

## **Annex I: Regional Progress Report**

### **“IPM Component” Pesticide Risk Reduction Programme GCP/RAS/229/SWE 01 January - 30 June 2009**

#### **Introduction & Scope of this Progress Report**

Pesticide abuse and overuse is still rampant in the Greater Mekong Subregion (GMS). Intensive use of extremely and highly hazardous chemicals by small-holder farmers is causing high incidence of farmer poisoning. Given the renewed attention and current prominent driving forces for pesticide risk reduction related to food safety, international trade facilitation and enduring environmental and health concerns, the need for strong Integrated Pest Management (IPM) and Good Agricultural Practices (GAP) farmer training programmes is greater than ever. In tandem with such training efforts, there is a need for work with GMS countries to develop stronger pest and pesticide management policies and enhance capacity to strengthen associated regulatory systems and their enforcement. Cross-border -unregulated and often illegal- trade in hazardous pesticides in the GMS is a specific concern that requires urgent attention. FAO has unique experience in Integrated Pest Management (IPM) and pesticides management capacity building. Combined with its unique convening role for neutral mediation within the context of several international instruments addressing problems related to distribution and use of pesticides, FAO is particularly well-placed to address this within the context of a regional assistance programme on Pesticide Risk Reduction in South East Asia, supported by the Swedish Government. FAO has been subcontracted by the Swedish Chemical Agency (KemI) to step up field programmes to help farmers adopt Integrated Pest Management and eliminate the use of highly hazardous pesticides (“IPM component”) as well as strengthening the pesticide regulatory frame work and policy reform (“Policy component”) within a 3 year pilot project (2007-2009).

This 5<sup>th</sup> progress report documents implementation progress for the “IPM component” of project GCP/RAS/229/SWE for period January-June 2009. Progress is reported on and analysed as per regional and country strategies and logical frameworks documented in the inception report and the attached Country Strategy Papers.

#### **Regional Strategy for Pesticide Risk Reduction Programme “IPM Component”**

##### **Development Objective**

The overall development objective formulated for the overall project GCP/RAS/229/SWE is as follows: *“Elimination of use of hazardous and persistent agro-chemicals through IPM Farmer Training in conjunction with better access/utilization of alternative pest management options and support for National Pest and Pesticide Management Policy Reform”.*

##### **Immediate Objectives**

The overall immediate objectives for the “IPM component” were formulated as follows:

- Objective 1: *To identify and prioritize information, research and training development needs and to institutionalize functional partnerships among government, NGOs, research and public sector organizations for development and further strengthening of IPM field training programmes to address pesticide risk reduction at farm level in the Greater Mekong Subregion;*

- Objective 2: *To strengthen the capacity of National IPM Programmes and selected private sector initiatives to implement quality community education activities for pesticide risk reduction among smallholder farmers in the Greater Mekong Subregion;*
- Objective 3: *To develop, assess impact, document and publicize successful pilot models for community education for pesticide risk reduction for up-scaling and policy reform by local governments, public sector and partner organizations in the Greater Mekong Subregion.*

## Major activities undertaken and outputs achieved during this reporting period

- **Regional Coordination and Programme Development**

The Regional Programme Management Unit, based at the FAO Regional Office in Bangkok, continued to provide coordination and programme development support to programme staff and counterparts in the member countries during this reporting period. For the purpose of capacity building for project planning by national counterparts and as to ensure development of regional and country relevant strategies and implementation plans, FAO has had intensive consultations with national counterparts in all of the participating GMS countries with regards to formulation of detailed country strategy papers during previous progress reporting periods. These consultations have led to the formulation of Country Strategy Papers (CSPs) for all participating GMS member countries. Project implementation generally follows strategies outlined in these CSPs., On regional and country level, programme development continued during this reporting period as to ensure that strategies and workplans remain relevant and continue to address emerging developments and needs identified by Member Country governments and other project stakeholders in the GMS. In *Vietnam*, the Regional Programme supported initiatives of regional and national-based GO-NGO and partners from the private sector in efforts to define visions and strategies to work together in pilot Pesticide Risk Reduction programme convergence areas as to complement each other's activities and achieve more impact. In *Cambodia*, the Regional Programme provided support to the design and implementation of Participatory Rural Appraisals (PRA) to learn about mungbean production in three provinces<sup>1</sup> around the Tonle Sap Great Lake. Information from the PRA will be used for curriculum development for IPM in mungbean and to share with partners from the Oregon State University for possible collaboration on a study on pesticide fate particularly in the Tonle Sap River.

- **Baseline surveys, Curriculum and Training Material Development**

Curriculum and training material development for community education for pesticide risk reduction continued in all four GMS countries. In *Lao PDR*, baseline surveys on crop production, protection and pesticide use were conducted in two new project target provinces (Sayabouly and Xiengkhouang). A curriculum development workshop was held in Vientiane during May 2009 in which a draft curriculum for a PRR-fortified TOT and FFS was formulated. Training materials developed included various new Structured Learning Exercises for the pesticide risk reduction module for the TOT and FFS and the development of a poster in Lao language which can be used to map sign and symptoms of pesticide poisoning. In *China* –and in Guangxi province in particular- TOT graduates are pilot-testing the IPM-PRR curriculum developed during the TOT within the context of ongoing pilot FFSs.. In *Vietnam*, pilot activities were carried out with core groups of IPM farmers in the PRR villages. These activities included field experiments to try out minimum tillage practices in potato tuber and potato tuber seed production. The field studies resulted in the development of a curriculum for potato tuber seed production using minimum tillage to improve the environment particularly soil health and micro organisms living in the soil. In *Cambodia*, the curriculum for community education programmes addressing pesticide risk reduction and ecologically-based agriculture was updated with the integration of new concepts on biological control, rearing and utilization of earwigs and self-help groups.

<sup>1</sup> Battambang: 19-20/01/09, 03-04/3/09; Kampong Chhnang: 10-12/3/09; and Siem Reap: 10-12/3/09

- **Training activities**

Training activities towards community education for pesticide risk reduction continued in full swing during this reporting period. Details are provided in the attached country progress reports (*Annex 2-5*) but below are presented some of the highlights.

In Vietnam, during November 2008 to February 2009 (Winter-Spring season), a total of 1,500 farmers participated in 50 vegetable FFS in 21 selected provinces. During March to June 2009 (Summer season), a total 60 farmers participated in two vegetable IPM FFS in Lao Cai province. The province has an appropriate climate for production of temperate vegetables during the summer season. The PPSDs of Hanoi and Thai Binh continued the implementation of activities in the pilot areas under the Community Education Programmes on PRR in Dang Xa commune, Gia Lam district and Thai Giang commune, Thai Thuy district, respectively. The curriculum of this pilot initiative includes a full range of advocacy and training activities for various stakeholders that include local leaders, farmers, pesticide sellers, representatives from the public health sector and social organizations. The community education programme is designed to strengthen community ownership in pilot rural communities for planning, management and implementation of the pesticide risk reduction activities. Some community actions have been carried out such as the closure of pesticide shops that do not conform to the pesticide policies (e.g. selling banned pesticides) and posters on pesticide risk reduction have been developed and displayed in public places. Cement tanks have been established by the local government for disposal of pesticide containers. The Programme is trying out the concept of developing core groups IPM FFS alumni who can coach other farmers in the community particularly on improved production practices and alternative pest management strategies

In Cambodia, During the dry season (from November 2008 to April 2009), **32** FFSs on vegetables and **18** FFSs on rice were completed with **684** vegetable farmers (**349** women) and **478** rice farmers (**141** women). In April 2009, a total of six short training courses on Pesticide and Health were conducted in Battambang (3) and Prey Veng (3) involving 71 vegetable farmers (32 women) and 69 rice farmers (12 women). The activity was aimed at increasing awareness of IPM farmers and non-IPM farmers on pesticide risks and alternative methods to chemicals for managing pests in rice or vegetable crops. The activities were capped by a *Pesticide-free Day Campaign* attended by a total of **270** persons (**80** women) comprised of local authorities, IPM farmers, non-IPM farmers and professional sprayers. The one-day Pesticide-free Day Campaigns were conducted to increase awareness of farmers and the local authorities about negative effects of chemical pesticides and motivate them to reduce or eliminate chemical pesticide use and increase farmers' participation in taking measures to improve the environment. All participants wore IPM T-shirts and walked across the village announcing the negative effects of chemical pesticides and pesticide risk. Participants also collected pesticides bottles and plastic boxes to demonstrate the need for proper disposal of the containers.

In China, a season-long Training of Trainers course on IPM and Pesticide Risk Reduction in rice, vegetable and fruit production was held in Tianyang, Guangxi from April-August 2008. This first major TOT in Guangxi Province marks the start of the IPM FFS programme efforts in this province. Apart from 32 Guangxi Provincial government Plant Protection workers, some six participants from other provinces (Guizhou, Tianjin and Jianxi) also participated in this training. Experienced IPM trainers at this TOT course hailed from earlier FAO supported IPM work in Yunnan, Sichuan and Beijing. The implementation of a first set of 64 (50% local government/50% FAO funded) IPM-PRR FFSs started in Guangxi from August 2008 onwards and with continued implementation during this reporting period. Some 1,920 rice, vegetable and fruit farmers are enrolled in these FFSs and implementation of all FFSs is expected by September-October 2009.

In Lao PDR, newly developed Structured Learning Exercises on pesticide risk reduction were tested out in IPM-GAP TOT courses. Following implementation of PRR-TOT courses scheduled for the next reporting period, pilot FFSs with a fortified PRR curriculum are scheduled for implementation.

- **Impact Assessment**

A series of workshops and consultations convened by FAO during earlier reporting periods led to the development of a robust framework for impact assessment as to assess the impact of community education on pesticide risk reduction. Results to be obtained from such IA work are

intended for utilization in advocacy work as to encourage public and private sector actors to engage in and scale up community education for pesticide risk reduction. With technical oversight provided by the Faculty of Economics, Kasetsart University in Bangkok, FAO is engaged into sub-contracts with independent research institutions tasked with impact assessment and baseline survey work in Cambodia and Vietnam. During the reporting period, the Royal University of Agriculture in Cambodia and the Hanoi Agriculture University in Vietnam completed analysis and write up of baseline data for the longer-term IA study. The study is intended to compare impacts of training on pesticide risk reduction between IPM and non-IPM farmers in experimental, exposed and control villages using the “double delta” research approach. In May 2009, the Hanoi Agricultural University submitted a Concept Note for the Impact Assessment Study on PRR Training for of Experts on Impact Assessment from Kasetsart University and the University of Hannover and the former programme consultant on Impact Assessment. The comments will be the basis for the formulation of a proposal that will be submitted to the FAO Regional Vegetable IPM Programme and a Letter of Agreement with HAU is expected to formalize agreement for the implementation of the study. In June 2009, a meeting was held in Kasetsart University to assist Cambodia in formulating the baseline data into SPSS format and data editing. Discussions were also carried out on methodologies to quantify risk reduction as a preparatory step to the planned impact assessment study. During the reporting period, discussions were held at national and regional levels with the Department of Environment and Occupational Health Sciences, University of Washington to design a project on use of biomarkers (ChE blood tests) as to monitor the impact of the PRR programme.

- **Regional Exchange, Workshops and Study tours**

The project supported the participation of key FAO staff and counterparts in the IPM Week held at FAO-HQs in May 2009. The activities included: (1) International Workshop on IPM and Marketing, 25-27 May, aimed at exploring better market access for IPM produce; (2) Global IPM Meeting, 28 May, aimed at exchange of information and fostering collaboration among Regional IPM Programmes; and (3) Global IPM Presentation, 29 May, aimed at updating FAO-HQ staff and Member Country Permanent Representatives on the latest Global IPM developments and their relevance to FAO’s new result-based Strategic Framework. A total of 25 countries (from the Near East, West Africa, East Africa and Asia regions) were represented in the IPM Week activities including eleven participants from the Regional Programme for Asia (coming from Bangladesh, Cambodia, China, Laos, Nepal, Philippines, Thailand, Vietnam and the Regional IPM Office). Participants from all IPM Programmes found it important to have periodic forums, such as the Global IPM Meeting, for sharing experiences and identified topics that would be useful to discuss, e.g., impact assessment, post-FFS activities, etc. The Presentation on the Global IPM Programme was followed by a poster exhibition on National IPM Programmes that also allowed attendees to talk with focal persons and national coordinators. Participants were encouraged by comments from the Chairperson of FAO’s Committee on Agriculture and Turkey’s Permanent Representative to FAO who recognized the contributions and hard work of national coordinators and FAO field staff shaping FAO’s important role in the field through activities that directly benefit smallholder farmers across the Globe!

- **Technical and Policy Advice**

The project staff based at the FAO Regional Office undertook regular technical backstopping and programme development missions to member countries. Assistance for curriculum and training material development for pesticide risk reduction continued during this reporting period.

- **Mid-Term SENSE Evaluation Study**

SIDA-SENSE commissioned a Midterm Evaluation Study for the Regional Programme “Towards a Non-Toxic Environment” (GCP/RAS/229/SWE) in March 2009. FAO staff helped organize and facilitate field missions to Vietnam and Cambodia and interacted with the key investigator, Mr. Ake Nilson. Overall review findings relevant to the FAO implemented components were positive and recommendations included an extension of the

project for an additional two years with additional funds. In follow up to a particular recommendation relevant to the FAO Regional Programme, a logical framework analysis has now been added to this regional progress report, documenting achievements to date and focus of activities for the next reporting period (*table 1*),

## **Implementation arrangements and partners for collaborative action**

The Project headquarters for the “IPM component” are based at the FAO Regional Office for Asia and Pacific in Bangkok, Thailand. The Bangkok Programme Office is staffed with a Chief Technical Advisor, a Regional Programme Development Officer and Administrative Support staff. The project is being implemented in the various participating GMS countries through National IPM Programmes, assisted by FAO project management units which are staffed with national experts and administrative support staff,. At country-level, networks of relevant, public and private sector actors have been established to assist in project implementation and to provide technical advice and overall directions for project implementation. FAO Regional Programme staff continues to participate in the Regional Project Steering Committee Meetings convened by KemI, the latest of which was held in Bangkok in November 2008. These meetings are partly intended as regional forums among programme partners for networking, progress reporting and regional programme strategy formulation.

## **Budget Notes**

Project expenditure to date (June 2009) for the “IPM component” is generally on track (62% expenditure over total latest approved Budget Revision C) and in line with budget allocations spelled out in the regional and various country strategy papers. Following an Addendum #1 to Project Agreement and budget revision C, approved by the donor KemI in January 2009, the total financial contribution towards implementation of the “IPM component” of project GCP/RAS/229/SWE amounts up to USD 3,038,188. This revised budget absorbs funds associated with the training of pesticide shop dealers and inspectors in Cambodia and Lao PDR, which are now being disbursed through the local FAO-IPM imprest accounts in both countries. FAO submitted a Budget Revision-D to KemI in early July 2009, requesting an additional contribution of USD 380,000 and an extension of the project with new proposed NTE 30 June 2010. The budget revision and extension request is awaiting SIDA/KemI approval, expected in late August 2009.

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Table 1: Logical Frame work Analysis FAO Regional Programme (IPM component, GCP/RAS/229/SWE)

### Implementation Progress against Regional Logframe for “IPM component” Project GCP/RAS/229/SWE

<ul style="list-style-type: none"> <li><b>Immediate Objective 1 :</b> To identify and prioritize information, research and training development needs and to institutionalize functional partnerships among government, NGOs, research and public sector organizations for development and further strengthening of IPM field training programmes to address pesticide risk reduction at farm level in the Greater Mekong Subregion.</li> </ul>			
	<b>Outputs</b>	<b>Achievements to date (June 2009)</b>	<b>Activity Focus for next reporting period</b>
1.1	Needs and priorities identified for strengthening ongoing and establishing new IPM field training programmes in all of the GMS countries	<ul style="list-style-type: none"> <li>- Geographical scoping and situation analysis surveys have been conducted and documented in all four GMS countries. These reports outline crops and locations with highest abuse of pesticides and assess underlying rationale for such abuse.</li> <li>- Above mentioned reports have been used to target project interventions and to guide curriculum development for IPM and pesticide risk reduction training programmes.</li> </ul>	- No further study activities needed.
1.2	Country strategies developed outlining pesticide risk reduction implementation strategies	<ul style="list-style-type: none"> <li>- Country Strategy Papers have been developed for all four member countries. These strategy papers outline country-specific pesticide risk reduction implementation strategies. The development of these CSPs has proven to be a time-consuming but overall useful process, facilitating local ownership of project interventions by project implementing stakeholders and facilitating project progress monitoring and evaluation.</li> <li>- Regular project review and planning meetings are held at local, national and regional level to review implementation progress and adapt workplans, as necessary.</li> </ul>	- Continuation of regular project review and planning meetings at local, national and regional level as to ensure project interventions remain relevant and addressing newly emerging needs.
1.3	Functional networks of programme partners established on national and regional level as to ensure implementation of more relevant and effective training programmes	- In all four member countries, mechanisms for the establishment of functional linkages with research institutions, private enterprises, traders and agricultural suppliers and non government organizations have been established.	- Continuation of regular communication/meetings/networking activities among a diversified set of project partners on national and regional level

<ul style="list-style-type: none"> <li>• <b>Immediate Objective 1 :</b> To identify and prioritize information, research and training development needs and to institutionalize functional partnerships among government, NGOs, research and public sector organizations for development and further strengthening of IPM field training programmes to address pesticide risk reduction at farm level in the Greater Mekong Subregion.</li> </ul>			
	<b>Outputs</b>	<b>Achievements to date (June 2009)</b>	<b>Activity Focus for next reporting period</b>
1.3		<ul style="list-style-type: none"> <li>- Regular meetings among project partners on national and regional level were held. At regional level, the FAO Programme convened several regional meetings (e.g. HaiPhong, Vietnam (April 2007) and Bangkok, Thailand (November 2008), which allowed Programme partners and counterparts to share experiences and learn from each other. Such meetings have also facilitated review of implementation progress and workplan formulation at national and regional level. In tandem with such meeting, the Working Group on Community Education met and discussed matters pertaining community education and mobilization for pesticide risk reduction among the SWE-Programme key partners (PAN-AP, Field Alliance and FAO-IPM).</li> </ul>	<ul style="list-style-type: none"> <li>- A next FAO Regional Programme Bi-Annual Meeting will likely be held in Guangxi, China PR in mid-October 2009. This Meeting will focus on sharing experiences with regards to project implementation progress and exploring further areas of collaborative work among SWE-funded Programme partners.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Immediate Objective 2:</b> To strengthen the capacity of National IPM Programmes and selected private sector initiatives to implement quality community education activities for pesticide risk reduction among smallholder farmers in the Greater Mekong Subregion.</li> </ul>			
	<b>Outputs</b>	<b>Achievements to date (June 2009)</b>	<b>Activity Focus for next reporting period</b>
2.1	Fortified FFS, TOT and Refresher Training curricula and training materials on IPM for new crops with particular focus on pesticide risk reduction	<ul style="list-style-type: none"> <li>- An FAO Regional Curriculum Development workshop for Pesticide Risk Reduction was held in Phnom Penh, Cambodia in December 2007. Key counterparts from all 4 GMS National IPM Programs participate in this workshop. Outputs of the workshop included a set of regional guidelines for PRR curriculum development, which were published in a workshop report (on CD format). The above Regional workshop was followed by national PRR Curriculum Development workshops in all 4 GMS countries.</li> <li>- In all 4 GMS countries, existing training curricula and materials were reviewed as to assess needs for strengthening the pesticide risk reduction training modules. New Structures Learning Exercises were developed for use in FFS, TOT and RTOT training events.</li> <li>- Curriculum development for IPM in new crops has also been initiated (e.g. IPM for water melon production in Laos and mungbean production in Cambodia)</li> </ul>	<ul style="list-style-type: none"> <li>- Curriculum development for pesticide risk reduction and IPM for new crops needs further attention as to ensure training interventions meet local needs and priorities and address newly emerging pest and disease problems (e.g. WBPH in (hybrid) rice production in China, white fly and tomato yellow leaf curl virus problems in tomato production in all 4 GMS countries)</li> </ul>

<ul style="list-style-type: none"> <li><b>Immediate Objective 1 :</b> To identify and prioritize information, research and training development needs and to institutionalize functional partnerships among government, NGOs, research and public sector organizations for development and further strengthening of IPM field training programmes to address pesticide risk reduction at farm level in the Greater Mekong Subregion.</li> </ul>			
	<b>Outputs</b>	<b>Achievements to date (June 2009)</b>	<b>Activity Focus for next reporting period</b>
2.2	Capacity of national and private sector programmes to train farmers in IPM and pesticide risk reduction strengthened and increased by at least 200 additional trainers in the GMS region.	<ul style="list-style-type: none"> <li>-IPM and PRR Training of Trainers and Refresher TOT courses have been conducted in Cambodia (6 Refresher Courses for IPM Trainers - Svay Rieng on 17-21 December 2007, Kampong Cham on 24-28 December 2007, Prey Veng on 19-23 May 2008, Battambang on 01-05 December 2008, Svay Rieng on 08-12 December 2008, 19-23 May 2009 at Kampong Cham, and one FTOT Course in Battambang province from 7-20 June 2009), China (Guangxi TOT –March-August 2008) and Vietnam (Thai Binh TOT - October 2007- January 2008 and July-October 2008)(2 courses * 4 GMS countries).</li> <li>- All above mentioned courses have included revised and fortified modules on pesticide risk reduction.</li> <li>- Some 144 IPM Trainers from Government and 32 Farmer Trainers have benefited from participation in these courses and most of them are now actively involved in the conduct of IPM-PRR farmer training.</li> </ul>	More RTOT and TOT courses scheduled for next reporting period (e.g. Yunnan RTOT in August 2009, 2 RTOTs in Sayabouly and Vientiane during August/September 2009, 2 Refresher Courses for northern and central/southern provinces in Vietnam during August/September 2009)
2.3	At least 20,000 farmers participated in fortified FFS (with additional modules on pesticide risk reduction) in the GMS region and are involved in continued community learning activities	<ul style="list-style-type: none"> <li>- Some 266 ‘fortified’ IPM Farmer Field Schools have been implemented, making use of newly developed modules on pesticide risk reduction. As result, some 7,429 farmers have benefited from participation in these FFSs.</li> <li>- Numerous post-FFS community learning activities (pesticide risk, reduction, biocontrol testing, disease management, marketing, etc) have been conducted in all four GMS countries.</li> </ul>	More FFS with fortified PRR curriculum scheduled in all four GMS countries for next reporting period.
2.4	Strengthened internal monitoring and evaluation system for training quality control	<ul style="list-style-type: none"> <li>- Participatory monitoring and evaluation system for IPM FFS programme, with a focus on monitoring implementation of pesticide risk reduction learning activities, have been set up in all four GMS countries.</li> </ul>	<ul style="list-style-type: none"> <li>- More focused M&amp;E necessary, particularly with regards to training quality in FFS and TOT.</li> <li>- Also essential are assessment of the extent to which communities pursue their pesticide risk reduction action plans, with what results and what further assistance is needed.</li> </ul>

<ul style="list-style-type: none"> <li><b>Immediate Objective 3:</b> To develop, assess impact, document and publicize successful pilot models for community education for pesticide risk reduction for up-scaling and policy reform by local governments, public sector and partner organizations in the Greater Mekong Subregion.</li> </ul>			
	<b>Outputs</b>	<b>Achievements to date (June 2009)</b>	<b>Activity Focus for next reporting period</b>
3.1	Impact Assessment studies on successful pilot models for pesticide risk reduction finalized and published	<ul style="list-style-type: none"> <li>- An FAO Regional Workshop on Pesticide Risk Impact Assessment was held on 23-25 July 2007 in Ho Chi Minh City, Vietnam. Participants included independent impact assessment leaders from the Royal University of Agriculture (RUA) in Phnom Penh, the China Agricultural University in Beijing and the Hanoi Agricultural University (HAU) and resource persons from the FAO Regional Office and Kasetsart University in Bangkok. The workshop covered (1) introduction and the first main steps of impact assessment, i.e. (2) target setting, (3) indicator formulation and (4) impact study design. The regional workshop was followed by national levels activities on preparation of impact assessment plans and issuance of Letters of Agreements (LoAs) with RUA and HAU for the Baseline Study.</li> <li>- Reports on Baseline Study for the longer-term impact assessment for Pesticide Risk Reduction training have been completed by the Hanoi Agriculture University in Vietnam and the Royal University of Agriculture in Cambodia. Preparatory work for Impact Assessment in Vietnam has been initiated.</li> </ul>	<ul style="list-style-type: none"> <li>- Impact Assessment reports and case studies published for at least 3 GMS countries, possibly showing: -A reduction of WHO Class I pesticides by 40% among FFS trained farmers, IPM/FFS trained farmers reduced pesticide applications with at least 50%, at least 90% of trained farmers increase use of alternative pest management approaches, including soft products, trained farmers gained at least 10% increased profits from crop production through improved yields, prices and/or reduced cost</li> </ul>
3.2	Awareness on the benefits of community education for pesticide risk reduction raised among farming communities, the general public, the private sector and policy makers	<ul style="list-style-type: none"> <li>- Impacts of IPM-FFS on pesticide risk reduction have been popularized in the different countries. In China, various TV stations/newspaper have reported on FFS programmes and on the implementation of the Guangxi TOT. In Cambodia the NGO Forum's funds the publication of IPM Bulletins that cover activities and results of IPM-PRR activities. The IPM Bulletin has a wide distribution among government and CSO officers and field staff. In Vietnam, local television has been regularly covering activities in the pilot sites of Community Programmes on Pesticide Risk Reduction. Coverage has included training activities for local leaders, pesticide sellers, health workers and farmers and community action</li> </ul>	<ul style="list-style-type: none"> <li>- Surveys showing that the awareness of the impact of IPM-FFS on pesticide risk reduction is raised among the farming communities, general public and policy makers</li> </ul>

<ul style="list-style-type: none"> <li> <b>Immediate Objective 3:</b> To develop, assess impact, document and publicize successful pilot models for community education for pesticide risk reduction for up-scaling and policy reform by local governments, public sector and partner organizations in the Greater Mekong Subregion. </li> </ul>			
	Outputs	Achievements to date (June 2009)	Activity Focus for next reporting period
		<p>such as the closure of pesticide shops that do not conform to the pesticide policies (e.g. selling banned pesticides). Local governments have also developed and displayed posters on pesticide risk reduction in public places and supported the construction of cement tanks for disposal of pesticide containers. Results of IPM-PRR activities have also been broadcasted on national television particularly during the GO-NGO organized <i>Workshop on Potential Impacts of Pesticide Use in Agricultural Production to Health of Vietnamese Women, Food Security and Food Safety</i>.</p>	
3.3	National and local government providing policy and funding support for IPM training for pesticide risk reduction	<p>-Pilot activities on IPM-PRR and community programmes on PRR have demonstrated the beneficial role of IPM\FFS in government programmes. Currently in Vietnam, for every FFS supported by FAO, the local government pays for about three FFS under Safe Vegetables, GAP and the National Programme for Food Safety. The PPD’s Planning Division has taken steps to support ecological approaches to pest management as to reduce pesticide risks by providing financial support for work on biological control as an alternative strategy for chemical pesticides. In Cambodia, under the Government’s Deconcentration and Decentralization Programme, about 400 FFS in target provinces have been proposed by Commune Councils for funding under the Commune Investment Plans (CIP).</p> <p>Several workshops with high-level government officials, disseminating the achievements of the impact of IPM-FFS on pesticide risk reductions to policy makers have been held. On 28 December 2008, the MAFF Minister in Cambodia led a delegation of officials from national and provincial levels to visit an IPM-FFS Farmers’ Association engaged in pesticide-free rice and vegetable production and announced that at the end of year 2009, there should be at least one IPM farmers’ group producing pesticide-free rice and vegetables in each Cambodian province. In China, policy makers in Guang Xi have expressed support for IPM activities and plan to employ FFS training model in locally-funded training programmes.</p>	<ul style="list-style-type: none"> <li>- Policy makers better aware of the potential impact of IPM-FFS on pesticide risk reductions</li> <li>- Government policies and action plans formulated emphasizing support for IPM-FFS.</li> <li>- By Dec. 2009, Governments and private sector have taken concrete steps towards the integration of IPM and the FFS in national Programmes on Safe Vegetables and GAP in at least 2 GMS countries</li> </ul>

## Annex II Cambodia

### Country Progress Report for project GCP/RAS/229/SWE (January – June 2009)

#### A. COUNTRY STRATEGY, ACTIVITY PROGRESS, OUTPUTS AND WORKPLAN

##### A.1 Background

Cambodia joined the FAO Southeast Asia Regional Vegetable IPM Programme in 1997. FAO -and various partner organizations- have since provided core technical and financial support for farmer training in *vegetable* IPM. The Ministry of Agriculture, Forestry and Fisheries (MAFF) -and its Department of Agronomy and Agricultural Land Improvement (DAALI) until recently has been responsible for implementing the National IPM Programme. In November 2008, the Royal Government of Cambodia issued Sub Decree 188 re-organizing the Ministry of Agriculture, Fisheries and Forestry (MAFF). Under the new set-up, a General Directorate of Agriculture (GDA) was created to improve the management of rapidly expanding agricultural activities in the country. The re-structuring was carried out to streamline operations of various departments such that those with similar mandates (e.g., Agriculture Extension, DAALI and Agriculture Machinery) were merged for better coordination under the newly created GDA. The Director of GDA has been appointed as the new Director of the National IPM Programme while the Deputy Director remains the same. The changes are foreseen to support and strengthen the National IPM Programme.

The overall development objective of the Cambodia National IPM Programme is as follows: *to support small holder vegetable and rice farmers in achieving more sustainable livelihoods by assisting with the efficient, profitable, healthy and environmentally sound production of vegetable and rice through Integrated Pest Management training, and the sustained application of its principles and methods.* The implementation of the National IPM Programme takes place in close co-operation and collaboration with other concerned government ministries and provincial departments of agriculture, local and international organizations and research institutions at all levels.

Despite the substantial IPM training efforts related to pesticide risk reduction made by governmental and non-governmental organizations during the last decade, the use of highly toxic WHO class 1a and 1b pesticides continues to cause considerable concern. The Cambodian government's regulatory framework remains rather weak. Availability and use of banned agricultural chemicals remain prevalent. The need for pest and pesticide management policy reform combined with the promotion of alternative pest management practices to reduce the economic, health and environmental risks associated with current pesticide use remains as urgent as ever.

Cambodia joined FAO's Regional Project on Pesticide Risk Reduction (GCP/RAS/229/SWE) in 2007. The specific objectives for the 2007-2009 period for this 3-year pilot pesticide risk reduction project, as formulated in the Country Strategy Paper, are as follows: (1) to assess the status of crop production and protection practices in areas where there is abuse of pesticides and in partnership with other concerned organizations design pesticide risk reduction activities, (2) to increase the capacity, knowledge and skill of trainers as well as farmer trainers required to implement training on pesticide risk reduction and promote sustained practices, and (3) to develop, document and disseminate information on successful pilot models for community education for pesticide risk reduction to generate policy support at all levels. The project is focused on strengthening *vegetable* IPM and pesticide risk reduction training in six provinces namely Battambang, Siem Reap, Kampong Cham, Kampong Chhnang, Kandal and Kampot. Given the substantial risk of pesticide overuse for Brown Plant Hopper outbreak control, *rice* IPM training is supported by the project in three provinces namely Prey Veng, Svay Rieng and Takeo.

## A.2 Report on progress made towards achieving outputs during reporting period (July-December 2008)

### 1. Field Activities:

- **Farmer Field Schools:** During the dry season (from November 2008 to April 2009), **32** FFSs on vegetables and **18** FFSs on rice were completed with **684** vegetable farmers (**349** women) and **478** rice farmers (**141** women). The main vegetable crops studied in the dry season FFS were yard long bean, cauliflower, cabbage, cucumber, tomato, Chinese kale and green mustard. In the current wet season (from June to November 2009), **28** FFSs on vegetables and **17** FFSs on rice are being conducted involving **720** vegetable farmers (**344** women) and **490** rice farmers (**179** women). The main vegetable crops being studied in the wet season FFS are yard long bean, green mustard, Chinese kale and cucumber.
- **Post FFS activities:** Interested groups of IPM alumni continue to carry out field studies based on what they have identified as priority learning needs. The post-FFS field studies are intended for farmers to acquire a deeper understanding about the factors that affect plant growth and to find solutions to their crop production and protection problems in order to reduce chemical use especially chemical pesticide. Additional special topics based on problems encountered in crop production in their community not covered in the initial FFS are given attention. In the dry season (November 2008 to April 2009), **17**<sup>1</sup> post-FFS activities on vegetables and **12** post FFS on rice were completed in the target provinces involving **259** vegetable farmers (**131** women) and **209** rice farmers (**75** women). The vegetable crops studied in dry season post-FFS activities were Chinese kale, cauliflower, cucumber, cabbage and green mustard. In the wet season (June to November 2009) 10 post-FFS activities on vegetables and 13 post-FFS activities on rice are being conducted involving 159 vegetable farmers (91 females) and 198 rice farmers (92 females). The vegetable crops being studied are green mustard, yard long bean, cucumber and Chinese kale.
- **Farmers' Clubs:** During the reporting period, two IPM Farmers' Clubs were organized in Tasey Krov and Rong Ampil villages, Battambang province involving 32 farmers (13 women). The members will continue setting up field studies to continue learning and move into being a 'Self-Help' Group. As to raise seed money for the self-help groups, farmers have decided to use their own money to support field studies and save the budget from the National Programme to set up a revolving fund that can be used for other group activities. In the wet season 2009, 12 more IPM Farmers' Clubs will be organized in the target provinces.
- **Farmer congresses:** During the dry season (November 2008 to April 2009), **10** Farmer Congresses<sup>2</sup> were conducted in five provinces involving **549** participants (**169** women). The Farmer Congresses were organized by Provincial IPM Trainers with assistance from the National IPM team. Each congress was organized for one day to provide a venue for local authorities, trainers, field workers and IPM farmers and non-IPM farmers to present and share IPM experiences and to discuss issues related to their farming activities. During the congresses, farmers also shared the results obtained from their own farming activities, FFS and post-FFS studies, raised and discussed problems they faced as well as identified possible solutions to their problems. The main topics addressed at the congresses in rice included management of rice case worm, rice leaf folder and brown plant hopper (BPH), living soils, soil nutrient management, and negative effects of chemical pesticides. The main topics in vegetable production discussed during the congresses were

<sup>1</sup> One post-FFS activity in Kampong Cham was conducted in after the last report period.

<sup>2</sup> **Svay Rieng:** 22/4/09, 24/4/09; **Prey Veng:** 26/4/09, 28/4/09, 30/4/09; **Takeo:** 27/4/09, 28/4/09; **Battambang:** 07/5/09; **Kandal:** 29/4/09, 06/5/09

army worm, DBM, aphid in yard long bean, flea beetle, web worm in cauliflower, damping off in kale and cauliflower, leaf spot and negative effects of chemical pesticides.

- **Farmer Cross Visit:** In the dry season (November 2008 to April 2009) a total of 7 Farmer Cross Visits<sup>3</sup> were conducted in two provinces involving with 240 farmers (101 women). The farmer cross visits were aimed to provide an opportunity for IPM farmers to: (1) discuss with farmers who have successfully grown chemical-free vegetables and rice; and (2) observe how farmers can work as a group to support the development of their community as well as their own living conditions.
- **Short Training on Pesticides and Health:** In April 2009, a total of six short training courses on Pesticide and Health were conducted in Battambang (3) and Prey Veng (3) involving with 71 vegetable farmers (32 women) and 69 rice farmers (12 women). The courses were conducted in six villages<sup>4</sup> identified as having high use and misuse of pesticides. The four-day training courses were carried out to guide IPM farmers and non-IPM farmers who are using pesticides to gain deeper awareness on pesticide risks and find alternative methods to chemicals for managing pests in rice or vegetable crops. The trainings provided opportunities for some key farmers to share about their successful experiences on crop and pest management without using or with minimum use of hazardous chemical pesticides. Each training programme had a total of 3-4 sessions per village, (one session/day and 2–3 sessions in a week).
- **Pesticide-free Day Campaign:** A total of six Pesticide-free Day Campaigns were carried out in the same above-mentioned six villages in Battambang and Prey Veng provinces<sup>5</sup> where there is excessive chemical pesticides use (i.e., doses and amount). The campaigns were attended by a total of **270** persons (**80** women) comprised of local authorities, IPM farmers, non-IPM farmers and professional sprayers. The one-day Pesticide-free Day Campaigns were conducted to increase awareness of farmers and the local authorities about negative effects of chemical pesticides and motivate them to reduce or eliminate chemical pesticide use and increase farmers' participation in maintaining as well as improving the natural environment. All participants wore IPM T-shirts and walked across the village announcing the negative effects of chemical pesticides and pesticide risk. Participants also collected pesticides bottles and plastic boxes. Glass bottles were buried and plastic bottles were burned in locations far from the villages.

## 2. Meeting and Workshops

- **Bi-monthly meetings:** In the dry season (November 2008 to April 2009), a total of 17 bi-monthly meetings were conducted in the nine target provinces<sup>6</sup>. The meetings were organized by Provincial Coordinators (PC) and attended by District Trainers (DTs) and Farmer Trainers (FTs) who had been involved in IPM field activities in each target province. During these meetings the IPM Trainers reported progress of implementation and evaluated the results of activities. Trainers also shared lessons learned, problems experienced and proposed solutions as well as strategies for improvement of programme implementation.

<sup>3</sup> **Battambang:** 22/3/09, 23/3/09, 24/3/09, 27/3/09, 31/3/09; **Prey Veng:** 08/4/09, 10/4/09

<sup>4</sup> **Battambang:** Ang, Kang Keng, Prey Dach; **Prey Veng:** Ba Boung, Taheal Kha, Kampong Svay Keut

<sup>5</sup> **Battambang:** 27/4/09, 27/4/09, 10/5/09; **Prey Veng:** 26/4/09, 29/4/09, 29/4/09,

<sup>6</sup> **Kampong Chhnang:** 10/12/08, 18/02/09; **Siem Reap:** 29/01/09, 23/3/09; **Kampot:** 20/11/08; **Battambang:** 26/12/09, 13/02/09; **Kandal:** 10/02/09, 06/4/09; **Kampong Cham:** 04/02/09, 06/3/09; **Svay Rieng:** 30/01/09, 21/02/09; **Prey Veng:** 16/01/09, 28/3/09; **Takeo:** 21/12/08, 13/3/09

- **Seasonal Evaluation and Planning Workshops:** Nine two-day meetings<sup>7</sup> were conducted in target provinces (except Kampot province) by PCs assisted by the National IPM Team. All FTs and DTs involved in the project were invited to join the meetings that were aimed at reviewing activities implemented in the last season, identifying strategies for better implementation of IPM activities as well as preparing work plans for the upcoming season.
- **Coordination Meeting:** A coordination meeting was conducted in Phnom Penh on 19-20 March 2009 attended by 10 participants (3 women) including PCs and DTs from Kampong Cham and Battambang provinces. The meeting was conducted for the purpose of sharing lessons learned as to improve the quality of the project implementation and share new information such as those gained from participation of IPM Trainers in the earwig workshop in Vietnam as well as generate ideas about the planned Farmer Orientation Course.
- **Refresher Workshops:** A five-day Refresher Workshop for vegetable and rice IPM Trainers was conducted on 19-23 May 2009 at Kampong Cham province attended by 45 DTs (12 women) from nine provinces namely: Battambang, Siem Reap, Kampong Cham, Kampong Chhnang, Kandal, Kampot, Svay Rieng, Prey Veng and Takeo. The workshop was conducted in order to strengthen the capacity and skill of IPM trainers to enable them to carry out IPM field activities more effectively. New aspects covered were the concept and procedures for organizing Self Help Groups and mass rearing and utilization of earwigs as a biological control agent.
- **Training workshop on Earwigs:** A three-day training workshop on Mass Rearing and Utilization of Earwigs as a Biological Control Agent was held in Kampong Cham province on 26-28 March 2009 attended by 15 IPM Trainers (3 women) and one GTZ-supported agriculture officer from Siem Reap province. The key resource person came from the Biocontrol Unit of the Department of Agricultural Extension, Thailand. The training was conducted to provide IPM Trainers hands on experience in the identification of earwig species, application of techniques in mass rearing and release of earwigs in the laboratory and field conditions, and generate ideas for methodologies to train farmers on mass rearing and utilization of earwigs within the context of FFS and post-FFS activities. Additional sessions were conducted on the production and use of the antagonistic fungus *Trichoderma* for disease management.
- **Farmer Trainer Orientation Course:** The National IPM Team conducted a fourteen day Farmer Trainer Orientation Course (FTOC) in Boeung Rang Agriculture Station, Battambang province from 7-20 June 2009 involving 33 participants (10 women) from five provinces: Kampong Chhnang (2), Siem Reap (6), Kampong Cham (5), Kandal (8) and Battambang (12). The participation of one participant from Battambang was supported by the Provincial Department of Agriculture. The FTOC was aimed at educating Vegetable IPM FFS alumni on methods and procedures for organizing and managing FFS, post FFS and IPM Farmers' Club activities as to enable them to implement these activities in their communities.

### 3. Other Activities

- **Technical Backstopping:** The National IPM Team carried out regular backstopping visits to support all IPM trainers in the nine target provinces<sup>8</sup>. During these visits the National IPM Team held discussions with PCs, DTs and FTs as to

<sup>7</sup> Battambang: 01-02/5/09, Kandal: 07-08/5/09, Kampong Cham: 23-24/4/09, Kampong Chhnang: 29-30/4/09, Siem Reap: 21-23/4/09, Svay Rieng: 27-28/4/09, Prey Veng: 01-02/5/09, Takeo: 29-30/4/09 and Kampot: 01-02/5/09

<sup>8</sup> Battambang, Siem Reap, Kampong Cham, Kandal, Kampong Chhnang, Kampot, Svay Rieng, Prey Veng and Takeo

improve technical aspects and quality of FFS and other IPM field activities. Additionally, the PC in every province also provided technical backstopping and undertook monitoring and evaluation activities to improve the quality of IPM activities in their respective provinces.

- **Participatory Rapid Appraisal (PRA) on Mungbean Production:** PRAs were carried out to learn about mungbean production in three provinces<sup>9</sup> around Tonle Sap Great Lake. Information was collected from about 130 mungbean farmers (41 females) on farmers' practices on mungbean crop production and management, problems and constraints in mungbean production, farmers' knowledge on and perception of pesticides. Information from the PRA will be used for curriculum development for IPM in mungbean and to share with partners from the Oregon State University for possible collaboration on a study on pesticide fate particularly in the Tonle Sap River.
- **Training Materials Development:** The National Team has adapted the document on "Rice Disease Management" and distributed the same to all Rice IPM Trainers. Translation of the Field Guide Exercise on IPM in Cabbage has been completed and printed copies have been distributed to IPM Trainers and other stakeholders. The Field Guide Exercise on IPM in Tomato has been translated and the document will be printed for distribution in the next reporting period.

### A.3 List of reports produced during the reporting period

<i>Title</i>	<i>Author(s)</i>	<i># Pages</i>	<i>Date</i>	<i>Type of Report</i>
Baseline Survey for Impact Assessment of the Pesticide Risk Reduction Programme	Royal University of Agriculture, Cambodia	87	February 2009	Survey Report (English)
Mass Rearing and Utilization of Earwig as a Biological Control Agent	National IPM Programme	13	March 2009	Workshop Report (English)
Refresher Workshop for Vegetable and Rice IPM Trainers	National IPM Programme	31	May 2009	Workshop Report (English)
Organizing Self Help Groups	Mr. Chhoeng Sovuthy, Vaddhanak NGO	14	May 2009	Consultancy Report (English)
Mass Rearing and Utilization of Earwigs as a Biological Control Agent	Areepan Upanisakorn, DoAE Thailand	4	May 2009	Consultancy Report
Review of Cambodia Baseline Study on PRR Training	Suwanna Praneetvatakul, Kasetsart University	10	June 2009	Workshop Report

### A.4 Workplans for next reporting period (July - December 2009)

The main activities for the next reporting period will focus on Farmer Field Schools and post-FFS activities on rice and vegetable crops, Farmers' Clubs, impact assessment of the Programme, bi-monthly meetings, seasonal evaluation and planning meetings, and a pilot FFS on chili production, protection and marketing.

<sup>9</sup> Battambang: 19-20/01/09, 03-04/3/09; Kampong Chhnang: 10-12/3/09; and Siem Reap: 10-12/3/09

## B. INPUTS

### B.1 NATIONAL PROGRAMME LEADERS & COUNTERPARTS (GO/NGO)

- Mr. So Khan Rythikun, Acting Director of General Directorate of Agriculture (GDA) and Director of the National IPM Programme, MAFF
- Mr. Ngin Chhay, Deputy Director of the National IPM Programme and Director of Rice Department, GDA, MAFF
- Mr. Chou Cheythyrih, Vegetable IPM Project Coordinator, GDA, MAFF
- Ms. Srun Khema, Vegetable IPM Project Assistant Coordinator
- Mr. Chhit Mak, IPM Training Officer, GDA, MAFF
- Provincial Coordinators, One provincial IPM Coordinator in every target province

### B.2 INTERNATIONAL/NATIONAL PROFESSIONAL & GENERAL SERVICE STAFF

- Ms. Chea Lira, Administrative Clerk
- Mr. Ven Ratana, Financial Clerk
- Mr. Chhay Saran, Driver
- Ms. Alma Linda M. Abubakar, Programme Development Officer, regular backstopping missions throughout this reporting period

### B.3 Consultancy Missions during the Reporting Period

<i>Activities</i>	<i>Persons Involved</i>
SIDA-SENSA Midterm Evaluation Study for Regional Programme "Towards a Non-Toxic Environment" (GCP/RAS/229/SWE), 25-28 March 2009	Mr. Ake Nilson, Geoscope AB
Workshop on Mass Rearing and Utilization of Earwigs as a Biological Control Agent, 26-28 March, 2009	Mrs. Areepan Upanisakorn, DoAE Thailand

### B.4 List of Contracts Issued/ Ongoing during this Reporting Period

<i>Activities</i>	<i>Institutions Involved</i>
LOA in support of Baseline Study for Impact Assessment	Royal University of Agriculture, Phnom Penh

### B.5. Exchanges and Study Tours during the Reporting Period

<i>Activities</i>	<i>Organizer/ Hosting Agency</i>	<i>Location</i>	<i>Dates</i>	<i>Persons supported</i>
Evaluation Workshop on Mass Rearing and Utilization of Earwigs as a Biological Control Agent	Vietnam National IPM Programme	Nghe An, Vietnam	8-11 January 2009	Mr. Chhit Mak Mr. Mr. Phoung Navuth
IPM Week	FAO	Rome, Italy	25-29 May 09	Mr. Ngin Chhay
Review of Baseline Data for Cambodia Impact Assessment on PRR Training	FAO	Bangkok, Thailand	24-27 June 2009	Mr. Chou Cheythyrih Mr. Pel Sokha

## B.6 Equipment Purchased during the Reporting Period

*None*

## C. PROBLEMS AND SOLUTIONS

Problem/ Issues	Action taken to resolve them
IPM Trainers lacked knowledge and experience in setting up and supporting Self Help Groups. Hence, the activities on developing IPM alumni farmers' groups into such independent organizations have been delayed.	Concepts on and procedures for establishing and managing Self Help Groups was integrated in the Refresher Course for IPM Trainers. Inputs were provided by a Consultant with extensive experience on the subject and who has been involved in developing self help groups in Cambodia since the concept was first introduced in the country. IPM Trainers will now try out working with IPM FFS alumni groups to steer them towards becoming self-help groups
The IPM Trainers lacked experience in rearing and utilization of predators as a biological control agent (e.g., earwigs). Hence, activities on alternative pest management strategies have been limited to the production and use of botanicals.	<ul style="list-style-type: none"><li data-bbox="824 850 1380 1255">• A Workshop on Mass Rearing and Utilization of Earwigs as a Biological Control Agent was organized for a core group of IPM Trainers and with technical backstopping from a key resource person from the Biocontrol Unit, DoAE Thailand. Subsequently, five pilot studies (life cycles, rearing, predatory patterns, food preferences) were set up in the laboratory to learn more about earwigs. Results from the pilot studies will be used to design activities on earwigs with farmers' groups in the future.</li><li data-bbox="824 1291 1380 1562">• Mass Rearing and Utilization of Earwigs was integrated in the Refresher Course for all IPM Trainers. The course module focused on the introduction of the concept of biological control as alternatives for pest management and motivate them to try out similar activities with IPM farmers in their respective areas/provinces.</li></ul>
Most of FFS and post-FFS activities had problems with insect pests such as DBM, aphid, web worm, army worm, flea beetle and fruit borer.	<ul style="list-style-type: none"><li data-bbox="824 1579 1380 1688">• In various workshops and meetings, IPM trainers shared experiences on the use of botanicals to manage and control insect pests.</li></ul>

**D. ACTIVITY PROGRESS AND WORKPLANS AS PER OUTPUT IN COUNTRY STRATEGY PAPER for Pesticide Risk Reduction project (GCP/RAS/229/SWE)**

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
<b>Output 1.1</b> Situational studies of crop production and protection practices in selected areas completed	Conduct baseline survey on mung bean production and pesticide use.	Baseline surveys on mungbean production were implemented in the provinces of Battambang, Kampong Chhnang and Siem Reap around the Tonle Sap Great Lake. The report is now being compiled.	- Finalize the report on mungbean surveys in the three provinces.
<b>Output 1.2</b> Priorities for field research and training formulated	Development of research linkages and integrating monitoring and evaluation activities to support field training	Implementation of IPM activities (particularly in post-FFS activities and IPM Farmers' Clubs) based on plans to strengthen research in support of farmer training.	- Continue to develop research linkages and integrating monitoring and evaluation activities to support field training
<b>Output 1.3</b> New partner institutions identified and areas of collaboration spelled out that can strengthen the pesticide risk reduction programme	Identify and follow-up opportunities for collaboration and exchange with NGOs, local authorities and other actors involved in farmer training.	<ul style="list-style-type: none"> <li>- During the reporting period, the National Team continued discussions with ATSA and Srer Khmer on strengthened collaboration and implementation of activities particularly in provinces (i.e., Kampong Cham and Kampong Chhnang) where these two organizations are educating students in schools about Agro Bio-Diversity.</li> <li>- National Team members also continued discussions with Pesticide and Environment Programme of NGO forum, World Vision and SACRED on possible areas of collaboration. Results from discussions include: (1) the NGO Forum's continued funding for the publication of IPM Bulletins where the Vegetable IPM Programme Coordinator</li> </ul>	- Continue to identify and follow-up opportunities for collaboration and exchange with NGOs, local authorities and other actors involved in farmer training.

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
		<p>serves as a member of the Editing Committee; (2) World Vision support by hiring IPM Trainers to run FFS in their target provinces (using guidelines from the National IPM Programme); and (3) SACRED will provide funds to run FFSs in 2010; plans to support FFS in 2009 did not materialize as the organization decided to carry out other activities.</p> <p>- Follow-up discussions were held on 04<sup>th</sup> February and 31<sup>st</sup> March 2009 with Mr. Bill Daniell, Associate Professor of Department of Environment and Occupational Health Sciences, University of Washington to design a project on use of biomarkers (ChE blood tests) as to monitor the impact of the PRR programme in three target provinces (Kandal for vegetable farmers, Kampong Chhnang for mungbean farmers and Prey Veng for rice farmers).</p>	
<b>Output 2.1</b> Strengthened curriculum for community education programmes addressing pesticide risk reduction and ecologically-based agriculture.	Identify other areas that need to be updated as to make farmer training activities responsive and relevant to emerging field problems and market requirements	Curricula of IPM field activities were reviewed during Refresher Workshops and updated with the integration of new concepts on biological control, rearing and utilization of earwigs and self-help groups.	Continue to identify other areas that need to be updated as to make farmer training activities responsive and relevant to emerging field problems and market requirements (e.g. post harvest and marketing).
<b>Output 2.2</b> Resource base of training materials	Translate the Field Guide exercises on IPM in Tomato.	Translation of the Field Guide Exercises on Tomato crop was completed.	The translation of the Field Guide exercises on IPM in

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
expanded and technical documents on pesticides and their hazards to human health and environment impacts updated			Tomato will be finalized and the document will be printed for distribution.
	Continue to collaborate with the NGO Forum to produce leaflets for distribution to IPM stakeholders.	One leaflet focusing on Pesticide Risk Reduction was printed and distributed to various stakeholders.	Continue to collaborate with the NGO Forum to produce leaflets.
	Publish training materials for distribution to IPM Trainers in target provinces.	The Ecological Guide on Cabbage was translated and distributed to various IPM stakeholders.	Continue to publish and distribute other training materials as to respond to emerging field problems and support IPM Trainers.
<b>Output 2.3</b> Enhanced knowledge and skills of National, District and Farmer Trainers to implement and provide technical backstopping to pesticide risk reduction farmer training activities	Conduct two reinforcement training workshop for IPM Trainers	<p>One Refresher Workshops was carried out for vegetable and rice IPM Trainers at Kampong Cham province from 19 to 23 May 2009 attended by 45 DTs (12 women) from nine provinces.</p> <p>The Refresher workshop covered sessions on how to strengthen pesticide risk reduction activities, develop IPM Self-Help Groups and mass rearing and utilization of earwig as a biological control agent.</p>	
	A curriculum for IPM in mungbean is developed.	This activity was postponed to the next season as to catch timing of mungbean cultivation and carry out mungbean field studies.	Plans for field studies on mungbean will be developed after the finalization of baseline survey in the next reporting period.
	Conduct regular backstopping visit to IPM Trainers.	- Members of the National Team regularly visited field activities and held discussions with Trainers to improve technical aspects and quality of all IPM	- Central Team members will continue to regularly visit for monitoring and provide backstopping to

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
		<p>activities. They also assisted in designing post-FFS experiments and offered advice to improve data collection.</p> <ul style="list-style-type: none"> <li>- Provincial Coordinators (PC) also undertook field visits and M&amp;E work and at the same time provided technical advice to Trainers for training quality improvement.</li> </ul>	<p>IPM Trainers.</p> <ul style="list-style-type: none"> <li>- Provincial Coordinators will conduct regular monitoring and backstopping field visits.</li> </ul>
	Copies of compiled post-FFS reports will be distributed to IPM Trainers for reference.	The results of post-FFS field researches were shared with all IPM Trainers during the Refresher Workshop.	Continue to share and distribute the results of post-FFS field researches with IPM Trainers.
<b>Output 2.4</b> Farmer training in pesticide risk reduction in vegetables, rice and mungbean expanded and PAR activities sustained	Continue implementing <b>32</b> vegetable FFS and <b>18</b> rice FFS until the end of the dry season.	<ul style="list-style-type: none"> <li>- <b>32</b> FFSs on vegetables and <b>18</b> FFSs on rice were completed with <b>684</b> vegetable farmers (<b>349</b> women) and <b>478</b> rice farmers (<b>141</b> women) in the dry season from November 2008 to April 2009.</li> <li>- <b>28</b> FFSs on vegetables and <b>17</b> FFSs on rice are being conducted involving <b>720</b> vegetable farmers (<b>344</b> women) and <b>490</b> rice farmers (<b>179</b> women) in the current wet season 2009.</li> </ul>	<ul style="list-style-type: none"> <li>- Continue conducting <b>28</b> FFSs on vegetables and <b>17</b> FFSs on rice until the end of wet season.</li> <li>- One pilot FFS on chili will be conducted in the late wet season.</li> </ul>
	Implement <b>16</b> post-FFS on vegetable and <b>12</b> post-FFS on rice in the target provinces until the end of the dry season.	<ul style="list-style-type: none"> <li>- In the dry season (November 2008 to April 2009), <b>17</b> post-FFS activities on vegetables and <b>12</b> post FFS on rice were completed in the target provinces involving <b>259</b> vegetable farmers (<b>131</b> women) and <b>209</b> rice farmers (<b>75</b> women).</li> <li>- <b>10</b> post-FFS activities on vegetables and</li> </ul>	Continue running <b>10</b> post-FFS on vegetables and <b>13</b> post-FFS on rice in the target provinces until the end of the wet season.

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
		<b>13</b> post-FFS activities on rice are ongoing involving <b>159</b> vegetable farmers ( <b>91</b> females) and <b>198</b> rice farmers ( <b>92</b> females) in this current wet season.	
	Conduct one FTOC as to expand the number of Vegetable IPM Trainers.	A Farmer Trainer Orientation Course (FTOC) was conducted on 07-20 June 2009 in Battambang province involving 33 participants (10 women) from five target provinces.	
<b>Output 2.5</b> Strengthened capacity of FFS alumni and field trainers on sustained utilization of classical biological control agents	Farmers and field owners where <i>Trichoderma</i> was used in the wet season 2008 continue to observe the effectiveness of the bio-control agent in their productions.	Farmers in Tasey Krov village have observed that no soil-born diseases (especially Damping Off on crucifer) occurred in vegetable fields where <i>Trichoderma</i> was applied. Prior to the application of <i>Trichoderma</i> , the farmers always had problems with Damping off and other soil-born diseases. Similar results were reported in Ang and Thmey villages.	Farmers will continue to observe the effect of the <i>Trichoderma</i> in their vegetable fields
	Carry out survey of biological control agents available in each PRR village.	Data was conducted on natural enemies during FFS sessions as IPM Trainers and farmers carried out observations and Agro-Ecosystem Analysis (AESA).	Keep guiding farmers to observe and keep records of natural enemies available in their village.
	Start up studies on rearing and utilization of earwigs as a biological control agent in a pilot community in Kampong Cham province.	Five earwig rearing experiments were conducted in Kampong Cham province to find out better/suitable methods for rearing earwigs before introducing it to farmers.	The concept of earwig rearing and utilization will be introduced to farmers in FFS and post-FFS.
	New activity	A three-day training workshop on Mass Rearing and Utilization of Earwig as a	Progress of work on earwigs will be discussed in planned

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
		Biological Control Agent was conducted in Kampong Cham province on 26-28 March 2009 attended by 15 IPM trainers (3 women) and one agriculture officer from Siem Reap province supported by GTZ.	seasonal evaluation and planning meeting.
<b>Output 2.6</b> Enhanced ability of IPM trainers and farmers to identify and respond to new field problems	Continue to facilitate and provide technical backstopping to farmer-led action research activities for resolving priority technical problems.	National staff and PC provided technical backstopping to IPM Trainers while implementing IPM field activities especially post-FFS activities particularly along facilitation to identify priority problems and design farmers' field research.	Continue to facilitate and provide technical backstopping to farmer-led action research especially in post-FFS activities.
	Identify and analyze the functional roles of pests and natural enemies in farmers' fields.	In every FFS and post-FFS activity IPM trainers always identify and analyze the functional roles of pests and natural enemies and incorporate them into the training curriculum and field experiments.	Continue to identify and analyze the functional roles of pests and natural enemies in farmers' fields.
<b>Output 2.7</b> Mechanisms established to support pesticide risk reduction programme implementation	Conduct a Coordination Meeting in Phnom Penh.	A coordination meeting was conducted in Phnom Penh on 19-20 March 2009 attended by 10 participants (3 women) including PCs and two DTs from Kampong Cham and Battambang province.	
	Continue to conduct baseline survey and utilize survey results before organizing each FFS.	Prior to the organization of any FFS, each IPM Trainer conducted a baseline survey as to develop a curriculum that addresses local field problems and needs	Continue to conduct baseline survey and utilize survey results to design the FFS curriculum
	Conduct 17 Bi-Monthly Meetings in the nine target provinces.	17 Bi-Monthly Meetings were conducted in the nine target provinces (Ref. section 2, page 4). All DTs and FTs who had been involved in IPM field activities in each target province participated in the meetings.	18 Bi-Monthly Meetings will be conducted in the nine target provinces.

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
	Organize nine seasonal Evaluation and Planning Meetings in target provinces at the end of the wet season.	Nine two-day Seasonal Evaluation and Planning Meetings (Ref. section 2, page 4) were organized by PC with assistance from the National Team. All IPM trainers were invited to participate the meeting.	Organize nine seasonal Evaluation and Planning Meetings in target provinces at the end of the wet season.
	Identify opportunities for promoting linkages between producers and traders.	CEDAC has agreed to buy organic vegetables from IPM farmers' groups to sell in their shops. CEDAC and NGO-forum also committed to share information on their pesticide-related activities (e.g., studies on pesticides) with the National IPM Programme.	Continue to identify opportunities for promoting linkages between producers and traders.
<b>Output 2.8</b> Farmers' associations actively involved in ecological-based rice, vegetable and mungbean production	Farmers' Clubs will be organized in the next season.	Two IPM farmers clubs were formed and organized in Thmor Koul and Bovel districts, Battambang province.	Organize 12 new IPM Farmers' Clubs from July to December 2009.
	Eleven Farmer Cross Visits will be conducted in the nine target provinces.	A total of seven Farmer Cross Visits were conducted in Battambang and Prey Veng province (Ref. section 1, page 3) involving 240 farmers (101 women).	
	<b>13</b> Farmer Congresses will be conducted in the nine target provinces in March 2009.	<b>10</b> Farmer Congresses were conducted in five provinces involving <b>549</b> participants ( <b>169</b> women). One-day Farmer Congresses were organized by Provincial IPM Trainers with assistance from the National IPM team.	Organize 11 Farmer Congresses in the target provinces after completing FFS I
<b>Output 3.1</b> Local government/commune council "buy-ins" of IPM programmes generated	Provincial Coordinators and IPM trainers continue to convince Commune Councils to include IPM-FFS activities in CIP.	Provincial Coordinators, DTs and FTs have explained and encouraged Commune Councils to put IPM-FFSs in the Commune Investment Plans (CIP). About 400 FFSs were proposed by Commune Councils in CIPs in the target provinces.	Provincial Coordinators and IPM trainers will continue to convince Commune Councils to include IPM-FFS activities in CIP and other NGOs to support IPM field activities.
	Try out pilot revolving fund	45 IPM Trainers were trained on the	DT apply the concept gained

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
	schemes as self help group through IPM Farmers' Clubs.	concept of Self-Help Groups during the Refresher Workshop on 19-23 May 2009 at Kampong Cham province.	from the training in working with IPM Farmers' Clubs in the target provinces.
<b>Output 3.2</b> Impact of pesticide risk reduction programme documented and used to generate policy support	Update the case studies for publication that were written by the IPM Trainers.	The National Team edited <b>10</b> case studies and provided comments to IPM trainers for adding more specific and useful information.	Finalize case studies written by the IPM Trainers and publish in a Bulletin for distribution to various IPM stakeholders.
	Royal University of Agriculture (RUA) finalizes the report of baseline data.	RUA submitted the final draft report of the baseline study.  A meeting to review the baseline data was held at Kasetsart University, Bangkok, Thailand on 24-26 June 2009. Decisions were made as follows: (1) Data on pesticide use and gross margins will be collected for the impact assessment of PRR training. (2) A case study on EIQ will be prepared to support the Impact Assessment study.	The Principal Investigator will complete the process of cleaning up the database for the baseline study, per recommendations of the Impact Assessment Expert from Kasetsart University.
			Carry out Impact Assessment of the Pesticide Risk Reduction Programme

**E. SCHEDULE OF WORKPLANS FOR NEXT REPORTING PERIOD (July-December 2009)**

<b>Output #</b>	<b>Activity</b>	<b>July</b>	<b>August</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
1.1	Finalize the report of mungbean survey	x	x	x			
1.2	Continue to develop the research linkages and integrating and evaluation activities to support field training	x	x	x	x	x	x
1.3	Continue to identify opportunities to collaboration and exchange with IPM stakeholders	x	x	x	x	x	x
2.1	Continue to identify other areas that need to be updated as to make farmer training activities responsive and relevant to emerging field problems and market requirements	x	x	x	x	x	x
2.2	Translate field guide exercises on IPM in tomato crop	x	x	x	x	x	x
	Continue to collaborate with the NGO forum to produce leaflets	x	x	x	x	x	x
	Continue to publish and distribute other training material as to respond to emerging field problems.	x	x	x	x	x	x
2.3	Prepare protocol on mungbean field study and curriculum development		x	x	x	x	x
	Central Team continue to regularly visit for monitoring and provide backstopping to IPM Trainers	x	x	x	x	x	x
	Every Provincial Coordinator conduct regular monitoring and back stopping field visit in his respective province	x	x	x	x	x	x
	Continue to share and distribute the results of post-FFS field researches to IPM trainers.	x	x	x	x	x	x
2.4	Continue conducting FFS and post-FFS on vegetable crops and rice crop	x	x	x	x	x	x
	Conduct baseline survey on chili production and carry out one pilot FFS on Chili	x	x	x	x	x	x
	Continue to run post-FFS activities on vegetable and rice crop	x	x	x	x	x	x
2.5	Farmers keep observing the effectiveness of the Trichoderma in their vegetable fields	x	x	x	x	x	x

<b>Output #</b>	<b>Activity</b>	<b>July</b>	<b>August</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
	Keep guiding farmers to do survey on natural enemies of insect pests available in their village	x	x	x	x	x	x
	Earwig rearing and utilization are introducing with farmers in FFS and post-FFS activities	x	x	x	x	x	x
2.6	Continue to facilitate and provide technical backstopping to farmer-led action research in post-FFS activities	x	x	x	x	x	x
	Continue to identify and analyze the function roles of pests and natural enemies in farmers' fields	x	x	x	x	x	x
2.7	Continue to conduct baseline survey and utilization survey results before organizing each FFS.				x	x	x
	Carry out Bi-monthly meeting.	x	x		x		
	Organize Seasonal Evaluation and Planning Meeting					x	
	Continue to identify the linkage between producers and traders	x	x	x	x	x	x
2.8	Continue to form and run IPM Farmers' Clubs	x	x	x	x	x	x
	Organize 11 Farmer Congresses					x	x
3.1	PC and IPM Trainers continue to convince Commune Councils to include IPM-FFS activities in CIP and other NGO to support IPM field activities	x	x	x	x	x	x
3.2	Finalize case studies written by IPM trainers			x	x	x	x
	Clean the baseline data for impact assessment	x	x				
	Carry out Impact Assessment of the Pesticide Risk				x	x	x

## **Annex III China PR**

### **Country Progress Report for project GCP/RAS/229/SWE Yunnan and Guangxi, P. R. China (January – June 2009)**

#### **A. COUNTRY STRATEGY, ACTIVITY PROGRESS, OUTPUTS AND WORKPLAN**

##### **A.1 Background**

China is the largest agricultural country in the world, with a population of 900 million farmers which account for over 70% of the nation's total. China is also one of the largest producers of agricultural products, such as grain, cotton, oilseed and horticultural crops. Over 1,600 species of pests including diseases, insects, weeds and rodents have been recorded to attack crops in China, causing crop damage and yield losses by the estimations of 10-60% annually. Both Yunnan and Guangxi are among the largest and year-round producing provinces of agricultural products in China. Major crops grown include rice, vegetables, fruits and horticultural crops.

Pesticide abuse and overuse is still rampant in Yunnan and Guangxi Provinces and China as a whole. Farmers are overusing pesticides in desperate attempts to control pest and disease problems, often to no avail! Intensive use of hazardous chemicals by small-holder farmers is causing high incidences of farmer poisoning, serious disruptions of eco-systems and damaging the environment. Residues of pesticides on crop produce also raise concerns for food safety and have become major international trade barriers. To date, about 16 species of major insect pests and mites, 12 species of plant pathogens and 3 kinds of weeds have developed resistance to major pesticides in Yunnan and Guangxi. Overuse of pesticides in rice has led to the outbreaks of brown plant hoppers and associated yield losses in rice in recent years.

Given the renewed attention and current prominent driving forces for pesticide risk reduction related to food safety, international trade facilitation and enduring environmental and health concerns, the Chinese Ministry of Agriculture issued six new regulations to enhance pesticide management in the year 2008. In particular, these new regulations are aimed at regulating pesticide names, label requirements and registration procedures. Early in 2008, the Chinese government released a now well enforced announcement on stopping production, distribution and use of five highly toxic organo-phosphorus pesticides, which represented some 60% of the total domestic pesticide market. The year 2008 was defined as pesticide registration management year by the Chinese Ministry of Agriculture. At various levels the Chinese government has taken concrete actions so that stakeholders like government officials, pesticide dealers, farmers, and manufacturers are aware of -and abide to- the new regulations. The Chinese Ministry of Agriculture defined the year 2009 as pesticide market monitoring and management year so as to build a better national pesticide monitoring and management framework to enforce the new regulations. As a result of effective policy and enforcement, China has phased out all pesticides containing persistent organic pollutants (POPs) by May 17, 2009 as required by the Stockholm Convention. The recent policy reforms have great bearings on the policy environment in which the national IPM program is being implemented.

Pesticide risk reduction is high on the agenda of the Chinese government. The Chinese government believes that training farmers in Integrated Pest Management (IPM) is one of the best solutions to reduce on-farm use of pesticides. IPM requires farmers to become 'ecology-literate' and make well-informed crop production and protection management decisions. A vegetable IPM FFS impact assessment study conducted by the Yunnan government counterparts with FAO support during the 2004-7 period confirmed that IPM-FFS training is more beneficial to farmers and resulted into better impact compared to conventional

training in terms of its impact on farmer income, the environment and farmer health. Pesticide exposure can be substantially reduced through reductions in pesticide applications as farmers apply IPM. Whereas the study revealed that the current curriculum of the IPM-FFS is focused on developing farmers decision making skills, it noted that there is a need to fortify the FFS curriculum with modules on pesticide risk reduction.

The FAO vegetable IPM programme office, established at the Yunnan PPS premises in Kunming in 2003, continued to oversee IPM and pesticide risk reduction project operations in Yunnan and Guangxi. The Team Leader, based at FAO-RAP in Bangkok, undertook regular backstopping missions to Yunnan, Guangxi and Beijing during the reporting period.

For the first half year 2009, FAO's contribution to activities and project operations in China under the pesticide risk reduction project was approx. US\$60,000 with the greatest part (90%) for training-related expenses (approx. US\$ 54,000). As counterpart contribution, NATESC and local governments funded approx. US\$ 33,000 to support local PRR and IPM FFS and other programme related training activities in Yunnan and Guangxi during the reporting period.

In collaboration with the national & provincial project management units in Chengdu and in Kunming respectively, the FAO Vegetable IPM Programme Office also carried out programme development for -and technical backstopping to- the implementation of project UNTS/CPR/001/EC *EU/FAO/China Model Development and Capacity building for Agrobiodiversity Innovation and System Management* in Tonghai, Yuxi and Shizong, Quijing in Yunnan Province. The national programme officer provided various technical and coordination backstopping inputs to the project during the reporting period.

From January to July 2009, a number of activities were carried out in Yunnan and Guangxi supported by the Pesticide Risk Reduction Project (GCP/RAS/229/SWE). Some of these activities were completed during this reporting period, while other activities are still ongoing. These activities, challenges in implementation, and workplans for future activities are described in detail in sections below. The interested reader is referred to the China Country Strategy Paper for full details on objectives, outputs and indicative activities foreseen for implementation under the Pesticide Risk Reduction project during the 2007-9 period.

## **A.2 Report on progress made towards achieving outputs during reporting period (July to December 2008)**

Through joint efforts by various government counterparts and FAO, the Pesticide Risk Reduction programme in China made good progress during the last reporting period as per workplans outlined in the strategy paper. As Guangxi had not been earlier involved in previous FAO-IPM supported training programmes, the main focus of activities during this reporting period remained to support the Guangxi provincial government to establish a pesticide risk reduction and IPM FFS programme. Particular emphasis was to fund FFS for TOT graduates to gain more FFS implementation experiences and show local policy makers the potential of FFS training approach for rural development. This was done with the purpose to encourage investments of local government funds for the development and upscaling of local FFS programmes. The fortified pesticide risk reduction curriculum, piloted in Guangxi, will now be used as a model for further development and up-scaling of such PRR training within the context of forthcoming refresher training and ongoing FFS & post FFS training activities in Yunnan. NATESC, Guangxi PPS, Yunnan PPS and FAO IPM office provided coordination, M&E and technical backstopping during the reporting period, as, where and when needed. A summary of major activity progress/outputs is provided below:

- Test and refine a fortified pesticide risk reduction curriculum for integration in IPM and PRR FFS and FFS-follow-up training activities. In Guangxi, the fortified FFS curricula

were pilot tested and refined in FFS and post FFS training activities. (refer to output 2.1 in the table in section D for specific details).

- Farmers Field Schools: 64 FFS -with 50% funded by FAO and 50% funded by local government- started during the second half of 2008 with continued implementation during the first half year of 2009. (See table below and refer to output 2.1 in the table in section D for specific details).

No. of FFS	64 (50% FAO & 50% Government funding)
FFS implementation areas	25 counties in 8 Guangxi prefectures (Nanning, Guilin, Hezhou, Liuzhou, Hechi, Congzuo, Baise & Laibing)
# FFS per various crops & subject matter covered	rice (32), vegetables (23), fruit trees (8)
No. of farmer participants	Approx. 1,920 farmers (49% female, 51% male)

- Guangxi FFS Midterm Review and Experiences sharing Workshop: An FFS Midterm Review and Experiences sharing Workshop was conducted in Guilin in Guangxi during the period 7-9 April 2009. The participants evaluated the FFS implementation status and formulated the future plan, shared experiences and learns learnt, identified further training needs and programme interventions (See table below and refer to output 2.2 in the table in section D for specific details).
- Monitoring and evaluation: M&E activities were conducted during the reporting period. An FFS M&E field guide was introduced to trainees in Guangxi TOT and implemented for safeguarding and improving training quality. Relevant staff from NATESC, Guangxi PPS, Yunnan PPS and FAO IPM office undertook M&E visits to training/ field activities during the reporting period where and when needed (refer to output 2.4 in the table in section D for specific details).

### A.3 List of reports produced during the reporting period

Title	Author(s)	# of pages	Date	Type of Report
Guangxi TOT final report	Shan Xunan, Yang Puyun	55	Jan. 2009	LOA Final Report (English)
Workshop on Vegetable IPM Impact Assessment Analysis	Hu Xinmei, Yang Puyun, Shan Xunan	11	Jan.2009	LOA Final Report (English)
Country Paper for Regional Progress Report	Hu Xinmei, Yang Puyun	15	Jan.2009	Progress Report (English)
Mid-term Progress Report of Vegetable IPM/PRR FFS in Guangxi, P. R. China	Yang Puyun	9	Feb.2009	LOA Progress Report (English)
Report on Mid-Term Farmer Field School Evaluation and Experiences Sharing Workshop of the IPM-Pesticide Risk Reduction Project in Guangxi	Shan Xunan	7	May 2009	LOA Final Report (English)

Title	Author(s)	# of pages	Date	Type of Report
Final Report NATESC/Yunnan PPS/Guangxi PPS Coordination and support Services	Shan Xunan	6	Jun.2009	LOA Final Report (English)

#### A.4 Workplans for next reporting period (July to Dec. 2009)

Workplans for next reporting period in *Guangxi* include continuous implementation of 64 FFS, FFS experiences sharing workshops as to evaluate FFS implementation, share experiences and lessons learnt and identify new programme interventions. The workplans for *Guangxi* also includes a Refresher TOT at the end of the FFS cycle to upgrade facilitators. Workplans for *Yunnan* for the next report period include use of impact assessment results as a powerful tool to foster stronger and better IPM and pesticide risk reduction movements and policy advice in Yunnan Province and elsewhere in China, organization of a refresher training course for consolidation of community education outputs and training quality and integration of key pesticide risk reduction content. Yunnan RTOT graduates will facilitate FFS with a fortified pesticide risk reduction curriculum for practice and promotion after graduation. For both Yunnan and Guangxi, pilot IPM and pesticide risk reduction community model will be developed, assessed, documented and published as to sustain farmer training and disseminate replicable models. The workplans basically follow those originally outlined in the 2007 country strategy paper for the GCP/RAS/229/SWE project. Major planned activities include:

##### *In Yunnan:*

- Organize a one-week Refresher TOT for key IPM FFS facilitators to upgrade their capacity as per needs identified as a result of M&E and Impact Assessment activities. The RTOT in Yunnan will also feature discussions and the implementation of a set of newly developed Structured Learning Exercises (SLEs) on pesticide risk reduction for the purpose of the development of a fortified FFS curriculum. (refer to output 2.2 in the table in section D for specific details).
- Conduct policy recommendation workshops (by presenting impact assessment results and other achievements) at provincial and national level (refer to output 3.3 in the table in section D for specific details);
- Implementation of 80 FFSs, with fortified pesticide risk reduction curriculum, to be conducted by RTOT graduates (FAO funding and NATESC funding) (Refer to output 2.3 in the table in section D for specific details).

##### *In Guangxi:*

- Continuous implementation of 64 fortified FFS for the remaining year of 2009. (50% FAO & 50 % counterparts funding) (Refer to output 2.3 in the table in section D for specific details).
- Organise Guangxi FFS Final review and Experiences Sharing Workshop to review FFS implementation, share experiences and identify future programme interventions including further training needs. (Refer to output 2.2 in the table in section D for specific details).
- Organize a Refresher TOT as to upgrade facilitators on the training needs identified during FFS Final Review and Experiences Sharing Workshop and M&E missions.

*For both Yunnan and Guangxi:*

- Continuous coordination, monitoring & evaluation of -and technical backstopping to- the programme activities by staff of NATESC, Yunnan & Guangxi PPS and FAO (*refer to output 3.1 in the table in section D for specific details*).
- Pilot IPM and pesticide risk reduction community development and impact assessment. To develop, assess impact, document and publicize successful pilot models for community education for pesticide risk reduction. (*Refer to output 2.3 in the table in section D for specific details*).
- Continuous promotion of the programme as to incorporate FFS as major farmer training approach in local governments' crop production and protection extension programmes (*refer to output 3.2 in the table in section D for specific details*).
- Training material development as to finish reviewing, publishing and distributing the guides and manuals developed with FAO Regional Vegetable IPM Programme (project GCP/RAS/209/NOR). These training materials include Yunnan Vegetable Production Guide, FFS Process Guide and FFS exercise manual.

## **B. INPUTS**

### **B.1 National Programme Leaders and Counterparts**

#### *1. National counterparts at central level*

**Mr. Zhong Tianrun**

National IPM Programme Coordinator  
Deputy Director General  
NATESC, Ministry of Agriculture, Beijing.

**Mr. Zhu Enlin**

Director, Pest Control Division(until late May 2009)  
NATESC, Ministry of Agriculture, Beijing.

**Dr. Yang Puyun**

Deputy Director, Pest Control Division  
NATESC, Ministry of Agriculture, Beijing.

**Mr. Shan Xunan**

Agronomist, Vegetable IPM Programme technical executive  
Pest Control Division, NATESC, Ministry of Agriculture, Beijing.

#### *2. National counterparts at provincial level*

**Yunnan Province:**

**Mr. Zhou Jinyu**

Director, Professor  
Plant Protection Station of Yunnan Province, Kunming.

**Ms. Lu Jianping**

Senior Agronomist, section of pest control,  
Plant Protection Station of Yunnan Province, Kunming.

**Ms. Li Yahong**

Agronomist, section of pest control,  
Plant Protection Station of Yunnan Province, Kunming

**Mr. Han Zhongliang**

Agronomist, section of pest control,  
Plant Protection Station of Yunnan Province, Kunming

**Guangxi Province:****Mr. Wang Kaixue**

Director, Professor  
Plant Protection Station of Guangxi Province, Nanning.

**Mr. Wang Huasheng**

Chief Agronomist  
Plant Protection Station of Guangxi Province, Nanning.

**Mr. Qin Baorong**

Agronomist, section chief of pest control,  
Plant Protection Station of Guangxi Province, Nanning

**Ms. Li Li**

Agronomist, vice section chief of pest control,  
Plant Protection Station of Guangxi Province, Nanning

**Mr. Xie Yiling**

Agronomist, section of pest control,  
Plant Protection Station of Guangxi Province, Nanning

**B.2 International/National Professional and General Service Staff**

*International long and short term staff:*

1. Mr. Jan Willem Ketelaar, Team Leader/CTA/PDO-China, Vegetable ICP, FAO-RAP, Bangkok
2. Ms. Hu Xinmei, National Programme Officer, FAO-IPM office, Kunming

**B.3 Consultancy Missions during the Reporting Period**

<i>Activities/Technical backstopping missions</i>	<i>Persons Involved</i>
none	

**B.4 List of Contracts Issued/Ongoing during this Reporting Period**

<b>Countries</b>	<b>Activities</b>	<b>Institutions Involved</b>
P.R.China	Letter of Agreement in support of Coordination Support Services for the Vegetable IPM/Pesticide Risk Reduction Program in Yunnan & Guangxi Provinces (LOA0803, August to December 2008).	• NATESC, MOA China
	Letter of Agreement in support of IPM/Pesticide Risk Reduction Farmer Field School in Guangxi Province associated with the FAO Regional Vegetable IPM /Pesticide Risk Reduction Program in Guangxi (LOA 0804, September 2008 to July 2009)	• NATESC, MOA China
	Letter of Agreement in support of a Mid-Term Farmer Field School Evaluation and Experiences Sharing Workshop held in Guilin, Guangxi Province (LOA0901, April 2009)	• NATESC, MOA China

### B.5 Exchanges and Study Tours during the Reporting Period

Activities	Organizer/ Hosting Agency	Location	Dates	Persons (supported)
National Curriculum Brainstorm workshop	UNTS/CPR/001/EC EU/FAO/China Agro-biodiversity management and utilisation programme	Chengdu, Sichuan Province	Feb.10-15 ,2009	Ms. Hu Xinmei
Technical backstopping to Training of Facilitators on Agro-biodiversity Action Plan Implementation at project site Shizong County	UNTS/CPR/001/EC EU/FAO/China Agro-biodiversity management and utilisation programme	Shizong County, Yunnan Province	March26- April 5, 2009	Ms.Hu Xinmei
FAO International IPM and Market Workshop and Global IPM Meeting	FAO	Rome, Italy	May.24-30 , 2009	Mr. Yang Puyun, Ms. Hu Xinmei

### B.6 Equipment Purchased during the Reporting Period

No.	Description	Value (USD)
	None	

### C. PROBLEMS AND SOLUTIONS

Problems/Issues	Action taken to resolve them
Vegetable IPM Facilitators in Yunnan need to embed fortified pesticide risk reduction module into IPM curriculum	Refresher training for key facilitators is to be conducted in Yunnan mid this year
Yunnan core facilitators graduating from RTOT will need to practice fortified FFS before conducting PRR Refresher Training at prefecture level	FAO and NATESC will provide funding for the TOT graduates to practice fortified FFS on pesticide risk reduction
Current four-month Training of Trainers model is challenging for institutionalisation in local agriculture extension system	Various TOT models will be developed and experimented with in Guangxi. It will be important to assess effectiveness of various models.
Guangxi TOT graduate will need to review their experiences and upgrade their capacity after implementation of the first circles of FFS	FFS final evaluation and Experiences Sharing Workshop and Refresher Training for Guangxi TOT graduates will be organised later this year in Guangxi
Better communication between Yunnan PPS, NATESC and FAO China Vegetable Office, especially for FAO-funded activities	NATESC to ensure that YPPS improve their capacities to establish more close cooperation with NATESC and FAO China vegetable IPM office.

#### D. ACTIVITY PROGRESS AND WORKPLANS AS PER OUTPUT IN COUNTRY STRATEGY PAPER

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
<b>Output 1.1:</b> Needs and priorities for establishing new and strengthening ongoing IPM field programmes in Yunnan and Guangxi identified	Conduct geographical scoping and situation analysis surveys as to assess crops and locations with highest abuse of pesticides	Geographical scoping and situation analysis surveys are being conducted as routine work for government interventions and statistics in Plant Protection extension system from central level to Township level. Data sets and reports on areas and crops prone to pesticide abuse and overuse are available, continuously updated and utilized for programme planning and curriculum development. Jan.-Jun.09	Continuing Jul.-Dec.,09
	Planning meetings at national and provincial levels	Planning meetings were organised regularly at national and provincial levels as to provide input to project development. Jan.-Jun.09	Continuing Jul.-Dec.,09
<b>Output 1.2:</b> Functional networks of programme partners established as to ensure implementation of more relevant and effective training programmes	Establishing functional linkages with research institutions, private enterprises, traders and agricultural suppliers, non government organizations	Functional linkages with research institutes, universities, private enterprises, agricultural suppliers and other relevant national and international programmes in the area have been established and will be further explored. Evidence of such functional linkages includes participation of national experts to Guangxi and Yunnan FFS to conduct special topics identified as needed. As a result, the FFS facilitators and participants have gained better access to up to date technical and novel crop production & protection inputs. Jan.-Jun.09	Continue to invite international and national experts to provide technical backstopping to FFS next season and forthcoming RTOT in Yunnan and Guangxi. Jul.-Dec.,09
	Formulation and regular meetings of National and Provincial project steering committees	National and provincial project steering committees have been set up involving a wide range of stakeholders like universities, research institutes, environmental department and women' union etc. Meetings were conducted regularly to assess progress in project implementation as per strategy paper and to identify emerging needs for programme development and foster wider cooperation. Some of those meetings were held at FFS field day when a wide range of stakeholders were present to evaluate the activities conducted and make suggestions for future programme development. Involvement of additional stakeholders, including CSO and private sector, is essential and will be further explored during the next reporting period. Jan.-Jun.09	Continuing. Jul.-Dec.,09

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
<p><b>Output 2.1:</b> Fortified FFS, TOT and Refresher Training curricula and training materials developed, including IPM for new crops with particular focus on pesticide risk reduction</p>	<p>Continuation of training curricula formulation</p> <p>Develop training materials (ecological guides, training exercises guides) for key vegetable, fruits and rice crops subject to heavy pesticide use</p>	<p>In Guangxi, the fortified FFS curricula were pilot tested in IPM and PRR FFS conducted by TOT graduates. Jan.-Jun.09</p> <p>The Refresher TOT in Yunnan was postponed to late July/August as per suggestion from Yunnan PPS and NATESC because this is the suitable season for facilitators gathering and follow up FFS implementation. Jan.-Jun.09</p> <p>Training manuals that have been developed in the Guangxi TOT course, including a set of Guidelines and Structured Learning Exercises on Pesticide Risk Reduction and vegetable IPM, have been tested in fortified FFS. Training materials used in earlier trainings in other countries have been validated and modified in the FFS as well. Jan.-Jun.09</p>	<p>Continuing Jan.-Jun.,09</p> <p>The Refresher TOT in Yunnan will be organized in August. A fortified pesticide risk reduction curriculum for Yunnan Refresher TOT and FFS will be developed and piloted in upcoming RTOT and follow up FFS. The curriculum/SLEs on PRR developed at the Guangxi TOT will be integrated in this Refresher course in Yunnan. Aug.,09</p> <p>Training manuals developed in Guangxi TOT will be further tested and adapted in FFS and RTOT in Guangxi and Yunnan. More training materials will be developed based on emerging needs. Jul.-Dec.,09</p> <p>Yunnan Vegetable Production Guide developed under Vegetable IPM Programme will be reviewed, printed and distributed to FFS facilitators. Jul.-Dec.,09</p>
<p><b>Output 2.2:</b> Cadre of 30 qualified facilitators for IPM training and community action is established in Guangxi and existing cadre strengthened in Yunnan</p> <p><b>Output 2.2:</b></p>	<p>A RTOT curriculum development workshop and RTOT is to be conducted in Yunnan in March/April 2009.</p> <p>Organize a Refresher</p>	<p>The Refresher TOT in Yunnan was postponed to late July/August as per suggestion from Yunnan PPS and NAYESC because this is a better season for facilitators gathering and follow up FFS implementation.</p> <p>Guangxi FFS Midterm Review and Experiences sharing Workshop</p>	<p>The Refresher TOT in Yunnan will be organized in August. A fortified pesticide risk reduction curriculum for Yunnan Refresher TOT and FFS will be developed and piloted in upcoming RTOT and follow up FFS. The curriculum/SLEs on PRR developed at the Guangxi TOT will be integrated in this Refresher course in Yunnan. Aug.,09</p> <p>Guangxi FFS Final Review and Experiences</p>

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
Cadre of 30 qualified facilitators for IPM training and community action is established in Guangxi and existing cadre strengthened in Yunnan	TOT in Guangxi in early 2009 as to share experiences and evaluate the first cycle of FFS implementation and identify curriculum gaps.	was conducted in Guilin in Guangxi during the period April 7-9. Participants included 1 FAO staff, 1 NATEC staff, 5 Guangxi PPS staff, 63 FFS trainers from 7 prefectures in Guangxi province The participants evaluated the FFS implementation status, shared experiences and learns learnt, identified further training needs and programme interventions and formulated future work plans. Apr. 4-7,09	Sharing Workshop will be conducted in late September to review FFS implementation, share experiences and identify future programme interventions including further training needs. Late Sep.,09  Organize a Refresher TOT as to upgrade facilitators on the training needs identified during FFS Final Review and Experiences Sharing Workshop and M&E missions. Nov.,09  Organize Pesticide and health study training to enhance the capacity of the facilitators to conduct pesticide and health studies to profile pesticides usage and handling in the field and related poisoning cases. Nov.,09
<b><u>Output 2.3:</u></b> Strengthened knowledge and skills among 6,000 Yunnan and Guangxi farmers to sustainably manage crops with reduced risks of pesticide poisoning	64 FFS (50%FAO/50% GOC funded) will be implemented in late 2008/early 2009 by the Guangxi TOT participants following their graduation from the TOT in early August. The preferred target crop for these FFSs is rice	An established cadre of 32 facilitators in Guangxi are now actively involved in FFS implementation. 64 FFS (50% FAO & 50% Government funding) are being implemented in 25 counties in 8 prefectures in Guangxi during the period October 2008-June 2009. The target crops are rice (32 FFS), vegetables (23 FFS) and fruits (8 FFS). Approximately, 1,920 farmers will learn about sustainable intensification of agricultural production by using IPM and other pesticide risk reduction methods. Based on community surveys, risks associated with pesticide use are being identified. Community action plans to reduce risks are then being formulated and training on PRR is implemented as part of a fortified FFS training curriculum. Jul.-Dec.,08	Continuing. Jul.-Nov.,09
<b><u>Output 2.3:</u></b> Strengthened knowledge and skills	FAO will fund 40 fortified FFS on IPM and Pesticide Risk	In Yunnan, the implementation of 40 FFS with fortified pesticide risk reduction curricula has been delayed as the RTOT was postponed.	FAO and NATEC will each fund 40 fortified FFSs on IPM and Pesticide Risk Reduction to be implemented by Yunnan RTOT

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
among 6,000 Yunnan and Guangxi farmers to sustainably manage crops with reduced risks of pesticide poisoning	<p>Reduction to be implemented by upcoming Yunnan RTOT graduates.</p> <p>Organize relevant community IPM follow up activities on pesticide risk reduction and experimenting with novel options for pest management</p> <p>Organize Farmer Congresses for information sharing and farmer</p>	<p>Training of FFS farmers related to design and implementation of field studies in FFS was part of FFS curriculum. Farmers organize relevant community IPM follow up activities on pesticide risk reduction and experiment novel options for pest management after FFS graduation. Jan.-Jun.09</p> <p>No progress to report on for this reporting period.</p>	<p>graduates. Aug.,09 onwards</p> <p>Continuing. Jun.-Dec.,09</p> <p>To be further explored. Jul.-Dec.,09</p>
<b>Output 2.4:</b> Strengthened internal monitoring and evaluation system for training quality control	Consolidation and implementation of participatory monitoring and evaluation system for IPM FFS programme	<p>NATESC, Yunnan PPS, Guangxi PPS and FAO IPM Office were in regular contact with FFS facilitators in Yunnan and Guangxi and visited follow up FFS activities (eg. Plant Protection Associations, Vegetable Associations) and FFS villages.</p> <p>NATESC, Yunnan PPS, Guangxi PPS and FAO IPM office traveled to field sites in Yunnan and Guangxi for program coordination, monitoring and technical backstopping when needs were identified and whenever possible as part of routine daily work. Jan.-Jun.09</p>	Continuing. Jun.-Dec.,09

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
	FFS quality monitoring and evaluation system will be further discussed in forthcoming RTOTs in Yunnan .	<p>The FFS Monitoring and Evaluation system have been implemented to safeguard and improve FFS training quality. Jan.-Jun.09</p> <p>The Refresher TOT in Yunnan was postponed to August as per suggestion from Yunnan PPS and NAYESC because this is a more suitable season for facilitators gathering and follow up FFS implementation.</p>	<p>Continuing. Jun.-Dec.,09</p> <p>FFS quality monitoring and evaluation system will be further discussed in forthcoming RTOTs in Yunnan, Aug.,09</p>
<b><u>Output 3.1:</u></b> Impact Assessment studies on successful pilot models for pesticide risk reduction finalized and published	<p>Choose representative communities as pilot IPM and PRR communities to explore and assess impact of innovative and replicable models for upscaling by national mainstream plant production/protection extension programmes.</p> <p>Design and conduct impact assessment studies in those representative IPM communities as to document and publicize innovative and replicable models for expansion.</p>	<p>The idea of Model community development was discussed as part of a first cycle FFS implementation and aligned with other national strategies and programmes. This will need further workplan formulation and action during the next reporting period. Jan.-Jun.09</p> <p>Replicable and feasible models for community IPM follow up actions on pesticide risk reduction are being explored; various reports in the media have generally reported FFS impact on rural development and pesticides risk reduction. Successful cases were being collected in FFS implementation. Jan.-Jun.09</p>	<p>Choose representative communities as pilot IPM and PRR communities to explore and assess impact of innovative and replicable models for upscaling by national mainstream plant production/protection extension programmes. The concept will be discussed in forthcoming RTOT in Yunnan and FFS final review and experiences sharing workshop in Guangxi. NATESC/YPPS/GXPPS will draft a concept note for the development of such pilot PRR communities to be submitted to FAO for further discussions, Jul.-Dec.,09</p> <p>Conduct workshop on capacity building on how to conduct impact assessment case studies so that the FFS facilitators could design and conduct impact assessment studies in those representative IPM communities and elsewhere as to document and publicize innovative and replicable models for expansion. Jul.-Dec.,09.</p>
<b><u>Output 3.2:</u></b> Awareness on the benefits of community education for pesticide risk	-Workshop on capacity building on how to conduct impact assessment case studies could be	Workshop on capacity building on how to conduct impact assessment case studies was under exploration. . Jan.-Jun.09	Organise a workshop on capacity building on how to conduct impact assessment case studies. Jul.-Dec.,09

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
reduction raised among farming communities, the general public and policy makers	<p>explored.</p> <p>-Popularize the impacts of IPM-FFS on pesticide risk reductions through TV, newspaper and radio broadcasts.</p> <p>Organize Farmer Congresses to share and publicise community action plans</p>	<p>Advocacy/Promotion activities were carried out during the reporting period. Various TV stations/newspaper have reported on FFS programmes and on the implementation of Guangxi TOT. On the internet, numerous websites nationwide have reported on the FAO Regional IPM &amp; Pesticide Risk Reduction programme with regards to its objectives of cutting pesticide use and improving food safety and human and environment health. e.g <a href="http://www.agri.gov.cn">http://www.agri.gov.cn</a>, <a href="http://natesc.agri.gov.cn">http://natesc.agri.gov.cn</a>, <a href="http://www.zhibao.net">http://www.zhibao.net</a>, <a href="http://www.gxny.gov.cn">http://www.gxny.gov.cn</a>, <a href="http://www.gxzb.com">http://www.gxzb.com</a>, <a href="http://news.gxradio.com">http://news.gxradio.com</a>, <a href="http://zhibao.jxagri.gov.cn">http://zhibao.jxagri.gov.cn</a>, <a href="http://www.greenfood.org.cn">http://www.greenfood.org.cn</a>, <a href="http://www.garcc.com">http://www.garcc.com</a>, <a href="http://www.glnyw.gov.cn">http://www.glnyw.gov.cn</a>, <a href="http://www.mofcom.gov.cn">http://www.mofcom.gov.cn</a>, <a href="http://vegetableipmasia.org">http://vegetableipmasia.org</a></p> <p>-FAO and national IPM programme have made endeavor to promote the programme on UN publications. Jan.-Jun.09</p> <p>No progress to report on for this reporting period.</p>	<p>Continuing. Jul.-Dec.,09</p> <p>Continuing. Jul.-Dec.,09</p> <p>To be further explored.Jul.-Dec.,09</p>
<b>Output 3.3:</b> Local government providing policy and funding support for IPM and pesticide risk reduction	Hold policy workshops, disseminating the achievements of the impact of IPM-FFS on pesticide risk reductions to policy maker	<p>In Guangxi and Yunnan, policymakers and local press participated in opening and closing in FFS. In Guizhou, Tianjin and Jiangxi, FFS facilitators graduated from Guangxi TOT also got great attention from local governments in FFS implementation. In all these places, local policy makers have enhanced their understanding of the benefits and strengths of the IPM FFS approach on pesticide risk reduction and expressed support for IPM activities and plan to employ FFS training model in locally-funded training programmes Jan.-Jun.09</p> <p>Regional Vegetable IPM Programme conducted multiple year impact assessment in Yunnan. The report has been finalised by consultancy from NATESC and CAU. Ideas for the workshop on presentation of impact analysis results and on formulation of policy recommendations for IPM-FFS promotion were being generated on various occasions.</p> <p><i>(not directly reflected in the lograme, workshop concept to be further explored).</i></p>	<p>Continuing. Jul.-Dec.,09</p> <p>A Workshop on presentation of impact analysis results and on formulation of policy recommendations for IPM-FFS promotion will be held in Yunnan in September 2009 <i>(not directly reflected in the lograme, workshop concept to be further explored).</i></p>

### E. SCHEDULE OF WORKPLAN FOR THE PERIOD (Jul.– Dec. 2009)

Activity number	Activity	Jul.				Aug.				Sep.				Oct.				Nov.				Dec.			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1.1	Continue to invite international and national experts to provide technical backstopping to FFS and forthcoming RTOT in Yunnan and Guangxi.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	Formulation and regular meetings of National and Provincial project steering committees	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2.1	RTOT Curriculum development workshop in Yunnan					X																			
	RTOT Curriculum development workshop in Guangxi																X								
	Develop and publish training materials(ecological guides, training exercises guides)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2.2	RTOT in Yunnan					X	X																		
	Guangxi FFS Final Review and Experiences Sharing Workshop											X													
	RTOT in Guangxi																X	X							
	Pesticide and health study training in RTOT																	X							
	Develop and publish training materials(ecological guides, training exercises guides)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2.3	Continue to implement 64 scheduled FFS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
	Implementation of 40 fortified FFS on pesticide risk reduction and IPM									X	X	X	X	X	X	X	X	X	X	X	X	X	X		
2.4	Consolidation and implementation of participatory monitoring and evaluation system for IPM FFS programme	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
	Design and Conduct of impact assessment study in pilot IPM PRR communities	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
3.2	Continuous promotion of the programme	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
3.3	Conduct policy recommendation workshop												X												
	Model communities identification and development	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

## **Annex IV Lao PDR**

### **Country Progress Report for project GCP/RAS/229/SWE (January - June 2009)**

#### **A. COUNTRY STRATEGY, ACTIVITY PROGRESS, OUTPUTS AND WORKPLAN**

##### **A.1 Background**

The Lao National IPM Programme, with FAO support, has done pioneering work with regards to IPM farmer education in the Lao PDR during the last decade. The Farmer Field School method is employed in such training with a proven track record of success with regards to improving crop yields and elimination of unnecessary use of pesticides. The FFS training approach has enthused local Lao farmers having had the opportunity to participate in such season-long training activities. FFS follow up activities have further allowed farmers to reduce on-farm use of pesticides with improved yields and profits.

The concept of Pesticide Risk Reduction is relatively new to the country because, until quite recently, farmers have had minimal exposure to pesticides. With the Lao Government's active promotion of agribusiness and concession farming and contract farming on the rise, farmers and farm workers are increasingly exposed to agro-chemicals. There is limited awareness and knowledge on the substantial risks associated with the distribution and use of pesticides, particularly when handled by uneducated Lao farmers and workers. There is an urgent need to create awareness and assist in human resource development in pesticide risk reduction. Although IPM training activities have been instrumental in the empowerment of farmers with regards to informed decision making for more sustainable and profitable crop production and protection, a priority for the pesticide risk reduction pilot project (GCP/RAS/229/SWE-2007-9) is to strengthen the FFS with a fortified pesticide risk reduction curriculum. Content of such a curriculum should be aimed at capacity building and mobilization of rural communities for reducing health and environmental risks associated with pesticide exposure by elimination of the use of hazardous and persistent agro-chemicals in conjunction with better farmer access/utilization of alternative pest management options.

The Pesticide Risk Reduction (PRR) programme is being implemented primarily in two provinces (Vientiane Capital and Province) with existing IPM trainer networks. The programme will expand its activities to two new provinces, Sayabouly and Xiengkhuang, where farmers rely heavily on toxic herbicides (e.g. paraquat) to control weeds. Before IPM PRR training is to commence, baseline pesticide use surveys have to be conducted in these two provinces to assess conventional crop production and protection practices and to assess risks of farmers being exposed to pesticides, particularly herbicides. These surveys were conducted in early 2009 and showed that farmers, including their children, livestock and the community environment are at relatively high pesticide exposure risks. Training activities, supported by the pesticide risk reduction project will thus be focused on community awareness raising and mobilization, quality farmer education and on strengthening training content in line with the government policy, particularly with regards to promotion of clean agriculture production.

After the Lao Country Strategy Paper for project GCP/RAS/229/SWE was formally approved by the Department of Agriculture (DOA), the FAO Vegetable IPM Programme continued to work with the Plant Protection Centre, DOA, Ministry of Agriculture and Forestry. During this reporting period, the Lao National IPM Programme was assigned another new Acting National Project Coordinator (ANPC) after the previous ANPC left the project to

work somewhere else. The lack of qualified GOL counterpart staff was a major constraint for the FAO supported project to mobilize its activities in full swing. Despite the setback, the FAO Vegetable IPM Programme continued to provide various support mechanisms to strengthen the National IPM Program. This included the provision of financial resources under an LOA and support for the assignment of two interns while awaiting their recruitments as PPC government staff by GOL. As to compensate for the lack of qualified counterpart staff, the National IPM Expert continued to play an active role in coordination, implementation and technical support to project activities in the Lao PDR.

## **A.2 Report on progress made towards achieving outputs during reporting period (January-June 2009)**

### **Country Strategy Paper for project GCP/RAS/229/SWE-IPM component:**

- The Country Strategy Paper, formulated in English and translated into Lao language, was finally approved by GOL (DOA, MAF) in February 2009. This meant that project activities could now finally commence with full GOL approval.

### **Baseline Surveys:**

- Baseline surveys were conducted in Sayabouly and Xiengkhouang Province from 15 to 29 March 2009. The purpose of these surveys was to assess crops and locations with highest use of pesticides and to gather an informed opinion about risk of pesticide exposure in rural communities in these two provinces.. Eight FAO and GOL staff from the national level participated in the survey in collaboration with local PAFO and DAFO staff and other local authorities. The surveys showed that farmers rely heavily on toxic herbicides to control weeds in corn production. Pesticide shop inventories provided information on types of pesticides on sale and total amount of formulated pesticides used.

### **Training activities and action research:**

- Five farmers field studies on pesticide risk reduction in watermelon, yard-long bean and cucumber were conducted in Vientiane province. Eleven farmer families participated in the studies. As a result, the yields obtained and the occurrence of pests and diseases were similar in both plots although chemical pesticides use in the PRR field study plot was lower than in the farmer practice plots (e.g. from 11 times to 5 times, for watermelon; from 21 times to 7 times, for yard-long bean; and from 11 times to 3 times, for cucumber).
- A five day training on the design of studies on the effect of pesticides on health and environment was conducted at the Plant Protection Center in Salakham, Vientiane Capital from 5 to 9 June 2009. Twenty one participants, including farmers, District IPM Trainers/Farmer Trainers, teachers from primary school, students from National University, PPC/National Staff and Interns, attended the training. Purpose of the training was to get an overview of the effects of pesticides on the farmers' and farmer families' health and environment resulting from exposure to toxic pesticides. Participants learned how to design and conduct field surveys, including how to interview farmers, observe pesticide handling behavior and to observe -and interview farmers about- signs and symptoms of pesticides poisoning. Survey forms were also developed for conducting surveys.
- Following above training, baseline surveys on the effects of pesticides on health and environments were conducted in four districts of Vientiane Capital. The surveys revealed that WHO Class Ib pesticides were available on the local market and that these toxic pesticides were indeed used by farmers in vegetable production such as Carbofuran, Dicrotophos,.Methomyl, Methamidophos and Omethoate. Most of the

farmers handled and disposed pesticides improperly, potentially resulting in short term and long term effects on health and environment.

- A three day workshop on the development of a fortified FFS curriculum with regards to pesticide risk reduction training was conducted at the FAO-IPM Programme office at the PPC in Salakham, Vientiane Capital from 11 to 13 June 2009. Eleven participants, including District IPM Trainers/Farmer Trainers, PPC/National Staff and Interns, attended the training. The overall objective of the training was to revise the existing FFS curriculum with the integration of a pesticide risk reduction module. A draft curriculum and six PRR field exercises were developed in local language.
- A four day training of trainers (TOT) on IPM-GAP-Part I was organized at the Phonsoung Agricultural Development Project in Vientiane Province from 26 to 29 May 2009. Twenty three participants, including farmer group leaders, District IPM Trainers/Farmer Trainers, PADP staff and PPC/National IPM Interns, participated in the training. The purpose of the training was to build the capacity of farmers, IPM trainers and project staff in technical knowledge on IPM and GAP approaches for subsequent farmer training on IPM-GAP FFS. Participants learned about the meaning and importance of GAP and ASEAN GAP Standards. A curriculum on GAP for yard-long beans was developed as part of this training. Participants also explored newly developed PRR field exercises.. Cropping calendars for GAP-IPM FFS yard-long bean and a layout for field studies were discussed and developed.
- As to follow-up on the first part of the IPM-GAP training of trainers, three IPM-GAP FFSs on yard long bean are now being conducted in Viengkham and Phonhong district, Vientiane Province from 28 June onwards. These FFS activities, in which 66 farmers are participating, are implemented in collaboration with Phonsoung Agricultural Development Project with funding provided by Oxfam Belgium. The purpose of the FFS training is to develop pilot models for IPM-GAP training, aiming at facilitating better market access for farmer groups. Many –if not most- of the participating farmers are expected to voluntarily join GAP farmer groups after completion of the FFSs.
- In collaboration with the Non-profit Association Lao Development (NALD), one Farmer Field School on yard long bean is being conducted in Ban Paksap Kao, Saithany District, Vientiane Capital from 21 June onwards. Thirty farmers participate in this FFS. Purpose of this FFS is to train farmers to reduce chemical pesticides use and to provide farmers with alternative measure to control pests and diseases in vegetable production. The expected output of the training is that farmers will become IPM experts and able to make better informed decision on pest control.
- Intensive FFS training on Diamond Back Moth (DBM) bio-control is being conducted in Thataeng , Sekong Province and in Lao-Ngam, Salavan Province from early June to late July 2009. Thirty-five cabbage farmers are participating in this training. The overall objective of the training is to train farmers on how to conserve and make sustainable use of natural enemies, particularly the DBM parasitoid *Diadegma semiclausum*. The FFS training will enable farmers to make more optimal use of natural biological control and allow them to gradually reduce chemical pesticides to control pests and diseases in cabbage production.
- Technical backstopping for field training activities were regularly provided for by facilitators at the central/national level.

#### **Training Materials:**

- With GCP/RAS/209/NOR funding, a poster and flipchart on major tomato diseases diagnosis and management were developed and published. Idem ditto, a poster and brochure on the invasive coconut hispine beetle (*Brontispa longissima*), its

management and quarantine procedures for avoiding further spread were developed and finally published in March 2009. These posters, flipcharts and brochures were subsequently distributed to provincial and agricultural district offices and rural community centers from late May 2009 onwards.

- Field exercises on IPM-GAP FFS and on PRR have been developed in Lao language and distributed to IPM and Farmer Trainers running the IPM-GAP FFS and PRR activities;
- Draft curriculums on IPM-PRR FFS and IPM-GAP FFS (for yard-long bean) were developed in Lao language;
- A poster on signs and symptoms of pesticide poisoning has been translated in Lao language and will be published in July 2009.

**Public awareness raising activities:**

Articles on the effects of pesticides on health and environment have been produced in Lao language for weekly local newspapers (Vientiane Mai and Pasason) and will be released for public awareness raising for three days a week starting from mid July 2009 onwards.

**A.3 List of reports produced during the reporting period**

<i>Title</i>	<i>Author(s)</i>	<i>Pages</i>	<i>Date</i>	<i>Type of Report</i>
Country Progress Report for period July - December 2008	Thongsavanh Taipangnavong & Vornthalom Chanthavong	10	29.01.2009	Progress Report (English)
Report of the Study on the Effect of Pesticides on Health and Environment, and the Development of Pesticides Risk Reduction Fortified IPM FFS Curriculum	Mr. Mongkon Tianponkrang	6	24.05.2009	Trip Report (English)
Report on the first part training of trainers (TOT) on IPM-GAP	Ms. Sengsathith Phalakhone Mr.Thongsavanh Taipangnavong	7	20.06.2009	Training report (Lao)
Report on the revised IPM- FFS curriculum with regards to PRR training	Mr. Phoumy Kanya Ms. Sengsathith Phalakhone Mr.Thongsavanh Taipangnavong	25	25.06.2009	Workshop report (Lao)

## **A.4 Workplans for next reporting period (July - December 2009)**

### **Training activities and Action research**

- Continue to conduct IPM-GAP FFS in two districts of Vientiane Province (Late June - Mid October 2009).
- Organize Training of Trainers (TOT) on IPM with regards to PRR training for existing IPM trainers, Provincial and District staff in Vientiane Capital and Vientiane Province (September 2009);
- Conduct training of trainers (TOT) on Pesticide Risk Reduction course in some selected districts with high pesticide use crops in Vientiane, Sayabouly and Xiengkhouang Provinces (August 2009);
- Continue to conduct second and third part training of trainers (TOT) on IPM-GAP in Vientiane Province (Second week of August and third week of September);
- Organize farmer forum to discuss the result and study plan on vegetable disease management studies (October 2009)
- Support pre and post-FFS community learning activities on PRR, Bio-control testing, etc. (August - November 2009);
- Conduct National M&E Workshop (September 2009);
- Provide regular technical back-stopping for field training activities conducted (June 2009 onwards).

### **Meetings and workshops**

- Organize the meeting on the effect of pesticide use for senior government officials, NGOs and concerned projects (Early October 2009);
- Set up National Steering Committee (Late July 2009).
- Project evaluation workshop (December 2009)

### **Awareness Raising Activities**

- Awareness raising activities through newspapers and posters (July 2009 onwards).

### **Training Material Development Activities:**

- Publish and distribute the poster on signs and symptoms of pesticide poisoning to concerned departments, organizations, projects, agencies etc..
- Continue to develop pesticide safety manual and posters, and field guide exercises related to PRR training (July 2009 onwards).

## **B. INPUTS**

### **B.1 National Programme Leaders and Counterparts**

- Mr. Viravanh Phannourath, Director General, DOA
- Mr. Khamtanh Thadavong, Director, PPC
- Ms. Keo Oudon Philagnam, Acting National IPM Project Coordinator (Up to April)
- Mr. Tiangkham Vongsabouth, New Acting National IPM Project Coordinator (From May 2009 up to present)
- Ms. Sengsathit Phalakone and Mr. Somkit, PPC Interns

### **B.2 International/National Professional and General Service Staff**

- Mr. Jan Willem Ketelaar, CTA with Duty Station in Bangkok and regular back-stopping missions throughout this reporting period
- Mr. Thongsavanh Taipangnavong, National IPM Expert
- Ms. Vornthalom Chanthavong, Senior Administrative Assistant

- Mr. Kalathone Kouaykasone, Administrative Assistant (Up to February 2009);
- Mr. Phonetheva Sengmany, Administrative Assistant (January 2009 up to present)
- Mr. Bounmy Sisouphanh, Driver

### B.3 Consultancy Missions during the Reporting Period

Country	Activities	Person(s) involved
Lao PDR	Resource person/Facilitator for the training course on the design of study on the effect of pesticides on health and environment from 3-14 May 2009	Mr. Mongkon Tianponkrang, FAO Consultant

### B.4 List of Contracts Issued/Ongoing during this Reporting Period

Countries	Activities	Institutions involved
Lao PDR	Letter of Agreement in support of the development of the National Vegetable IPM Programme and coordination/support services for the FAO Vegetable IPM Programme and its pesticide risk reduction project in the Lao PDR ( 01 March-31 December 2009)	Lao National Vegetable IPM Programme & Plant Protection Centre

### B.5 Exchanges and Study Tours during the Reporting Period

Activities	Organizer/ Hosting Agency	Location	Dates	Persons supported
Marketing and IPM Workshop	FAO Regional IPM Programme	Rome, Italy	23-29 May 2009	Ms. Vornthalom Chanthavong

### B.6 Equipment Purchased during the Reporting Period

No	Description	Value (USD)
	NIL	

## C. PROBLEMS AND SOLUTIONS

Problems/Issues	Action taken to resolve them
Shortage of IPM staff at central level and IPM trainers at local levels.	<ul style="list-style-type: none"> <li>• FAO staff continued to provide capacity building support to the National IPM Program staff and interns.</li> <li>• Planning for training new additional IPM trainers was discussed.</li> </ul>
Unable to implement all activities as planned due to: <ul style="list-style-type: none"> <li>• Delay in timely reporting on project activities;</li> <li>• Pending the required submission of activity reports, delayed CTA approval for new activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Discussion on the recruitment of experienced staff with Plant Protection Center;</li> <li>• Reporting responsibilities must be clarified prior to the trip;</li> <li>• Discussion on pre-requisite reporting to be done by project staff was discussed as to facilitate more timely approval process.</li> </ul>

**D. ACTIVITY PROGRESS AND WORKPLANS AS PER OUTPUT IN COUNTRY STRATEGY PAPER for Pesticide Risk Reduction project (GCP/RAS/229/SWE)**

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
1.1 Needs and priorities for strengthening ongoing and establishing new initiatives on community awareness, field training and mobilization on PRR and IPM.	<ul style="list-style-type: none"> <li>• Continue conducting geographical scoping and situational analysis surveys as to assess crops and locations with highest abuse of pesticide in Xiengkhuang and Xayabouly Provinces (late February – late March 2009).</li> </ul>	-Conducted pesticide shop and household storage surveys in Sayabouly and Xiengkhouang Provinces in mid-late March 2009. The surveys showed that toxic herbicides were used frequently in crop production, particularly in corn. The types and total amount of pesticides used per year including chemical family and hazard level were also identified. Survey results will be used for curriculum development for forthcoming IPM-PRR training events.	<ul style="list-style-type: none"> <li>• No new activities needed planned for next reporting period.</li> </ul>
1.2 Country strategy paper outlining PRR implementation strategies developed.	<ul style="list-style-type: none"> <li>• Conduct the meeting to discuss and clarify the CSP with the core PPC and DOA staff as well as project partner staff (Mid January 2009).</li> </ul>	-A final version of CSP both in Lao and English were finalized and officially sent to GOL (DOA, MAF) for comments and approval done in December 2008 and formally approved by GOL in late February 2009.	<ul style="list-style-type: none"> <li>• Continue to implement activities as outlined in this CSP.</li> </ul>
1.3 Functional networks of programme partners established as to ensure implementation of more relevant and effective training programme.	<ul style="list-style-type: none"> <li>• Organize inception and coordination workshop for programme support from related policy makers and stakeholders (Mid-late February 2009);</li> <li>• Set up National Steering Committee for PRR (April 2009).</li> </ul>	-Activity cancelled.  -Discussions were held with counterpart (DOA) as a result activity delayed to late July 2009.	<ul style="list-style-type: none"> <li>• Activity will be combined with the 1<sup>st</sup> Meeting of the Steering Committee, which is expected to be held in late July 2009.</li> <li>• Organize the meeting to set up National Steering Committee for PRR (Late July 2009)</li> </ul>
2.1 Fortified FFS, TOT and refresher training curricular and training materials on	<ul style="list-style-type: none"> <li>• Continue to undertake action research activities for developing IPM training</li> </ul>	- Five field studies on PRR in yard-long bean, cucumber and watermelon were conducted with 11 farmer families in	<ul style="list-style-type: none"> <li>• Continue to undertake action research activities with farmer communities identified with high</li> </ul>

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
IPM for new crops with particular focus on PRR developed.	<p>curricula with regards to PRR training (January – April 2009);</p> <ul style="list-style-type: none"> <li>• Continue to finalize the poster on signs and symptoms of pesticide poisoning and develop pesticide safety manual and poster and develop field guide exercise related to PRR training in Lao (March - June 2009).</li> <li>• Conduct workshop to revise current curricula for PRR Training (Mid February 2009).</li> </ul>	<p>Vientiane Capital and Province.</p> <ul style="list-style-type: none"> <li>• Posters and flipcharts including poster and flipchart on major tomato diseases diagnosis and management, a poster and brochure on the invasive coconut beetle management and quarantine procedures for avoiding spread were published under Norway funding and have been distributed to PAFOs and DAFOs nation wide in May 2009;</li> <li>• Developed poster on signs and symptom of pesticide poisoning in Lao language. The poster has been sent to concerned department for comments before publishing.</li> <li>• Developed several training materials (field guide exercises related to PRR training).</li> </ul> <p>- A three day curriculum development workshop with regards to pesticide risk reduction training on yard-long bean was conducted to revise the existing IPM FFS Curricula</p>	<p>use of pesticides in crop production.</p> <ul style="list-style-type: none"> <li>• Follow-up with the concerned Health Departments for comments on terminologies used in the poster before publishing for local distribution.</li> <li>• Develop pesticide safety manual and posters, and field guide exercises related to PRR training (July 2009 onwards)</li> </ul>
2.2 Trained 20 facilitators in IPM and PRR in target pilot provinces	<ul style="list-style-type: none"> <li>• Conduct TOT on IPM &amp; PRR courses on target high pesticide use crops (Late March 2009).</li> </ul>	<p>- Activity further delayed and to be done in the next reporting period.</p>	<ul style="list-style-type: none"> <li>• Organize TOT on IPM - PRR course in Vientiane Capital and Province in September 2009.</li> <li>• Organize TOT on PRR course in selected district of Sayabouly, Xiengkhouang and Vientiane Province</li> </ul>

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
2.3 By the end of 2009, at least 1,000 farmers participated in fortified FFS with regards to PRR	<ul style="list-style-type: none"> <li>Continue to support pre &amp; post FFS community learning activities on PRR, bio-control testing, disease management and marketing. (February - April 2009)</li> </ul>	<p>-Activity will be conducted after the completion of TOT on IPM PRR training course.</p> <p>- Most of IPM FFS graduate farmers who conducted field experiments on vegetable disease management in Vientiane Capital and Province have completed the studies. However, more technical reports still need to be submitted.</p>	<ul style="list-style-type: none"> <li>Continue to support pre &amp; post FFS community learning activities on PRR, bio-control testing and disease management (August-November 2009)</li> <li>Organize farmer forum to discuss the result and study plan on vegetable disease management studies (October 2009)</li> </ul>
2.4 Pilot model for market led IPM, community education for PRR developed	<ul style="list-style-type: none"> <li>Conduct workshop to develop curriculum on IPM-GAP FFS based on selected ASEAN GAP Standard (Mid-late January 2009)</li> <li>Conduct five IPM FFSs with integration of GAP approach in five villages in two districts of Vientiane Province (Mid February – June 2009);</li> </ul>	<p>-A two day Curriculum Development Workshop on IPM GAP FFS based on ASEAN GAP Standard conducted in collaboration with Clean Agriculture Development Centre and Phonsuang Agriculture Development Project in January 2009.</p> <p>-A four day first part training of trainers (TOT) on IPM-GAP was conducted in Phonsuang Agriculture Development Project from 26-29 May 2009.</p> <p>-Three IPM GAP FFSs on yardlong been are being conducted in collaboration with Phonsuang Agricultural Development Project in Vientiane province from late June 2009 and expected to be completed in October 2009. Sixty one farmers participated in the training. This activity was funded by Oxfam Belgium.</p>	<ul style="list-style-type: none"> <li>Continue to conduct 2<sup>nd</sup> and 3<sup>rd</sup> TOT on IPM GAP FFS in Vientiane Province (August and September 2009)</li> <li>Continue to conduct IPM GAP FFSs.</li> </ul>
2.5 Strengthening internal M&E system for training quality control	<ul style="list-style-type: none"> <li>Conduct National Training Workshop on M&amp;E (Early April 2009);</li> </ul>	<p>-Activity delayed to next reporting period.</p>	<ul style="list-style-type: none"> <li>Conduct National Training Workshop on M&amp;E (September 2009).</li> </ul>

<b>Output</b>	<b>Activity from Workplan for Previous Period</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
	<ul style="list-style-type: none"> <li>• Implementing M&amp;E system for IPM FFS programme (June 2009 onward).</li> </ul>	<p>-Activity will be implemented after conducting the National Training Workshop on M&amp;E.</p>	<ul style="list-style-type: none"> <li>• Continue to provide regular technical backstopping to IPM facilitators conducting.</li> <li>• Organize evaluation workshop on the implementation of project activities (December 2009)</li> </ul>
3.1 Public awareness on the community education for PRR raised	<ul style="list-style-type: none"> <li>• Continue with public awareness raising activities through TV, newspapers, posters, leaflets and radio broadcast. (Mid February 2009 onwards)</li> <li>• Organize the meeting on the effect of pesticide use for senior government officials, NGOs and concerned projects in Vientiane Capital and Province (March-April 2009);</li> <li>• Conduct an impact study on the effect of pesticides on health and environment (Early-mid April 2009).</li> </ul>	<p>-Articles on the effects of pesticides on health and environment were developed for local newspapers and will be released to the public in late July 2009 onwards.</p> <p>-Activity delayed and expected to be held in early October 2009.</p> <p>- The Study on the Effects of Pesticides on Health and Environment was conducted in four districts of Vientiane Capital in May 2009. Study report is being produced.</p> <p>- The survey findings revealed that WHO class Ib pesticides were available and used by farmers in vegetable production. Most of farmers handled and disposed pesticides improperly resulting in short term and long term effects on health and environment.</p> <p>- Both survey reports described above are expected to yield useful information for advocacy work on the negative effects of pesticides on health and environment.</p>	<p>-Continue to release the articles on pesticide effects on health and environment on local newspapers.</p> <p>- Organize the meeting on the effect of pesticide use for senior government officials, NGOs and concerned projects in Vientiane Capital and Province (October 2009)</p>

**E. SCHEDULE OF WORKPLANS FOR NEXT REPORTING PERIOD (July-December 2009)**

<b>Output #</b>	<b>Activity</b>	<b>Jul.</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>
1.1	• Set up National Steering Committee	xx					
1.2	• Organize Project evaluation workshop						xx
2.1	• Publish and distribute the poster on signs and symptoms of pesticide poisoning	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx			
	• Develop pesticide safety manual and posters, and field guide exercise related to PRR training	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2.2	• Conduct training of trainers (TOT) IPM & PRR courses for IPM trainers, Provincial & District staff in Vientiane Capital and Vientiane Province			xxx			
	• Organize TOT on PRR courses in selected districts with target high pesticide use crops of Vientiane, Sayabouly and Xiengkhouang Provinces.		xx				
	• Conduct TOT on IPM-GAP in Vientiane Province		xx	xx			
2.3	• Conduct IPM- FFS with integration of GAP approaches	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx		
	• Support pre and post-FFS community learning activities on PRR, Bio-control testing, marketing	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	
2.4	• Conduct national training/workshops on M&E system			x xx			
	• Follow-up field training activities						
	• Organize farmer forum on field studies on vegetable disease management				xxxx		
3.1	• Public aware raising activities through newspapers and posters..	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
	• Organize the meeting on the effect of pesticide use for senior government officials, NGOs and concerned projects in Vientiane Capital and Province				xx		

## Annex V Vietnam

### Country Progress Report for project GCP/RAS/229/SWE (January to June 2009)

#### A. COUNTRY STRATEGY, ACTIVITY PROGRESS, OUTPUTS AND WORKPLAN

##### A.1 Background

The National IPM Programme in Vietnam was established in 1990 with support from FAO to address concerns regarding heavy reliance on chemical inputs in crop production and protection, negatively affecting smallholder farmers, their livelihoods, consumer health and the environment. The implementation of the FAO Inter-country Programme for IPM on rice was carried out from 1992-2002. A network of farmer field school (FFS) facilitators was established nationwide that trained a large number of farmers in rice IPM. Following the success with the rice programme, other crops like maize, sweet potato, vegetables and estate crops (such as tea) became targeted for IPM implementation on smaller scale in specific areas supported by various donors (e.g., Danish International Development Agency - DANIDA) and national and international NGOs (e.g., Oxfam, CIDSE and Southeast Asia Regional Initiatives for Community Empowerment - SEARICE). Research institutions, local (e.g., National Institute of Plant Protection - NIPP) as well as international (e.g., International Potato Center, BioForsk, ACIAR), have also supported work on IPM development.

The FAO Regional Vegetable IPM Programme provided support to the National IPM Programme for implementation of *vegetable* IPM farmer training during the last decade. From 1996-2001, a cadre of vegetable IPM trainers (132) has been trained and around 22,000 farmers graduated from season-long IPM FFS. By the end of December 2008 the National IPM Program had covered 23 vegetable-growing provinces throughout Vietnam<sup>1</sup> and had organized 170 FAO funded vegetable IPM FFS, 45 LToT-associated FFS and five pilot FFS under the revolving-fund mechanism, training about 6,600 farmers. The Plant Protection Department (PPD) under the Ministry of Agriculture and Rural Development (MARD) is the responsible implementation agency of the programme in Vietnam, having the official mandate for plant protection extension. Field implementation of activities is done through provincial Plant Protection Sub-Departments (PPSD).

Over the years, there has been a clear shift in main funding sources for farmer training. Whereas initially all training was funded from external donor sources, local governments at provincial level are now the major funding sources for IPM FFS training, having provided, since 2001, an estimated \$237,000 under safe vegetable programmes. In tandem with these developments, FAO - in recent years - has shifted its technical assistance approach from developing a stand-alone IPM farmer training programme towards strengthening key government capacity to implement, and provide monitoring and evaluation support for, quality IPM training within the context of government-funded programmes, such as the National Programme for Food Safety.

Despite the success demonstrated by IPM farmer training programmes, small-holder farmers continue their practice of intensive use of highly hazardous chemicals. Given the renewed attention and current prominent driving forces for pesticide risk reduction related to food safety, international trade facilitation and enduring environmental and health concerns, the need for strong Integrated Pest Management (IPM) and good agricultural practices

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<sup>1</sup> Ha Noi, Hai Phong, Ho Chi Minh city, Ha Tay, Lam Dong, Hai Duong, Lao Cai, Da Nang, Quang Nam, Tien Giang, Vinh Phuc, Bac Ninh, Hung Yen, An Giang, Tay Ninh, Ha Tinh, Hung Yen, Yen Bai, Dac Nong, Dac Lac, Nghe An, Long An and Thai Binh

farmer training programmes is greater than ever. There is also a need for work to develop stronger pest and pesticide management policies and enhance capacity to set up associated regulatory systems and their enforcement.

Vietnam is one of the pilot countries for the exercise on “One UN”. Under “One UN”, the work of 14 resident UN organizations in Viet Nam will be integrated into a single planning framework to improve coordination and coherence, and help the UN in Viet Nam “Deliver as One”. Recently, within the context of the “One UN Plan 2”, FAO assisted MARD’s Plant Protection Department in the preparation of a proposal for support to “Capacity Building and Policy Reform for Pesticide Risk Reduction in Vietnam”. The project will make available an additional \$1.8M for three years to expand work on IPM and pesticide risk reduction and pesticide policies in Vietnam under the context of the National Programme for Food Safety. The project will build on capacities and linkages/collaborations established during the implementation of FAO’s Regional IPM Programme’s assistance to the Vietnam National IPM Programme and is seen as a way to expand and complement activities under the current Swedish-supported Pesticide Risk Reduction Programme.

The specific objectives for the 2007-2009 period formulated in the Country Strategy Paper for the Pesticide Risk Reduction Project for Vietnam are as follows:

- To assess the root causes of abuse and overuse of pesticides and risks associated with this and design field programmes in partnership with governmental and non-governmental organizations as well as local groups and networks of small holder IPM farmers to address pesticide risk reduction and support ecologically-based agriculture in areas most affected by heavy pesticide abuse;
- To enhance the capacity of the Vietnam National IPM Programme, including other government and non-government agencies, and farmer groups, to implement quality IPM training and action research activities with small holder vegetable, rice and fruit farmers, particularly in support of local government’s Safe Vegetable Programmes resulting in improved livelihoods, healthier and sustainable crop production and pesticide risk reduction;
- To develop, document and disseminate information on successful pilot models for community education for pesticide risk reduction to generate public sector and policy support from PPD, MARD and other sectors at all levels.

## **A.2 Report on progress made toward achieving outputs**

### **Farmer Field School (FFS):**

During November 2008 to February 2009 (Winter-Spring season), a total of 1,500 farmers participated in 50 vegetable FFS in 21 selected provinces<sup>2</sup>. During March to June 2009 (Summer season), 60 farmers participated in two vegetable IPM FFS in Lao Cai province. The northern highland province benefits from a cool climate, which is suitable for vegetable growing in the summer season. Local governments continue to have an interest and provide funding for FFS to support the National Programme for Food Safety. Currently, for every FFS that is supported by FAO, local governments on the average pay for three FFS.

About 30 farmers are normally selected to participate in the season-long discovery based vegetable IPM FFS. The farmers study the crop development from seed to harvest (17 weeks). The Trainers in these FFS are alumni of the Refresher Course held in Ha Noi

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<sup>2</sup> Hai Phong (3), Thai Binh (4), Ha Tay (3), Hai Duong (2), Vinh Phuc (3), Thai Nguyen (2), Bac Ninh (2), Lao Cai (2), Yen Bai (2), Nam Dinh (3), Quang Tri (2), Hung Yen (2), Ha Nam (2), Ha Tinh (2), Quang Nam (2), Phu Yen (2), Nghe An (2), Ninh Binh (2), Quang Ninh, (2), Lam Dong (2) and Hung Yen RPPC (2).

during September 2008. The new curriculum includes a strengthened module with Structured Learning Exercises (SLEs) on pesticide risk reduction aspect as well as exercises on Environmental Impact Quotient (EIQ) for impact assessment. The PRR-module includes SLEs on basic knowledge of pesticides; effects of pesticides on human health (including classification according to chemical families, effects according to chemical families, annual liters of pesticide exposure, household storage and disposal of pesticides); effects of pesticides on insect pests and natural enemies; information on pesticide labels; storage of pesticides; first aid and other techniques for reducing pesticide risks. The duration of the FFS has been extended to 17 instead of 14 weeks to accommodate the revised curriculum. In these FFS, the farmers decided on 1-3 vegetable crops to study for the whole crop season.

### **Pilot Community Education Programmes on Pesticide Risk Reduction**

The PPSDs of Hanoi and Thai Binh continued the implementation of activities in the pilot areas under the Community Education Programmes on PRR in Dang Xa commune, Gia Lam district and Thai Giang commune, Thai Thuy district, respectively. The curriculum of this pilot initiative includes a full range of advocacy and training activities for various stakeholders that include local leaders, farmers, pesticide sellers, representatives from the public health sector and social organizations. The community education programme is designed to strengthen community ownership in pilot rural communities for planning, management and implementation of the pesticide risk reduction activities. Baseline surveys (inventory and flow of pesticides in the communities as well as health and environment related information) have been completed. Training activities for local leaders, pesticide sellers, health workers and farmers started in July 2008. Some community actions have been carried out such as the closure of pesticide shops that do not conform to the pesticide policies (e.g. selling banned pesticides). Posters on pesticide risk reduction have been developed and displayed in public places. Cement tanks have been established by the local government for disposal of pesticide containers. The National IPM Programme is trying out the concept of developing core groups IPM FFS alumni who can coach other farmers in the community particularly on improved production practices and alternative pest management strategies. The core groups of IPM FFS alumni participate in new crop production/protection activities and in subsequent seasons work with other farmers in the community to introduce the new activities. From December 2008-March 2009, an IPM-FFS alumni group in Thai Giang commune was engaged in a pilot activity on producing potato seed tubers on rice straw using minimum tillage. The new technique has allowed farmers to improve on potato seed production and find use for rice straw that is otherwise burned. The new technique has also allowed farmers to reduce pesticides in potato seed production.

### **Development of Alternative Pest Management Strategies to Reduce Pesticide Risk**

The Programme continued to support work carried out by three Regional Plant Protection Centers (Nghe An, Hung Yen and Quang Ngai) on mass rearing and utilization of earwigs as a biological control agent for the management of various insect pests. The use of earwigs was introduced to replace farmers' high use of pesticides brought about by major pests such as aphids in sugar cane, beetles in coconuts and pod borers in green beans.. In addition to rearing the earwigs in the laboratory, IPM FFS alumni groups are now rearing the predator at the community level and are carrying out field releases to augment natural populations. During the reporting period, the Government provided about \$7,500 to support work on earwigs, shifting the role of RPPCs from carrying out studies on testing pesticides to rearing and utilization of biocontrol. With crucial initial FAO catalyzing support and continued government support, the RPPCs now adapt their workplans, responding to changing demands from farmers, consumers and local/national governments given the current interest in food safety and pesticide risk reduction.

## Impact Assessment Study on PRR Training

A Concept Note for the Impact Assessment Study on PRR Training was submitted by the Hanoi Agriculture University (HAU) in May 2009. The concept note has been submitted for comments to Experts on Impact Assessment from Kasetsart University and the University of Hannover and the former programme consultant on Impact Assessment. The comments will be the basis for the formulation of a proposal that will be submitted to the FAO Regional Vegetable IPM Programme and a Letter of Agreement with HAU is expected to formalize agreement for the implementation of the study.

### Meetings and Workshops

*Evaluation Workshop on Mass Rearing and Utilization of Earwigs as a Biological Control Agent.* The workshop, held in Nghe An province from 8-11 January 2009, was aimed at assessing the results of activities in relation to mass rearing and field releases of earwigs that had been implemented for one season and to plan for follow up work. The activity was attended by 23 participants comprised of staff members from three Regional Plant Protection Centers (RPPC), farmer representatives from three provinces, members of the National IPM Team, officials from the Plant Protection Department-MARD, and resource persons from the FAO Regional Vegetable IPM Programme and the Biological Control Center, Department of Agriculture Extension (DoAE), Thailand. Two participants from Cambodia also attended as to become familiar with earwigs and to explore its utilization as a biological control agent. The activity was in line with the development of national strategies for sustainable development of local biological control programmes in support of pesticide risk reduction.

*Workshop on Potential Impacts of Pesticide Use in Agricultural Production to Health of Vietnamese Women, Food Security and Food Safety.* The workshop was held in Hanoi, Vietnam on 8 May 2009. The activity was jointly organized by the National IPM Programme and the local civil society organization (CSO) Center for Gender, Family and Environment in Development (CGFED). A total of 60 participants representing the regional CSO Pesticide Action Network-Asia Pacific (PAN-AP), Asian Rural Institute of Japan, provincial Plant Protection sub Departments and Extension Departments, various Universities, local CSOs and representatives from mass media offices (newspaper and television) attended. The workshop was a follow up to the November 2008 Bangkok Bi-Annual Meeting organized by the FAO Regional IPM Programme that brought together partners from government and CSOs in the programme countries to discuss the results of their activities and identify ways by which they could collaborate in the implementation of the Swedish-supported Pesticide Risk Reduction Programme. At the end of the workshop, participants had come up with ideas on their vision for the Pesticide Risk Reduction Programme and identified strategies for achieving their vision. Participants' vision for the PRR programme in 2020 included access to safe food, right of every farmer to be trained on sustainable and profitable agricultural production/IPM, policies supportive of pesticide risk reduction in place, and access to alternatives to chemical pesticides. Representatives from government, CSOs and private sector agreed that one key strategy to achieve their vision is for all sectors to work together in pilot areas as to complement each other's activities and achieve more impact.

### A.3 List of reports produced during the reporting period

<i>Title</i>	<i>Author(s)</i>	<i># Pages</i>	<i>Date</i>	<i>Type of Report</i>
Evaluation Workshop on Mass Rearing and Utilization of Earwigs as a Biological Control Agent.	Areepan Upanisakorn	7	January 2009	Consultancy Report

<b>Title</b>	<b>Author(s)</b>	<b># Pages</b>	<b>Date</b>	<b>Type of Report</b>
SRI Application in Rice Production in Northern Ecological Area of Vietnam (paper presented in the Regional Knowledge Exchange on SRI: Producing More with Less Water at AIT from 22-23 June, 2009)	Ngo Tien Dung	14	15 June 2009	Country Paper
Report on the Vegetable IPM Programme Support to the National Food safety Programme	Ngo Tien Dung	4	20 June 2009	Progress report

#### **A.4 Work-plans for next reporting period (July – December 2009)**

*A Training of Master Trainers (MToT)* will be held in Ha Noi towards the end of July 2009 to up-date Master Trainers on new activities in an effort to continue to improve the pesticide risk reduction curriculum. The new aspects, identified based on requirements of farmers and to address emerging concerns on trade, food safety and food security, include: awareness raising on –and application of- Viet-GAP and safe vegetable standards, biological control as an alternative pest management strategy (e.g., rearing and utilization of earwigs), system of rice intensification (SRI), community PRR activities, etc. The Trainers who will facilitate the MToT will come from Hung Yen and Nghe An Regional Plant Protection Centers (RPPC) and PPD. Upon completion of the MToT the Trainers will facilitate the planned Refresher Courses.

*Two Refresher Courses* will be organized in August and September 2009 for IPM Trainers from central/southern provinces and northern provinces, respectively. The locations for these courses will be identified later. Participants of the workshops will be IPM Trainers from PPSDs who graduated from National ToTs (both rice and vegetable) conducted in October 2007-February 2008 and July-October 2008 under the PRR programme. The workshops will provide a forum for discussions on: (1) how to integrate new topics (e.g., awareness raising on –and application of- Viet-GAP and safe vegetable standards, biological control as an alternative pest management strategy (e.g., rearing and utilization of earwigs), system of rice intensification (SRI), community PRR activities, etc.) into the current IPM FFS curriculum; and (2) finalize the curriculum for an integrated FFS that can be applied to any crop (e.g., rice, vegetable, fruit, etc.) depending on the local situation. After the workshops, the participants will facilitate/carry out FFSs in their respective provinces.

*Farmer Field Schools.* Farmer training activities will be continued through the organization of 100 vegetable integrated FFS. The FFS will commence in September 2009. A total of about 3,000 farmers are expected to be trained from provinces that will be identified during the Refresher Courses above-mentioned. Government-funded FFS are also expected to continue during the reporting period.

*Field studies for curriculum development.* A total of eight field studies (2/province in 4 provinces - Thai Binh, Hanoi, Nam Dinh and Hai Phong) will be established to try out minimum tillage practices in potato tuber and potato tuber seed production. Minimum tillage is being practiced to improve the environment particularly soil health and micro organisms living in the soil. In a pilot activity in Thai Binh from December 2008-March 2009 the new technique has allowed farmers to find use for rice straw that is otherwise burned and reduce

pesticide, particularly fungicides, using the new technique in the production of potato tuber seeds. The field studies are expected to result in the development of a curriculum for potato tuber seed production. Prior to the implementation of the studies, a one-day meeting will be organized in Thai Binh for IPM trainers from the four provinces to learn about the experiences from Thai Binh.

*Community Education Programmes on Pesticide Risk Reduction.* Activities in two pilot communities on community education for pesticide risk reduction will continue in Hanoi and Thai Binh provinces. These activities will focus on establishing self-managed farmer groups for safe vegetable production (including the starting up of activities on rearing and the use of earwigs as a biocontrol agent), monitoring and technical backstopping to farmers' groups. Dissemination of information on the project through medial channels (e.g. Hanoi TV, VTV 1, Vietnam agriculture news paper) will be carried out. Training activities for local leaders, pesticide sellers, health workers and farmers will also continue during the next reporting period.

*Development of Alternative Pest Management Strategies to Reduce Pesticide Risk.* With funding from the Government, work on earwigs rearing and releases will continue in the three Regional Plant Protection Centers (Nghe An, Hung Yen and Quang Ngai) and by farmers' groups in these provinces. Results and experiences will be summarized as input to a report on rearing and utilization of earwigs as a biological control agent. The report is expected to serve as a reference for other RPPCs and provinces interested in going into similar activities in the future.

*Strengthening information campaign and propaganda activities through various forms of mass media, e.g., television.* The National IPM Programme will cooperate with Vietnam Television as to set up programmes for airing on National and Local TV on topics pertaining to pesticide risk reduction in support of the National Food Safety programme.

*Impact Assessment on Pesticide Risk Reduction Training.* Data collection for the impact assessment on pesticide risk reduction training will commence in October 2009. The study will be carried out by the Hanoi Agriculture University under a Letter of Agreement (LoA) expected to be issued by September 2009. The research will be conducted in Dang Xa and Le Chi (Hanoi City) , and Thai Giang and Thuy Son (Thai Binh province) and with the same group of farmers who were involved in the baseline study, as per the design of the Impact Assessment study (i.e., Double Delta or difference-of-difference between pre- and post PRR training among control, exposed and PRR-trained farmers).

## **B. INPUTS**

### **B.1 National Programme Leaders and Counterparts**

1. Mr. Nguyen Quang Minh, Director General of Plant Protection Department, MARD:
2. Mr. Ngo Tien Dung, Plant Protection Department, MARD, National IPM Programme Coordinator
3. Mr. Le Tien Binh, Plant Protection Department, MARD: Vegetable IPM Coordinator

### **B.2 International/National Professional and General Service Staff**

1. Mr. Tran Van Hieu, Accountant/Office Manager
2. Mr. Nguyen Huy Trung, Driver
3. Ms. Alma Linda M. Abubakar, Programme Development Officer, regular backstopping missions throughout this reporting period

### B.3 Consultancy Missions during the Reporting Period

<i>Activities</i>	<i>Persons Involved</i>
Technical backstopping to Evaluation Workshop on Mass Rearing and Utilization of Earwigs as a Biological Control Agent	Ms. Areepan Upanisakorn, DoAE Thailand
Mid-term SIDA-SENSA Evaluation Study of the Pesticide Risk Reduction Programme	Mr. Ake Nilsson, Geoscope AB

### B.4 List of Contracts Issued/Ongoing during this Reporting Period

<i>Activities</i>	<i>Institutions Involved</i>
Personal Services Agreement with Mr. Ngo Tien Dung as National IPM Expert from 15 January to 15 July 2009	Plant Protection Department

### B.5 Exchanges and Study Tours during the Reporting Period

<i>Activities</i>	<i>Organizer/ Hosting Agency</i>	<i>Location</i>	<i>Dates</i>	<i>Persons supported</i>
Iran Study Tour to Vietnam	Regional IPM Project for the Near East, GTFS/REM/070/1 TA	Vietnam	7-14 May 2009	Farhad Siamaki, Associate Researcher, Tehran Extension Department, Ministry of Agriculture Farshid Karkoodi, Technical Staff, Plant Protection Organization, Ministry of Agriculture Farzad Jalilian, Associate Researcher, Research Institute of Plant Protection, Ministry of Agriculture Fatemeh Mirzaee, Institute for Green Rural Advancement (IGRA) Hossein Heidari, Associate Researcher, Research Institute of Plant Protection, Ministry of Agriculture Mohammad Reza Malekzadeh, Associate Researcher, Research Institute of Plant Protection, Ministry of Agriculture Yoosof Hashemibeni, Expert, Extension Department, Ministry of Agriculture
IPM Week	FAO	Rome	25-29 May 2009	Ngo Tien Dung, Chief of Plant Protection Division, PPD-MARD and National IPM Programme Coordinator

## B.6 Equipment Purchased during the Reporting Period

No.	Description	Value (USD)/unit
	None	

## C. PROBLEMS AND SOLUTIONS

<i>Problems/Issues</i>	<i>Action taken to resolve them</i>
Initial steps have been taken as to bring together stakeholders of the PRR programme from government, CSOs and private sector. Stakeholders have agreed that a key strategy to achieve their vision (i.e., access to safe food, right of every farmer to be trained on sustainable and profitable agricultural production/IPM, policies supportive of pesticide risk reduction in place, and access to alternatives to chemical pesticides) is for all sectors to work together in pilot areas as to complement each other's activities and achieve more impact. However, it is not as easy for partners from CSOs, e.g., CGFED and Center for Rural Progress (CRP) to start up work in other locations because: (1) they will need the approval of the management board of the CSO; and (2) they will need to train field implementers in the new locations and do not have the resources to do this	The National IPM Programme will follow up with partner CSOs on discussions about collaborative work in focus/convergence areas. Where possible, the National IPM Programme will invite field implementers from these CSOs to Refresher Courses and further dialogues to foster closer linkages.

**D. ACTIVITY PROGRESS AND WORKPLANS AS PER OUTPUTS IN COUNTRY STRATEGY PAPER**

<b>Output</b>	<b>Activity from Work-plan</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
<b>Output 1.1:</b> Documentation of crop production and protection practices in areas most affected by pesticide abuse	Continue to update existing data from surveys carried out prior to conducting FFS in target provinces.	Data in FFS's Technical Report forms in target provinces updated	Continue to update existing data from surveys carried out prior to conducting FFS in target provinces.
<b>Output 1.2:</b> New partner institutions identified and areas of collaboration spelled out that strengthen the pesticide risk reduction programme	Design collaborative activities with CGFED in pilot community-based PRR areas per discussions in the November 2008 Bangkok Bi-Annual Meeting.  Continue to identify new prospective research and development partner institutions from both public and private sector.	Workshop on Potential Impacts of Pesticides Use in Agricultural Production - Food Security and Food Safety organized in cooperation with CGFED in Hanoi on 8 May 2009. A total of 60 participants representing the regional CSO Pesticide Action Network-Asia Pacific (PAN-AP), Asian Rural Institute of Japan, provincial Plant Protection sub Departments and Extension Departments, various Universities, local CSOs and representatives from mass media offices (newspaper and television) attended. The workshop helped define a vision for PRR and strategies, shared by all stakeholders.  New prospective research and development partner institutions from both public and private sector were identified during the above-mentioned workshop.	Design collaborative activities with CGFED and CRP in pilot community-based focus/convergence PRR areas per discussions in the 8 May 2009 workshop.  Follow up discussions with new prospective research and development partner institutions from both public and private sector.

<b>Output</b>	<b>Activity from Work-plan</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
<p><b>Output 1.2:</b> New partner institutions identified and areas of collaboration spelled out that strengthen the pesticide risk reduction programme</p>	<p>Meeting with DG of PPD to discuss the possibility of re-establishing the IPM National Steering Committee</p> <p>Conduct dialogue with IUCN and Cantho University regarding their possible membership in the National Steering Committee</p>	<p>As a result of GoV's prioritization and thrust on food safety issues, the National IPM Programme has recently been subsumed under the umbrella of the National Food Safety Programme. Hence, the re-establishment of the IPM National Steering Committee is no longer a priority. Instead, strengthening collaboration with various stakeholders has been initiated so that the PRR programme will have more impact. Steps have been taken in this direction starting with a workshop on 8 May to define a common vision and strategies to achieve the vision of access to safe food, right of every farmer to be trained on sustainable and profitable agricultural production/IPM, policies supportive of pesticide risk reduction in place, and access to alternatives to chemical pesticides.</p> <p>Meeting with partners from the International Union for Conservation of Nature and Natural Resources (IUCN) for purposes of updating each other on progress of activities carried out relative to the PRR programme in Hanoi on 2 March, 09</p>	<p>Initiate activities to strengthen policy and regulatory frameworks for pest and pesticide management at local and provincial level, in line with the National Food Safety action plans</p>
	<p>Organize an inter-agency meeting to foster linkages and define strategies to support local PRR programmes.</p> <p>Organize a press conference on the experience in the pilot IPM/community education for pesticide risk reduction in Hanoi.</p>	<p>See actual achievement 1.2</p> <p>Activity delayed until next reporting period</p>	<p>See section on adjustment/workplan 1.2</p> <p>Organize a press conference on the experience in the pilot IPM/community education for pesticide risk reduction in Hanoi.</p>

Output	Activity from Work-plan	Actual Achievements	Adjustments/Workplan for Next Period
<p><b>Output 2.1:</b> IPM strategy for new crops, e.g., lychee, developed</p>	<p>Mass production and utilization of earwigs as a biological control agent by three RPPCs and IPM farmers' groups (Hung Yen, Nghe An and Quang Ngai) to address insect pest problems in vegetable, maize, and coconut production</p>	<p><i>Evaluation Workshop on Mass Rearing and Utilization of Earwigs as a Biological Control Agent</i> was held in Nghe An province from 8-11 January 2009 to assess the results of activities and to plan for follow up work. The activity was attended by two participants from Cambodia and 23 participants comprised of staff members from three Regional Plant Protection Centers (RPPC), farmer representatives from three provinces, members of the National IPM Team, officials from the Plant Protection Department-MARD, and resource persons from the FAO Regional Vegetable IPM Programme and the Biological Control Center, Department of Agriculture Extension (DoAE), Thailand.</p> <p>The PPD has provided about \$7,500 to support work on earwigs, shifting the role of RPPCs from carrying out studies on testing pesticides to rearing and utilization of biocontrol as to be relevant to changing demands from farmers, consumers and local/national governments given the current interest in food safety and pesticide risk reduction. The funds were used to continue the work on rearing and releasing earwigs as a biological agent to control insect pest problems in Hung Yen (vegetables), Nghe An (vegetables and sugar cane) and Quang Ngai (coconut) by RPPCs and farmers' groups.</p>	<p>With funding from the Government, continue work on rearing and releasing earwigs as a biological agent to control insect pest problems in Hung Yen (vegetables), Nghe An (vegetables and sugar cane) and Quang Ngai (coconut) by RPPCs and farmers' groups.</p>

<b>Output</b>	<b>Activity from Work-plan</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
<p><b>Output 2.2:</b> Curricula for training and field research activities strengthened along aspects of pesticide risk reduction, ecologically-based agriculture, and market access</p>	<p>Updating of curriculum for integrated FFS as to include new topics (e.g., biological control like earwigs, SRI principles, GAP, etc.)</p> <p>Updated curricula for potato IPM FFS to be used in two pilot FFS in Thai Binh in March-June 2009</p>	<p>From December 2008-March 2009, the IPM-FFS alumni core group in Thai Giang commune was engaged in a pilot activity on producing potato seed tubers on rice straw using minimum tillage. The new technique has allowed farmers to find use for rice straw that is otherwise burned and reduce pesticide using the new technique.</p> <p>Two pilot potato IPM FFS implemented in Thai Binh from March-June 2009</p>	<p>A total of eight field studies (2/province in 4 provinces - Thai Binh, Hanoi, Nam Dinh and Hai Phong) will be established to try out minimum tillage practices in potato tuber and potato tuber seed production. The studies will be based on the pilot activity done in Thai Binh from December 2008-March 2009 that has allowed farmers to find use for rice straw that is otherwise burned and reduce pesticide, particularly fungicides, using rice straw in the production of potato tuber seeds. The field studies are expected to result in the development of a curriculum for potato tuber seed production using minimum tillage to improve the environment particularly soil health and micro organisms living in the soil.</p>
	<p>In Hanoi and Thai Binh, a workshop on development of the training manual on policies and regulations regarding pesticide management and safe vegetables. The workshop will consolidate experiences in the pilot areas that will serve as inputs to the development of the training manual.</p>	<p>No achievements to report on during this reporting period.</p>	<p>In Hanoi and Thai Binh, organize a workshop on development of the training manual on policies and regulations regarding pesticide management and safe vegetables. The workshop will consolidate experiences in the pilot areas that will serve as inputs to the development of the training manual.</p>
<p><b>Output 2.3:</b> Training materials on selected fruits and vegetable IPM/safe vegetable production, pesticide risk reduction and market access are available to facilitators</p>	<p>National IPM group will work with Oxfam US on revising the SRI training manual.</p>	<p>No achievements to report on during this reporting period.</p>	<p>National IPM group will work with Oxfam US on revising the SRI training manual.</p>
	<p>The IPM FAO office in Hanoi will look for a translator to work on the translation of VietGAP into English.</p>	<p>Activity delayed until next reporting period.</p>	<p>The IPM FAO office in Hanoi will look for an translator to work on the translation of VietGAP into English</p>
	<p>Identify existing production manuals that can be used in Vietnam</p>	<p>Manuals on Marketing received from workshop on IPM and Marketing</p>	<p>Manuals on Marketing will be reviewed and adapted</p>

<b>Output</b>	<b>Activity from Work-plan</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
	The list of pesticides allowed in Vietnam will be distributed to other IPM Trainers and other interested organizations.	The list of pesticides allowed in Vietnam has been made available on the MARD website.	The list of pesticides allowed in Vietnam will be distributed to other IPM Trainers and other interested organizations.
<b>Output 2.4:</b> Capacity of National IPM Programme enhanced (to conduct training) on environmentally sound and sustainable production management	Instead of a ToT, two Refresher Courses (one for northern and one for southern provinces) will be organized in March and June 2009 for IPM trainers who graduated from previous ToTs. These refresher courses will focus on pesticide risk reduction, pesticide flow in the community, storage and disposal of pesticide containers, GAP, biological control, etc. These trainers will conduct FFS in their respective provinces in the future.	Activity delayed until next reporting period	One Training of Master Trainers (TMoT) and two Refresher Courses (one for southern and one for northern/central provinces) will be organized in August and September 2009, respectively, for IPM trainers who graduated from previous ToTs. These refresher courses will focus on (1) how to integrate new topics (e.g., application of Viet-GAP and safe vegetable standards, biological control as an alternative pest management strategy (e.g., rearing and utilization of earwigs), system of rice intensification (SRI), community PRR activities, etc.) into the current IPM FFS curriculum; and (2) finalize the curriculum for an integrated FFS that can be applied to any crop (e.g., rice, vegetable, fruit, etc.) depending on the local situation.
	IPM Trainers who participated in the Refresher Courses will continue to implement FFS in their respective provinces in the next reporting period.	Refresher Courses were not conducted but IPM Trainers continued to implement FFS.	After the workshops, the participants will facilitate/carry out integrated FFSs in their respective provinces during the reporting period.
<b>Output 2.5:</b> Internal Monitoring and Evaluation system established	The M&E protocol and instrument developed by the National IPM Programme under the Norway-supported IPM Programme will be revised and utilized for the PRR Programme.	Activity delayed until next reporting period	The M&E protocol and instrument developed by the National IPM Programme under the Norway-supported IPM Programme will be revised and utilized for the PRR Programme.

<b>Output</b>	<b>Activity from Work-plan</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
	The National IPM Team with the IPM Trainers who developed the earlier M&E protocol will review the existing M&E system and identify areas that should be changed as to support the PRR Programme.	Activity delayed until next reporting period	The National IPM Team with the IPM Trainers who developed the earlier M&E protocol will review the existing M&E system and identify areas that should be changed as to support the PRR Programme.
	National IPM Team will continue to monitor and provide backstopping visits to Refresher Courses and FFS	National IPM Team and officers from the FAO Regional IPM Programme office carried out monitoring and backstopping visits to FFS as to ensure training quality	National IPM Team will monitor and provide backstopping visits to Refresher Courses and FFS
<b>Output 2.6:</b> Knowledge and skills of farmers in target provinces on healthier, environmentally sound production management is strengthened	50 IPM-PRR FFSs will be organized in 2009. The provinces where these FFS will be organized will be identified during the Refresher Course in March and June 2009.	In winter - spring season (from November 2008) 50 IPM-PRR FFSs on vegetables were organized in 21 provinces training 1,500 farmers.  In summer season (March-June 2009), 2 FFSs were organized in Lao Cai province training 60 farmers.	100 IPM-PRR FFSs will be organized in 2009. The provinces where these FFS will be organized will be identified during the Refresher Course in March and June 2009.
<b>Output 3.1:</b> Pilot models for IPM/community education for pesticide risk reduction developed	Continue implementing the community PRR programme in Dang xa village, Gia Lam district, Hanoi city and Thai Giang village, Thai Thuy district, Thai Binh province.	Activities are ongoing. The community education programmes on PRR in Hanoi and Thai Binh includes a full range of advocacy and training activities for various stakeholders that include local leaders, farmers, pesticide sellers, representatives from the public health sector and social organizations. The programme is designed to strengthen community ownership for planning, management and implementation of PRR activities. The programme has resulted in community action such as closure of pesticide shops that do not conform to pesticide policies (e.g., selling banned pesticides) ,etc.	Continue implementing the community PRR programme in Dang xa village, Gia Lam district, Hanoi city and Thai Giang village, Thai Thuy district, Thai Binh province.

Output	Activity from Work-plan	Actual Achievements	Adjustments/Workplan for Next Period
	Other private sector enterprises will be identified and invited to visit the pilot community PRR areas.	Information on the results of minimum tillage practices to improve the environment particularly soil health and micro organisms living in the soil in the pilot activity in Thai Binh from December 2008-March 2009 was shared with PepsiCo. PepsiCo works with potato farmers in some northern provinces who produce potatoes for processing. PepsiCo was invited to visit Thai Binh to see the result of the pilot study using the minimum tillage and rice straw that is otherwise burned. Farmers were also able to reduce pesticide use, particularly fungicides, in the production of potato tuber seeds.	Other private sector enterprises will be identified and invited to visit the pilot community PRR areas.
	<p>Revolving fund mechanisms to be explored with self-managed farmer groups in the pilot communities in Hanoi and Thai Binh</p> <p>Meeting with Sugar Cane Enterprise in Nghe An about possibility for collaboration on revolving fund scheme.</p>	<p>Activity delayed until next reporting period</p> <p>Activity delayed until next reporting period</p>	<p>Revolving fund mechanisms to be explored with self-managed farmer groups in the pilot communities in Hanoi and Thai Binh</p> <p>Meeting with Sugar Cane Enterprise in Nghe An about possibility for collaboration on revolving fund scheme.</p>
<p><b>Output 3.2:</b> Reports on successful pilot models of community education for pesticide risk reduction support advocacy for policy changes</p>	Conduct meeting with Principal Investigator and Consultants on Impact Assessment as to define how to measure risk reduction and design a database for the impact assessment study.	<p>Inputs on how to quantify risk reduction were provided by the Impact Assessment Expert from Kasetsart University in a meeting held in Bangkok on 25-27 June 2009.</p> <p>A Concept Note for the Impact Assessment Study on PRR Training was submitted by the Hanoi Agriculture University (HAU) in May 2009. The concept note has been submitted for comments to Experts on Impact Assessment from Kasetsart University and the University of Hannover and the former programme consultant on Impact Assessment.</p>	<p>Proposal for Impact Assessment study submitted</p> <p>HAU will develop a proposal for Impact Assessment of the PRR Training that will be submitted to the FAO Regional Vegetable IPM Programme. A Letter of Agreement with HAU is expected to formalize agreement for the implementation of the study during the reporting period.</p>

<b>Output</b>	<b>Activity from Work-plan</b>	<b>Actual Achievements</b>	<b>Adjustments/Workplan for Next Period</b>
	Farmer-to-farmer health studies will be carried out in the pilot communities in Hanoi and Thai Binh.	No achievements to report on for this reporting period	Farmer-to-farmer health studies will be carried out in the pilot communities in Hanoi and Thai Binh
<b>Output 3.3:</b> Pesticide risk reduction activities integral part of normative functions of PPD	Continue dialogue and exposure of staff and officers from other Divisions under PPD to ecological approaches to pest management as to reduce pesticide risks	A staff member from the Planning Division of PPD joined the <i>Evaluation Workshop on Mass Rearing and Utilization of Earwigs as a Biological Control Agent</i> that was held in Nghe An province from 8-11 January 2009. The purpose of this visit was to assess the results of activities and to plan for follow up work as part of PPD regular program work. The Planning Division was responsible for approving the financial support from PPD for the work on earwigs.	Continue dialogue and exposure of staff and officers from other Divisions under PPD to ecological approaches to pest management as to reduce pesticide risks
	Director of PPD and officials from the Division of Inspection and Division of Pesticide Management will visit the pilot community PRR programmes in Hanoi and Thai Binh.	No achievements to report on for this reporting period	Director of PPD and officials from the Division of Inspection and Division of Pesticide Management will visit the pilot community PRR programmes in Hanoi and Thai Binh

**E. SCHEDULE OF WORKPLANS FOR NEXT REPORTING PERIOD (July to December 2009)**

Output	Activities	Jul				Aug				Sep				Oct				Nov				Dec			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1.1	Continue to update existing data from surveys carried out prior to conducting FFS in target		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1.2	Design collaborative activities with CGFED and CRP in pilot community-based focus/conference PRR areas per discussions in the 8 May 2009 workshop.		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Follow up discussions with new prospective research and development partner institutions from both public and private sector		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Initiate activities to strengthen policy and regulatory frameworks for pest and pesticide management at local and provincial level, in line with the National Food Safety action plans		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Collaboration with offices of various mass media, e.g., television to set up programmes for promoting messages on pesticide risk reduction					x	x	x	x	x	x	x	x	x	x	x	x								
	Press conference on the experience in the pilot IPM/community education for pesticide risk reduction in Hanoi.																								x
2.1	With funding from the Government, continue work on rearing and releasing earwigs as a biological agent to control insect pest problems in Hung Yen (vegetables), Nghe An (vegetables and sugar cane) and Quang Ngai (coconut) by RPPCs and farmers' groups.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2.2.	A total of eight field studies (2/province in 4 provinces - Thai Binh, Hanoi, Nam Dinh and Hai Phong) will be established to try out minimum tillage practices in potato tuber and potato tuber seed production.									x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Curriculum development workshop for potato tuber seed production using minimum tillage to improve the environment particularly soil health and micro organisms living in the soil based on results of field studies.								x																

Output	Activities	Jul				Aug				Sep				Oct				Nov				Dec			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	Workshop on development of training manual on policies and regulations regarding pesticide management and safe vegetables (Hanoi and Thai Binh)															X	X								
2.3	National IPM group will work with Oxfam US on revising the SRI training manual									X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Translation of VietGAP into English and used as entry points for FFS curriculum improvements																					X	X	X	X
	Manuals on Marketing will be reviewed and adapted		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Identify existing production manuals that can be used in Vietnam (e.g., training manual on policies and regulations regarding pesticide management and safe vegetables)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	The list of pesticides allowed in Vietnam will be distributed to other IPM Trainers and other interested organizations.									X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.4	Conduct one TMoT and two Refresher Courses for IPM Trainers					X	X	X	X																
	Updating of curriculum for integrated FFS as to include new topics (e.g., biological control, SRI, GAP, etc.)					X	X	X	X																
2.5	The National IPM Team with the IPM Trainers who developed the earlier M&E protocol will review the existing M&E system and identify areas that should be changed as to support the PRR Programme					X	X	X	X	X	X	X	X												
	Monitoring and backstopping visits to FFSs by National IPM Team	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.6	100 IPM-PRR FFSs conducted from September to December 2009									X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.1.	Continue implementing the community PRR programme in Dang xa village, Gia Lam district, Hanoi city and Thai Giang village, Thai Thuy district, Thai Binh province	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Output	Activities	Jul				Aug				Sep				Oct				Nov				Dec			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	Private sector enterprises will be identified and invited to visit the pilot community PRR areas	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Revolving fund mechanisms to be explored with self-managed farmer groups in the pilot communities in Hanoi and Thai Binh	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Meeting with Sugar Cane Enterprise in Nghe An about possibility for collaboration on revolving fund scheme.								x									x	x	x	x	x	x	x	x
3.2	Start the development of impact assessment database																	x	x	x	x	x	x	x	x
	Farmer-to-farmer health studies will be carried out in the pilot communities in Hanoi and Thai Binh																	x	x	x	x	x	x	x	x
3.3	Dialogue and exposure of staff and officers from other Divisions under PPD to ecological approaches to pest management as to reduce pesticide risks (different times during the period)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Local policy level workshops to support institutional reforms risks (different times during the period)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x