

Food and Agriculture Organization of the United Nations

Inter-Country Programme to Strengthen IPM Training and Sustain IPM
Practices among Vegetable Farmers in South and Southeast Asia

GCP/RAS/209/NOR

Progress Report *01 March-31 August 08*

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Supported by the Governments of Australia, Norway and Sweden



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A. PROGRESS AND OUTPUTS

A.1 Scope of this Report

The FAO Inter-Country Programme for the Development and Application of Integrated Pest Management in Vegetable Growing in South and South-East Asia (ICP) began in 1996. During Phase I (1996-2001), the Programme carried out farmer education and participatory research activities to promote and support Integrated Pest Management in vegetables by Asian smallholder farmers. The Programme focused on enhancing the member Governments' and NGOs' capacity to implement vegetable IPM training programmes in seven countries (Bangladesh, Cambodia, Laos, Indonesia, Philippines, Vietnam and Thailand) using the "Training of Trainers" and "Farmer Field School" approach. By end of 2001, more than 600 trainers and some 30,000 farmers have participated in the training programmes organised by and associated with this Programme. Donors for the first phase of this Programme were the Governments of the Netherlands (GCP/RAS/160/NET) and Australia (GCP/RAS/168/AUL), providing a total grant contribution of USD 5,214,162.

Building on experiences of the successful first phase of the Programme, FAO, upon request of member governments and donors, formulated a second phase of the Programme for an additional period of five years (2002-07). The second phase of this Programme started in July 2002 with initial funding for the first 2 years (2002-04) of Programme implementation from the Government of the Netherlands (FNPP/GLO/002/NET-US\$ 1,400,000) and the Government of Australia (GCP/RAS/191/AUL-US\$ 1,856,712). Funding support from the Royal Norwegian Government under project GCP/RAS/209/NOR (US\$ 4,269,000) for period 2005-7 was obtained in April 2005. An addendum to the GCP/RAS/209/NOR agreement was signed by FAO and the Norwegian Government in Hanoi on 6th March 2007 making available an additional grant contribution of US\$ 478,469. The Norwegian Government formally approved an extension of the GCP/RAS/209/NOR project up to 30 September 2008 while also allowing the project to absorb accumulated exchange rate and interest funds (US\$ 707,687). This brings the total Norwegian contribution for project GCP/RAS/209/NOR up to US\$ 5,455,156, whereas total funding made available by all donors for Phase II implementation (2002-8) was US\$ 8,711,868. The Norwegian Government approved a final project NTE extension up to 31.12.2008.

The Phase II Programme provides advice, organises training, funds field studies and other post-FFS learning activities, and facilitates exchange of expertise among stakeholders in participating programme member countries. Whereas Bangladesh, Philippines and Indonesia remain member countries of the Programme--and FAO continues to support limited activities in most of these countries--Phase II emphasises vegetable IPM farmer participatory training and research in five countries in the Greater Mekong Sub-Region (GMS: Cambodia, Laos, Thailand, Vietnam and Yunnan Province of P.R. China).

The Programme underwent an external review in November 2005. Overall assessment of achievements to date was positive and recommendations were made with relevance to strengthening work for the remaining years of Phase II. Both the Evaluation Report and FAO's management response have been submitted to donors and member countries and are also available for distribution upon request. The Mid-Term Evaluation also advised for a continuation of this programme into a next 3rd phase. As to date, it is unclear whether the Norwegian Government will be able to contribute towards funding for a follow up programme. Both Norwegian Embassies in Hanoi and Bangkok are no longer authorized to engage in negotiations for funding of regional initiatives. The Hanoi Embassy has called for a Final Evaluation of the project and this will be implemented during the period 29th October-14 November 2008. Pending outcomes of this evaluation, FAO should consider whether it makes sense to formulate a new project proposal.

Areas and activities that might need continued FAO support under a new 5 year regional (GCP) programme would include pesticide risk reduction training, facilitation of better market access for smallholder farmers, harnessing rural communities for food security and capacity building for sustainable intensification of crop production. FAO has already engaged in a sub-contract with the Swedish Chemical Agency (KemI) for pesticide risk reduction policy development and strengthening IPM training programmes. The project code associated with this sub-contract is GCP/RAS/229/SWE and the initial project duration is 3 years (Jan. 2007-Dec. 2009). Total contribution to FAO for this initial 3 year period amounts up to USD 3.4 Million with USD 2.8 Million allocated for stepping up IPM field programmes, with particular focus on pesticide risk reduction training. The Swedish government will likely field an evaluation mission sometime in 2009 as to assess progress of project implementation and to provide directions for future project formulation.

The period for which Programme progress is being documented in this Progress Report is 01 March-31 August 2008. Workplans are included for the final Phase II project period September–December 2008. This report focuses on activities supported by the GCP/RAS/209/NOR project. Separate Inception and Progress Reports for the GCP/RAS/229/SWE project were finalized in August 2007 and February & August 2008 respectively. For more background reading on the overall Regional Programme design the interested reader is referred to the Phase II Project Document (2002) and the Project Addendum (GCP/RAS/209/NOR, December 2004).

A.2 Programme Objectives

Regional Programme objectives as formulated in the Phase II Project Document are as follows:

- 1) *Strengthen and expand the capacity of government agencies and NGOs to carry out IPM training and continue farmer follow-up learning and experimentation activities;*
- 2) *Create and strengthen groups of smallholder farmers so that they can take collective action in support of ecologically-based vegetable production and marketing; and,*
- 3) *Institutionalise mechanisms for generating sustainable solutions to technical crop production and protection problems faced by vegetable farmers.*

These Regional Objectives remain overall relevant and steer regional programme work. However, based on above Regional Programme objectives, country specific objectives were formulated at the start of the Phase II Programme (early 2003) as to make the programme's interventions in each of the countries more locally relevant. These revised objectives and country-specific logical frameworks are listed in the various Country Strategy Papers (April 2005), which are annexed to the earlier published comprehensive Progress Report for the period January-August 2005. As done in the previous progress report a logframe analysis is used as reporting format for all of the Greater Mekong Subregion country reports.

A.3 Programme Strategy, Activity Progress, Outputs and Workplans

The following sections describe activity progress and outputs for the current reporting period (01 March 2008-31 August 2008) and workplans for the next reporting period (01 September -31 December 2008) for each of the member countries as well as on the Regional level.

A.3.1 Greater Mekong Subregion Member Countries

A.3.1.1 Cambodia

Background

The FAO Vegetable IPM Programme in Cambodia is being implemented by the Royal Government of Cambodia's (RGC) National IPM Program under the framework of the Phase II FAO Vegetable IPM Programme. The overall development goal of the FAO Regional Vegetable IPM Programme is to: *support small holder vegetable farmers, primarily in the Greater Mekong Sub-Region, in achieving more sustainable livelihoods by assisting with the efficient, profitable, healthy and environmentally sound production of vegetable through Integrated Pest Management training, and the sustained application of its principles and methods.*

During this reporting period the project continued its focus on three main areas:

1) capacity development of trainers, 2) strengthening local groups and networks of smallholder vegetable IPM farmers and, 3) institutionalizing mechanisms for generating sustainable solutions to technical crop production and protection problems. The project is working in the four target provinces (Kandal, Battambang, Siem Reap & Kampong Cham) and in Phnom Penh Municipality. More detailed information can be obtained from the 2005-2007/8 Vegetable IPM Programme Cambodia Country Strategy Paper.

Report on progress made towards achieving outputs during reporting period

(March - August 2008)

The major activities implemented during this period are:

1. Field Activities:

- **FFS activity:** During the dry season (December 2007 – April 2008), **24** FFSs on vegetables were completed involving **555** vegetable farmers (**276** women) in the provinces of Battambang, Siem Reap, Kampong Cham and Kandal. The main vegetable crops grown in the FFS were cauliflower, yard long bean, Chinese kale, cabbage, cucumber and Chinese cabbage.
- **Post FFS action-research activity:** In the dry season 2008, twelve post-FFS action research activities were completed, involving some **183** vegetable farmers (**91** women) in the provinces of Battambang, Siem Reap, Kampong Cham and Kandal. The vegetable crops that were studied in post-FFS farmers' field research activities were cauliflower, yard long bean, Chinese kale, tomato and Chinese cabbage.
- **Farmers' congress:** Ten Farmer Congresses¹ were organized attended by 501 farmers (156 women). Each congress was organized for one day to provide a platform for local authorities, trainers, field workers and farmers to discuss about issues related to their farming activities. During the congresses, farmers shared the results obtained from their own farming activities and FFS field studies, raised problems they faced then discussed these issues together. The main topics discussed were DBM management, flea beetle, fruit borer, aphid management, Tomato Yellow Leaf Curl Virus, damping off, and negative effects of chemical pesticide.

¹ The dates and locations of the Farmer Congresses were: Battambang on 01/5/08 and 30/5/08; Siem Reap on 02/5/08; Kampong Chhang: on 29/4/08; and Prey Veng on 28/4/08 and 30/4/08.

2. Meetings and Workshops:

- **Semi-monthly meetings:** Four semi-monthly meetings² were conducted by Provincial Coordinators (PC) in the four target provinces. All DTs and FTs who had been involved with IPM field activities in each target province participated in the meetings. During these meetings the IPM trainers reported on the progress and evaluated the results of field activities. Trainers also shared experiences, discussed problems faced and proposed solutions and strategies for improvement of the activities for the following month.
- **Evaluation and planning workshops:** A total of four two-day meetings³ were organized by Provincial Coordinators in the target provinces⁴ with assistance from the National IPM Team. All DTs and FTs involved with the project were invited to join the meetings. The meetings were aimed at a review of training activities implemented during the last season, discuss problems and identify strategies for better implementation and prepare work plans for the upcoming season.
- **Refresher Workshop:** A five-day Refresher Workshop was conducted in Kampot province from 26 to 30 May 2008. The workshop was organized to strengthen capacities and skills of vegetable IPM Trainers. Forty-three IPM trainers from six provinces (Kampong Cham, Siem Reap, Kandal, Battambang, Kampot and Kampong Chhnang) participated in the workshop. As to strengthen technical skills, sessions were carried out on new activities such as pesticide-related health exercises, understanding pesticide labels, off-season vegetable production, management of diseases in vegetables, writing up case studies, use of agro-ecosystem for crop management decision-making in post-FFS activities, etc.
- **National Vegetable Disease Training:** Thirty-five participants (11 women) from six provinces (Kampong Cham, Battambang, Siem Reap, Kandal, Kampot and Kampong Chhnang) participated in the National Vegetable Disease Diagnosis, Ecology and Management Training conducted by the National IPM Programme from 21-25 April 2008 at the Department of Agriculture in Kampong Cham province. The training aimed to provide IPM facilitators with theoretical and hands-on learning related to the principles of vegetable disease diagnosis, ecology and management. Activities focused on bacteria, fungi, virus and nematodes as causal organisms of disease on vegetable crops in the solanaceae, leguminaceae, brassicaceae and cucurbitaceae families.

3. Other Activities:

- **Technical backstopping:** The National IPM Team made backstopping visits to IPM Trainers in the six target provinces. During these visits the members of the National IPM Team held discussions with Trainers to improve technical aspects and quality of FFS and other field activities. Furthermore, all Provincial Coordinators also provided technical backstopping to Trainers and at the same time undertook monitoring and evaluation activities to improve the quality of the IPM activities in their own provinces.
- **Development of Training Materials.** Translation of the Cabbage Ecological Guide (66 pages) was completed during the reporting period. The technical review and compilation of sections of the Tomato Ecological Guide is ongoing.

² The dates and locations of the Semi-Monthly Meetings were: Battambang on 14/3/08; Siem Reap on 06/4/08; Kampong Cham on 16/3/08 and Kandal province on 07/3/08.

³ The dates and locations of the Evaluation and Planning Meetings were: Battambang on 06-07/5/08; Siem Reap on 05-06/5/08; Kampong Cham on 02-03/5/08 and Kandal province on 08-09/5/08.

⁴ The provinces of Battambang, Siem Reap, Kampong Cham and Kandal

- **Dialogue with Commune Councils.** PCs and IPM Trainers continued efforts to convince Commune Councils to include IPM-FFS activities in Commune Investment Plans. The local NGO ATSA, supported by DANIDA, is implementing IPM activities to educate farmers on integrated farming systems through Integrated Farmer Field School (IFFS). A total of 41 IFFS are being conducting in Kampong province using commune funds. IPM Trainers trained by the National IPM Programme are implementing the activities. This mode of operation is foreseen to sustain IPM and related farmer training activities post immediate FAO project assistance.

List of reports produced during the reporting period

Title	Author(s)	# Pages	Date	Type of Report
A Happy IPM Farmer	Damien Cupitt	5	Feb 2008	Case study
Country Progress Report for GCP/RAS/209/NOR	National IPM Programme	16	April 2008	Progress report (English)
National Vegetable Diseases Diagnosis, Ecology and Management Training	Chou Cheythyrih	24	April 2008	Training report (English)
Field Guide Exercises on Vegetable Disease Diagnosis, Ecology and Management	National IPM Team	91	August 2008	Technical document (Khmer)
Cabbage Ecological Guide	National IPM Team	66	August 2008	Technical document (Khmer)

Workplans for next reporting period (September-December 2008)

The main activities for the next reporting period will focus on completion of activities geared towards obtaining outputs and objectives as per logical framework table in the Cambodia Country Strategy Paper (2005-07) for project GCP/RAS/209/NOR. In particular, these activities will involve the preparation of case studies and farmers meetings to share experiences on Soil Ecology and SRI and promotion of IPM activities and results. The detailed workplan from September to December 2008 is provided in section D and E.

A.3.1.2 Lao PDR

Background

The FAO Vegetable IPM Programme continued working with the Plant Protection Centre (PPC) of the Department of Agriculture in the Ministry of Agriculture and Forestry. The Ministry underwent a major re-organization and staff reshuffle during the 2nd half of 2007. This resulted eventually in the appointment of a new PPC director and a new acting National IPM Coordinator. A lack of central-level GOL counterpart capacity still remained a constraint for the FAO supported programme to be fully and effectively implemented up to its full potential. As to partly compensate for this lack, the National IPM Expert continued to play an actively role in coordination and technical support to project activities in the Lao PDR. In an effort to strengthen this capacity, FAO continued to provide various support mechanism to the National IPM Program, including provisions for assigning –and human resource development for- interns to work on project activities while awaiting initiation of recruitment as PPC/GOL Staff. As a result of these support mechanisms, the capacity in implementing field activities has improved somewhat. However, the project coordination and management capacity at the central level remained weak. Efforts to improve coordination with other projects also continued during this reporting period.

As mentioned in the last reporting period, continuing efforts will still be needed, particularly with respect to GOL leadership, vision, sound strategy formulation and staff commitments if FAO support for IPM is to become more effective in Lao PDR.

Report on progress made towards achieving outputs during reporting period (March - August 2008)

The main activities undertaken during the reporting period are described as follows:

Training/workshop, Action Research & Training material development:

- Six dry season 2008 Farmer Field Schools (four Farmer Field Schools on yard long beans and two on cucumber) were continued in Vientiane Capital and Province from April-August 2008. As a result, in August 2008, sixty eight farmers successfully completed participation in these season-long IPM FFSs.
- A one day seminar on concept and application of Supply Chain Management (SCM) for fresh vegetables and fruits was conducted at the Plant Protection Centre in late March 2008. Purpose of the seminar was to raise awareness about SCM and to think of practical applications of SCM theory in project designs. Some 24 people from FAO, PPC, DOA and related projects participated in the seminar. Following the seminar, a Practical Manual for Producers and Exporters, produced by FAO, was translated by staff at FAOR Laos. The Lao translation will be proof-read by the National IPM Expert and DOA before it will be printed with funding support from project GCP/RAS/209/NOR.
- One water melon field study on pesticide risk reduction was conducted in Phonhong District, Vientiane Province from February-April 2008. Six farmers were involved in this study, aimed at the development of practical IPM tools and methods for more sustainable water melon production and protection. The field study was a good training exercise for farmers on the more efficient and judicious use of chemical pesticides in water melon production. Average number of sprays was reduced from 9 sprays/season in conventional farming to 5 sprays/season in this study. As a result, pest problems as well as yields in both treatments showed no significant differences whereas profits obtained from the IPM plot were higher resulting from reduced pesticide inputs costs.
- One full week training on vegetable disease diagnosis, ecology and management was organized in the FAO IPM Programme Office, Plant Protection Centre, from 28 July – 03 August 2008. Twenty-five farmers, district and PPC staff attended this training. Participants learned about: 1.) disease symptom identification; 2.) Disease life cycles and epidemiology through practical inoculation studies; 3.) major vegetable disease management; and 4.) field experiment design. Training materials, including session guides and handouts on various vegetable diseases, were translated from English into Lao prior to –and handed out at- the training workshop.
- Field technical backstopping for training activities was regularly provided by National IPM Expert and counterpart staff from the central level.
- During such backstopping mission, it was observed that herbicide use, particularly the use of paraquat and glyphosate in contract farming, is alarmingly on the rise. Clear symptoms of paraquat pesticide poisoning among farm workers in contract farming was observed in two districts of Feuang and Meuane, Vientiane Province in early June 2008 . In addition, quick pesticide shop inventory surveys were conducted in three southern provinces (Champasack, Salavane and Sekong Provinces) in mid June 2008. Shop inventory surveys in these three provinces revealed that WHO-

Class I products are no longer on sale. Field surveys also revealed that increasingly smallholder rice farmers are using herbicides to control weeds in irrigated rice production.

- Posters and leaflets on Coconut Hispine Beetles (CHB) control, and posters and flipchart on major tomato diseases and management were developed.

Biological Control:

- Five farmer trainings on biological control of Diamond Back Moth (DBM) were conducted on the Bolaven Plateau in southern Laos from May – June 2008. Some 63 farmers participated in these one-and-a-half month training events. A half-day mini refresher training on biological control of DBM was provided for farmers and district trainers in Paksong district by the National IPM Expert during a technical back stopping trip in mid June 2008. The contents of the mini-refresher training included identification of DBM parasitoids, ecology and biology of the DBM and its major parasitoids (*Diadegma semiclausum* and *Cotesia* sp.) and population management using parasitoids and bio-pesticide (*Bacillus thuringiensis*). As a result, facilitators could better understand the training curriculum and contents thereof.
- Experiments to study the potential role of predatory earwigs in CHB population regulation were set up in collaboration with the PPC. Experiment results showed that earwig are effective CHB predators with one earwig eating an average of three CHB larvae per day.
- Mass rearing of the CHB parasitoids (*Asecodes hispinarum*) was conducted at the FAO IPM Programme Office in early June – late July 2008. A first batch of parasitoids, obtained from DOAE in Bangkok, Thailand on 06 July 2008, hatched during 10-11 July 2008. Parasitoids from the first generation were used to set up a mass rearing effort. Unfortunately, the 2nd generation mummies obtained did not hatch properly. Hence, the rearing effort had to be discontinued.

Coordination with NGOs and private sector:

- Continued collaboration with local NGO/Non-profit Association Lao Development and Environment (NALDE) (formerly CDEA), on piloting Farmland Agro-Biodiversity training in schools and farmer communities in Saithany district, Vientiane Capital. Two staff from FAO IPM Programme and National IPM Offices participated in the Evaluation and Planning Workshop conducted in Ban Huaxiang, Saithany district, Vientiane Capital in mid July 2008. Technical discussions on pesticide shops and household surveys for the training conducted by NALDE were held with its Project Coordinator prior to the training.
- On-going discussions for exploring the development of a pilot model for community education programmes on pesticide risk reduction were held with Phonsong Agricultural Development Project and Oxfam Belgium staff.
- Preliminary discussions with Dr. Orawan, CTA of FAO SWIFT Market Access, for future joint training on organic vegetable production and protection in Paksong, Champasack province.

List of reports produced during the reporting period

Title	Author(s)	# Pages	Date	Type of Report
Country Report for the FAO Regional Progress Report	Thongsavanh Taipangavong & Vornthalom Chanthavong	17	May 2008	Progress report (English)
Seminar on Concept and Application on SCM on vegetables and fruits	Jean Joseph Cadilhon	3	April 2008	BTOR (English)
Inception Report	Ms. Keo Oudon Philangarm	3	May 2008	LOA report (English)
Evaluation Report on Biological Control of DBM in Paksong, Champasack province	Ms. Tattanakorn Moekchantuk	6	June 2008	BTOR (English)
Vegetable disease identification, ecology and management Training Report	Mr. Kaysone Senesombath	45	March 2008	Training report (Lao)
Refresher Training Report on disease identification, ecology and management of major vegetable diseases	Dr. Prabhat Kumar and Dr. Marilyn G. Patricio	21	August 2008	BTOR (English)

Workplans for next reporting period (September-December 2008)

The future plans for FAO Vegetable IPM Programme (GCP/RAS/209/NOR) in the Lao PDR are tentatively planned as follows:

Training/Workshop, Action Research & Training material development:

- Continue the implementation of three vegetable FFSs (one in Vientiane province and two in Vientiane Capital) in from late September – December 2008;
- Conduct 23 farmer field experiment on vegetable disease management from late September – December 2008;
- Finalize, publish and reproduce training materials and posters;
- Organize evaluation workshop assessing GCP/RAS/209/NOR project achievements.

Biological Control

- Organize refresher training/workshop on biological control of DBM in Paksong in early October 2008;
- Organize five farmer training events on biological control of DBM on the Bolaeven Plateau from late October – mid December 2008;
- Systematic monitoring of CHB parasitoids in Pakading, Borikhamxay Province and Sepone, Savanhnakhet Province;
- Continue to conduct action research exploring the roles of predatory earwigs with PPC staff involved.

A.3.1.3 Thailand

Background

The Department of Agricultural Extension (DoAE) is tasked with provision of IPM training to agricultural extension workers and farmers in Thailand. Whereas there is substantial national government policy support for matters and programmes concerning food safety and pesticide reduction, financial resources available to the DoAE for season-long IPM training for its field-based staff and farmers have been rather uneven and insufficient during recent years. Also, the recent government decentralization has resulted into availability of lesser resources for *national* implemented outreach programmes and a shift in role of national government agencies towards technical support to local province initiatives. Simultaneously, province-based governors and their governments have been empowered to prioritize, implement and finance agricultural extension programmes. This decentralization process calls for new ways and strategies to ensure prioritization and integration of IPM FFS training into local government extension and farmer education programmes. Nevertheless, the Bangkok-based DoAE has continued to support –and to some extent finance, primarily with foreign donor assistance (DANIDA IPM project)- IPM Farmer Field School training and Training of Trainers for rice, vegetables and fruit production systems in several provinces in Thailand.

The FAO Programme's strategy for Thailand for the period 2005-7 was designed towards assisting Programme partners (Government, Royal Project, NGOs, DANIDA project) in implementing higher quality IPM training and assistance towards development of alternatives to toxic pesticides. This assistance is primarily focused on collaborative and inclusive initiatives to support *provincial* governments to build stronger IPM farmer training programmes in vegetable production areas where pesticide use is still unnecessarily high. A concrete example of such more focused FAO support approach is reflected in the ongoing collaborative initiative in support of establishment of effective IPM-based crop protection in highland brassica production systems in the North (Chiangmai) and Northeast (Phetchabun) of Thailand. In particular, Diamond Back Moth (*Plutella xylostella*), a target for frequent pesticide applications, remains a major pest problem in these production systems. This collaborative effort, involving various (National and Provincial) government (Phetchabun Province, DoAE, DoA), semi-public/private sector (Royal Project Foundation) and non-government stakeholders (Thai Education Foundation) is now well underway. This effort is now starting to make a mark on building robust provincial IPM farmer training programmes and changed farmer crop protection practices in favour of elimination of toxic pesticides and shifts to biocontrol and softer biopesticide alternatives.

Objectives for the FAO Programme work in Thailand for period 2005-7/8 were formulated in the Thailand Country Strategy Paper as follows:

1. To strengthen facilitation capacity of selected Thai Government and non-government agencies with regards to implementation of IPM farmer training programmes in support of the development and application of IPM in highland production systems in the north and northeast of Thailand.
2. To strengthen ability and capacity among selected IPM farmer trainers and IPM farmer groups to take collective action with regards to sustained development, application and spread of area-wide IPM.
3. To facilitate increased access and utilization of non-toxic alternatives to pesticides among IPM farmers

The sections below will report on status of outputs achieved and provide a summary of activities implemented. Workplans for the final reporting period for project GCP/RAS/209/NOR are also provided. For further background reading on the Thailand

Country Strategy, the reader is advised to consult the (April 2005) Thailand Country Strategy Paper-2005-2007 and various previous progress & consultancy reports.

Report on progress made towards achieving outputs

Several training activities, as listed below, were implemented during this reporting period. More detailed reporting against logical framework analysis is provided in section D of this report.

Training & Classical Biocontrol related activities:

- *IPM Farmers Field Schools*: Conduct of 2 season-long cabbage IPM Farmers Field Schools in Phetchabun during the March-August 2008, involving some 36 brassica farmers. The FFS training, funded by the DoAE Regional Biocontrol Support Programme, focused on biological control and parasitoid/predator/microbial production and rearing for natural pest population regulation.
- *Study Tour cum Evaluation and Planning workshop*: a 4-day study tour cum Evaluation and Planning workshop was conducted at the Tobacco Research Institute in Chiangmai during 11-14 February 2008. Some 47 people participated in the workshop, including 25 farmers and 15 IPM facilitators and officials from Phetchabun, several DOAE provincial staff of Chiangmai, and resource persons from DOA & DoAE (Bangkok) and FAO. Farmers in particular gained new insights on many aspects to improve their crop production, e.g. mass production of biological control agents, benefits of cropping systems and crop diversification, and soil erosion management. A feedback session with farmers from Phetchabun indicated that harvested crop residues are important pest sources for new plantings. Farmers have drastically reduced pesticide use after *D. semiclausum* introductions and FFS training. Their fields now have numerous parasitoids which they conserve with using Bt only when DBM control is still needed. They also actively promote the benefits of conservation and sustainable utilization of *D. semiclausum* among non-IPM farmers. The farmers desire the government to have campaigns to educate consumers on potential health problems resulting from consumption of fresh vegetable laced with pesticide residues in an effort to promote higher demand and better pricing for IPM products. This in turn could then encourage more farmers to adopt IPM in Phetchabun.
- In follow up to above request by farmers for better and more profitable market access for their higher quality vegetable product, the Royal Project Foundation stepped in and is now offering IPM-FFS graduate farmers in Tubberg, Phetchabun a higher and more stable farm gate price throughout the year. IPM cabbages are marketed through the well-organized Royal Project marketing channels, appearing as high-end quality products in supermarkets and special outlets. The RPF is also in the process of setting up a project to further assist IPM FFS graduate farmers in Tubberg. This project focuses on crop rotations, including flower production, water conservation for year-round crop production and soil erosion for better soil fertility and land management. In addition, a Taiwan-based fresh vegetable import-export company is currently engaged in crop commodity price negotiations with Phetchabun IPM FFS graduate farmers and local government officials as to obtain higher quality crop produce for the international market. Farmers could also benefit from more stable crop commodity prices obtained from such contractual arrangements.
- *Parasitoid Rearing & Releases*: Continued parasitoid rearing took place at the DoAE facility in Phetchabun. Parasitoid releases were done in highland brassica production systems in Phetchabun.
- *Monitoring & Evaluation*: M&E of training and classical biocontrol activities continued throughout this reporting period. The DBM parasitoid *D. semiclausum* has established itself in cabbage fields in Phetchabun, particularly in fields where FFS graduate farmers have halted the use of pesticides. A technical assessment commissioned by FAO in February 2008 concluded that *D. semiclausum* is now also well established in

organic brassica production in the Royal Project Foundation Doi Ankgang in northern Chiangmai province.

- *Advocacy & Training Materials preparation:* Draft short versions of the Brassica IPM Ecological Field Guide and other training materials were reviewed with farmers and trainers at the above-mentioned Evaluation and Planning workshop. These materials will be field tested in forthcoming FFS and finalized/published/distributed by November 2008. A 10-minute VCD “ *The story of DBM classical biological control in Tub-berg, Petchabun Thailand*” was also reviewed at the workshop and was subsequently finished in February 2008 and then distributed from March 2008 onwards.

Other activities:

- FAO engaged in consultations with DoAE staff with regards to its ongoing government training programmes to promote Food Safety and Good Agricultural Practices among farmers in Thailand. As per DoA/DoAE-MOU, some 300,000 farmers are to be trained in GAP this year with a target of 100,000 farmers GAP certified. The current farmer training entails the gathering of groups of 20-25 farmers for an one-day training, facilitated by local tambon extension workers. The curriculum is reportedly local problem-based and assisting farmers to learn how to keep proper records. The DoAE recognizes the limitations of the current training model and is keen to seek FAO advice on how to strengthen training content and learner-centered approaches. Any future support by FAO in the realm of farmer training would likely be focused on strengthening the government’s GAP and food safety farmer training programmes.

List of reports produced during the reporting period

Title	Author(s)	# pages	Date	Type of report
A Final Report for LOA RAP/2006/30 for support to establishment of functional biocontrol systems for crucifer IPM in north & northeast highland (Dec2006-Dec. 2007)	Mr. SomSak Summawan & Ms Areepan Upanisakorn	4	March, 2008	LOA Final report (in English)
A Final Report for LOA RAP/2006/31 for support to establishment of functional biocontrol systems for crucifer IPM in north & northeast highland (Dec2006-Dec. 2007)	Ms Areepan Upanisakorn	4	March, 2008	LOA Final report (in English)
Report on Brassica Biocontrol Evaluation and Planning Workshop (Chiangmai, 12-14 Feb. 08)	Lim Guan Soon & Areepan Upanisakorn	17	March, 2008	Consultancy Mission report
Various draft training materials for brassica IPM training (for details, see section above)	Areepan Upanisakorn		February/March 2008	Training materials

Title	Author(s)	# pages	Date	Type of report
VCD " The story of DBM classical biological control in Tub-berg,Petchabun, Thailand"	DoAE		March 2008	VCD, 10 minutes (<i>in Thai</i>)
Country paper for FAO Regional Progress Report-Thailand	Vegetable IPM team	10	May, 2008	Progress Report (<i>in English</i>)

Workplan for next reporting period (September-December 2008)

Workplans for the next reporting period include the following:

Training and Evaluation/Planning Activities

- *Curriculum development workshop and TOT on IPM/GAP/Food Safety (December 2008)* A short duration Training of Trainers course for IPM trainers will be held in December 2008. Participating in this training will be some 25 government extension staff and resource persons. Focus of the course will be on food safety, including microbial contamination, Good Agricultural Practices and market access.
- *Conduct of Farmer Congress to share experiences and promote area-wide implementation of brassica IPM (Phetchabun, 19 November 2008)*. Meeting at this congress will be farmers from the Tubberg highlands and elsewhere aimed at sharing brassica IPM experiences and strengthening networks of IPM farmers. The number of expected farmers for this Congress is estimated at 100 farmers. The Congress will also feature presentations and provide information about pesticide and fertilizer regulations, food safety issues and GAP protocols and processes, which are important for farmers to know more about.
- *Continued M&E and backstopping* by project staff for training and activity quality control.
- *Finalization, publication and distribution of various training and advocacy materials* (e.g. short version of Ecological Brassica IPM field Guide, VCD)
- *Development & finalization of case studies and scientific papers* documenting brassica IPM and *D. semiclausum* introduction and establishment.
- *2-day Project Wrap Up workshop (Phetchabun, December 2008)* Purpose of this workshop will be to evaluate progress made towards area-wide establishment of brassica IPM/biocontrol systems and to assess further needs for action as to consolidate project gains. Presented at this workshop will be all final versions of training and advocacy materials and documentation of project research results in peer-reviewed scientific journals. A total of 5 farmers and 15 DoAE/DoA staff and resource persons are expected to participate at this workshop.

Surveys, Mass Rearing and field Introduction of parasitoids and M&E for parasitoid establishment and effectiveness assessment

The Phetchabun Provincial Agricultural Extension Office has set up a parasitoid rearing facility in Tub-berg Highlands as to mass produce the DBM parasitoid, *Diadegma semiclausum*. Activities to be conducted under the final Letter of Agreement between FAO and DoAE will be geared towards technical and financial support to the Phetchabun Provincial Agricultural Office for rearing -and field releases- of the parasitoids. Monitoring and Evaluation activities will also be undertaken as to determine establishment of the parasitoid and evaluate their capacity to regulate DBM populations.

Publication and reproduction of advocacy and adapted training materials

The DoAE Pest Management Division, under LOA subcontract with FAO, will take the lead in the finalization, publication and reproduction (1,000 copies) of adapted training materials (e.g. shortened version brassica IPM ecological guide and training manual) as per needs identified by local IPM trainers and farmers. In particular, there is a need to develop a shortened version of the existing brassica. An earlier produced VCD, documenting achievements of the collaborative initiative on brassica IPM in Phetchabun, will be further distributed and promoted. In addition, research results from the collaborative and innovative parasitoid introduction and establishment efforts will be documented and published into established and peer-reviewed scientific journals.

A.3.1.4 Vietnam

Background

The first phase of the FAO regional Vegetable IPM Programme was implemented successfully during 1996-2001, establishing a cadre of vegetable IPM trainers trained (132) and involving around 22,000 farmers in IPM FFS. Up to this reporting period, or four and a half years of Phase II since it was started in July 2002, the programme has covered 23 vegetable growing provinces throughout Vietnam. The programme has organized 170 FAO funded vegetable IPM FFS, 45 LToT-associated FFS and 5 pilot FFS under the revolving-fund mechanism, in total adding up to some 6,600 farmers trained.

The main national counterpart organisation is the Plant Protection Department (PPD) of the Ministry of Agriculture and Rural Development (MARD). Field implementation of activities is done through provincial Plant Protection Sub-Departments (PPSD). The application of the IPM FFS approach has been extensive in Vietnam, covering several crops and even livestock and seed systems. However, it has so far still predominantly been applied in externally funded projects, and the FFS-approach has not yet been incorporated into the Government of Vietnam's (GoV) mainstream extension system operated by the Agricultural Extension Department of the Ministry of Agriculture and Rural Development (MARD). Some provincial initiatives, such as the locally funded Hanoi Province Safe Vegetable Programme, however, have shown that good results can be achieved when the FFS approach is applied as the standard farmer training method in the Safe Vegetable Programme. Building on this experience, and given the importance that the GoV is currently placing on "safe vegetable" production, it was decided in 2004 that the FAO-supported Vegetable IPM activities in Vietnam should link up strongly with the provincial Safe Vegetable Programmes. As requested by provincial Plant Protection Sub-Departments during province-level planning meetings conducted in 2004, emphasis was given on expanding the cadre of vegetable IPM FFS facilitators. The year 2005 focused on local ToTs (8) in eight major vegetable growing provinces where FFS-based vegetable IPM activities were implemented in recent years and with strong (potential for) Safe Vegetable Programmes. In 2006, five additional provinces were targeted for launching LToTs and in 2007, two more LToTs were conducted. LToTs were organized and funded with either full FAO-IPM budget or under co-funding arrangements with local Provincial Governments' "Safe Vegetable Programs". The LToT IPM trainers were trained in two ToMTs, which were conducted in Dong Nai and Nghe An provinces. Field activities in the form of Vegetable IPM FFS and field studies, and even local ToTs, are increasingly being financed from local Safe Vegetable Programme funds.

The specific objectives for the 2005-2007 period as formulated in the Country Strategy Paper were as follows:

- To increase facilitation capacity of the Vietnam National IPM Programme, other government and non-government agencies, and farmer groups, as to implement quality

IPM training and research activities with smallholder vegetable farmers, particularly in support of provincial Safe Vegetable Programmes;

- To improve the livelihood of Vietnamese vegetable farmers through enhanced capacity for individual and collective action relating to sustainable vegetable production;
- To have established high quality technical contents of IPM training and implementation through institutional linkages between farmer groups, IPM trainers, and external resource persons.

Report on progress made toward achieving outputs

Farmer Field Schools (FFS). FAO support for FFS implementation has been completed under this project. Under the umbrella of the GoV's National Programme on Food Safety, Local Governments have continued to implement safe vegetable production training activities which now also address other food safety aspects in addition to pesticides such as microbial contamination and heavy metal residues. Where Local Governments have funding, training for farmers in FFS has continued. At the local level, IPM Trainers trained under the Vegetable IPM Programme will continue to be involved in farmer training through FFS under the National Programme for Food Safety. At national level, the National IPM Team will continue under the Plant Protection Division to provide backstopping to local programmes and provide advice to policy development at national level.

Mass Rearing and Field Releases of Earwigs. As to catch the season, pilot activities on mass rearing of earwigs at the Northern Plant Protection Center (NPPC) in Hung Yen province commenced in February 2008. Field releases in bean fields within the Center compound commenced from April 2008 onwards. The purpose of these field releases was to compare results of biological control of pests (e.g., armyworms and aphids) in green bean fields with and without earwigs.

In June 2008, the NPPC in Hung Yen province started to work with a group of FFS alumni at Ngo Xuyen Hamlet, Nhu Quynh town, Van Lam district on mass rearing of earwigs at community level. Initially, the farmers were trained by NPPC technical staff on mass rearing and utilization of earwigs following the workshop design used by the Biological Control Expert from Thailand. Backstopping was provided by the NPPC for farmers in establishing facilities, collection and rearing of the predator in the village. The farmers' group plans to release earwigs to vegetable fields in the village next season when they have gained enough experience and knowledge about the predator and when earwig populations are sufficiently high.

In July 2008, the Region IV Plant Protection Center in Nghe An province and the Central Regional Plant Protection Center in Quang Ngai province commenced action research activities with farmer groups on rearing earwigs at the community level. Field releases for pest population regulation in sugar cane and coconuts, respectively, are planned for next season when RPPC staff members and farmers have gained enough experience and knowledge about the predator and when predator populations are sufficiently high.

Meetings and workshops

Planning Meeting on the Use of Predators for Biocontrol. A total of ten participants comprised of staff members from three Regional Plant Protection Centers (two participants from each center) and the PPD and FAO-IPM Office Hanoi attended the workshop held in Hanoi on 13-15 March 2008. This meeting aimed at establishing activity and budget plans for the establishment of the predator rearing model in the Plant Protection Centers. The proposals that were developed as outputs of the meeting considered the utilization of earwigs for biological control of pests in green bean, sugar cane and coconut. Upon review

of the outputs by the project headquarters, the need for technical inputs through a technical workshop was identified as to improve the proposals.

Workshop on Mass Rearing and Utilization of Earwigs as a Biological Control Agent.

Fourteen participants (3 from Lao PDR and 11 from Vietnam) attended the three-day workshop which was held in Hung Yen province on 11-13 June 2008. Participants from Vietnam included representatives from the three Regional Plant Protection Centers in Hung Yen, Nghe An and Quang Ngai and the Sugar and Sugarcane Research Development Center in Binh Duong. From Lao PDR, three participants represented the Plant Protection Center and the National IPM Programme. The main resource person hailed from the Department of Agricultural Extension - Ministry of Agriculture and Co-operatives of Thailand. The overall objective of the training workshop was to provide participants with information, education and training on principles and tools for biological control in order to assist them in the development of national strategies for sustainable development of local biological control programmes. The workshop included a visit to the insectory and field work to collect pests and natural enemies for practice on setting up insect zoos and rearing earwigs. Discussions focused on sharing participants' experiences in mass rearing of earwigs in their localities and the difficulties they had faced in such previous rearing efforts. Inputs from the resource person focused on capacity building on how to rear earwigs successfully and monitor their effectiveness in the field. Participants from each organization also revised proposals (outputs of the March meeting) on mass rearing and releasing of earwigs in their respective localities.

Impact Assessment Study: During the reporting period, the Impact Assessment Consultant started analyzing data and writing up the report on the longer-term Impact Assessment study (2003-7). Baseline information for the impact assessment was collected in 2003 as part of the bigger Participatory Needs and Opportunities Assessment exercise implemented by the National IPM Programme with DANIDA and FAO support. The change in personnel involved in the exercise (between 2003 to 2007) as well as the lack of clarity among field staff on the design of the impact assessment when the baseline data was collected has made data gathering and analysis thereof rather difficult. Preliminary assessments of training impact appears to be inconclusive. Nonetheless, the report is about to be completed and will be able to provide valuable lessons on the importance of the design of impact assessment studies.

Preparation of Training Materials

The editing and technical review of the manuals for cucumber and green beans (English version) were completed during the reporting period. The documents are ready for posting on the programme website.

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 GCP/RAS/209/NOR	National IPM Programme	12	April 2008	Progress report (English)
Report on the Workshop on Mass Rearing and Utilization of Earwigs as a Biological Control Agent	Le Thi Ha and Areepan Upanisakorn	11	June 2008	Workshop report (English)

<i>Title</i>	<i>Author(s)</i>	<i># Pages</i>	<i>Date</i>	<i>Type of Report</i>
Green Bean Integrated Pest Management	VN National IPM Programme	82	June 2008	Ecological Guide (English)
Cucumber Integrated Pest Management	VN National IPM Programme	88	June 2008	Ecological Guide (English)

Workplans for next reporting period (September-December 2008)

Regional Workshop on Opportunities and Challenges for Promotion and Sustainable Production and Protection of the Potato Crop in Vietnam and elsewhere in Asia. This workshop will be held in Da Lat, Lam Dong province on 25-28 November 2008. Participants will come from eight potato-growing countries in the South and Southeast Asia Region. The overall objective of the training is to provide participants with information, education and training on principles and tools for disease diagnosis and management of potato diseases. In addition, the workshop will provide general attention to potato production as well as concepts on novel initiatives such as linking potato farmers with markets and services. Resource persons will come from the Vietnam Potato, Vegetable and Fruit Center, Hanoi University of Agriculture, Asian Institute of Technology, Bioforsk and the National Crop Protection Center of the Philippines.

Earwig mass rearing and field releases will be continued by farmers groups and staff members from RPPCs in Hung Yen, Nghe An and Quang Ngai.

Review workshop on the use of earwigs for biocontrol. A workshop will be held at the end of this year to review the results of activities on mass rearing and field releases of earwigs in Hung Yen, Nghe An and Quang Ngai.

A.3.1.5 Yunnan Province of China PR

Background

The vegetable production in Southern China has been expanding continuously since the mid 1980s. Yunnan province is one of the largest vegetable producing provinces in Southern China. Whereas in 1984 the planting area of vegetables was only 102,000 ha, by 2007 this had increased to 666, 660 ha. Vegetable producing areas in Yunnan are mainly located in its central and northern parts, accounting for over 80% of the total production. In the central part of Yunnan, including in Kunming city and in the prefectures of Yuxi, Chuxiong, Dongchuan, Qujing, Dali, Baoshan and Honghe, major commercial peri-urban vegetable production is taking place, both in the open field as well as under protected cultivation (e.g. in greenhouses). Major vegetables produced in Yunnan are Chinese cabbage, sugar pea, tomato, parsley, cabbage, leek, chili, garlic, lettuce, onion, and lotus. Whereas most of these vegetable species are introduced, the indigenous genetic diversity of vegetables in Yunnan is impressive, with more than 30 families, 60 genera, and 140 species and including a range of wild vegetable varieties, which are -as of yet- poorly explored.

Traditionally, vegetable pest management extension and implementation in Yunnan province has generally been carried out applying a top-down approach. Extension networks were set up between 1970 and 1980 from provincial level to the township level. Provincial, prefecture and county plant protection stations are all engaged in crop protection training and

implementation and from where pest management technologies are tested and promoted among farmers, supported by pest monitoring and forecasting networks.

At present, the centralized top-down extension approach is no longer perceived as reaching out effectively to smallholder vegetable farmers. Such farmers usually make their own decisions individually, such as on choice of types of vegetables to be grown, on what and how much inputs to be used and on related farming practices. The farming ecological system has changed over the year and become much more diversified in terms of the range of vegetables grown, cultivation practices applied and cropping patterns used. Pest management decision making by individual farmers has thus become more complex and location/situation specific. To minimize risks, a natural reaction for most vegetable farmers is to rely on preventive calendar sprays with chemical pesticides. This has developed into the “pesticide treadmill” as pesticide applications have soared on vegetables in recent years. Pesticide residues on produce have become a threatening problem in vegetable production in Yunnan both in terms of food safety concerns for domestic markets and in terms of export potential to foreign markets.

The FAO-supported vegetable IPM programme was introduced in China in 2003. The official counterpart of the FAO Vegetable IPM Programme is the China National IPM Programme, under the National Agro-technical Extension and Services Centre (NATESC) in the Ministry of Agriculture. At the province level, the key counterpart agency is the Plant Protection Station (PPS) of Yunnan province. Field implementation is planned and organized through prefecture and county PPSs, who receive guidelines regarding programme management from Yunnan PPS. FFS facilitators graduated from TO(M)T/LTOT are typically field extension technicians from prefecture, county and township levels. With introduction of the FAO programme a shift was made in Yunnan province towards moving away from the above described top-down extension approach towards farmer education through Farmers Field Schools (FFS). This innovative farmer education approach has been found to be highly effective for farmer IPM training in vegetable production areas.

The FAO Vegetable IPM Programme office, established at the Yunnan PPS premises in Kunming in 2003, continued to oversee project operations in Yunnan. The Team Leader, based at FAO-RAP in Bangkok, undertook regular backstopping missions to Yunnan and Beijing 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 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 Zhizong, Quijing in Yunnan Province. The national programme officer provided various technical and coordination backstopping inputs to the project during the reporting period.

For the calendar year 2008 the total FAO contribution for operations in China is approx. US\$ 84,840 with the greatest part (75%) for training-related expenses (approx. US\$ 63,630). As counterpart contribution, NATESC and local governments funded US\$ 26,845 to support local vegetable FFS and other programme related activities in Yunnan.

From March to August 2008, a number of activities were carried out in China under the FAO Regional Vegetable IPM Programme in Asia. Some of these activities were completed, while others 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 during the 2005-7/8 period.

**Report on progress made towards achieving outputs during reporting period
(March to August 2008)**

Through joint efforts by FAO and government counterparts, the vegetable IPM programme in China made good progress during the last reporting period as per plans outlined in the earlier progress report. The main focus for the period was to continue to support local governments to establish locally-managed vegetable IPM FFS programmes that allow for institutionalisation and scaling up of the vegetable IPM efforts and finalise remaining work for the GCP/RAS/209/NOR project. Hence main attention was given to fund more FFS for TOMT/TOT/LTOT graduates to gain more FFS implementation experience and show to the local policy makers the potential of FFS training approach for rural development. This was purposely done as to trigger local funding opportunities to develop and upscale local FFS programmes. Activities related to impact assessment of project supported activities in the past featured prominently in the workplans for this reporting period. NATESC, Yunnan PPS and FAO IPM office provided coordination, M&E and technical backstopping during the reporting period where and when needed. The major progress/output is formulated as follows:

- **Training Materials Development:** The English catalogues of the ecological guides for Chinese cabbage, sugar pea and tomato production have been reviewed by the CTA. Particularly the sugar pea guide will need further work as to ensure that this guide is technically solid. The Chinese version of the sugar pea ecological guide has been submitted to a national consultant in Beijing for further consolidation and improvement. The ecological guide will be print ready by November. The English version of the FFS process manual will be submitted to NATESC for final review and distribution upon final clearance of the CTA. FFS exercise manual has been submitted to the CTA for further input and clearance. (*refer to output 1.1 in the table in section D for specific details*).
- **Farmers Field Schools:** 57 FFS funded by local government were implemented in the year 2008. (See table below and *refer to output 2.1 in the table in section D for specific details*).

No. of FFS	56 funded by government of China
FFS implementation areas	18 counties in 7 prefectures (Kunming, Chuxiong, Wenshan, Yuxi, Xishuangbanna, Baoshan, Pu'er)
# FFS per various crops & subject matter covered	rice (6), chili (9), Chinese cabbage (15), tomato (8), cucumber (1), potato (1), strawberry (1), eggplant (4), tea (1), head cabbage (1), squash (1), pumpkin (1), corn (1), apple (1), celery (1), rodent management (1), Chayote (3)
No. of participants	1,897 farmers (49% female, 51% male)

- **Monitoring and evaluation:** M&E activities were conducted during the reporting period. An M&E field guide was developed, distributed and introduced to facilitators through field orientation and LTOTs. NATESC, Yunnan PPS and FAO IPM office undertook M&E visits to field activities during the reporting period where and when needed (*refer to output 1.3 and 2.1 in the table in section D for specific details*).
- **Impact Assessment:** In follow up to the Impact Assessment Data Analysis workshop conducted in Kunming in late February, IA results analysis and report writing was carried out during the reporting period. A full and comprehensive IA report was drafted and forwarded to FAO by NATESC in May. FAO and a contracted international consultant have provided further input to the draft report for finalisation. (*refer to output 3.1 in the table in section D for specific details*).

List of reports produced during the reporting period

Title	Author(s)	No. of pages	Date	Type of Report
Effects of training on acquisition of pest management knowledge and skills by small vegetable farmers	Yang Puyun, Liu Wenxin, Shan Xunan, Li Ping, Zhou Jinyu, Lv Jianping, Li Yahong	7	June, 2008	Journal Article Published in Crop Protection
Report on Impact Assessment of CHINA/FAO Vegetable IPM Farmer field School in Yunnan Province, P.R.China	Yang Puyun, Liu Wenxin, Shan Xunan, Zhong Tianrun, Li Ping, Zhou Jinyu, Lu Jianping, Li Yahong	102	May, 2008	Consultancy report (1 st Draft, in English)
Country Paper for Regional Progress Report-Yunnan, PR China	Hu Xinmei, Yang Puyun, Li Ping	13	May 2008	Progress Report (English)

Workplans for next reporting period (September-December 2008)

Workplans for the final reporting period for project GCP/RAS/209/NOR are based on the challenging task of scaling up, maintaining and improving training quality and finalising the remaining work for this particular project. The workplans basically follow those originally outlined in the 2005 country strategy paper for the GCP/RAS/209/NOR project. Additional activities proposed are geared towards consolidation of programme outputs and training quality in particular as per emerging needs identified during the implementation of the programme, use of impact assessment results as a powerful tool to foster stronger and better IPM movements and policy advice in Yunnan Province and elsewhere in China. Major planned activities include:

- Finalize, publish and distribute various training manuals to IPM facilitators (*refer to output 1.1 in the table in section D for specific details*);
- Organize a ten-day RTOT for key IPM FFS facilitators to upgrade their capacity as per needs identified as a result of M&E and Impact Assessment activities and pesticide risk reduction in Yunnan (*refer to output 1.2 in the table in section D for specific details, funding from GCP/RAS/229/SWE*);
- Continued finalisation of revised report of post-FFS impact assessment to demonstrate vegetable IPM and FFS benefits (*refer to output 3.1 in the table in section D for specific details*);
- Conduct policy workshops (by presenting impact assessment results and other achievements) at provincial and national level (*refer to output 3.1 in the table in section D for specific details*);
- Continued coordination, monitoring & evaluation of -and technical backstopping to- the programme activities by staff of NATESC, Yunnan PPS and FAO (*refer to output 2.1 and 2.2 in the table in section D for specific details*);

- Continued promotion of the programme as to incorporate FFS as major farmer training approach in local governments' crop production & protection extension programmes (refer to output 2.3 in the table in section D for specific details).

A.3.2 Other Member Countries

A.3.2.1 Bangladesh

Background

Bangladesh has been a member country of the FAO Vegetable IPM Programme since its inception in 1996. Since the start of the Phase II Programme in 2002, donor priorities have forced the FAO Regional Programme to limit support and active presence in this country. The general FAO IPM Programme 'modus operandi' in this country is making available technical support upon request, exchange of vegetable IPM training materials and allowing for participation of Bangladeshi nationals in regional meetings, training workshops as well as facilitation of exchange activities such as study tours. This support is coordinated primarily with the Phase III DANIDA IPM project, which continues to support vegetable IPM training in Bangladesh.

Activities and Outputs

For above provided reasons, the FAO Phase II Programme did not support activities in Bangladesh during this reporting period. Contacts with the ongoing DANIDA IPM-Phase III project were maintained throughout the reporting period. In particular, potato IPM training manuals were forwarded to Dhaka in support of efforts to develop a pilot IPM farmer training program for potato growers.

Reports Produced During the Reporting Period

None

Workplan for next reporting period (March-August 2008)

With concurrence of the MTR mission, the FAO support strategy for Bangladesh as referred to above will not change radically for the remainder of the Phase II Programme period. Apart from a commitment on behalf of the FAO to continue to make available training materials and support the participation of Bangladeshi nationals in selected regional gatherings by the Programme. The Programme will support the participation of two Bangladeshi IPM trainers in the FAO Regional Workshop on Potato Promotion and Sustainable Production & Protection, which will be held in Dalat, Vietnam in late November 2008.

Activities	Period Covered
1. Distribution of training materials to local partners in Bangladesh (as and when these become available)	March-August 08
2. Participation of Bangladeshi nationals in regional meetings, workshops and training events e.g. FAO Regional Potato workshop, Dalat, Vietnam	As/when appropriate 25-28 Nov. 2008
3. Technical support, upon request, to government and NGO partners on matters relating to the development and application of IPM in vegetable crops.	March-August 08

A.3.2.2 Indonesia

Background

In 2003, an LOA was signed between the FAO Vegetable IPM Programme in Asia and the International Potato Centre (CIP), ESEAP Regional Office in Indonesia to develop potato IPM FFS and TOT models. Building on the already advanced experience in Indonesia, these protocols will serve as the basis for potato IPM development in the Greater Mekong Region countries participating in the FAO Regional Vegetable IPM Program in Asia. Activities implemented within the framework of this LOA during the period 2003-early 2005 included the compilation of ecological production guidelines for potato under tropical mountain conditions, based on validation done by farmers, and the development of potato IPM farmer field school (FFS) learning activities and FFS/TOT curricula to suit these production guidelines. A training of trainers was conducted in collaboration with LPTP⁵ and World Education Indonesia to pre-test the protocols developed and build up initial trainers' capacity among the wider network of partner institutions involved in this collaborative work. Finalisation of LOA activities, especially manual development and report writing, extended into 2006.

Follow-up activities by potato IPM TOT alumni varied from formalized, government funded FFS, to practice and demonstration in own field by farmer trainers.

To follow up on earlier work and new needs identified, a second LOA was signed between FAO and LPTP for the period 1 December 2005 to 31 July 2006. The specific objectives of the project were:

- To enhance the capacity of potato IPM TOT alumni with regard to (a) fund raising for and organization of follow-up activities, (b) biofumigation and (c) potato golden cyst nematode management through a refresher workshop.
- Establish knowledge about the potential of several non-chemical management methods (including biofumigation) to control bacterial wilt, clubroot and potato golden cyst nematode in Indonesian highland potato growing areas.
- Reproduce the potato IPM FFS manuals (in Bahasa Indonesia) and distribute among NGO, government and farmer networks in potato growing areas of Indonesia.

Report on progress made towards achieving outputs

All LOA activities were completed by mid 2007. Results of field trials on soil-borne disease (e.g. club root and bacterial wilt) management and explorations of biofumigation were analysed and written up. Socialization of results amongst involved project partners in the project areas in Central Java continued during this reporting period. Results were also presented by FAO at the CIP/FAO workshop in commemoration of the International Year of the Potato 2008, held in Bangkok on 6th May 2008. No new activities were supported in Indonesia during this reporting period. ACIAR recently started a potato research and development project which makes good use of the outputs and R&D and IPM farmer networks of the FAO supported work in Central Java.

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>
None				

⁵ Lembaga Pengembangan Teknologi Pedesaan (LPTP-Foundation for Rural Technology Development), a local NGO based in Solo, Central Java.

Workplan for next reporting period (March-August 2008)

No new activities planned. FAO will support the participation of 2 Indonesian IPM trainers in the FAO Regional Potato workshop to be held in Dalat, Vietnam end of November 2008.

Activities	Period Covered
1. Distribution of training materials to local partners in Indonesia (as and when these become available)	March-August 08
2. Participation of Indonesian nationals in regional meetings, workshops and training events e.g. FAO Regional Potato Workshop, Dalat, Vietnam	As/when appropriate 25-28 Nov. 2008
3. Technical support, upon request, to government and NGO partners on matters relating to the development and application of IPM in vegetable crops.	March-August 08

A.3.2.3 Philippines

Background

During this reporting period, the FAO Vegetable ICP continued to support limited activities in the Philippines. These activities were generally innovative in nature with the potential of supporting innovation in -and further development of- the GMS country programmes. Examples of such innovative work included work with the private sector, including support for IPM under contract farming conditions and collaborative work with the food processing industry. FAO also supported a pilot initiative on curriculum and training materials development for Farmland Biodiversity, Pesticide Impact Assessment and Organic Agriculture. Activities are coordinated and administratively supported by the FAO Representation in Manila with technical and programme development assistance provided by the CTA and the Programme Development Officer based in Bangkok. Progress of activities and work undertaken during this reporting period is provided below.

Activities and Outputs

IPM for Processing Tomatoes initiative The processing tomato industry in Ilocos Norte, led by the government-owned Northern Foods Corporation (NFC) is an important local industry, worth annually some USD 15 million, providing jobs and additional income to its various stakeholders, which include some 3,000 contract farmers. Some 800 hectares of processing tomatoes are annually planted in Ilocos Norte during the October-February season, whereas the processing plant operates during the January-May harvesting/processing period. The industry is currently threatened by cheap imports of lower grade (28/30 Brix) tomato paste from China, estimated at some 4,000 Metric Tons annually. Provided substantial investment in the necessary upgrade of the processing plant, NFC could (re-) capture the local domestic market for higher grade (31/32 brix) tomato paste, which is currently imported from the US and Italy by the fast food industry (e.g. Jollibee).

Extensive background information on the history and conditions of FAO and its private sector partner, Campbell Soup's involvement in this initiative has been provided in earlier progress reports. Some 11 season-long Farmers Field Schools on IPPM for processing tomato were implemented in Ilocos Norte (7) and Sur (4) with local government/NFC funding during the October-March 2007 cropping season. Some 275 processing tomato contract farmers participated in these season-long training courses. Tomato Leaf Curl –or Kulot in local Ilocano- disease has devastated the processing tomato production in Ilocos Norte in recent

years and has prompted farmers to start frequently spraying their crops, obviously to no avail. White fly populations and associated viral disease spread and severity was also a serious yield and quality reducing factor during the latest October-March production season. With the processing tomato industry exclusively relying on only one single variety (Ilocos Red), the industry is extremely vulnerable to such viral infections. Whereas an extensive variety screening program, including testing of Campbell varieties, has been initiated by NFC, there is currently no one single variety that can replace Ilocos Red for its supreme processing as well as fresh market qualities. Whereas the search for more TLC resistant varieties will continue, other avenues for TLC prevention and management need to be explored. To this end, FAO has technically supported the design and set up of a range of action research activities with NFC in Ilocos Norte during the Nov. 2006-April 2007 cropping season as to explore prevention methods. During late July/early August 2007, FAO supported a studytour for 4 Filipino nationals to the US and Mexico. This studytour was hosted by the Campbell Seed R&D Center based at UC-Davis in California. Purpose of the studytour was to learn first-hand experiences of successful TYLC management in Mexico. The studytour generated key new ideas for innovative prevention and management of TLC in northern Philippines, which were tested during the November 2007-April 2008 cropping season. In early August 2008, FAO supported a studytour to Stuttgart, Germany for one Filipino national aimed at capacity building for easier diagnosis of Gemini viruses with Rolling Circle Amplification (RCA) techniques. The lessons learned from this studytour are expected to assist NCPD in developing a list of weeds which are host to the TLC virus. This information will be useful for designing a 3 month host-free period which will be essential to reduce TLC problems in processing tomato production in Ilocos.

Farmland Biodiversity and Pesticide Impact Assessment

As a follow up to the Regional Training on Farmland Biodiversity and Pesticide Impact Assessment organized in Chiangrai in July 2007 by Thai Education Foundation, FAO supported the development of a pilot project on Farmland Biodiversity and Pesticide Impact Assessment in Davao Del Norte, southern Philippines. The purpose of this support was to develop a curriculum and training materials in the English language which can be shared wider across the region when developed and pilot tested. A full status report on this innovative initiative was attached to be previous progress report. Activities continued during this reporting period.

Curriculum development for FFS on Organic Agriculture

As part of an LOA on support for the Organic Agriculture sector issued by FAO-RAP to PCARRD in late December 2007, the project is supporting the development of a curriculum and training materials for FFS on organic agriculture. These materials can then be shared with other country programmes interested in the application of FFS approaches to working with farming communities on organic agriculture conversion.

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>
Tomato Leaf Curl: A destructive and widespread disease of tomato in the Philippines	Meg Sta Cruz, Dames Callo, Norberto Mendoza & Raquel dela Cruz	2	Draft, March 2008	Brochure (English & Ilocano)
Farmland Biodiversity Conservation and Pesticide Impact Assessment, Davao Del Norte	Egmedio Samillano, Marilou Runas & Mario Corado	9	April 2008	Status Report (English)

supported vegetable IPM activities and the private sector are being developed. Private sector linkages include collaboration with seed firms (e.g. East West Seed co.) on variety screening, with fresh produce contracting and export firms (e.g. SWIFT and River Kwai Company in Thailand, Fresh Produce and NGOC LINH company in Vietnam) and with the processing industry (e.g. collaborative processing tomato work with NFC in Philippines and Campbell Soup in the US).

- *Study tours, training/workshops and exchange of training materials*

The Programme also supports study tours and regional training events/workshops as to optimize exchange of experiences among member countries and steer innovation within and among country programmes. An example of such an upcoming regional training course is the FAO Regional Workshop on Potato Promotion and Sustainable Production and Protection, which will be held in Dalat, Vietnam during 25-28 November 2008. FAO will organize this training jointly with the Vietnamese Government/MARD-PPD and its National IPM Programme. Key IPM trainers, involved in potato farmer training, from all across the region will participate in this training, which partly will be organized in commemoration of the International Year of the Potato 2008. Relevant training documents and technical reference materials are regularly being compiled and distributed among partners and staff in the various member countries as and when such publications become available. Furthermore- and increasingly so-, information exchange takes places through regular email interactions among staff and counterparts within the Programme. A Regional Programme website is under construction, which, once it is available on-line, should provide wider electronic access to the Programme's wealth of training resource materials.

- *Policy advice*

Particularly during this reporting period, the FAO IPM Programme, with policy backstopping support from AGPP at FAO-HQ, has been instrumental in providing plant protection policy advice to both the Vietnam and Cambodia governments with regards to the management of Rice Brown Plant Hopper and associate virus diseases in the Mekong Delta. Through area-wide field demonstrations on the ecological management of BPH, the Programme was able to demonstrate to farmers, government officials and senior-level policy makers best practices for rice pest management, making use of light traps for forecasting and design of 'BPH escape' strategies. Other examples of FAO programme involvement in policy advisory matters include its support for strengthening Food Safety programmes and developing local policies for the use of farmers field school approaches for farmers training in such programmes. The FAO Programme also supported the participation of key national IPM coordinators in the Asia and Pacific Plant Protection Commission (APPPC) Meeting which was held in Beijing at end of August 2007. Convened at this Commission Meeting were key crop protection staff from all of the APPPC member countries and the participation of key IPM coordinators was instrumental in ensuring that IPM and pesticide matters were discussed at the Meeting. These discussions have also led to the release of a joint statement (attached to previous progress report) of the IPM and Pesticide Standing Committee meetings, which spells out the Commission's workplans on IPM and Pesticides for the next bi-annuum (2008-9). An Interim Meeting of the APPPC IPM SC will likely be convened during the FAO Programme's next Bi-Annual Meeting, Bangkok, 12-14 Nov. 2008.

- *Coordination, programme development and fundraising*

The Bangkok-based Regional Programme Office (RPO) oversees Programme Development in all of the Member Countries and on the Regional Level. The RPO is staffed with 2 international staff and one administrative support staff. Contracts, consultancies, travel authorizations and a range of other administrative matters are coordinated and dealt with at the RPO. Also, fund raising for the remainder of Phase II and beyond continued to be a necessary albeit time-consuming task throughout much of this reporting period. Efforts have resulted into the Swedish funding approval for the new collaborative project on pesticide risk

reduction (GCP/RAS/229/SWE) and for the UNDP approval for the EU funded FAO/China Biodiversity project in China (UNTS/CPR/001/EU). In addition, the Common Fund for Commodities recently approved an addendum to the IFAD-FAO project (GCP/RAS/217/IFA) aimed at assisting countries in the GMS, most notably Laos and Myanmar, to access export markets. This project has a mandate to promote FFS/IPM approaches among contract farmers and will enable the IPM initiatives to expand to Myanmar once the CFC project becomes operational.

All of the above activities continue to be coordinated and facilitated by RPO staff based at the FAO Regional Office for Asia and Pacific in Bangkok with the assistance of relevant national Programme staff in the various member countries.

List of reports produced during the reporting period

Title	Author(s)	# pages	Date	Type of report
FAO Regional Programme Progress Report (Sept. 2007-Feb. 2008)	FAO Regional Vegetable ICP	78	May 08	Progress Report
FAO Regional Training on Vegetable Disease Diagnosis, Ecology & Management (Phnom Penh, Cambodia, 20-28 September 2007)	FAO Regional Vegetable ICP	e-format on CD	February 2008	Workshop report
Regional Progress Report- "IPM component"-Pesticide Risk Reduction Programme (GCP/RAS/229/SWE) for period Jan-June 2008	FAO Regional Vegetable ICP	4 (plus 4 country progress reports annexed)	August 2008	Progress report

Workplan on Regional events for next reporting period (Sept-December 2008)

Activities	Time
1. Final Project Evaluation Mission	29 Oct.-14 Nov. 08
2. Preparation of Terminal Project Report	December 2008
3. Bi-Annual Meeting, Bangkok, Thailand	12-14 Nov. 2008
4. Overall Programme coordination and usual Regional tasks	Sept-Dec. 2008

B. INPUTS

B.1 National Programme Leaders and Counterparts (GO/NGO)

Greater Mekong Subregion Member Countries

Cambodia

- Mr. Pen Vuth, Director of National IPM Programme and DAALI, MAFF
- Mr. Ngim Chhay, National IPM Program Coordinator, DAALI, MAFF
- Mr. Chou Cheythyrit, Vegetable IPM Project Coordinator, DAALI, MAFF
- Ms. Srun Khema, Assistance Project Coordinator
- Mr. Ing Sina, National IPM Training Officer, DAALI, MAFF (until June 2008)
- Mr. Chhit Mak, National IPM Training Officer, DAALI, MAFF

Lao PDR

- Mr. Viravanh Phannourath, Director General, DOA
- Mr. Vilaysouk Khennavong, Director, Plant Protection Centre, DOA (up to September 2007)
- Mr. Khamtanh Thadavong, Director, Plant Protection Centre, DOA (from January 2008 up to present)
- Ms. Keo Oudone Philangam, Acting Lao National Vegetable IPM Project Coordinator (from January 2008 up to present)
- Mr. Phoukhaothong Sikaysone, Technical Staff, PPC
- Mr. Kaysone Senesombath, Ms. Sengsathith Phalakhone, and Mr. Soukanda Vichitry (up to June 2008) and replaced by Mr. Somkhit Sengsai (from July 2008 up to present), PPC Interns.

Thailand

- Mr. Songsak Wongbhumiwatana, Director General, Department of Agricultural Extension (DOAE), Ministry of Agriculture and Cooperatives (MoAC)
- Mr. Kamol Kasemsuk, Director, Bureau of Agriculture Production Quality Development, DOAE
- Ms. Lawan Jeerapong, Director, Pest Management Division, Bureau of Agriculture Production Quality Development, DOAE.
- Ms. Areepan Upanisakorn, Director, Biological Control Group, Pest Magnt Div, DOAE
- Mr. Wichit Kamolwarin: Director Petchabun Agricultural Extension , DoAE.
- Mr. Somsak Summawan, Extensionist Petchabun, Provincial Agricultural Extension, DOAE.

Vietnam

- Mr. Nguyen Quang Minh, Director General of Plant Protection Department, MARD;
- Mr. Le Mau Toan, Vice Director of Plant Protection Department, MARD;
- Mr. Ngo Tien Dung, Plant Protection Department, MARD, National IPM Programme Coordinator;
- Mr. Le Tien Binh, Plant Protection Department, MARD, Vegetable IPM Coordinator

Yunnan Province of China PR

National counterparts at central level

- Mr. Zhong Tianrun, National IPM Programme Coordinator, Deputy Director General, NATESC, Ministry of Agriculture.
- Mr. Zhu Enlin , Director, Pest Control Division, NATESC, Ministry of agriculture.
- Dr. Yang Puyun, Deputy Director, Pest Control Division, NATESC, Ministry of Agriculture.
- Ms. Li Ping, Senior Agronomist, Vegetable IPM Programme technical executive, Pest Control Division, NATESC, Ministry of Agriculture.
- Mr. Shan Xunan, Agronomist, Vegetable IPM Programme technical executive, Pest Control Division, NATESC, Ministry of Agriculture

National counterparts at provincial level

- Mr. Zhou Jinyu , Director, Professor Plant Protection Station of Yunnan Province.
- Ms. Lu Jianping, Senior Agronomist, section of pest control, Plant Protection Station of Yunnan Province.
- Ms. Li Yahong, Agronomist, section of pest control, Plant Protection Station of Yunnan Province
- Mr. Han Zhongliang, Agronomist, section of pest control, Plant Protection Station of Yunnan Province

Other Member Countries

Bangladesh

- Mr. Shachindra Chandra Debnath, Director of Plant Protection Wing, DAE, Dhaka
- Mr. Tariq Hassan, Director General, Department of Agricultural Extension, Dhaka
- Mr. Hein Bijlmakers, Training Advisor, DANIDA-IPM, Dhaka

Indonesia

- Mr. Agung Wahyana, Director LPTP
- Mr. Sumino, Head Sustainable Agriculture, LPTP
- Mr. Sri Wahyuning, Field Officer, LPTP

Philippines

- Mr. Jesse Binamira, Coordinator, National IPM Programme, Department of Agriculture, Quezon City
- Mr. Dames Callo, National IPM Programme staff, DA, Quezon City
- Ms. Harriet Tauli, National IPM Programme staff, DA, Quezon City
- Ms. Wilma Cuaterno, Director, Plant Protection Unit, BPI, Malate

B.2 International/National Professional and General Service Staff

Greater Mekong Subregion Member Countries

Cambodia

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

Lao PDR

- Mr. Thongsavanh Taipangnavong, National IPM Expert
- Ms. Vornthalom Chanthavong, FAO-IPM Senior Administrative Assistant
- Mr. Kalathone Kouaykesone, FAO-IPM Administrative Assistant
- Mr. Bounmy Sysouphanh, FAO-IPM Driver
- Mr. J.W. Ketelaar, CTA, FAO-RAP, Bangkok, regular backstopping missions throughout this reporting period.

Thailand/Regional Programme Management Unit, FAO-RAP

- Ms. Nawarat Phayungkij, Administrative Assistant
- Mr. Jirawat Anansirikamol, Office Assistant/driver
- Mr. J.W. Ketelaar, CTA/PDO Thailand, FAO-RAP, Bangkok
- Ms. Alma Linda M. Abubakar, Regional Programme Development Officer

Vietnam

- Mr. Tran Van Hieu, Accountant/Office Manager
- Ms. Tran Thi Minh Loan, Programme Assistant (until 31 May 2008)
- Mr. Nguyen Huy Trung, Driver
- Ms. Le Thi Ha – Technical Assistant (starting 1 April up to end of Sept. 2008)
- Ms. Alma Linda M. Abubakar, Programme Development Officer, regular backstopping missions throughout this reporting period

Yunnan Province of China PR

- Ms. Hu Xinmei, National Programme Officer, FAO-IPM office, Kunming
- Mr. Yang Fujia, Driver, FAO-IPM office, Kunming
- Mr. Jan Willem Ketelaar, CTA/PDO China, regular backstopping missions throughout this reporting period

B.3 Consultancy Missions During the Reporting Period

Countries	Activities	Persons/Institutions Involved
Cambodia	Support to the National IPM Team and farmers' groups in the identification, design and implementation of farmer-led participatory action research; assistance to IPM Trainers in analyzing post-FFS data and preparing reports in formats that are locally useful for extending results to farmers and for advocacy work; assistance to IPM Trainers in developing skills and building overall program capacity in the identification, analysis, prevention and control of prevalent vegetable diseases and; assistance to IPM Trainers in identifying or developing effective non-chemical alternatives for insect pest management.	Mr. Damien Cupitt IPM Consultant (February to August 2008)
Lao PDR	Preparation mission for refresher training on disease identification, ecology and management in vegetables from 1-3 July 2008	Dr. Prabhat Kumar, FAO Consultant
	Training on disease identification, ecology and management of vegetables from 25 July – 4 August 2008	Dr. Prabhat Kumar and Dr. Marilyn G. Patricio
Thailand	Technical backstopping to the "Brassica Biocontrol Evaluation and Planning Workshop (Chiangmai, 12-14 February, 2008) and technical assessment of parasitoid establishment in RPF Doi Angkhang.	Dr. Lim Guan Soon, FAO Consultant
Vietnam	Facilitation of Workshop on Mass Rearing and Utilization of Earwigs as Biocontrol Agent (11-13 June 2008)	Ms. Areepan Upanisakorn, DoAE, Ministry of Agriculture and Co-operative, Thailand
Yunnan Province of China	Backstopping to impact assessment analysis workshop and report review (Feb.23-29,2008)	Elske van de Fliert, University of Queensland, Brisbane
	Impact assessment data analysis and report writing (November-December 2007, still ongoing)	Mr. Yang Puyun, NATESC
	Impact assessment data analysis (August-November 2007, completed in August 2008)	Mr. Liu Wenxin, China Agricultural University

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

Countries	Activities	Institutions Involved
Cambodia	None	
Lao PDR	Letter of Agreement in support of the development of the National Vegetable IPM Programme and coordination and support services for the FAO Vegetable IPM Programme in the Lao PDR (period March to December 2008)	Plant Protection Center, DOA
Thailand	Letter of Agreement (LOA/RAP/2008/23) Crucifer IPM for the Northern and Northeastern Highlands of Thailand. July 2008 – 30 November 2008	Pest Management Division, Bureau of Agricultural extension, DOAE
Vietnam	None	
Yunnan Province of China PR	Letter of Agreement in support of Impact Assessment of Vegetable IPM Activities in Yunnan Province(LOA 0603, April 2006-May 2007)	<ul style="list-style-type: none"> FAO/NATESC, MOA China
	Letter of Agreement in support of Coordination Support Services for the Vegetable IPM Program in Yunnan Province(LOA0701, June to 31 December 2007)	<ul style="list-style-type: none"> FAO/NATESC, MOA China
	Letter of Agreement in support of the seventh Vegetable IPM Farmer Field School cycle (FFS-VII) in Yunnan Province (LOA0702, August to 31 December 2007).	<ul style="list-style-type: none"> FAO/NATESC, MOA China
	Letter of Agreement in support of a workshop on Impact Assessment for Result Analysis and Capability Building for Participatory Data Analysis(LOA0801, Feb.25-29)	<ul style="list-style-type: none"> FAO/NATESC, MOA China
Regional	Letter of Agreement in support of Vegetable IPM research in Vietnam (still ongoing)	<ul style="list-style-type: none"> BioForsk/NIAER, As, Norway

B.5 Exchanges and Study Tours during the Reporting Period

Activities	Organizer/ Hosting Agency	Location	Dates	Persons /Country Supported
Programme development and technical backstopping	UNTS/CPR/001 /EC <i>EU/FAO/China Agrobiodiversity management and utilisation programme</i>	Tonghai county, Yuxi and Shizong county, Qujing , Yunnan Province	May 13-16, 2008	China Ms.Hu Xinmei

Activities	Organizer/ Hosting Agency	Location	Dates	Persons /Country Supported
Mass Rearing and Utilization of Earwigs as Biological Control Agent	FAO Regional Programme and Northern Plant Protection Center (Hung Yen)	Hanoi, Vietnam	10-14 June 2008	Laos Mr. Thongsavanh Taipangnavong, National IPM Expert; Mr. Kaysone Senesombath, National IPM Intern; Ms. Vidavanh Ngodsanga, PPC Intern; and Ms. Keo Oudon Philangam, Acting National IPM Project Coordinator. Thailand Ms. Areepan Upanisakorn (as resource person)
Programme development and technical backstopping to Yunnan provincial initiation workshop and steering committee meeting	UNTS/CPR/001/EC <i>EU/FAO/China Agrobiodiversity management and utilisation programme</i>	Kunming, Yunnan Province	June 12-14, 2008	Ms.Hu Xinmei
Technical backstopping to national agro-biodiversity profile training	UNTS/CPR/001/EC <i>EU/FAO/China Agrobiodiversity management and utilisation programme</i>	Qujing city, Yunnan Province	June 30 to July 4 , 2008	Ms.Hu Xinmei

B.6 Equipment Purchased during the Reporting Period

Countries	Descriptions	Value (US\$)
Cambodia	None	None
Lao PDR	Printer HP LaserJet P1006 (1 unit) Serial No: VNC5F	180
Thailand/Regional Office	Air conditioner "Trane" 24000 BTU, Model TTK524LB/MCX524GB	1,098.38
Vietnam	None	None
Yunnan Province of China	Digital camera Fuji Finefix,f100 fd(No.8BQ65719)	398

C. PROBLEMS AND SOLUTIONS

C.1 Cambodia

Problems / Issues	Action taken to resolve them
Most IPM Trainers could not properly identify and manage diseases that occurred on vegetable crops in FFS and post-FFS activities.	<ul style="list-style-type: none"> The Programme organized the Vegetable Disease Diagnosis, Ecology and Management Training for IPM Trainers. The Programme compiled, printed (in color), and distributed the disease field guide to all vegetable IPM Trainers.
Primarily due to the lack of a clear reporting format, some IPM Trainers submitted post-FFS reports that lacked important data making analysis difficult for the IPM Consultant.	<ul style="list-style-type: none"> The Programme organized a report writing workshop for Trainers who were involved in post-FFS activities as to improve their report writing skills and finalize all reports of post-FFS activities. Participants who attended the workshop have trained other IPM Trainers who did not attend the said workshop on how to write post-FFS reports.
With the increase in transportation and living costs, the daily allowance of \$7.5 and \$2.5 for DT and FTs, respectively, is no longer sufficient.	<ul style="list-style-type: none"> In May, the National IPM Program and FAO-IPM Programme discussed and agreed to increase the daily allowances for DTs to \$10 and for FTs to \$5.0.
Some farmers rotated attendance in FFS with their relatives and some farmers were reluctant to participate in FFS and post-FFS. As a result they gained less knowledge from the activities.	<ul style="list-style-type: none"> IPM Trainers discussed with farmers and explained to them in detail about the importance of attending season-long IPM training. Farmers were encouraged to participate in every session and Trainers followed up with farmers when they were absent. The trainers have requested help from local authorities to encourage farmers to attend regularly.

C.2 Lao PDR

Problems / Issues	Action taken to resolve them
Weak national project management continued (Same as last reporting period)	<ul style="list-style-type: none"> Regular team meeting between national IPM staff and FAO IPM staff to resolve the problems; Effort in appointing long-term and fully qualified government personnel is needed in order to strengthen the program.
Farm Field Schools started late due to weak planning process at the National IPM Program & late FFS plans submission by district trainers and delay in budget preparation at the FAO IPM Programme	<ul style="list-style-type: none"> Tasks were assigned to individual staff & interns to be responsible for follow-up on FFS Plans from the districts; With regards to problem in delay on budget preparation, one intern was assign to work closely with FAO-IPM Administrative Assistant.
Some planned activities could not be conducted on time. For example: <ul style="list-style-type: none"> Inception Workshop on PRR could not be 	<ul style="list-style-type: none"> Great effort was put in finalizing the CSP for the

Problems / Issues	Action taken to resolve them
<p>organized as scheduled because of delay in finalizing the CSP;</p> <ul style="list-style-type: none"> • Systematic monitoring of CHB parasitoids in Sepone due to insufficient manpower; • Study tour of policy makers to IPM successful country could not be organized due to lack of coordination with the host country. 	<p>Pesticide Risk Reduction project;</p> <ul style="list-style-type: none"> • Plan for systematic monitoring of CHB was re-scheduled; • Initial discussions were held with the FAO-IPM Programme Staff during the training on mass rearing and utilization of earwigs in Hanoi, June 2008.

C.3 Thailand

Problems/Issues	Action taken to resolve them
The sex ratio of Ds in the insectary, in some generations, remains unbalanced; not enough females are produced for effective field releases and keeping the lab population healthy and productive.	Continue to strengthen the rearing process and, if necessary, augmentation of lab populations with parasitoids collected from the field.
The Ds population in the field is sometimes low because of low DBM population in the fields, resulting from unfavorable weather conditions such as too much rain in the wet season.	The need to maintain rearing capacity of parasitoids in the laboratory for year-round parasitoid population survival needs to be further discussed with the expert (Dr. Lim Guan Soon).
The continued use of chemical and bio-pesticides (such as Bt and NPVs) by some farmers may also affect the year-round survival of Ds in farmers fields.	To reduce the pesticides used and provide favorable conditions for Ds establishment, more TOT/ FFS training should be conducted in Tubberg.
Most recent changes in DoAE policy and budget allocations have negatively affected the continued FFS implementation during the later part of this reporting period. Subsequently, planned TOT and FFS activities in Phetchabun had to be postponed.	It is hoped that the changes are only temporarily; there are indications that policies and budget allocation for FFS might be forthcoming. If so, FAO can also continue its counterpart commitment towards the organization of the requested TOT and FFS training scheduled for the next reporting period.

C.4 Vietnam

Problems/Issues	Action taken to resolve them
The lack of technical background on biology and predatory habits of earwigs resulted in the late start up of activities related to mass rearing and field releases of the said predator for biological control	A Biological Control Expert from the Biocontrol Group of the DoAE, Thailand provided expert inputs and helped train RPPC staff members on the mass rearing and utilization of earwigs..

C.5 Yunnan Province of China PR

Problems/Issues	Action taken to resolve them
Need stronger management in Yunnan province	NATESC is providing more guidance to Yunnan PPS and Yunnan PPS is taking more ownership of 'their' IPM farmer training programme
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.
Facilitators need to upgrade their facilitation skills to maintain and improve training quality	Refresher training for key facilitators is to be conducted late this year

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

D.1 Cambodia

<i>Output</i>	<i>Activity from Workplan for Previous Period</i>	<i>Actual Achievements</i>	<i>Adjustments/Workplan for Next Period</i>
Output 1.1: Improved assessment and relevance of national vegetable IPM training programmes	1.1.1. Continue to include IPM achievements in reports of DAALI and MAFF	IPM achievements were included in report of DAALI and annual report of MAFF and disseminated among senior officials in MAFF, other relevant ministries and institutions.	Continue to include IPM achievements in regular DAALI reports and annual report of MAFF.
	1.1.2. EIQ considered for use in preparing a possible case study on reduction of pesticide use	Not done during the reporting period but is considered for implementation under the Pesticide Risk Reduction Programme	
Output 1.2: Expanded and diversified vegetable IPM training	1.2.1. Continue to explore possibility of developing small proposals for funding support from development partners and funding agencies	CARF continued to fund experiments on off-season vegetable production. CARF also continued funding for rearing for releases of <i>Cotesia</i> in crucifer fields for DBM control.	Continue to explore possibility of developing small proposals for funding support from development partners and funding agencies.
	1.2.2. PCs and IPM Trainers continue to convince Commune Councils to include IPM-FFS activities in Commune Investment Plans	PCs and DT continued to encourage Commune Councils to put IPM-FFSs in their plans. The local NGO ATSA, supported by DANIDA, is implementing IPM activities to educate farmers on integrated farming systems through Integrated Farmer Field School (IFFS). A total of 41 IFFS are being conducting in Kampong Cham province using commune funds.	Provincial Coordinators and IPM trainers continue to convince Commune Councils to include IPM-FFS activities in Commune Investment Plans.
	1.2.3 Conduct 24 FFSs in four provinces on major crops such as cabbage, yard-long bean, Chinese kale, cauliflower, tomato and cucumber from November until April 2008	In the 2008 dry season, 24 FFS were completed involving 555 farmers (276 women)	IPM Trainers will continue to be involved in FFS and farmer training programmes as part of local Commune Council plans and those supported by NGOs.
	1.2.4. One Refresher Workshop to strengthen IPM Trainers' capacity will be conducted in May after completion of dry season FFS	One Refresher Workshop was conducted to strengthen the capacity of 43 vegetable IPM trainers (nine women) in the target provinces. The workshop was conducted in Kampot province on 26-30 May 2008.	

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
	<p>1.2.5 Central Staff regularly visit field activities and have discussions with Trainers to improve technical aspects and quality of FFS.</p> <p>PCs will conduct regular monitoring and backstopping.</p>	<p>Central staff regularly visited field activities and held discussions with Trainers to improve technical aspects and quality of FFS. They have also assisted them in designing post-FFS experiments, data collection sheets and post-FFS diaries.</p> <p>PCs also undertook field visits and M&E work and at the same time provided technical advices to trainers for quality improvement.</p>	<p>Under farmer training programmes supported under local commune council plans and those supported by some NGOs, PCs will continue to provide backstopping.</p>
	<p>1.2.6 Continue to organize four semi-monthly meetings by Trainers in four provinces during implementation of FFS and post-FFS activities from December 2007 to April 2008.</p>	<p>Four semi-monthly meetings were conducted by IPM trainers in the four provinces (Battambang, Kampong Chham, Siem Reap, Kandal). All District and Farmer Trainers involved with IPM activities participated in the meetings.</p>	
	<p>1.2.7 Four seasonal Evaluation and Planning Meetings will be organized by the end of April and beginning of May 2008.</p>	<p>Four Seasonal Evaluation and Planning meetings were conducted in the four provinces (Battambang, Kampong Chham, Siem Reap, Kandal) after completion of the dry season 2008.</p>	
	<p>1.2.8. Continue to support English training courses for Central Office staff members from March to August 2008.</p>	<p>Two Central Office staff members attended English training courses at private English Training Centres.</p>	
Output 1.3: Expanded base of training and resource materials	<p>1.3.1 Continue adaptation and improvement of existing curricula of FFS on vegetable crops.</p>	<p>During the Refresher Workshop in May 2008, the IPM Trainers discussed about how to improve the existing curricula on Chinese Kale and other main vegetable crops grown in the FFS.</p> <p>Field visits were carried out by National team members to observe areas for improvement of existing curricula.</p>	
	<p>Update second season post-FFS curriculum</p>	<p>The post-FFS curriculum was updated during the Refresher Workshop by the integration of new aspects on pest and disease management.</p> <p>The new post-FFS diary and report formats were</p>	<p>Finalize the procedures for the organization and operationalization of IPM alumni farmers' groups (associations) by September 2008.</p>

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
	Develop procedures for forming farmers associations	updated by the National Team based on discussions with all IPM Trainers during the Refresher Course. Procedures for organizing alumni farmers' groups (associations) were discussed during the Coordination Meeting and with the National Team.	
	1.3.2. Continue to translate other priority sections of the Ecological Guide on diseases in cabbage and tomato crop and distribute to IPM Trainers.	Translation of the Cabbage Ecological Guide (66 pages) was completed during the reporting period.	Continue technical review and compilation of sections of the Tomato Ecological Guide.
Output 1.4: Improved co-ordination, exchange and symbiosis among farmer training and IPM programmes	1.4.1 Continue to identify opportunities for collaboration and exchange with other NGOs, local associations and other actors involved in farmer training.	Project staff discussed with ATSA, Srer Khmer, NGO forum, World Vision and Handicap International on how to collaborate to strengthen IPM field activities. Project staff continued discussions with a wholesale vegetable company on how to link up with vegetable IPM farmer groups.	Continue to identify opportunities for collaboration and exchange with NGOs, local associations and other actors involved in farmer training.
Output 2.1: Existing and newly established IPM farmer clubs/groups actively engaged in continuing relevant and well-designed action research and group learning activities	2.1.1 Organize 15 Farmer Congresses in the target provinces	Ten farmer congresses were conducted (three in Kampong Cham, one in Seam Riep, two in Battambang, one in Kampong Chhnang and three in Prey Veng province) involving a total of 501 attendees (156 women). In these forums, farmers shared results obtained from their own farming activities and FFS field studies, raised problems they faced then discussed with other farmers as to identify possible options to address the issues.	
	2.1.2 Conduct 12 post-FFS activities in Kampong Chham, Siem Reap, Battambang and Kandal provinces	In the 2008 dry season, 12 post-FFS activities were completed in four provinces: two in Kampong Cham, two in Kandal, four in Battambang and other four post-FFS in Siem Reap province.	Initiate discussions with other NGOs and local communes on the concept of post-FFS activities for them to consider supporting such activities in the future

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
	2.1.3 Form one vegetable farmer association in each of the four provinces from April-August 2008		Organization of vegetable IPM farmers' groups (associations) in the four provinces will be considered under the PRR Programme
	2.1.4 Conduct four farmer PARs on organic and safe vegetable production from April-August 2008.	24 participatory action researches were conducted in twelve post-FFS. Each post-FFS farmers' group carried out two action research activities in crops like cauliflower, yard long bean, Chinese kale, tomato and Chinese cabbage. In these activities, farmers' groups explored alternatives to chemical pesticides and shared and compared practices with other farmers as to improve their crop production.	
	2.1.5 Organize a Technical Meeting between farmers and Trainers to share experiences and results on soil ecology and SRI.	This activity was postponed to October 2008.	Organize a Technical Meeting between farmers and Trainers to share experiences and results on soil ecology and SRI October-November 2008.
<u>Output 2.3:</u> Enhanced awareness and utilization of IPM farmer groups' work among other farmers' groups, related agencies and technical institutions	2.3.1 Develop one case study to document good practices and results achieved by project.	One five-page case study, "A Happy IPM Farmer", was prepared by Mr. Damien Cupitt, IPM Consultant.	Develop some more case studies to document good practices and results achieved by the project.
	2.3.2 Continue to invite concerned governmental departments, local media and NGOs to visit field activities. Continue to provide information on IPM activities and results to Radio National Cambodia Agriculture Programme for airing.	Concerned governmental departments and NGOs were invited to visit FFS and field experiments and to participate in FFS Field Days and Farmer Congresses. Discussions held with National Radio on broadcasting information about IPM on vegetable and rice crops. The National IPM Coordinator was invited as guest in a live radio broadcast on	Continue to invite concerned governmental departments, local media and NGOs to visit field activities.

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
		30 July 2008 where he replied to questions from callers on insect pest management.	
Output 3.1: Enhanced ability of IPM Trainers and farmers to identify and respond to new field problems	3.1.1. Finalize the TCPF proposal on the management of Brontispa and Rhinoceros beetle	The development of the TCP proposal on the management of Brontispa and Rhinoceros beetle is pending until such time that a decision is made as to whether to prepare one only for Cambodia or for the region.	
Output 3.2: Enhanced co-ordination with local, national, regional and international institutions and resource persons to provide technical support	3.2.1 Look for additional support from CARF and other organizations for the production of <i>Cotesia plutella</i> other bio-agents.	<i>Cotesia plutella</i> has been produced at Kbal Koh Agriculture Station with financial support from CARF.	Look for additional support from organizations for the production of other bio-agents such as <i>Trichogramma</i> .
	3.2.2 Continue capacity building by engaging interns to work with the project.	The two Interns who had worked with the project resigned in March to work with other organizations. The project selected another Intern to work with the project starting in April 2008.	

D.2 Lao PDR

The activity progress during the reporting period and workplans are reported on as per outputs in the original Lao country strategy paper (2005-7) for project GCP/RAS/209/NOR.

Output	Activity from Work plan for Previous Period	Actual Achievements	Adjustments/ Work plan for Next Period
Output 1.1: Action to improve and focus government management and coordination capacity	1.1.1 Continuation of various support mechanisms to enhance central counterparts capacity to coordinate and manage.	<ul style="list-style-type: none"> The co-ordination capacity as well as the project management at central level was still weak although various mechanisms of continued support provided by the project. Hence, there is still considerable scope for improvement, primarily on the part of the central government counterparts. 	-Same as last reporting period.

Output	Activity from Work plan for Previous Period	Actual Achievements	Adjustments/ Work plan for Next Period
	1.1.2 Adjustments in counterpart appointments at national level.	<ul style="list-style-type: none"> An acting coordinator appointed by the PPC Director continued working with programme. Three interns continued work with honorarium supported by the FAO IPM Programme. 	<ul style="list-style-type: none"> -Appoint full-time and capable coordinator if the programme is to be performed up to its potential. -Effort by the government to recruit the interns as government staff is needed.
Output 1.2: A solidified and diversified IPM Training Programme	1.2.1 Continue to conduct six Farmer Field Schools (FFSs) in two provinces (Vientiane capital and province). 1.2.2 Five wet season 2008 FFSs will be conducted in two provinces (Vientiane Capital and Vientiane Province) from July - November 2008. 1.2.3 Plan to conduct seminar on concept and application of SCM (March 2008) 1.2.4 Pilot activities related to supply chain management approaches with prior baseline survey followed by setting up IPM farmer groups and/or explore coordination on joint-planning activities with other related projects	<ul style="list-style-type: none"> Six 2008 dry season FFSs in Vientiane Capital and Province were successfully completed and sixty eight farmers graduated as a result of participation in these schools. Result to be reported in next reporting period due to delay in implementation. One day seminar on concept and application of SCM was organized at the PPC with 24 participants from various organizations attending the seminar. The seminar was run by FAO-RAP's Marketing Officer. A Practical Manual for Producers and Exporters in Asia was translated by staff at FAOR Laos. On-going discussions with Phonsong Agriculture Development Project and Oxfam Belgium staff. This activity will be conducted under PRR Project. 	- N/A -Three FFSs to be conducted in Vientiane capital and province from late September – December 2008. -Proofread to be done by FAO IPM in collaboration with DOA for printing.
Output 1.3: An expanded base of training and resource materials	1.3.1 Develop and/or translate Posters on major pests & diseases of vegetables and its	<ul style="list-style-type: none"> Posters on major pests and diseases of vegetables and its natural enemies, and leaflet and poster on CHB control were 	- Finalizing the draft posters and leaflet for printing by December 2008.

Output	Activity from Work plan for Previous Period	Actual Achievements	Adjustments/ Work plan for Next Period
	natural enemies.	drafted.	
Output 2.1: An increased focus on continuing action research and learning activities by FFS graduates	2.1.1 Organize farmer forum on experiment design and process. 2.1.2 Conduct ten field studies on soil ecology and off-season vegetable production as well as field studies on vegetable disease management 2.1.3 Conduct field studies on pesticide risk reduction in cucurbits, long beans, and other vegetable with high pesticide use	<ul style="list-style-type: none"> No progress to report on for this reporting period as this activity was pending on activity 2.1.2, which had to be cancelled. Plan for this activity was cancelled because farmers could not conduct the experiments as planned because of heavy rain and flooding during the wet season. This activity will be conducted under new PRR Project starting from October 2008. 	- Conduct 23 farmer field studies on disease management in two provinces (Vientiane capital and province) from late September-December 2008. By allowing farmers to be actively involved in the design, implementation, analysis and documentation of these field studies, FFS graduate farmers gain additional skills for continued on-farm action research.
Output 2.2: Increased co-ordination and collaboration with NGOs and related agencies in support of local FFS and post-FFS-activities	2.2.1 Inception workshop on pesticide risk reduction 2.2.2 Coordination workshop on joint- planning activities with - other related projects 2.2.3 Continue collaboration work with CDEA and with other partners.	<ul style="list-style-type: none"> This workshop will be implemented after CSP finalized and approved by the FAO and GOL. Same as above. Collaboration with REAL (former CDEA) on pesticide risk reduction training for farmer community continued. 	
Output 2.3: Field testing and farmer training on biological control options	2.3.1 Organize intensive training on biological control of diamond back moth (DBM) for farmers in five villages in the districts of Paksong, Thateng, and Lao-ngam	<ul style="list-style-type: none"> Five farmer trainings on biological control of DBM were conducted on the Bolaeven Plateau. 	-Continue to organize farmer training on biological control of DBM at five sites on the Bolaeven Plateau (late October – mid November 2008). -Organize a three day refresher training/workshop on biological control of DBM in Paksong (Early October 2008).

Output	Activity from Work plan for Previous Period	Actual Achievements	Adjustments/ Work plan for Next Period
<p>Output 3.1: An enhanced ability of IPM trainers and farmers to identify and respond to new field problems</p>	<p>3.1.1 Continue to find suitable translators for translation of Field guide (FFSs for IPM-Refresher your Memory) and ASEAN GAP into Lao language</p> <p>3.1.2 Refresher training course on major vegetable disease identification, ecology and management</p>	<ul style="list-style-type: none"> No progress made with translation of the ASEAN GAP documents as it was decided that this activity should be done by the DoA's Clean Agriculture Development Centre, which has a government mandate to deal with GAP. One full week of refresher training on vegetable disease identification, ecology and management was successfully conducted in FAO IPM Programme Office, PPC. 25 farmers, district and PPC staff participated in this training. 	<p>-Conduct 23 farmer field studies on disease management in two provinces (Vientiane capital and province) from late September-December 2008.</p>
<p>Output 3.2: Enhanced co-ordination with local, national, regional and international institutions, private sector, and resource persons to provide technical support</p>	<p>3.2.1 Continued collaboration with EW Seed Company to conduct vegetable varieties testing with farmers</p>	<ul style="list-style-type: none"> Collaboration with EW Seed Company did not continue during this report period..Generally, the seed market in Laos is perceived too small with high competition from seed producers in neighboring countries e.g. China and Thailand. However, off-season tomato farmers in Vientiane Province continue to make profitable use of some of the BW tolerant varieties introduced through collaborative work with EW in the past. 	
<p>Output 3.3: Continued work on biological control of the coconut beetle and perhaps additional activity on classical biological control</p>	<p>3.3.1 Assist FAOR in formulation of TCP on CHB management</p> <p>3.3.2 Conduct survey on occurrence (and spread) in areas where CHB is currently absent</p> <p>3.3.3 Systematic monitoring in</p>	<ul style="list-style-type: none"> No progress to report on for this reporting period. This activity is considered no longer necessary. Activity delayed to next reporting period. 	

Output	Activity from Work plan for Previous Period	Actual Achievements	Adjustments/ Work plan for Next Period
Output 3.1: An enhanced ability of IPM trainers and farmers to identify and respond to new field problems	3.1.1 Continue to find suitable translators for translation of Field guide (FFSs for IPM-Refresher your Memory) and ASEAN GAP into Lao language 3.1.2 Refresher training course on major vegetable disease identification, ecology and management	<ul style="list-style-type: none"> No progress made with translation of the ASEAN GAP documents as it was decided that this activity should be done by the DoA's Clean Agriculture Development Centre, which has a government mandate to deal with GAP. One full week of refresher training on vegetable disease identification, ecology and management was successfully conducted in FAO IPM Programme Office, PPC. 25 farmers, district and PPC staff participated in this training. 	-Conduct 23 farmer field studies on disease management in two provinces (Vientiane capital and province) from late September-December 2008.
	3.1.3 Sepone district to assess how widespread is the establishment of the larval parasitoid of CHB, <i>A. hispinarum</i> . 3.1.4 Continue to identify best-bet new species of predatory earwigs, possibly to be imported from Thailand (May onwards)	<ul style="list-style-type: none"> Two species of earwigs found to be effective in controlling CHB parasitoids. 	-Continue to explore the effectiveness of the predatory earwigs in controlling CHB parasitoids in collaboration with PPC. -Mass rearing of the predatory earwigs, in collaboration with PPC, after earwigs are considered to be effective in controlling CHB parasitoids.

D.3 Thailand

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
Output 1.1: Ecological Guides and training exercises manuals for brassica production/IPM are available to FFS facilitators	Finalisation, publication & distribution of Brassica IPM Guide (shortened version, in Thai) by August 2008	Draft Brassica IPM Ecological Guide and Structured Learning Exercises (SLEs) reviewed with farmers and trainers at Evaluation & Planning Workshop (Chiangmai, Feb. 2008) and pilot tested in FFS and refresher training course; compilation of Brassica IPM Guide finalized	All training materials to be finalized, published and distributed by November 2008
	Distribution of VCD documentary on Brassica IPM and Biological Control	Draft VCD documentary reviewed at above mentioned workshop and subsequently finalized and distributed from May 2008 onwards	
Output 1.2: Cadre of qualified facilitators for vegetable IPM training and community action is strengthened qualitatively and quantitatively	TOT curriculum development workshop, Phetchabun, May 2008	Activities delayed until next reporting period.	
	Brassica IPM/GAP/Hygienic Food Production TOT for IPM trainers/farmer facilitators Phetchabun, June-August 2008	The curriculum development and TOT had to be postponed to later in the year. Discussion on content, duration and training processes to be employed still under discussion. The training will likely have a fortified curriculum including concept/application of Good Agricultural Practices and Hygienic Food Production.	Curriculum development and TOT on IPM/GAP/Hygienic Food Production for IPM trainers/farmer facilitators December 2008
	2-day Project Result Analysis workshop Phetchabun, June 2008		2-day Project Result Presentation & Analysis workshop Phetchabun, December 2008)
Output 1.3: Internal monitoring and evaluation (M&E) system is established	Continued M&E activities for FFS quality control	A field guide for PM&E is being used by the FFS facilitators. Thus, information about process and impact of the field activity is continuously available for improvement of activity implementation.	Continuing. September-December 2008

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
Output 2.1: Established IPM farmer learning communities actively engaged in area-wide development and application of brassica IPM in the Khao Khor highlands of Phetchabun	One day Farmer Congress	Activity delayed until next reporting period.	One day Farmer Congress, Phetchabun, 19 November 2008 Congress is intended to allow farmers to share brassica IPM/biocontrol experiences. The congress will also allow for presentations on fertilizer/pesticide regulations, food safety and GAP.
Output 2.2: An established cadre of IPM Farmer Trainers actively involved in IPM training for other brassica farmers	Conduct of 10 brassica IPM demosites & 2 seasonlong FFS (March-June 2008)	2 season-long cabbage IPM Farmers Field Schools, funded by the DoAE Regional Biocontrol Promotion unit, were implemented, involving some 36 brassica farmers (Phetchabun, March-August 2008. The training focused on promotion of natural biological control for pest management as well as rearing/production techniques of predators/parasitoids/microbials.	
Output 2.3: Adapted training materials for use by local IPM farmer trainers and case studies developed that demonstrate impact of brassica IPM training efforts	For training materials, see activity under Output 1.1 above	Idem ditto	All training materials to be finalized, published and distributed by November 2008
	Advocacy/Promotion activities, including documentary production (<i>not directly reflected in logframe</i>)	See activities under output 1.1 above.	See workplans under output 1.1 above
Output 3.1: Key pest population regulating parasitoids introduced and established in brassica production systems	Continued rearing and field releases of <i>Diadegma semiclausum</i> for control of Diamond Back Moth	During this reporting period, efforts to rear and release <i>Diadegma</i> continued. FAO provided support to the DoAE-Phetchabun (under LOA) for casual labor and materials pending government funding approval. M&E efforts indicate that <i>Diadegma</i> is now established in Phetchabun and that the population is steadily expanding itself for area-	Continued, Sept.-December.08

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
		<p>wide DBM control. Challenges remain with regards to sustainable establishment, primarily with regards to ensuring that farmer communities sustainably manage their field crops, without hazardous sprays of pesticides, which can easily eliminate the pesticide sensitive parasitoids.</p> <p>A technical assessment commissioned by FAO and documented in Lim Guan Soon's Consultancy Mission report (March 2008) concludes that <i>D. semiclausum</i> is now well established in the organic brassica farms in the RPF-Doi Angkhang. Although a minimal population of parasitoids is maintained at the RPF rearing facility, releases are no longer necessary and have thus been discontinued.</p>	
	Continued surveys for <i>Diadegma</i> and natural enemies of <i>Pieris</i>	Surveys continued for assessment of natural enemy complexes for both Diamond Back moth and Cabbage White Butterfly (<i>Pieris brassicae</i>). Partial results were discussed at the Evaluation and Planning workshop (Chiangmai, Feb. 2008). Details and recommendations for follow up are included in Lim Guan Soon's Consultancy Mission report (March 2008)	

D.4 Vietnam

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
<p>Output 1.1: Ecological guides for vegetable growing and IPM FFS process and exercise manuals in Vietnamese are available to FFS facilitators</p>	<p>Editing and technical review of the manuals for cucumber and green bean (in English) will be completed in the next reporting period</p>	<p>Completion of editing and technical review of the manuals for cucumber and green beans (English version)</p>	<p>Training manuals will be posted on the project website</p>
<p>Output 1.2: Cadre of facilitators for vegetable IPM training and community action is strengthened qualitatively and quantitatively.</p>		<p>Various meetings/workshops to upgrade Trainers skills and knowledge implemented</p>	<p>Workshop on Opportunities and Challenges for Promotion and Sustainable Production and Protection of the Potato Crop in Vietnam and elsewhere in Asia will be organized on 25-27 November in Dalat</p>
<p>Output 1.3: Internal monitoring and evaluation (M&E) system is established</p>	<p>Impact assessment report will be available in the next reporting period</p>	<p>Impact assessment report being finalized</p>	<p>Impact Assessment report will be presented at the next Regional Meeting and will be posted on the project website</p>
	<p>EIQ case study will be available in the next reporting period</p>	<p>EIQ case study being finalized</p>	<p>EIQ case study will be finalized, presented at the next Regional Meeting and posted on the project website</p>

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
<p>Output 2.1: Knowledge and skills of Vietnamese farmers in target provinces to sustainably manage vegetable crops are strengthened</p>	Implementation of 10 FFS in 5 provinces	<p>Vietnam had completed the number of targeted FFS under the Norway project. Hence, no FFS were carried out with Norway funding during the reporting period. Budgets for FFS were re-programmed to support work on novel options for pest and production management, i.e., the use of biological control (see output 3.2).</p> <p>MARD's decision to implement the Safe Vegetable Production Programme has now been replaced and subsumed under the umbrella of the GoV's National Programme on Food Safety. Local Governments have continued to implement FFS for safe vegetable production management that now addresses other aspects in addition to pesticides such as microbial contamination and heavy metal residues. Where Local Governments have funding, training for farmers in FFS have continued under the National Programme for Food Safety.</p>	<p>The National Action Plan to ensure food safety and sanitation will be implemented until 2010. Where Local Governments have funding, training for farmers in FFS will continue under the National Programme for Food Safety. IPM Trainers trained under the Vegetable IPM Programme will continue to be involved in farmer training. At national level, the National IPM Team will continue under the Plant Protection Division to provide backstopping to local programmes and provide advice to policy at national level.</p>
	Two pilot EIQ/IPM integrated FFS per province are planned to be organized in Hanoi, HaTay, Hai Phong and Lam Dong provinces	Activity moved to the IPM component under the Norway-supported Letter of Agreement with Bioforsk. Separately reported on in LOA-BioForsk progress reports.	
<p>Output 3.1: Innovations are evaluated, adapted and/or developed through LToT participants/farmer-led research activities, and disseminated to the wider community</p>	The process of designing and implementing field studies will be integrated in the FFS curriculum	The curriculum for FFS under GCP/RAS/229/SWE was fortified with the integration of the process on designing and implementing field studies. See progress report for project GCP/RAS/229/SWE.	
	Fortified FFS will be carried out under the Community Pesticide Risk Reduction Programme in Ha Noi and Thai Binh in the next reporting period under the SWE project.	See progress report for project GCP/RAS/229/SWE.	Idem ditto

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
<p>Output 3.2: Novel options for pest and production management that have proven to be effective and efficient for use by farmers are increasingly used by farmers.</p>	<p>Activities related to the mass rearing and utilization of the predator <i>Euborellia sp.</i> will be conducted in three Plant Protection Centers in Vietnam. This biological control option is more promising because the predator (<i>Euborellia sp.</i>) will be locally collected in Quang Ngai, Nghe An and Hung Yen provinces and will be more adapted to the ecological conditions in these areas.</p> <p>Farmer groups will be involved in activities relative to the mass rearing and utilization of the predator, <i>Euborellia sp.</i></p>	<p>After the Workshop on Mass Rearing and Utilization of Earwigs as a Biological Control Agent held in Hung Yen province on 11-13 June 2008, the Northern Plant Protection Center in Hung Yen province has made improvements in their methods of mass rearing and releasing earwigs. In July 2008, the Region IV Plant Protection Center in Nghe An province and the Central Regional Plant Protection Center in Quang Ngai province working with farmers' groups commenced activities on mass rearing of earwigs.</p>	<p>Farmers groups with assistance from RPPCs in Hung Yen, Nghe An and Quang Ngai) will continue to mass rear and release earwigs to the fields.</p>
			<p>A review workshop on mass rearing and utilization of earwigs for biological control will be held at the end of this year.</p>

D.5 Yunnan Province of China PR

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
<p><u>Output 1.1:</u> Exercise manuals in Mandarin are available to FFS facilitators</p>	<p>Finalisation of manuals in Chinese, printing and distribution.</p>	<p>The English catalogue of Chinese Vegetable Ecological Production Guide has been reviewed by the CTA. The Guide still needs further input before printing. The guides have been adjusted accordingly as per suggestions to the English catalogue; the guides have been forwarded to the consultant in Beijing for further input. The guide will be print-ready by November.</p> <p>IPM FFS Process Manual has been translated from English into Chinese; the translation has been reviewed by a consultant. The English version of the manual has been reviewed by the CTA at a later stage. The Chinese version has been revised accordingly. The manual will be submitted to NATESC for clearance and distribution upon final clearance by the CTA.</p> <p>The English version of FFS Exercise Manual has been submitted to the CTA for review and further input. Chinese version will be adjusted accordingly and submitted to NATESC for final clearance when ready. Mar.-Aug.,08</p>	<p>Finalize, print and distribute various manuals Sep.-Dec.,08</p>
<p><u>Output 1.2:</u> Cadre of qualified facilitators for vegetable IPM training and community action is strengthened qualitatively and quantitatively</p>	<p>Set up a set of quality indicators for LTOT. Review of current LTOT model and assessment of its functionality and effectiveness.</p> <p>Organization of provincial RTOT to upgrade the capacity of key facilitators towards the middle of this year upon inputs from impact assessment results, M&E</p>	<p>No progress to report on during this reporting period.</p> <p>Activity delayed until later this year once IA report</p>	<p>The functionality and effectiveness of current LTOT model and quality indicators will be further discussed in the forthcoming RTOT with the facilitators late this year Dec.,08</p> <p>Further review and discussions will be conducted with regards to planning and</p>

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
	activities and further discussion and finalization of the outline by FAO, NATESC and YPPS.	and training recommendations have been published. An RTOT concept note was earlier developed by FAO and this needs further discussion with NATESC and YPPS. A questionnaire to be sent out to IPM TOT graduates was drafted but has not yet been formally distributed by the YPPS.	curriculum development for the forthcoming RTOT. Pending inputs from M&E and IA activities, the RTOT is postponed to be organized in Yunnan late this year given that impact assessment results will have to be available and other preparations to be made(<i>not .directly reflected in logframe</i>) Dec.,08
Output 1.3: Internal monitoring and evaluation (M&E) system is established	Implementation of internal monitoring and evaluation	A field guide for PM&E has been developed and incorporated into the Vegetable IPM FFS process guide. The field guide has been printed and distributed to all the FFS facilitators. Information about process and impact of the field activity is continuously made available for improvement of activity implementation. Mar.-Aug.,08	Continuing. Sep.-Dec.,08
Output 2.1: Knowledge and skills of Yunnan farmers in target areas to sustainably manage vegetable crops are strengthened.	80 Vegetable IPM FFS (FAO funds and local funds) are to be implemented in the remainder phase of the project.	Due the postponement of RTOT to late this year, only FFS funded by local government was ongoing during this reporting period, 40 FAO-funded FFS for RTOT graduates will be implemented after completion of the RTOT later this year. Funded by local government, TO(M)T/LTOT graduates have facilitated a total of 56 FFS this year. The FFS involve 18 counties of 7 prefectures in Yunnan province. Crops and subject matter covered rice (6), chili (9), Chinese cabbage (15), tomato (8), cucumber (1), potato (1), strawberry (1), eggplant (4), tea (1), head cabbage (1), squash (1), pumpkin (1), corn (1), apple (1), celery (1), rodent management (1), Chayote (3).Totally, 1,897 farmers have received season-long FFS training in the 57 FFS. The FFS farmers are 48.6% female and 51.4% male. The	Continued implementation of locally-funded FFS & planning for FAO funded FFS Upon agreed upon workplans by NATESC, FAO and YPPS, FAO will issue a LOA to cover 40 FFS to be facilitated by forthcoming RTOT participants (with funding from project GCP/RAS/229/SWE).. Sep.-Dec.,08

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
		age of participants is 25-50 years old. Mar.-Aug.,08	
	Coordination, monitoring of and technical backstopping to vegetable IPM FFS by NATESC, Yunnan PPS and FAO IPM office	NATESC staff traveled to Yunnan province 8 times and Yunnan PPS staff traveled to field sites 15 times for program coordination, monitoring and technical backstopping when needs were identified and whenever possible in daily plant protection work. FAO staff contacted with national, provincial and prefecture counterparts regularly and conducted monitoring and technical backstopping visits as needed. Mar.-Aug.08	Continuing. Sep.-Dec.,08
Output 2.2: Vegetable IPM FFS graduates plan and organise community-level IPM follow-up activities	Monitoring and evaluation of dissemination and community involvement in IPM implementation	NATESC, YPPS and FAO IPM Office were in regular contact with FFS facilitators, visited follow up FFS activities (eg. Plant Protection Associations, Vegetable Associations) and IPM hamlets when needs were identified. Mar.-Aug.,08	Continuing. Sep.-Dec.,08
Output 2.3: Vegetable IPM FFS are incorporated as a major training model in crop protection and management extension	Policy makers to attend field activities	At prefecture and county level, policy makers and local press participated in field activities. Local policy makers enhanced their understanding of the benefits and strengths of the FFS approach and expressed continued commitment in supporting IPM activities and employ FFS training model in locally funded programmes. Mar.-Aug.,08	Continuing. Sep.-Dec.,08
	Advocacy/Promotion activities (<i>not directly reflected in logframe</i>)	Advocacy/Promotion activities were carried out during the reporting period. TV stations from central level (CCTV-7) to county level broadcasted special reports on vegetable IPM programme implementation in the various counties during the reporting period. On the internet, numerous websites nationwide and worldwide have reported	Continuing. (<i>not directly reflected in logframe</i>) Sep.-Dec.,08

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
		<p>and promoted FFS as a practical approach to achieve food safety and rural development. e.g http://www.agri.gov.cn, http://natesc.agri.gov.cn, http://www.zhibao.net, http://www.ynagri.gov.cn, http://www.ynstc.gov.cn. In Baoshan, Wenshan, Simao, Xishuangbanna, Honghe, Zhaotong, Yuxi, Lijiang, Chuxiong, Qujing and Kunming Prefectures, special IPM FFS editions were broadcast on local TV. Newspapers such as China Youth Daily, Yunnan Science and Technology Daily, Kunming Daily, Chuxiong Daily, Qujing Daily and Zhatong Daily have reported on activities of the vegetable IPM FFS in their respective field locations. As a result, Zhaotong, Chuxiong, Dali, Kuming, Qujing and Lijiang PPS have generated local funds for conducting FFS. Kunming prefecture has organised local TOT to expand trainer's network for wider expansion of FFS training model. An innovative model developed such as IPM villages has been on the spotlight for building up new countryside and strengthening agricultural foundations, which are the main themes for agricultural development for the nation. Vegetable IPM "champions" emerged have aroused great attention from local government and have become learning models to use FFS for community prosperity. The FFS activities in Beijing, with seed facilitators from Yunnan LTOT, have contributed significantly to the 2008 Beijing Olympics in securing food safety and have aroused attention from the local and international community in terms of government investments in FFS training. Mar.-Aug.,08</p>	<p>Workshop on impact analysis results presentation at provincial and national levels. Provincial policy workshop <i>is scheduled to be held in early November.</i> (not directly reflected in the lograme, workshop concept to be further explored). Sep.-Dec.,08</p>

Output	Activity from Workplan for Previous Period	Actual Achievements	Adjustments/Workplan for Next Period
<u>Output 3.1:</u> Innovations are evaluated, adapted and/or developed through farmer-led research activities, and disseminated to the wider community	The RTOT is postponed to be organized in Yunnan towards middle of the year 2008 to upgrade the capacity of key facilitators upon further discussion and finalization of the outline by FAO, NATESC and YPPS. Training of facilitators relating to design and organisation of field studies in FFS and teaching experimental methodology to farmers will be part of RTOT curriculum <i>(not directly reflected in logframe)</i> Jun.-Aug.08	A concept note has been developed by FAO and further discussed with NATESC and YPPS. To identify training needs for RTOT curriculum development, monitoring visits to FFS in Yunnan were to be undertaken by NATESC. A questionnaire to be sent out to IPM TOT graduates was drafted but has not yet been formally distributed. IA results are being analysed and final report is being finalised. Final results won't be available until mid-May hence also the delay in curriculum design and implementation of the RTOT. Mar.-Aug.,08	Organize RTOT late this year and imbed design and organisation of field studies in FFS and teaching experimental methodology to farmers as part of RTOT curriculum. <i>(not directly reflected in logframe)</i> Dec.,08
	Continue data analysis and draft report writing. Mar.-May.08	Analysis of Impact assessment data under consultancy with NATESC and CAU staff was completed during this reporting period. A comprehensive 1 st draft IA report was submitted to FAO in May 2008. A revised report will be available before November so that the results can be reviewed at the next Bi-annual meeting and by the final evaluation mission for the programme. Mar.-Aug.,08	Continue data analysis and finalisation of IA revised report. Sep.-Nov.08
	Workshop on impact analysis results presentation and policy recommendation at provincial and national levels. <i>(not directly reflected in the lograme, workshop concept to be further explored).</i> Feb.-Jun.08	Pending availability of final IA results, activity delayed until next reporting period. A concept note for the workshop will have to be developed; ideas for the workshops were being generated on various occasions., Mar.-Aug.,08	A Workshop on presentation of impact analysis results and on formulation of policy recommendations for IPM-FFS promotion will be held in Yunnan in early November 2008. <i>(not directly reflected in the lograme, workshop concept to be further explored).</i> Nov.-Dec.,08

E. SCHEDULE OF WORKPLANS FOR NEXT REPORTING PERIOD (September-December 2008)

E.1 Cambodia

ACTIVITIES	SEP.				OCT.				NOV.				DEC.			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1.1.1. Continue to include IPM achievements in regular DAALI reports and annual report of MAFF.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1.2.1. Continue to explore possibility of developing small proposals for funding support from development partners and funding agencies.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1.2.2. Provincial Coordinators and IPM trainers continue to convince Commune Councils to include IPM-FFS activities in Commune Investment Plans.	X	X	X	X	X	X	X	X	X	X	X	X				
1.2.3. IPM Trainers will continue to be involved in FFS and farmer training programmes of other NGOs.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1.2.4. Under farmer training programmes of some NGOs, PCs will continue to provide backstopping.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1.3.1. Finalize the procedures for the organization and operationalization of IPM alumni farmers' groups (associations) by September 2008.	X	X	X	X												
1.3.2. Continue technical review and compilation of sections of the Tomato Ecological Guide.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1.4.1. Continue to identify opportunities for collaboration and exchange with NGOs, local associations and other actors involved in farmer training	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.1.2. Initiate discussions with other NGOs on the concept of post-FFS activities for them to consider supporting such activities in the future	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.1.4. Organize a Technical Meeting between farmers and Trainers to share experiences and results on soil ecology and SRI on October-November 2008.					X	X	X	X								

ACTIVITIES	SEP.				OCT.				NOV.				DEC.			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
2.3.1. Develop some more case studies to document good practices and results achieved by the project.					X	X	X	X	X	X	X	X	X	X	X	X
2.3.2. Continue to invite concerned governmental departments, local media and NGOs to visit field activities.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.2.1. Look for additional support from organizations for the production of other bio-agents such as <i>Trichogramma</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

E.2 Lao PDR

ACTIVITIES	SEP.				OCT.				NOV.				DEC.			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Training/workshop & Action Research</i>																
Conduct vegetable Farmer Field Schools				X	X	X	X	X	X	X	X	X	X	X	X	X
Conduct farm field experiment on vegetable disease management				X	X	X	X	X	X	X	X	X	X	X	X	X
Develop, publish & reproduce training materials and posters	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Project evaluation workshop						X										
<i>Biological control</i>																
Farmer training on biological control of diamond back moth (DBM)								X	X	X	X	X	X	X	X	X
Systematic monitoring parasitoid of CHB (<i>A. hispinarum</i>) in Sepone district				X												
Refresher training/workshop on biological control of diamond back moth (DBM)							X									
Explore role of predatory earwigs for CHB population regulation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

E.3 Thailand

<i>ACTIVITIES</i>	<i>SEP.</i>				<i>OCT.</i>				<i>NOV.</i>				<i>DEC.</i>			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Curriculum development workshop and ToT on IPM/GAP Food Safety													X	X	X	X
Conduct of Farmer Congress to share experiences & promote area wide brassica IPM implementation											X	X				
Continue M & E and backstopping by project staff for training & activity quality control	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Finalization, publication & distribution of various training & advocacy materials (e.g. short version of Ecological Brassica IPM Field Guide, VCD)									X	X	X	X				
Development & Finalization of case studies & scientific papers documenting brassica IPM & parasitoid introduction & establishment									X	X	X	X				
2-day Project Wrap Up Workshop (Phetchabun)														X		

E.4 Vietnam

<i>ACTIVITIES</i>	<i>SEP.</i>				<i>OCT.</i>				<i>NOV.</i>				<i>DEC.</i>			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Workshop on Opportunities and Challenges for Promotion and Sustainable Production and Protection of the Potato Crop in Vietnam and elsewhere in Asia											X					
Impact Assessment report will be posted on the project website							X									
EIQ report will be posted on the project website							X									
Review workshop on earwig mass rearing and releasing at 3 regional plant protection centers.																X
Review workshop on earwig mass rearing and releasing at three regional plant protection centers.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

E.5 Yunnan Province of China PR

ACTIVITIES	SEP.				OCT.				NOV.				DEC.			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Finalisation of manuals in Chinese, printing and distribution	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Implementation of provincial RTOT(<i>not directly reflected in logframe, specific time to be determined</i>)													X	X	X	X
Develop a set of quality indicators for LTOT implementation (<i>not directly reflected in logframe</i>)													X	X	X	X
Implementation of internal monitoring and evaluation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
56 FFS to be conducted throughout the remainder of the project in 2008 (government counterparts' funding)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Coordination, monitoring of and technical backstopping to vegetable IPM FFS by NATESC, Yunnan PPS and FAO IPM office	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Receiving final review mission									X	X						
Monitoring and evaluation of dissemination and community involvement in IPM implementation	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Policy makers to attend field activities	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Advocacy/Promotion activities (<i>not directly reflected in logframe</i>)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Data analysis and report writing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Workshop on impact analysis results presentation at provincial and national level(<i>not directly reflected in logframe</i>)	X	X	X	X					X	X	X	X	X	X	X	X