivation contributes 63% of the income while husbandry and the service sector only contribute 37%. In particular, in Tri Khe village of Song Long, the average income per capita is 4.7 million/year with the biggest income proportion coming from rice which is more than 90%. In contrast, in Bac Giang husbandry, cash crops and industrial plantations are the major sources of livelihood.

Vegetable and cash crop plantations: In all three districts that were surveyed in Bac Giang, vegetable and cash crop plantations are developing well. In Lang Giang district, there are 105 ha grown to vegetables for processing including: young cucumber, cherry tomato, chilli, Japanese cucumber, etc. The average revenue from processed vegetables is 150-175 million VND/ha (equivalent to US\$7,143-8,333.3), higher than other crops.

Husbandry: In Ha Tinh, most of the households have small-scale husbandry production and this is not the major source of income. Many better off households are able to develop large scale commercialized industrial farms. Until June 2013, in the province, there were 102 large scale pig farms with capacity of 250-2,500 pigs and 112 deer farms with a capacity of 10-70 deer and an increase of 10.3% in meat production. The aquaculture area is about 7,000ha with capacity to raise about 4,330 tons of fish for a yield of 14,616 tons.

In Bac Giang, husbandry is a major income source. Province-wide, there are 11.7 million pigs and 16 million livestock. The bio security hill chicken model is well established in Yen The. In the three surveyed villages, many

households have bigger scale husbandry production (i.e, several hundred heads of chicken) compared to Ha Tinh with farmers having better technical capacity.

The two provinces show great potential for rice and cash crop cultivation with more than 50,000 ha in each province. In Ha Tinh, support for the transition of agriculture production structure, hand in hand with rice cultivation improvement can be potential in some villages with rice as the major source of income. This can be applied to households with small agricultural land. However, it must *focus on speciality products* instead of commodity products as in other existing farms.

Bac Giang is mostly hilly landscape and rice is not the main crop with small potential for larger development. Litchi and other cash crops for export provide large revenue. However possibility to improve the productivity or plantation structure transition for better profit is low.

2. Rice Production

Cropping seasons: There are two major rice cropping seasons in Ha Tinh and Bac Giang provinces. These are Winter-Spring (December - May) and Summer-Autumn (May - September). Ha Tinh grows Autumn-Winter rice from August to December. The Summer-Autumn rice production faces many risks of flood and storm and farmers do not cultivate rice in this time of the year. Support for rice cultivation in the two provinces is recommended.

In Ha Tinh, support should be for late Winter-Spring cultivation (from December to May). The support for Summer-Autumn rice area should consider the inundated area during the flood and storm season. Bac Giang can grow both crops (i.e., Winter-Spring and Summer-Autumn) but if investing in rice, the support should be for districts along rivers, where the rice area is bigger, particularly in Lang Giang and Yen Dung districts.

Rice varieties: In Bac Giang, the traditional variety Khang Dan 18 is used. This variety covers more than 50% of the traditional variety used in the province. The characteristics of Khang Dan 18 includes: high stability, easy maintenance, easy processing and low price/cheap. However, productivity and quality are not high. The major hybrid varieties cultivated in the area are Syn6, BTE-1, XL, TH3-3, Thục Hưng 6, LC212, Đặc ưu 11, HKT99, Kim ưu 18, Hòa Gia 8 - accounting for 95% of hybrid variety used. These varieties have some good qualities such as: high productivity, good quality and resilience. However, aside from LC212 and TH3-3, the seeds are expensive, which makes it hard for farmers to invest on seeds for big scale production.

In Ha Tinh, hybrid varieties used by farmers include TH3-3, Nhị ưu 383, BTE1, TH3-4. Traditional rice varieties cultivated include X23, X30, Sticky 98, HT1, NA2, Khang Dan. In early spring, the variety used is TR1820. This is popular in Tan Loc, Loc Ha district. This variety was withdrawn by the provincial authorities because of the length of time required for growing, low yield and poor disease resistance but many local people still cultivate this variety.

Local authorities have been implementing many programs to push the use of hybrid rice with higher quality, instead of varieties (especially Khang dan) with low quality and productivity in Bac Giang or long-duration variety like TR1820 in Ha Tinh. However, the results are limited. The main traditional rice variety in Luc Nam is still Khang Dan. This covers 70% of rice production area in Luc Nam. Other varieties used are BTE, Sin6, Bắc úu, TH3-3, LC12, Thực Hưng 6.

3. Cultivation/technical capacity:

In Bac Giang: About 70% of the rice cultivated in Lang Giang and Yen The districts are transplanted from trays which use 1kg seed/360m² or a density of 35-40 hills/m². In Luc Nam district, Bac Giang, and the other three districts in Ha Tinh, seeds are sown directly seeds in the field. Direct seeding is used on an area of more than 70% of the total cultivation area. Farmers do not practice balanced fertilizer application and, have no knowledge about using organic manure. For the IPM model in Bac Giang, each commune has one agriculture extension officer trained on IPM and they play an important role in providing technical support to local communities in farming.

In Ha Tinh: In some areas in the three selected pilot districts, SRI practices are applied by farmers (through activities supported by Oxfam Belgium and SRD in Can Loc and Thach Ha, respectively). The practices used are: planting density of 35-39 plants/m², use of organic manure, and reduction in amount of seed and chemical fertilizer. Productivity has increased by 20-30%. However, the adoption of SRI practices is still limited. In Tan Loc commune (Loc Ha), Song Loc commune (Can Loc), and Thach Son commune (Thach Ha), rice is mostly transplanted. All winter rice plantations are transplanted and present opportunities for the introduction of SRI. Farmers are not aware of and neither do they apply IPM and have pest management has been reported to be a concern.

The following graphs provide details on the rice production and rice productivity in Ha Tinh and Bac Giang provinces:

Ha Tinh

Chart 6: Rice production area of Ha Tinh (ha)

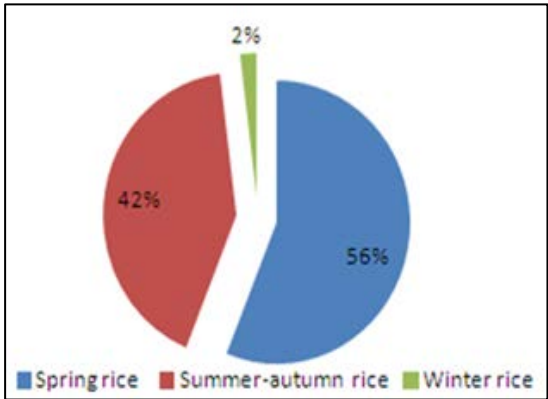
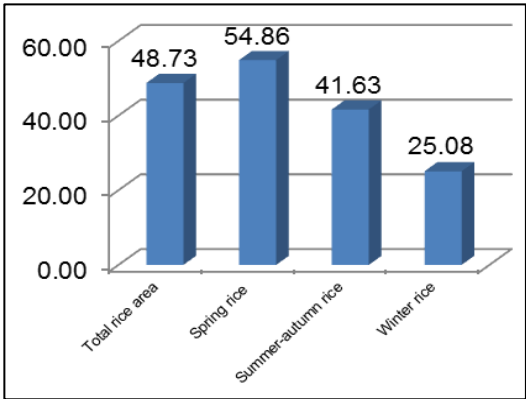


Chart 7: Rice productivity in Ha Tinh (100kg/ha)



Bac Giang

Chart 8: Rice production area of Bac Giang (ha)

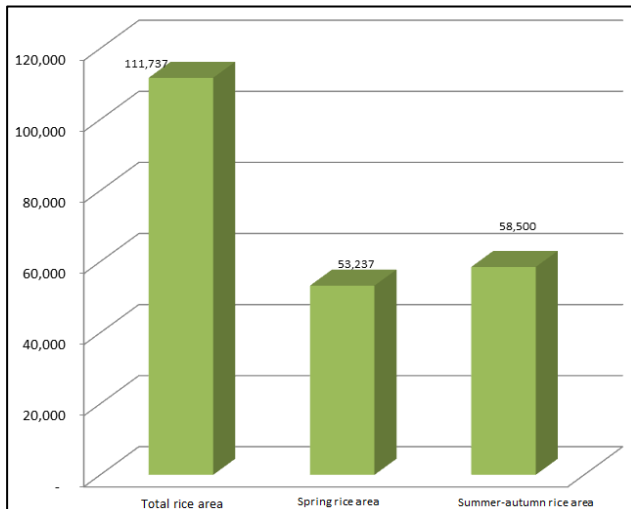
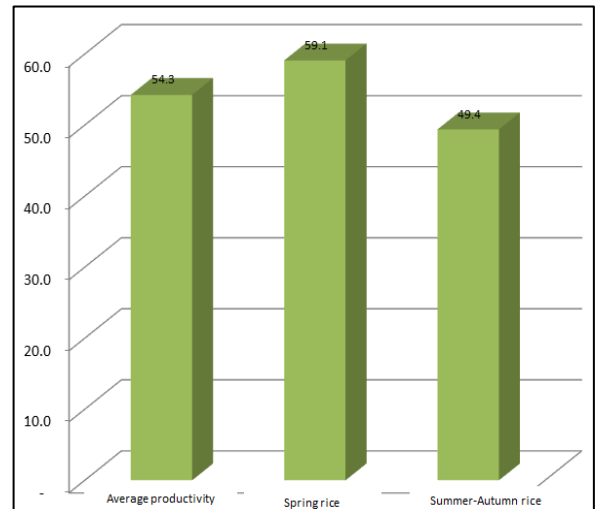


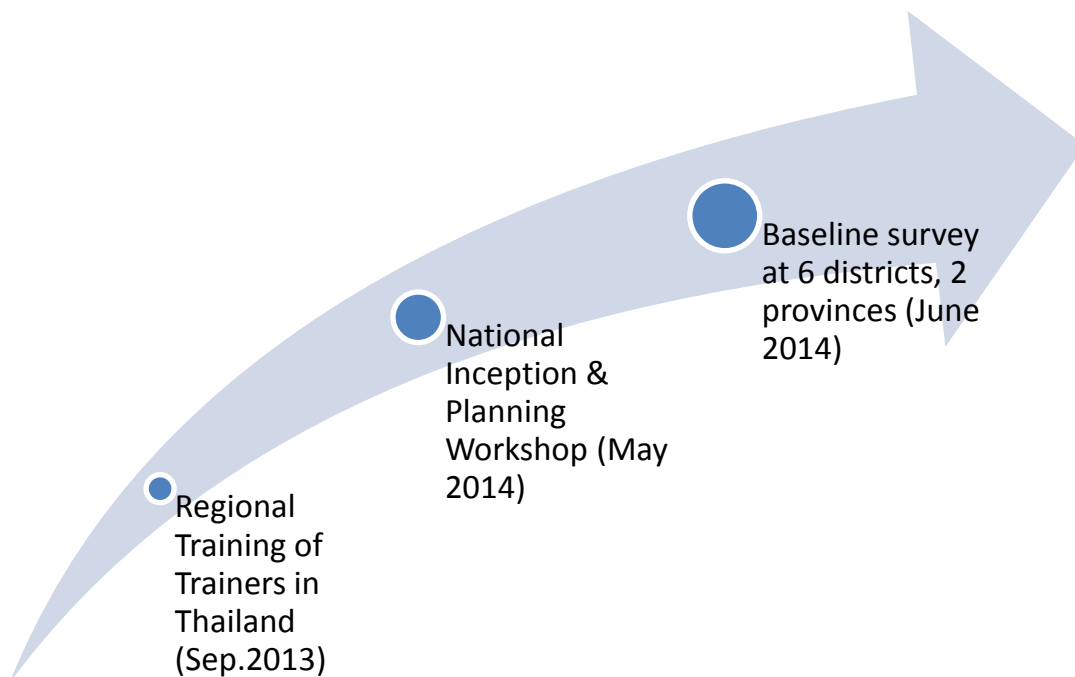
Chart 9: Rice productivity in Bac Giang



PART B: PLANS FOR THE SRI LMB PROJECT IN VIETNAM

I. PLANNING OF THE ACTIVITIES

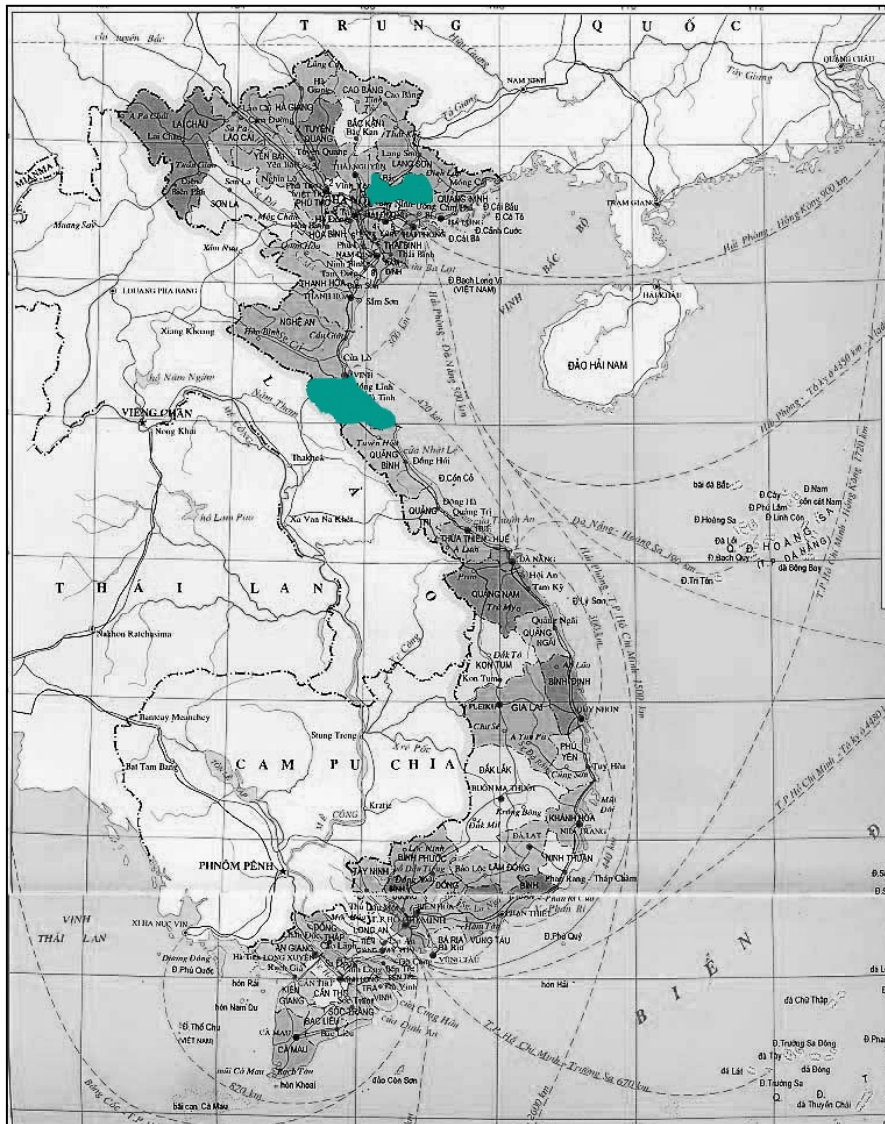
During the inception period from May 2014, the SRI LMB project in Vietnam and has undertaken a series of activities as to prepare for the CFPAR process (started from May 2014) (See Figure below.)



1. LOCATION OF THE PROJECT IMPLEMENTATION

Three districts each of two provinces one in the North (Bac Giang) and one in the Northern-Central region of Vietnam (Ha Tinh) have been selected for project implementation (see map below).Lang Giang, Yen The, Luc Nam districts of Bac Giang and Loc Ha, Thanh Ha, Can Loc districts of Ha Tinh were selected for project implementation.

Figure 1: Selected provinces and districts for SRI LMB project in Vietnam



II. WORK PLAN DEVELOPMENT

Work plan development was carried out in several major steps:

- A) Development of background paper
- B) Problem identification: Several sub-steps and cross checks were used to find problems like:
 - a. Baseline Survey
 - b. Crop Calendar development
 - c. Focused group discussion
 - d. Independent PRA
- C) National Inception and Planning Workshop

2.1. BASELINE SURVEY

A baseline survey involving 30 farmers per district using a structured questionnaire was carried out in June in all six districts by PMU with support from LMU coordinators in Bac Giang and Ha Tinh provinces. IPM District Trainers were trained for day on using the questionnaire. The questions were related to socio-economic conditions, crop production, women issues and other MEL related indicators. The data obtained was analyzed at two levels: a) at farmers' level to develop crop calendars; b) more advance analysis for MEL and other associated research.

2.2. CROP CALENDAR DEVELOPMENT

A total of two crop calendars summarizing and representing six project districts - 3 each in Bac Giang and Ha Tinh province were developed (see annexes 1-2).The crop calendar serves an excellent means to start discussion on major crop management related challenges faced by farmers. With the help of leading questions establishment of cause-effect relationship were attempted and wherever no such relation was found, those issues were listed on a separate sheet of paper as constraints for further step, i.e., focused group discussion.

2.3. FOCUSED GROUP DISCUSSION

Focus group discussion was carried out as part of the Participatory Rural Appraisal conducted by the local partner civil society organization (CSO) Community Assistance Center (COMAC). The problems identified in the PRA were further debated in the planning part of the National Inception and Planning Workshop to refine and reach to a broad agreement to define the potential issues that the project activities could address in each district.

Table 4: Summary of important constraints

Problem	Bac Giang			Ha Tinh			Remarks
	Lang Giang	Luc Nam	Yen The	Loc Ha	Can Loc	Thach Ha	
Water shortage	0	+	+	+	+	+	
High production cost	+	+	+	+	+	+	
Higher seed rate	+	+	+	+	+	+	
Weed	+	+	+	0	0	0	
Pest and disease	+	+	+	0	0	0	
Soil deterioration	+	+	+	+	+	+	
Rice price slump	+	+	+	+	+	+	
Flooding	0	0	0	+	+	+	
Expensive chemical fertilizers	0	0	0	+	+	+	
Dry spell	+	+	+	+	+	+	
Labor shortage	+	+	+	+	+	+	

2.4. NATIONAL INCEPTION AND PLANNING WORKSHOP

Detailed planning for activities was undertaken as a part of the National Inception and Planning Workshop where broad plans of activities for all project years were discussed and agreed by the group (see Fig. 2). These includes one CFPAR per province followed by 3 seasons of FPAR at four sites in each 3 selected districts (per province), LMU workshop and national annual planning and review workshops. The work plan is subject to change based on reviews at LMU and at national level.

Figure 2: The schematic presentation of 5 years work plan

2014	2015	2016	2017
Inception			
	CFPAR		
	FPAR (3 cycles in each year)		
	One LMU workshop at the end of FPAR cycle in both province		
	Documentation		

The detailed plan of action for both provinces for year 2014/2015 follows:

Figure 3: Plan of activities for 2014-15 in Bac Giang and Ha Tinh provinces

2014							2015					
Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
PRA												
Baseline survey												
	Waiting for endorsement document from VN Government											
						CFPAR						
								Mid.Season evaluation				
						FPAR						
										End season Field Day LMU workshop		

III. SELECTION CRITERIA FOR DISTRICTS, CFPAR SITE AND FARMERS

The following selection criteria were agreed during the planning process.

(1) Selection of three representative districts in each province as pilot sites for detailed baseline surveys and for setting of the FPAR after completion of CFPAR. The selection criteria that will be used for district selection (but not limited to) are:

- Growing rice as a main crop;
- Has good number of on-going FFS activity and FFS graduates;
- Has general interest and awareness to explore SRI with respect to their own management practices;
- Has good local government support.

LMU Coordinators with support from PMU Team will take lead in identifying districts. After the selection of districts LMU Coordinators will contact and involve District Trainers (from Plant Protection Sub-Department) from each selected district.

(2) CFPAR site selection: The Team will then select representative site for the CFPAR. The criteria that will be used for CFPAR site selection are:

- Centrally located from all three selected districts with good road connection for easy transportation;
- Have adequate resources to set up experiment to support training even in off-season (experimental site has easy access to supplementary irrigation water, if needed, inputs available locally, have meeting hall/center and have good support from the community and local leaders).

The CFPAR curriculum will be covered in four intensive periods over a total of 31 days.

3) Selection of farmers from three representative districts for participation in detailed baseline surveys and implementation of CFPAR experiments:

LMU Coordinators and District Trainers will lead this activity with support from PMU Team (National Training Expert/Assistant). A series of activities will precede the selection of farmers. These include village immersion, community meeting with local leaders leading to a common meeting involving farmers from the village and surrounding areas. During this meeting the objective of the project will be shared and initial interest of farmers will be registered which will be later refined using following criteria:

- Enthusiastic rice farmers engaged in rice farming and have access to supplementary irrigation, if needed;
- Have interest to participate in the project activities and meetings especially on FFS days;
- (14 sessions/FFS cycle);

- Willing to learn and share knowledge from participation in project activities;
- Willing to apply learning from project to their own farm;
- Growing rice crops per year and owning their own land;
- Basic communication and literacy skills, but literates are not excluded though not preferred for the CFPAR.

Eight farmers will be selected from each district (4 women and 4 men). In addition, two landless* from each district will be invited to participate in the CFPAR. Farmers and District Trainers will take the lead in identifying landless from their area/s.

Annexes

Annex 1: Cropping Calendar for Spring season rice in Bac Giang Province

(Lang Giang, Lục Nam and Yen The districts)

Management practice	Week	-4	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Crop duration (Spring season from Feb. to Jun.)	Date	- 30	- 21	-14	-7	7	14	21	28	35	42	49	56	63	70	77	84	93	100	107	117	124	131
General information																							
Seed variety: KD 18, Lua thuần																							
Seed source: Bac Giang variety Company, CTy VTNN Bắc Giang																							
Seed germination test: No																							
If yes, chemical and dose? No.																							
Seed rate (kg/ha): 20-30kg		x																					
Method of sowing::transplanting by young seeding						x																	
Irrigation: Tưới tràn					x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
Grading of seeding done: No																							
Cleaning of seeding before transplanting: No																							
Main field stage																							
Land preparation				x																			
Plowing: Yes, Time: 1 time																							
Harrowing & leveling: Yes; Time: 1 time					x																		
Row interval: 20 cm																							
P - P interval: 17-18 cm																							
Fertilizer application																							
Urea 200kg/ha					x	x				x													
Potassium: 140kg/ha					x	x				x													
Phosphate: 555kg/ha																							
Basal: P/c, Phosphate, Nitrogenous																							
Compost/manure: No																							
Irrigation: by machine, small lakes																							

Management practice	Week	-4	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
When: ?				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Weeding: How: Herbicide																							
Important weeds: ? cỏ 1 lá mầm																							
Pest and disease																							
Leaf folder																X							
BPH																	X						
Stem borer																X							
Other pest																							
Diseases: Blast disease, Sheath blight, black & flat										X	X					X	X						
Chemical Insecticides: Bestoc 5EC, Dylan10WP, Silsau 3.6EC, Virctory, Virtaco...																							
Fungicide application: Validamicin, Fujone, Anvil, Tiltsuper, ...																							
Other problems (if have)																							

Annex 2: Cropping Calendar for spring season rice in Ha Tinh Province

(Can Loc, Thach Ha and Loc Ha district)

Management practice	Week	-4	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Crop duration (Spring season from Dec. to May.)	Date	-30	-21	-14	-7	7	14	21	28	35	42	49	56	63	70	77	84	93	100	107	117	124	131
General information:																							
Seed variety: XI23, NX30, P6, HT1, N98, TH3-3, KD18, XM12, KD ĐB, Bte-1, PC6, P6 ĐB				+																			
Seed source: CT CP Giống cây trồng Hà Tĩnh, CT TNHH MTV Giống và VTNN Mitraco, CT CP Giống cây trồng Trương ương, CT TNHH Cường Tân,.... - Giống do người dân tự để				+																			
Seed germination test: Yes, by hot water					+																		
If yes, chemical and dose? No																							
Seed rate (kg/ha): 60 kg/ha (thuan) 40 kg/ha (lai)					+																		
Method of sowing:: Direct sowed rice and transplanting						+																	
Irrigation: Tưới tràn					+	+			+			+			+			+	+	+	+	+	
Grading of seeding done: Yes																							
Cleaning of seeding before transplanting: Yes					+		+					+						+					

Management practice	Week	-4	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Main field stage																								
Land preparation: by machine and handcraft				+	+	+																		
Plowing: Yes, Time: 1																								
Harrowing & leveling: Yes; Time: make level before sowing						+																		
Row interval: 16 x 16 cm																								
P - P interval: 14-14 cm						+																		
Fertilizer application																								
Urea: 160-200 kg/ha						+			+						+									
Kali: 120-140 kg/ha						+			+						+									
Basal (phosphate): 400 kg/ha						+																		
Compost/manure: 10,000 kg/ha						+																		
Irrigation: by machine, small lakes and canals																								
When: ?																								
Weeding: How: Herbicide, rake grass & hand pick						+			+						+									
Important weeds:																								
Pest and Disease																								
Leaf folder									+	+	+	+	+	+	+	+	+		+	+	+	+		
BPH																+	+	+	+	+	+	+	+	+

Management practice	Week	-4	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Stem borer														+	+	+	+	+	+	+	+	+	+
Others																							
Disease: Sheath blight, Brow Spot disease...											+	+	+	+	+	+	+	+	+	+	+	+	+
Chemical insecticide: Angun, Virtako, Tasieu...											+	+	+	+	+	+	+	+	+	+	+	+	+
Fungicide application: Fujione, Beam, Filia...																							
Other problems (if have)																							

Annex 3: Planning for Activities for the year 2014/15, Bac Giang Province

No.	Activities	Sub-activities	How to do	Time	Main responsible	Out put	Remark
1	Baseline survey	Train interviewers	Based on the questionnaires	June 2014	Hieu/Khanh	Trained interviewers	
		Select communes	Based on project criteria	June 2014	Ms. Luyen & IPM Trainers	List of communes	
		Select farmers	Based on project criteria	June 2014	Ms. Luyen & IPM Trainers	List of farmers	
		Interview farmers (at least 10 farmers/district)	Visit farmer household to interview farmers	June 2014	IPM Trainers	Data in survey forms	
		Summarize data at provincial level	Group meeting, find out main problems at location	June 2014	Ms. Luyen & IPM Trainers	Complete the data sheets	
2	Implement CFPAR	Develop curriculum for TOT/ experimental designs, data collection protocols	Based on result of baseline survey	December 2014	Hieu/Khanh/Loc and Mr. Phong/Luyen	Curriculum for CFPAR	
		Select trainees (farmers trainers, landless and women = 8 farmer trainers, 2 representative of women and landless ; 30 person per CFPAR	Based on project criteria	December 2014	Ms. Luyen	List of trainees	
		Implement TOT (4 intensive periods, total 31 days)	Learning by doing in the field	January to April 2015	Ms. Luyen & IPM Trainers	Training periods have done	
3	Implement FPAR	Select place and farmers, women and landless	Based on project criteria	January 2014	Ms. Luyen & IPM Trainers	List of trainees	
		Design field researches	Based on main problem identified in baseline survey and design FPAR for farmers	January to April 2015	IPM Trainers and TOT trainees	Training periods have done	

No.	Activities	Sub-activities	How to do	Time	Main responsible	Out put	Remark
			to identify solutions				
4	Field Day		To show local leaders, CSOs and farmers results of activities	May 2015	Ms. Luyen	List of participants involved to the field day	
5	LMU workshop for 1st year	Workshop	Summarize activities for 1st year and prepare work plan for next year	May 2015	Ms. Luyen	Workshop's reports	

Annex 4: Planning for Activities for the year 2014/15, Ha Tinh Province

No.	Activities	Sub-activities	How to do	Time	Main responsible	Out put	Remark
1	Select farmers	Select communes, districts	Select 3 communes, 3 districts	May 2014	Mr. Phong	List of communes	
2	Baseline survey	Training District Trainers on method to carry out baseline survey	1 day training on questionnaires	June 2014	Mr. Loc	Trained interviewers	
		Interview farmers	Visit farmer households to interview at least 10 farmers/district	June 2014	IPM Trainers	Data in survey forms	
		Collect and summarize data	Group meeting to find out main problems at the location	June 2014	Mr. Phong & IPM Trainers	Complete the data sheets	
3	CFPAR	Select place, select trainees	Based on project criteria	Dec. 2014	Mr. Phong & IPM Trainers	List of trainees	
		Implement the TOT	30 selected trainees will learn from the field researches over 6 sessions and total 20 days	Dec. 2014 to March 2015	IPM Trainers	Training periods have done	
4	FPAR	Select place and farmers	Select 3 commune to organize 3 FFS	December 2014	IPM Trainers	List of commune and trainees	
		Implement the FPARs	30 farmers/FPAR will be trained over 14 weeks to solve problems in their fields	Dec. 2014 to March 2015	IPM Trainers	Training periods have done	
5	Field Day	3 Field Days will organized in 3 districts	Introduce the result of field studies to local leaders, CSOs and farmers	April 2015	Mr. Phong and IPM Trainers	List of participants involved to the field day	
6	Cross visit	Exchange experiences between communes	Organize cross visits between communes involved in the project	May 2015	Mr. Phong & IPM Trainers	Program for study tour	

No.	Activities	Sub-activities	How to do	Time	Main responsible	Out put	Remark
7	Propaganda	Panels, leaflets or broadcasting on radio, television, etc.	For more farmers know and apply the result of field studies	December 2014 to May 2015	Mr. Phong	Number of panels, leaflet, etc.	
8	LMU Workshop for 1st year		Meeting and discussions to look at the problems in the current year and make the work plan for next year	May 2014	Mr. Phong	Workshop reports	