

# Regional Programme: Towards a non-toxic environment in South-East Asia Phase II



## Progress report 2014

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# 1 Acronyms and abbreviations

Acronym	
ABD	Agro-biodiversity
APPPC	Asia & Pacific Plant Protection Commission
ASEAN	Association of Southeast Asian Nations
CECAD	Center for Environment and Community Assets Development
CEDAC	Centre d'Études et de Développement Agricole Cambodgien
CGFED	Research Center for Gender, Family and Environment in Development
CPAM	Community-based Pesticide Action Monitoring
CSO	Civil Society Organisation
DALY	Disability Adjusted Life Year
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
FFS	Farmer Field School
GHS	Globally Harmonised System for Classification and Labelling
GMS	Greater Mekong Sub-region
ICEVN	Initiative for Community Empowerment
IFCS	International Forum for Chemical Safety
IPCS	International Program on Chemical Safety
IPM	Integrated Pest Management
IPPC	International Plant Protection Convention
JICA	Japan International Cooperation Agency
KemI	Swedish Chemicals Agency
LFA	Logical Framework Approach
MDG	Millennium Development Goals
MoA(I)	Ministry of Agriculture (and Irrigation)
MoAC	Ministry of Agriculture and Cooperatives
MoC	Ministry of Commerce
MAFF(F)	Ministry of Agriculture, Forestry (and Fishery)
MARD	Ministry of Agriculture and Rural Development
NALD	Non-profit Association for Development and Environment
NGO	Non Governmental Organisation
OISAT	Online Information Service on non-chemical pest management in the Tropics
PAN-AP	Pesticides Action Network Asia & Pacific
PAN-NA	Pesticides Action Network North America
PEAC	Pesticide Eco Alternative Center
PIA	Pesticide Impact Assessment
PIC	Prior Informed Consent
POP	Persistent Organic Pollutants
RBM	Result-based Management
RCRD	Research Center for Rural Development
REAL	Rural Ecological Agriculture for Livelihood
SAEDA	Sustainable Agriculture & Environment Development Association
SAICM	Strategic Approach to International Chemical Management
SEK	Swedish kroner
SENSA	Swedish Environmental Secretariat for Asia
Sida	Swedish International Development Cooperation Agency
TFA	The Field Alliance
TEF	Thai Education Foundation
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organisation

## 2 Executive summary

Phase 2 of the programme is now in full swing and all programme activities are on track after a somewhat delayed start in 2013, mainly due to the intensive work in terminating phase 1 and finalizing new agreements etc. for phase 2.

During 2014, more than 10,000 farmers, women, youth, government representatives and consumers participated in workshops, campaigns, radio shows and monitoring efforts by PAN AP partners in China, Vietnam, Lao PDR, Cambodia and the Philippines. PAN AP's public awareness campaign "Protect our Children from Toxic Pesticides" garnered 11,000 tweet impressions on International Children's Day on 20<sup>th</sup> November. 15,000 people joined a mass action in the Philippines against aerial spraying and PAN AP's Chinese partner, PEAC's website, a tool for public awareness received 5.8 million hits. In addition, successful advocacy of PEAC, contributed to phase out of endosulfan and liquid paraquat dichloride by the Ministry of Agriculture in China.

On the global arena, PAN AP contributed to several important achievements for chemicals management, such as the development of a strategy for a Global Alliance on HHPs, successful advocacy in the technical committee under the Stockholm convention for the listing of methamidophos and a severely hazardous pesticide formulation (SHPF) of fenthion. PAN AP was also instrumental in getting Canada to drop its opposition to adding PCP (pentachlorophenol) to Annex A of the Stockholm convention for global phase-out.

During 2014, Myanmar showed increased interest and participation in programme activities. In June 2014, Myanmar formally requested participation in the FAO Regional IPM Programme, which was subsequently endorsed by FAO. In October, the 8<sup>th</sup> regional chemicals management Forum was hosted by Myanmar and a large number of participants from the government as well as industry took part in the three day meeting and exchanged experiences with representatives from the neighbouring countries.

A regional meeting on practical aspects of pesticide risk assessment and phasing out of highly hazardous pesticides was held in China in May 2014. The meeting provided an opportunity for participating countries to exchange information and discuss issues of common concern and laid a foundation for closer regional collaboration in this area.

Organisation of two workshops on enforcement and the globally harmonised system on classification and labelling (GHS) with 30 representatives from central and local governments in the Mekong region contributed to improved knowledge about the GHS system and its enforcement as well as skills in application of the GHS criteria.

During January to December 2014, some 11,768 additional farmers (50 % female) in the Mekong region, participated in 'fortified' Farmers Field Schools or focused 3-day Pesticide Risk Reduction trainings supported by FAO, adding to a cumulative total of 70,484 farmers trained since the inception of the project in 2007. During this period, thousands of additional farmers benefited from participation in local government and/or other donor funded FFS programmes that were implemented with FAO technical and coordination support provided under the project.

The Field Alliance' partners have been expanding the Rural Ecological Agriculture for Livelihood (REAL) program activities in all countries. Marketing training, rice-fish conservations, weaving traditional skirt, saving groups were implemented for women groups, including a study on gender role on climate change adaptation for organic farmers. Various school and home vegetables garden were developed to ensure safe foods for school children. Thailand and Vietnam assisted the ministry of education and training to develop action plan for ASEAN Eco-schools as well as curriculum and materials development to integrate the PRR (pesticide risk reduction) for Community Learning Centers in Vietnam. The Thai Office of the Non Formal and Informal Education contributed over 2 million baht for 2 months training for their 30 teachers from 15 provinces and hosted a farmer field day with over 1,000 farmers, teachers, officials, and policy makers attending the event.

Studies continue to provide evidence of the positive effects, not only for human health and the environment, but also on household economy of farmers. Results from 2014 showed that in the rice-fish and aquatic animal conservation fields, farmers saved 50-80 % of cost by reducing pesticide use and 50 % of cost by reducing weeding labour. Profits of the farmers following these revised environmental guidelines increased by four times in comparison to the profits of farmers using conventional farming methods.

### **3 Background**

Over the past few decades, there has been a growing concern that chemicals, while essential for virtually every aspect of modern life and the economy, can cause significant adverse effects on human health and the environment. Many countries lack the capacity to handle chemicals management issues and are in great need to develop institutions, legislation, knowledge and general awareness. As a response to this, the programme "Towards a Non-Toxic Environment in South-East Asia" was initiated in January 2007. A second phase of the programme was approved by Sida in 2013. The programme builds on a strong partnership with well-established organisations that together have many years of experience on dealing with chemicals management issues in the region. Implementing partners are the Swedish Chemicals Agency, the Food and Agriculture Organization of the United Nations (FAO), Pesticide Action Network Asia and the Pacific (PAN-AP) and the Field Alliance (TFA). The geographical scope of the Programme is South-East Asia and has a primary focus on the Mekong region countries. Partner countries are Cambodia, China, Lao PDR, Myanmar, Thailand and Vietnam. Regional activities under this programme sometimes involve other countries from the region, like Indonesia and the Philippines.

The programme's overall aim is to contribute to reduced health and environmental risks from chemicals and better management of agricultural, industrial and consumer chemicals.

### **4 Sector development in the region**

Chemicals-related matters have recently been given increased priority on regional level, through the work of ASEAN. A specific working group named ASEAN Working Group on Chemicals and Wastes (AWGCW) has been created within the ASEAN Working group on Multilateral Environmental

Agreements (AWGMEA). Multilateral Environmental Agreements (MEAs) play a critical role in the overall framework of environmental laws and conventions. Complementing national legislation and bilateral or regional agreements, MEAs form the over-arching international legal basis for global efforts to address particular environmental issues. The objective of the working group on chemicals is to further strengthen regional coordination and cooperation in addressing chemicals-related issues under relevant multilateral environmental agreements such as Basel Convention, Rotterdam Convention, Stockholm Convention, and Minamata Convention, as well as internationally agreed-upon systems such as the Globally Harmonized System for Classification and Labelling of Chemicals (GHS). The working group will suggest priority issues/actions, including GHS, which would be an important tool to identify chemical products on the market and take necessary actions to implement the MEAs and introduce other risk reduction measures.

The interest in safe food continues to grow in South-East Asia as consumers become more and more aware of health hazards connected to pesticides and their residues. Concerns over recently detected high levels of pesticide residues on fruits and vegetables in Hainan province in China, a major producer of winter season fruits and vegetables intended for the urban markets in northern and north-eastern China, has prompted the Hainan Provincial Government and its Plant Protection Station to strengthen its pesticide policies and regulations and assist farmers with pesticide risk reduction training. In response to this demand, the IPM Programme expanded geographically to include the Hainan province in the collaboration.

During 2014, the political situation in Thailand changed after the seizure of power by the military. Some work within the government was put on hold and changes of the Thai Government affected the budget contribution for programme activities in 2015. The political situation did, however, not hinder Thailand's possibility to join the regional collaboration on chemicals management. Participants from two key ministries in the area of chemicals management participated at the 8<sup>th</sup> Forum in Myanmar and shared their experiences and informed about their on-going work of reforming the system for chemicals management. Both Thailand and their neighbouring countries were happy to see the group of member countries being expanded.

Widespread drought in Thailand prompted the government to stop supplying water for dry season rice production (December – March) thus impacted on planned FFS during the dry season. Farmers were compensated for the loss of damaged rice and encouraged to grow other crops or seek employment created by government.

In Cambodia, the elections affected the possibility to meet in large groups and local CSOs had to find new ways to meet. A large restructuring of the ministries was launched and it is still on-going. Some key contact persons were moved to new positions, resulting in delays in development of legislation etc.

In Myanmar, the interest to take part in the regional collaboration has been continuously growing and Myanmar is now a formal member of the programme, both in the area of pesticide management and IPM and in the area of general chemicals management.

## 5 Progress report

### 5.1 Cross-cutting issues

#### Gender issues

During 2014, PAN AP, on behalf of the programme, started the development of a concept note on a gender case study to be implemented during 2015. Gender experts at the Stockholm Environment Institute (SEI) provided advice on the study layout. The study will document stories of women in the communities on how they have been influenced by trainings, projects or initiatives of pesticide risk reduction and on ecological agriculture. The stories will be about the situation and issues that women face and the differences in the impact of pesticides/chemicals on their health and well-being, both physical and mental, compared to men. It will also include the promotion of equality between women and men, girls and boys in the area of pesticide risk reduction and promotion of ecological agriculture and opportunities for women to participate equally in decision-making. Possible areas for improvement in design of trainings, curricula etc. will also be documented. The study will be led by PAN AP and carried out in cooperation with partners during 2015/2016.

PAN AP initiated rural women's leadership programme for food security in the region. During 2013-2014, close to 500 women in Cambodia, China, Vietnam and the Philippines followed these trainings with 350 of these women are continuously being involved in campaigns and local follow-up.

The Field Alliance and its partners recognized significant differences and unique trends among men and women regarding pesticide use and subsequently integrated a stronger gender focus into phase 2 of the programme. The programme also addressed vulnerable groups such as rural school children who are exposed to pesticides from sprayings of the school surroundings and from the storage and disposal of pesticide containers at home and in the field.

A questionnaire for determining and defining gender roles in agriculture was developed by TFA and disseminated for use among partners so that they may be able to create or modify activities based on gender, and more specifically, develop targeted programming for women's groups. Examples of gender specific programming conducted by TFA partners are detailed below.

#### *Cambodia*

According to the data on roles of women in agricultural and pesticide related tasks compiled by the Agriculture Technology Services Association (ATSA), men play a more active role in land preparation, irrigation, and pest and disease control through actively spraying pesticides. Typically, women's roles are slightly more removed from direct chemical exposure and involve purchasing of seed, fertilizer and pesticides, selling products and record keeping. It was found that within a family or business unit, men and women usually consulted each other on the type and amount of pesticide that would be used and both sexes were actively involved in various stages of agricultural production. According to the collected data, an average of five women per village occasionally sprayed pesticides if their husbands were busy with other tasks, while only a few women were regularly exposed to pesticides due to the fact that they were widowed or there was no male figure present to perform these duties. This particular project in Cambodia worked with women who grew vegetables, which often led to exposure to pesticides through contact with sprayed plants. ATSA developed programs to educate



these women on the risks of pesticide exposure and taught participants how to produce liquid compost and botanical pesticide for use in the vegetable fields.

In 2014, action plans for female farmers relating to income management, urgent health care, and farming inputs were developed. One such plan encouraged women from two separate villages to save a determined amount of money each month in order to establish long-term savings and provide the family with personal insurance in the event of emergency. Another action plan provided training on record and bookkeeping. Women producer groups were formed to grow vegetables for family consumption. Overall, this project and the action plans that were realized provided participating women with knowledge of ecological agriculture and business concepts to improve product marketing and encourage savings in order to increase financial gain and stability, contributing to a long-term sustainable agricultural livelihood. In the future, this project will integrate aspects of food nutrition as part of the extension from another ATSA project under the USAID funded project referred to as Cambodia HARVEST.

### *Lao PDR*

Several action plans were developed relating to food safety and increasing family income including: weaving Lao skirts; cricket, fish, and frog harvesting; pig rearing and rice and vegetable farming. Twenty women who were trained in weaving and cricket harvesting earned additional 500,000 – 1,500,000 Kip per person per month compared to 300,000 – 500,000 Kip earned by most unemployed housewives from selling collected vegetables. The program is being implemented through Encourage Community Development and Environment Conservation Foundation (ECDECF), formerly named NALDE.

### *Thailand*

A study on gender roles in climate change among organic farmers was conducted in Chiang Mai and the Philippines. The study aimed to develop a set of guidelines to assist women in successfully adapting to climate change. The final report will be synthesized among partners to further integrate the recommendations into the existing programs. IPM training was provided to a group of housewives on how to grow organic vegetables for individual family consumption and income generation with support from Chiang Mai University for food processing. Special follow-ups were made with women's groups who participated in the survey during the IPM ToT course and are currently using pesticides in the Uttaradith and Sakon Nakorn Provinces to further document the baseline and to be used for responsive planning in 2015.

### *Vietnam*

The Initiatives on Community Empowerment for Rural Development (ICERD), formerly named ICEVN, in collaboration with Commune Woman Union have encouraged and supported women participating in agrobiodiversity (ABD conservation), Pesticide Risk Reduction (PRR), Sustainable Rice Intensification (SRI) and the Integrated Pest Management (IPM). Rice–fish Women's Club was formed and members held regular meeting to discuss and share experiences and difficulties as well as solutions to problems pertaining to rice-fish farming. The results achieved in 2014 showed that in the rice-fish and aquatic animal conservation fields farmers saved 50-80 % of cost by reducing pesticide use and 50 % of cost by reducing weeding labour. Profits of the farmers following these revised environmental guidelines increased by four times in comparison to the profits of farmers using

conventional farming methods. Five new sites will be added to the program with the integration of rice-fish farming, where feasible.

Women and students growing vegetables in home gardens is another way for poor families to obtain a variety of nutrient-rich foods at low cost. The projects in Vietnam have encouraged farmers to grow vegetables in home gardens for family consumption and created home-based employment for women by assigning them the role of processing and preserving perishable vegetables in order to generate continual income between growing seasons. In 2014, 80 women in Bac Giang and Quang Binh improved home gardens with greater diversity of vegetables. One women's group was formed to produce organic fertilizer for "green rice" market in order to reduce the excessive uses of chemical fertilizer, a common practice that pollutes the environment and leads to poisonous residue in and on food. Two other women's groups in Bac Giang studied and produced organic fertilizer by making "Bio-mats" from chicken dung, pig dung and other biomass. Farmers were able to reduce the use of chemical fertilizer (Urea) on rice by 60 % and helped reduce pollution in the greater rural environment.



*Woman farmer of Quynh Son commune - Yen Dung - Bac Giang harvesting fishes from rice field*

Farmer education programmes under the IPM Component continued with a pro-active approach to gender issues working with men, women and children in selected communities. Gender-sensitive intervention planning was utilized in designing Farmer Field School (FFS) and post-FFS activities. Participation in FFS and post-FFS was based on who was actually carrying out the work in agricultural production and not a fixed percentage. The timing of FFS and post-FFS sessions took into consideration the tasks that women had to carry out in their homes such as preparing lunch for their families. Men and women with small children were encouraged to bring their children to FFS and post-FFS sessions. In some cases, where men were busy with other work, their wives or children represented them in FFS/post-FFS sessions. If female participants were busy, their husbands or children represented them in activities. FFS/post-FFS group composition took into account villages or organizations men and women represented resulting in groups with both gender. In Cambodia, the

establishment and support to Farmers' Clubs and Self-help Groups (as part of post-FFS activities) have provided men and women access to resources to continue carrying out field studies and learning in groups and provide loans to improve crop production or livestock raising activities and emergency personal needs. Access to financial resources facilitated participation in community-based IPM/pesticide risk reduction activities - especially among women whose role in the family included income management. By the end of 2014, 59 active IPM Farmers' Clubs established under the project had a total of about USD 91,000 in Savings Funds with money coming from members' contributions.

### Poverty perspective

The REAL programme helped to alleviate poverty in Southeast Asian farming regions through increased food security and the introduction of various income generating practices. The agrobiodiversity and conservation projects provided opportunities for creating additional sources of food, income, medicines, and natural materials that may be used for home appliances, clothes or marketable handicrafts. The ecological agriculture practices of making compost, bio-fertilizer, bio-mats, bio-pesticides, rice-fish conservation, and marketing training sessions that were conducted helped to reduce input costs and increase production and profits for participating households. Women's groups in Laos were able to earn an additional 500,000–1,500,000 Kips per person per month by weaving and cricket rearing compared to the average of approximately 500,000 Kips per month for unemployed housewives. One school was able to sell the vegetables for 1,000,000 Kips. A farmer's group in Bac Giang, Vietnam generated approximately 148,000,000 Dong by creating home vegetable gardens while the rice-fish Farmers Club earned 213,642,000 Dong compare to the average of 47,407,500 Dong for only rice production. They saved 50-80 % of cost by reducing pesticide use and 50 % of cost by reducing weeding labour. Profits of the farmers following these revised environmental guidelines increased by four times in comparison to the profits of farmers using conventional farming methods.

PAN AP and partners are engaged in creating awareness and build capacity for food security and sustainability. On-going skills trainings include methods of composting and methods of sustainable farming that aims to generate income in the future. Farmer's cooperatives are also set up in Cambodia, Vietnam and China. For example, in Heir village, Yunnan, more farmers have joined the local farmer's cooperative and have received over 1000 RMB by planting traditional rice varieties. In China, PEAC along with ECO-Women have on-going capacity and leadership skills for rural women to generate more income. CEDAC and PEAC have programmes that link the farmers from their project sites to consumers and markets.

### Sustainability

The programme has a very well developed approach to encompass capacity development at all levels of stakeholders in the society to ensure sustainable effects, from training teachers to inform school children to informing their parents, training famers, training pesticide inspectors, staff at chemicals

management authorities as well as governmental staff. To reach sustainable results, pesticide issues are, within the programme, tackled from three angles that mutually reinforce each other:

1. Broad awareness raising among all relevant levels of stakeholders in the partner countries, from children and farmers to consumers and decision makers/policy makers;
2. Strengthening of regulatory control
3. Promotion of integrated pest management (IPM) to make farming communities less dependent on pesticides and to help them move away from hazardous products.

Most activities are coordinated with relevant ministries in the key countries e.g. Ministries of Agriculture, Industry and Environment.

Sustainability is promoted by gradual integration of operating costs into government budgets. For instance, the inspection schedules are designed to enable government to continue inspections on the very limited government budget that is available. No support is provided for laboratories that are unlikely to generate sufficient cost-recovery to continue independently. In such cases, preference is given to facilitating collaboration with existing laboratories in neighbouring countries. Sustainability is also ensured by working through existing on-going regional programmes that build capacity in national and local partners that increasingly draw on sources of funding outside the programme.

The governments of Vietnam and China continued to make considerable investment of their own budgets into support for IPM-FFS and Pesticide Risk Reduction training. In Vietnam, for example, while the project provided about 50,000 USD for field activities during the period, local governments in 14 provinces provided financial support of about 380,000 USD for farmer training in FFS. The same trend is reported for other provinces as well as all over the country. In Cambodia, the General Directorate of Agriculture (GDA) mobilized funds from the Government of Cambodia's annual allocation for the Ministry of Agriculture, Fisheries and Forestry (MAFF) in the amount of around 23,430 USD for IPM/pesticide risk reduction FFS under the National IPM Programme. Donor buy-ins such as from the International Fund for Agricultural Development through the "*Project for Agriculture Development and Economic Empowerment*" (PADEE) has allocated 14,000,000 USD for capacity building, mainly farmer training in Farmer Field Schools for the period 2013-2017 and about 1,000,000 USD for FFS under the Rural Livelihood Improvement Project (RULIP) for the period 2007-2014. While the buy-ins are still coming from donors, it clearly demonstrates the catalytic role and sustainability of actions initiated under the Swedish-supported FAO IPM/pesticide risk reduction programme.

The majority of the communities and schools that have participated in the programme since Phase I continue to implement the programme activities with minimal or no support from TFA after the first 2-3 years. In these cases, the local administration and community took over ownership and implementation of these programmes with intermittent requests for technical support from partner organisations. TFA's partner organisations were able to secure or integrate the programme activities into other funded projects from USAID and FAO in order to allow for support and expansion. At the national level, governmental educational agencies in Lao PDR, Thailand, and Vietnam continue to provide support for programmes at the policy level. In-kind contributions of staff and facilities contribute significantly to the implementation of TFA programmes in most countries. Additionally, in

Thailand and Vietnam, governmental budget allotments were made to prolong programme implementation. The Initiatives on Community Empowerment for Rural Development (ICERD) in Vietnam has developed an agreement with the Continuing Education Department and Secondary Education Department within the Ministry of Education & Training to integrate agro-biodiversity and pesticide risk reduction into the national curriculum and as well as into the educational materials for the Continuing Learning Centers. Presently, at the regional level, an increased interest in expanding the REAL programme has been expressed by agencies such as the ASEAN Eco-school Network, but greater effort will be needed in order to solicit additional outside funding due to the impaired state of the local economies of the focus groups and regions that this programme operates within and is designed to benefit. The Initiatives on Community Empowerment for Rural Development (ICERD) in Vietnam has developed an agreement with the Continuing Education Department and Secondary Education Department within the Ministry of Education & Training to integrate agro-biodiversity and pesticide risk reduction into the national curriculum and as well as into the educational materials for the Continuing Learning process.

Sustainability at the local level is facilitated by the enabling and empowering processes employed in the awareness raising, education and action planning activities supported by programme partners. The processes are designed to strengthen ownership in planning, management and implementation of the local pesticide risk reduction programmes.

At rural community level, farmers become aware of risks associated with distribution and use of pesticides, learn about better management practices and agree on implementation of communication action plans for pesticide risk reduction. Local government and community organizations take part in implementation of action plans and work with the private sector to ensure enforcement of community regulations. As part of action plans, farmers can express interest in taking part in season-long Farmers Field Schools and learn about Integrated Pest Management practices. IPM-FFS graduate farmers organize, formulate groups and clubs, and then bargain for reasonable farm-gate prices for higher quality and safer food products through more rewarding value chains. Rural youth learn about the basics of ecology and IPM as part of their formal school curriculum and thus become literate about vital ecosystem services and agro-biodiversity for more responsible farming in the future.

Another effort to assure sustainability of programme efforts is the creation of a web based system for information sharing. The system is used both within the group of partners and among participants within the regional collaboration on chemicals management (Forum). The system is free of charge and easy to support, which will make it easy for partner countries to continue the use of the system as well as develop it further in the future.

Project experiences from the development and establishment of inspection schemes provided an important contribution to the foundation for new international guidelines on licensing and inspection of pesticide retailers and distributors. This use of project experiences to strengthen important international FAO/WHO Guidelines was regarded as a manner to enhance sustainability of project results.

## Anti-corruption

Anti-corruption measures are handled in a two- fold way in the programme, both on output/outcome level and on internal level.

The programme has not had any specific activities connected to anti-corruption during 2014. All partners are, however, continuously paying attention to this issue and avoid solutions/systems that could lead to abuse of power by government officials or other forms of corruption.

Anti-corruption is a permanent topic on the agenda for the coordination group meetings. The partners are all well aware of the risk of corruption in the field of chemical management. On internal level of the programme, continuous audits are made on a yearly basis at each partner organisation.

By the broad capacity building approach in the programme, working with both governments and strengthening of the civil society, the programme has unique opportunities to enhance transparency in national activities regarding chemicals management.

Strengthening of the regulatory framework generally results in better transparency, responsibility and accountability. Requirements are written down in laws and regulations and it becomes clearer who is responsible and accountable.

Regarding enforcement, the project is aware of risk of abuse of power by inspectors given the very low salaries of inspectors. A system of checks and balances will be developed in collaboration with CSO programme partners.

The programme has, and have had from the very start in 2007, a very broad inclusive approach, by including people from different regions, different ethnic groups, different sex, different ages (from children to adults) in the different activities. The range of implementing partners includes Civil Society Organisations, UN agencies and a Swedish authority, KemI, all focusing on transparency.

The programme has a participatory approach during the planning and in the implementation (including monitoring) process. A close and continuous dialogue is taking place among programme partners as well as with concerned ministries, agencies and civil society organisations. All these different stakeholders are involved in the planning process and implementation as well as in the monitoring of the programme, through workshops and forums. An active RBM approach is used in the programme, which includes active involvement of local stakeholders.

All documentation produced by the project is available for all programme partners as well as for the general public.

Farmer Field Schools empower farming communities, which tend to become more articulated in what they accept and what they do not accept from extension services and other government services. This tends to increase accountability of service providers and improve quality of services.

At national level, the programme helps enhance coordination between relevant ministries, which tends to lead to better coordination and more effective allocation of resources. CPAM activities and monitoring of adherence to the Code of Conduct on the Distribution and Use of Pesticides by CSOs

also clearly enhances transparency and accountability. Programme assistance towards the reform or development of legislation includes emphasis on transparency, fairness and possibility of appeal.

### Communication/information

Within the collaboration on chemicals management (Forum), discussions with participating countries have revealed that there is a great demand for information/data/reports on various aspects of chemicals management. To respond to this need, increased efforts are put into making presentations, contact details, training materials etc. available on line. Enhanced access to and exchange of information will therefore continue to be a prioritized issue.

Since the implementing partners are very different in nature and have different ways to work, there are limited opportunities for joint communication. A revised brochure about the programme is currently being drafted and it will be used to spread knowledge about the programme and facilitate contact with relevant persons in at the different partners organisations.

The programme does not have a common communication strategy but at a specific workshop on communication (held in Bangkok in June 2013, facilitated by an expert from Global Reporting, a consultancy company in the area of communication), partners determined that, within this programme, communication involves the following:

<b>Types of communication</b>
<ul style="list-style-type: none"> <li>• Internal communication. The communication between partners in the project.</li> <li>• Coordination with external partners and stakeholders.</li> <li>• Reporting to donors.</li> <li>• Lobbying, advocacy etc. towards media, industry, governments and others.</li> </ul>
<b>Core message</b>
<p>“Towards a non-toxic environment in South-east Asia”  This is the core message that unites all partners, and also the name of the programme.</p>
<b>Key words</b>
<p>The partners are united by the ambition to give help and technical support to local actors.  The following are key words that unites the partners:</p> <ul style="list-style-type: none"> <li>• Partnership.</li> <li>• Dialogue.</li> <li>• Capacity building.</li> <li>• Empowerment.</li> </ul>
<b>Principles for communication</b>
<p>In our work we strive to develop the communication along the following principles:</p> <ul style="list-style-type: none"> <li>• Factual. One aim is to provide local partners with factual information that is reliable and balanced.</li> <li>• Open. The communication should be as open and transparent as possible.</li> <li>• Inspiring. By giving inspiration through good examples, training sessions and suggested legal frameworks the partners would contribute in inspiring the local partners to develop their work.</li> </ul>
<b>Target groups</b>
<p>The key target groups for our communication are:</p> <ul style="list-style-type: none"> <li>• Farmers.</li> </ul>

- Women (children).
- Policy makers.
- Donors.
- Other actors in the same field.
- Government agencies.
- Local authorities.
- Central authorities.

#### **Channels**

The principal channels are:

- Social media.
- Traditional media.
- Campaign material.
- Face-to-face meetings.
- Seminars and workshops.
- Farmer field schools.
- Meetings with high-level officials.

The use of shared Dropbox folders has been expanded in order to facilitate access to information. Within the collaboration on chemicals management all presentations from Forum meeting, lists of participants, meeting reports etc. are uploaded and participants from the meeting are invited to join the folder to access the information. Participants also have the possibility to invite colleagues who are interested in taking part of the information. Since Dropbox is free of charge and there is no need to download software to make it work it is an easy and cost-efficient way to share information.

PAN AP is dedicated to helping improve the skills and capacity of its partners and staff on media outreach and therefore organised the three-day training on Media and Advocacy in Penang in September 2014. About 50 participants from 13 countries representing PAN AP partners and staff joined the training, which was both productive, and a fun event. The training helped the participants acquire new skills and capacity in media work. As a result, partners have been able to design effective media campaign plans to support on-going campaigns on rural women, pesticides and food sovereignty. PEAC was given an Excellence Award for two educational posters in a contest co-organized by the Ministry of Culture, Environment Protection, Ministry of Education, Ministry of Science and Technology and the Association of Science and Technology in China. PEAC was also invited by the Yunnan Provincial Science and Technology Bureau to publicize pesticides risks and relevant regulations at Xiang Yun Country, Wen Shan County, Er Yuan County and other local community centres.

PAN AP's partner in Cambodia, CEDAC, continues to host their radio show on Radio Sarika on new farming techniques and bio-diversity based ecological practices. In 2013, CEDAC was given an extra time slot and this year they produced 40 talk shows. The talk shows cover a broad range of topics including System of Rice Intensification (SRI), food safety, consumer's issues, No Pesticide Use Week and the launch of Children and Pesticides Campaign. During the live session of the programme there are at least three to seven callers who raise questions and share their experiences. CEDAC was also featured in radio free Asia (RFA) for an hour to highlight issues of pesticides use in Cambodia, the signs and symptoms, the project's approach and sharing of alternatives to pesticides.



PAN AP launched a new website in May 2013 and it is continuously being enhanced for better and easier usability.

The publication “Children and pesticides” was translated into Khmer and Vietnamese by PAN AP’s local partners in order to increase understanding of the issues and reach a broader audience.

The FAO regional IPM programme website ([www.vegetableipmasia.org](http://www.vegetableipmasia.org)) is regularly updated, with 9 news articles posted in 2014. The website is used widely and frequently, with some 106,450 hits as of December 2014.

At country level, National IPM Programme staff continued to regularly provide information - on activities under the Swedish-supported FAO IPM/pesticide risk reduction programme - to local and national newspapers, radio and television. For example, see: <http://vtv.vn/video/chuyen-duong-thoi-10-10-2014-50788.htm>, showing interviews with the National IPM Programme Coordinator in Vietnam and IPM Farmers about project activities in October 2014. Likewise, campaign materials (e.g., rat management, protocols for use of biological control agents such as *Metarhizium anisopliae*, etc.) in local language/s were produced and distributed to communities for information purposes. These materials are available upon request. In both Cambodia and Vietnam, as part of Community Action Plans prepared under local pesticide risk reduction programmes, communities have carried out campaigns on collecting empty pesticide containers and broadcasting messages on pesticide risk reduction for awareness raising among a wider audience in the community.

The Field Alliance is in the process of redesigning its website and integrate more program information. The new website will be launched in 2015.

### **Results and risk management**

The programme is continuously adjusting activities in relation to the current situation and need in the member countries and in the region.

One recent concern is the unfavourable exchange rate between Swedish krona and USD, THB, MYR etc. Partners are adjusting to the situation but if this will be long lasting, it will eventually have effects on partners’ possibilities to achieve expected results and adjustments of plans might be needed.

PAN AP programme task force members, the steering council and partners have annual meetings in the task force to explore possible opportunities and to have joint campaigns. In addition, an annual analysis of strengths, weaknesses, opportunities and treats (SWOT) is done to further evaluate programme results and risk.

While the policy levels in Thailand were unable to provide support to TFA’s on-going program implementation due to the changes of the government, the project partners continue to work with selective project site to strengthen the capacity for implementation and expansion with budget support from local level. New participating schools in 2015 will be asked to contribute the cost for their travelling to training and activities for their schools.

### **Private sector collaboration**

ICERD, TFA's partner in Vietnam, collaborated with the "Center For Clean Food", a private sector enterprise, to provide marketing linkage for participating farmers. Through various collaboration with local partner agencies in Thailand, produce from participating farmers are now supplied to several organic markets and hospitals in Chiangmai.

The FAO IPM Programme actively works with the private sector to explore novel options for pest and disease management, most notably better seeds and biological control, within context of Programme supported farmer training activities. The FAO Programme also is engaged in export-oriented value chain work, which includes private sector partnerships for better and more rewarding market access for smallholder producers of fresh fruits and vegetables.

Despite more and more evidence of the benefits for human health, the environment and household economy when changing from conventional farming techniques with heavy use of chemical pesticides etc. to more sustainable/organic farming, such as impact of IPM Programme supported capacity building interventions documented in impact assessments published by FAO, it continues to be hard to convince farmers to make the switch. Providing interested farmers with help to secure a market for their clean/organic produce could be a way to increase the number of farmers using more sustainable farming techniques. The FAO-IPM Programme is already working with private sector partners on development of more rewarding value chains for smallholder fruit and vegetable farmers in several GMS countries but the programme will explore possibilities to collaborate with the newly launched project, managed by Oxfam and funded by Sida, which focuses on linking small-scale producers to agro-commercial value chains.

Within the component implemented by the Swedish Chemicals Agency (component 5) there is less room for close cooperation with industry. The main focus of this component is to raise the capacity within authorities, industry and relevant CSOs in the partner countries and to strengthen the regulation of industrial and consumer chemicals. Representatives from the private sector are invited to different activities, when found relevant.

## **5.2 Highlighted regional activities**

A regional workshop on "Practical aspects of pesticide risk assessment and phasing out of Highly Hazardous Pesticides" was held in Nanjing in May 2014. The workshop was organised by FAO in close collaboration with the APPPC Secretariat and hosted by ICAMA, the Chinese authority responsible for pesticide registration. Participants from 15 Asian countries took part in the workshop and it provided an opportunity to participating countries to compare experiences in pesticide risk assessment. The workshop laid a foundation for further collaboration through creation of an electronic information exchange forum.

During 2014, two regional workshops on the Globally Harmonised System for classification and labelling (GHS) and enforcement was organised by Keml with participation of two experienced

inspectors from the Department of enforcement and registries at Keml. About 30 representatives from government level (mean, 40 % women) participated in the two workshops. Theory was mixed with exercises on how to apply the criteria in order to prepare the participants for practical work connected to enforcement of GHS. Evaluations of the workshops showed that the participants were highly satisfied with the training.

In October, Keml, in collaboration with the Ministry of Industry in Myanmar, organised the 8<sup>th</sup> regional chemicals management forum in Yangon, Myanmar. A total of 64 representatives (47 % women) from various ministries and organisations in Cambodia, Lao PDR, Myanmar, Thailand and Vietnam, together with invited speakers from China, Thailand and Sweden, participated in the 3-day workshop. The Forum contributed to increased knowledge about development of legislation in EU, Vietnam and Thailand, e-waste management, activities and support that can be provided to the region by UNEP regional office in Bangkok and the regional center for Stockholm and Basel convention in Beijing etc.

In 2014, The Field Alliance emphasized cross cultural capacity building for partners by providing financial support for eleven Laotian non-formal education students to attend the two-month PIA, ABD, and IPM courses in Thailand. TFA also provided technical and training facilitation support to the Laos UNDP/FAO Agro-biodiversity Programme (ABP) for the training of sixty MAF government officials, teachers, and farmers who attended similar courses in Luang Prabang and Xiengkhuang provinces of Laos during February-March and June–August of 2014. Training support and monitoring visits were made at least two times to each country.

## 5.3 Programme Objective

### *Strengthened capacity and regional collaboration for efficient pesticide risk reduction and chemicals management within and among partner countries*




The programme as a whole continues to achieve expected results and has been able to adjust to changing conditions. The different components and the different characters of the implementing partners complement each other well and, at present, no major changes of programme design or focus are therefore suggested.

#### *Major achievements during 2014*

- Project experiences from the development and establishment of inspection schemes provided an important contribution to the foundation for new international guidelines on licensing and inspection of pesticide retailers and distributors.
- The number of farmers in the region that are implementing pesticide management according to IPM continue to grow due to efforts by FAO and its partners.
- Lao PDR started the development of a chemicals law. The programme facilitated input from systems in the neighbouring countries and EU.
- During 2014, countries in the region showed a continued and growing interest in regional collaboration in the area of pesticides and chemicals management. Myanmar and Thailand are now permanent members of the regional collaboration on chemicals management.

😊 = According to plan, 😊 = Small deviations compared to plan, ☹️ = Not according to plan

Programme objective (med-term objective)					
Strengthened capacity and regional collaboration for efficient pesticide risk reduction and chemicals management within and among partner countries					
Indicators	Baseline	Target (2018)	Results up to 2014	Assessment of status	Comments
1. Examples of cases where field data from programme areas have been fed into national and international processes related to chemicals management.	2 cases	Approximately 3 more cases	2 additional cases.  Result from 2014: Feeding of the results of the survey on chlorpyrifos and paraquat in three provinces and one national workshop with government participants (Vietnam).  Project experiences provided important input to the development of	😊	Also the Philippines have preparatory plans of feeding data into national processes.

			international guidelines on development of pesticide legislation and on licensing and inspection of pesticide vendors.		
2. Number of farmers in the region implementing pesticide management according to IPM.	Approximately 44 000 farmers	Approximately 100 % increase	Approximately 12 000 additional IPM farmers (27 % increase) have reduced pesticide use and made increased use of biological control.		GMS governments and national and local levels continue to provide good facilitation and buy-in support for upscaling of farmer training programmes on IPM and pesticide risk reduction.
3. Examples of chemicals management measures taken in partner countries	No available baseline	Approximately 20 examples of chemicals management measures	3 examples in total  Results from 2014: <ul style="list-style-type: none"> <li>• Increased amount of pesticides with labels in Khmer language in Cambodia (reportedly 40-80 % of products compared to 10 % a few years ago)</li> <li>• Development of a new chemicals law in Lao PDR</li> </ul>		
4. Examples of regional cooperation on pesticide risk reduction and chemicals management	No available baseline	Approximately 10 examples of regional cooperation on pesticide risk reduction and chemicals management	3 examples in total.  Results from 2014: <ul style="list-style-type: none"> <li>• Creation of an e-mail exchange forum on pesticide registration issues.</li> <li>• Continued interest and support for the regional chemicals management forum and addition of Thailand as new official member of the collaboration on chemicals management.</li> </ul>		

## 5.4 Immediate objective 1



### *Increased awareness and enhanced capacity in farming communities, schools, institutions and among consumers within partner countries to reduce the risk associated with pesticide use and enhanced use of alternatives*







TFA have experienced a delay in securing partner in Myanmar due to the prolonged response by potential partners. New potential partners were identified and selection of partner will be accomplished in early 2015. While the policy levels in Thailand were unable to provide support to TFA's on-going program implementation due to the changes of the government, the project partners continue to work with selective project site to strengthen the capacity for implementation and expansion with budget support from local level. New participating schools in 2015 will be asked to contribute the cost for their travelling to training and activities for their schools.

In the last year, PAN AP and partners have opened up more spaces for discussions and awareness through new media, including social media and activities. The campaign on "Protecting our Children from Toxic Pesticides" has created better understanding of the impact of pesticides on children's health. In addition, the spaces for CSOs advocacy is limited at the national level and so creative ways of engaging government and the public has been explored, for example using twitter campaigns, getting awards from government, organising joint trainings and seminars with government departments. The information and the reports of monitoring of pesticides use have been useful in national and international campaigns and advocacy but PAN AP and partners have been continuously exploring better use of the information in campaigns as well as improving the tools for monitoring. While has been good outreach, PAN AP is continuously trying to improve the outreach strategies through more regular discussions with partners, capacity building, improving media and communication work and documenting impacts.

### *Major achievements during 2014*

- Raised awareness about hazardous pesticides through active engagement of more than 25 000 persons in programme activities and campaigns
- Increased number of farmers practising sustainable farming methods as a result of activities focusing on reduction of pesticides and input costs and sustainable utilization of agro-biodiversity conservation and domestication.
- Specific women groups received responsive supports to increase income and improve their livelihood through increasing food sources and reduction of pesticides exposure
- More school children are prepared for sustainable farming practices and capable to protect themselves from direct and indirect exposure to pesticides at home and in the fields.
- Creative use of conventional media, social media, e- newsletters and websites as platforms to engage with target audiences. For example, PEAC's and PAN AP's websites received more than 9 million hits, while PAN AP's twitter campaigns got 11,000 impressions and CEDAC has a radio shows twice a week on agro-ecology methods.

Immediate objective 1 (short-term outcome)					
Increased awareness and enhanced capacity in farming communities, schools, institutions and among consumers within partner countries to reduce the risk associated with pesticide use and enhanced use of alternatives					
Indicators:	Baseline	Target (2018)	Results up to 2014	Assessment of status	Comments
1.1. Various measures taken by target communities and partner organizations to create awareness and reduce pesticide use	Approximately 8000 persons in target communities and partner organizations	Approximately another 7 500 persons	<p>Total: Another 26 000 persons</p> <p>PAN-AP: Approximately 10,000 persons and 15,000 in mass actions. A citizen's movement to ban aerial spraying in the province was created in Mindanao, Philippines</p> <p>TFA: Approximately 135 persons attended the exchanged meeting in Laos; over 500 persons attended the forum in Thailand. Over 500 persons attended the local exhibitions and campaign in Cambodia and Vietnam.</p>		
1.2. The number of farmers, women, youth and other sectors participating in schemes to apply alternative and ecological practices	Approximately 4 000 persons	Approximately 100 % increase	<p>Total increase of 348 % (around 13900 persons).</p> <p>Results from 2014: PAN-AP: Approximately 830 new farmers are participating on ecological practices.</p> <p>PEAC received more than 5,791,135 hits</p> <p>TFA: Approximately 5598 students and teachers (50 % female) and 4038 farmers (58 % female) participated during 2014.</p>		

1.3. Media and internet coverage on pesticide issues	PAN AP website generated 10,953,956 hits	Approximately another 10 000 000 hits	Overall 3,567,880 hits (36 % of target value)		
	431 Likes on Facebook	Approximately another 1 000 likes on Facebook	Another 725 likes (72,5 % of target value).  PAN AP's twitter has 495 followers.  During International Children's Day to Protect our Children from Toxic Pesticides garnered 11,000 impressions on twitter.		
	REAL project televised 3 times	At least 4 REAL project televised	REAL schools in Nong No and Nong Keng, Xaythanee district were televised for green school in the Channel 3 TV program in Lao PDR.		
	Approximately 600 viewers on school projects at YouTube	At least 4 articles/papers published  At least 4000 hits on website and Facebook	REAL program paper were presented at the annual conference and published by the Pesticides Alert Network Thailand.		
1.4 The quality of training programs.	No baseline available.	Refined curriculum utilized in target schools, adult/farmer education programme and college.	Curricula were refined in four countries with the focuses on gender and poverty issues.		
	No baseline available	At least 25 in-countries meetings/trainings and 4 regional meetings/training/exchange workshops	Total: 11 in-countries meetings/trainings (44 % of target value) and 1 regional collaboration workshop (25 % of target value). Participating communities showed increased capacity to reduce the risks from pesticides exposure and increased their production and income from various program activities.		



			Result from 2014: At least 10 in-countries training workshops were held in four countries.		
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## 5.5 Immediate objective 2


### *Enhanced international, national, and local advocacy on sustainable pest management/agriculture*



PAN AP has been involved in global advocacy activities, including the technical committees of Stockholm and Rotterdam Convention, which is very resource consuming. However, this has been a satisfactory process since in many of these technical meetings PAN AP's viewpoints and suggestions have been supported when discussed at the Conference of Parties (COPs). In the COP process the decision making is more political than technical.



At the national level, CSOs have been resourceful to engage with government. In China, PEAC has been doing research and feeding this to the Yunnan government and the Central government and inputs have been appreciated. In Lao PDR, PAN AP's partner SAEDA was able to receive additional funding through SAICM and organised two workshops on pesticide use, impacts on human health and the environment with 750 government officers (from Department of Natural Resources and Environment and Public Health) and community members. In Vietnam, all three partners focused on a study on paraquat and chlorpyrifos and presented this to government officials in a seminar. The seminar did, however, not result in specific actions to address the issues and therefore PAN AP and partners are discussing possible follow-up strategies to strengthen the study.

### *Major achievements during 2014*

- Creation of a citizens' movement to ban aerial spraying in Mindanao, Philippines, as a result of CPAM activities in Vietnam, China and the Philippines.
- Increased global attention and priority for phasing out of HHPs due to successful advocacy by PAN AP and their partners. PAN AP participated in all relevant meetings connected to the Stockholm and Rotterdam conventions, SAICM and FAO JMPM and made around 10 interventions on pesticide issues.
- Pesticides impacts assessment data were used to develop action plans in 34 communities and presented at the national forum and workshops in Thailand
- Thai Education Foundation was selected as one of the NGO as the national chemical management committee by the Food and Drug Administration, the Ministry of Public Health of Thailand

Immediate objective 2 (short-term outcome)					
Enhanced international, national, and local advocacy on sustainable pest management/agriculture					
Indicators:	Baseline	Target (2018)	Results up to 2014	Assessment of status	Comments
2.1 Examples of advocacy measures taken by partner organisations in the region.	15 workshops /national seminars and national	Approximately 5 additional workshops /national seminars and 2 regional exchanges and 5 national campaigns on	Total: 1 additional national workshop, 1 regional exchange workshop and 3 national campaigns on highly hazardous pesticides		

Immediate objective 2 (short-term outcome)					
Enhanced international, national, and local advocacy on sustainable pest management/agriculture					
Indicators:	Baseline	Target (2018)	Results up to 2014	Assessment of status	Comments
	campaigns on highly hazardous pesticides initiated	highly hazardous pesticides	<p>Results from 2014: National seminars on HHPs have been held in China, Cambodia and Vietnam.</p> <p>80 participants attended the national seminar with an additional 3 workshop organised at provincial level in Vietnam. One national and 1 provincial level workshop organised with a total 730 participants that also included government officials in Laos.</p> <p>One regional exchange has been held in Thailand on BEA practices.</p>		
	2 Provincial and 1 National forum held in the region	Approximately 5 additional national forum/campaigns held in the region	No pesticide use week campaigns have been held in 5 countries in the project.		
2.2 Examples of cases when documentation of pesticide poisonings and other incidents have been utilized for advocacy at all levels.	4 communes with about 30 communities participated and 1000 copies of Asian Regional report on documentation of pesticide problems distributed	Report adherence of the on the FAO Code of Conduct completed and published and 2000 copies distributed and downloaded and documentation of pesticide problems in 40 communities available	<p>Total: Approximately 700 downloads (35 % of target value) of the Asian Regional Report from the PAN AP website.</p> <p>More than 14 communities (35 % of target value) from 6 provinces have participated in CPAM from Vietnam, China and Philippines. On-going CPAM efforts have resulted in the Philippines in the creation of citizens' movement to ban Aerial spraying in Mindanao,</p>		

Immediate objective 2 (short-term outcome)					
Enhanced international, national, and local advocacy on sustainable pest management/agriculture					
Indicators:	Baseline	Target (2018)	Results up to 2014	Assessment of status	Comments
			Philippines.  157 copies of the Asian Regional report distributed in UN process particularly in SAICM Asia Pacific meeting and SAICM Open Ended Working Group meeting.		
	Community pesticides impacts assessment data used in 20 communities	Community pesticides impacts assessment data utilized in approximately 50 additional communities and at least 5 times at the national level	Total: Pesticide impact assessment data used in 34 additional communities.  Another 1,161 copies have been downloaded in 2014.		
2.3 The degree of participation of CSOs in formulating policy making and legislative measures at all levels	No baseline available	Participation in meetings of Stockholm, Rotterdam Conventions, SAICM, FAO, etc. (including 2 interventions on pesticide issues).	Participation in all relevant meetings connected to the Stockholm and Rotterdam conventions, SAICM and FAO JMPM. Around 10 interventions on pesticide issues.  Thai Education Foundation participated in the process of drafting national chemical management plans.		


## 5.6 Immediate objective 3


### *Strengthened capacity to innovate and scale-up Integrated Pest Management (IPM) and pesticide risk reduction training for sustainable intensification of crop production in partner countries.*


Good implementation progress was made under this Immediate Objective during 2014. All member countries continued to strengthen and innovate their national IPM/pesticide risk reduction programmes with no major implementation challenges experienced.




#### *Major achievements during 2014*

- Strengthened capacity for conducting FFS and PRR training for farmers in all member countries as a result of training and refresher training in which participated more than 1,700 extension workers.
- Increased availability of learning tools for farmers to apply IPM in new crops and for management of new invasive pest species through the development of new curricula and structured learning exercises.
- Strengthened capacity and establishment of functional linkages with research institutions and other public and private sector partners for more effective Programme implementation at national level aided by the formulation of revised Country Strategy Papers (CSPs) in Cambodia, China, Lao PDR, and Vietnam.
- Expanded spread of IPM and good practices for pesticide risk reduction and strengthened regional collaboration through the formal inclusion of Myanmar and one additional Chinese province, Hainan, in the FAO Regional IPM Programme.
- Member country governments, most notably in China and Vietnam, have continued to invest in up-scaling of FAO-piloted IPM and PRR training for farmers.


Immediate objective 3 (short-term outcome)					
Strengthened capacity to innovate and scale-up Integrated Pest Management (IPM) and pesticide risk reduction training for sustainable intensification of crop production in partner countries.					
Indicators	Baseline	Target (2018)	Results up to 2014	Assessment of status	Comments
3.1 The quality of IPM/pesticide risk reduction training materials and national FFS standards developed and the degree of implementation/utilization of the training materials and standards in partner countries	Quality training materials developed in 4 and national FFS standards in 2 partner countries	Quality training materials and national FFS standards developed in 6 partner countries	Total: 2 countries.  In China, training manual on pesticide risk reduction (in Mandarin) was published and distributed.  Curriculum development and design of structured learning exercises for IPM in new crops and for new invasive pest		


Immediate objective 3 (short-term outcome)					
Strengthened capacity to innovate and scale-up Integrated Pest Management (IPM) and pesticide risk reduction training for sustainable intensification of crop production in partner countries.					
Indicators	Baseline	Target (2018)	Results up to 2014	Assessment of status	Comments
			<p>species continued (e.g. soybean IPM in Vietnam, <i>Bactrocera</i> fruit fly IPM in fruit and cucurbit crops, cassava pink mealybug).</p> <p>Participatory monitoring and evaluation system for IPM FFS programme, with a focus on monitoring implementation of pesticide risk reduction learning activities, have been set up in all four GMS countries. Efforts to strengthen these systems on-going.</p>		
3.2 The number of (and gender-disaggregated data) on IPM trained extension workers and farmers in partner countries	Approximately 300 government extension workers and farmer trainers and 44 000 farmers	Approximately 100 % increase of the number of trained IPM extension workers, farmer trainers and farmers	<p>Total increase: Trainers: 479 % (1,437 additional) Farmers: 60 % (26,484 additional)</p> <p>Results from 2014: Capacity to conduct IPM and PRR farmer training through organization of Training of Trainers and Refresher TOT courses expanded in all 4 GMS countries. A total of about 1,737 (18% female) IPM Trainers from Government and Farmer Trainers are actively involved in the conduct of IPM-PRR farmer training.</p> <p>Some 11,768 (50 % female) additional farmers in the Mekong region,</p>		

Immediate objective 3 (short-term outcome)					
Strengthened capacity to innovate and scale-up Integrated Pest Management (IPM) and pesticide risk reduction training for sustainable intensification of crop production in partner countries.					
Indicators	Baseline	Target (2018)	Results up to 2014	Assessment of status	Comments
			participated in 'fortified' Farmers Field Schools or focused 3-day Pesticide Risk Reduction trainings		
3.3 The quality of cooperation and sharing of experiences in the regional networks of programme partners established on national and regional level as to ensure implementation of more relevant, innovative and effective training programmes with a focus on pesticide risk reduction	Annual Regional Meeting held for Programme Evaluation and Planning	5 Annual Regional Meetings held for Programme Evaluation and Planning & IPM technical subject matters	<p>Total: 1 regional meeting.</p> <p>In April 2014, a regional Impact Assessment (IA) workshop was held at Kasetsart University in Bangkok. Earlier IA work was reviewed and workplans were developed for a longer-term study on the impact of community education programmes for pesticide risk reduction,</p> <p>In all four existing member countries (Cambodia, China, Lao PDR, and Vietnam) revised Country Strategy Papers (CSPs) formulated and mechanisms established for functional linkages with research institutions and other public and private sector partners.</p> <p>In June 2014, Myanmar formally requested participation in the FAO Regional IPM Programme and Myanmar government approval for participation in the FAO project GCP/RAS/229/SWE obtained in January 2015.</p>		

Immediate objective 3 (short-term outcome)					
Strengthened capacity to innovate and scale-up Integrated Pest Management (IPM) and pesticide risk reduction training for sustainable intensification of crop production in partner countries.					
Indicators	Baseline	Target (2018)	Results up to 2014	Assessment of status	Comments
	Number of website hits: 71 782 hits to date on FAO Asia IPM website: www.vegetableipmasia.org	Approximately 150 000 hits on FAO Asia IPM website: www.vegetableipmasia.org	The regional IPM programme website is regularly updated and used widely and frequently, with some 106,450 hits (71 % of target value) as of December 2014.		
3.4 The degree of institutionalization of IPM in the partner countries	Preliminary state of institutionalization of IPM and local buy-in in 2 partner countries	Advanced state of institutionalization and buy-in in at least 2 partner countries and preliminary stage of institutionalization in 2 additional partner countries	Both China and Vietnam have institutionalized IPM policies and capacity building programmes, financed by national and local governments. The project supports impact assessment work in support of strengthening the case for further institutionalization in these and other GMS countries. This led to a well-received FAO IA-PRR report, published in 2013. Data collection for continued IA work started in Cambodia and Vietnam during the second half of 2014.		
	Government investments in IPM-FFS programme 15 Million US\$ on annual basis	Approximately 100 % increase of government annual investments in IPM-FFS	Approximately 20 % increase (approximate total of 18,000,000 USD)  Most notably the governments of Vietnam and China continue to make considerable investment of own budgets into support for IPM-FFS and Pesticide Risk Reduction training. In		



Immediate objective 3 (short-term outcome)					
Strengthened capacity to innovate and scale-up Integrated Pest Management (IPM) and pesticide risk reduction training for sustainable intensification of crop production in partner countries.					
Indicators	Baseline	Target (2018)	Results up to 2014	Assessment of status	Comments
			Vietnam, for example, while the project provided only about 50,000 USD for field activities for the period 2012-2013, local governments in 14 provinces have continued financial support of about 380,000 USD for farmer training in FFS. The same trend continued into 2014 and is reported for other provinces as well all over the country.		
3.5 The level of use of IPM and biological control options by farming communities	Approximately 44 000 IPM farmers trained to date have reduced pesticide use (50 %) and 90 % of trained farmers have made increased use of biological control	Approximately 90 000 IPM farmers trained to date have reduced pesticide use (50 %) and 90 % of trained farmers have made increased use of biological control	<p>Total of 70,484 farmers (78 % of target value). Thousands of additional farmers benefited from participation in local government and/or other donor funded FFS programmes that were implemented with FAO technical and coordination support provided under the project.</p> <p>Results from 2014: Some 11,768 (50 % female) additional farmers participated in ‘fortified’ Farmers Field Schools or focused 3-day Pesticide Risk Reduction trainings.</p> <p>Various initiatives ongoing, linking to private sector action, including for access to novel biological control products (e.g. lures and protein baits</p>		

Immediate objective 3 (short-term outcome)					
Strengthened capacity to innovate and scale-up Integrated Pest Management (IPM) and pesticide risk reduction training for sustainable intensification of crop production in partner countries.					
Indicators	Baseline	Target (2018)	Results up to 2014	Assessment of status	Comments
			for <i>Bactrocera</i> IPM, <i>Trichoderma</i> for soil-borne diseases) and for linking farmers to more rewarding value chains/markets (e.g. export oriented mango value chain in Southern Shan State, Myanmar).		
	40 % of trained farmers have stopped use of WHO Class I pesticides	Approximately 70 % of trained farmers have stopped use of WHO Class I pesticides	Approximately 70 % of trained farmers have stopped use of WHO Class I pesticides		



## 5.7 Immediate objective 4


### 5.8 Strengthened regulatory framework for the control of pesticides in selected partner countries

During 2014, there have been delays in the work under the FAO Policy Component. It is expected, however, that activities will pick up and that delivery will be on track again by the end of 2016. In the meantime, during 2014, it was agreed with Keml that part of the staff time earmarked for technical assistance to countries in 2014 could be used to formulate inputs to FAO's international normative work on pesticide management, based on lessons learned from the project. Project experiences from the review of pesticide legislation in project countries were used to improve draft international guidelines on pesticide legislation. Project experiences from the development and establishment of inspection schemes provided an important contribution to the foundation for new international guidelines on licensing and inspection of pesticide retailers and distributors. This use of project experiences to strengthen important international FAO/WHO Guidelines was regarded as a manner to enhance sustainability and broad applicability of project results in the region.

#### Major achievements during 2014

- Strengthened focus on risk assessment and phasing out of highly hazardous pesticides as a result of a regional workshop on practical aspects of pesticide management and phasing out of HHPs
- Strengthened regional collaboration through the creation of a electronic information exchange network
- Increased possibilities for more informed decisions on pesticide registrations as a result of a newly developed guidance on how to make use of information from the EU pesticide registration process

Programme objective 4 (med-term objective)					
Strengthened regulatory framework for the control of pesticides in selected partner countries.					
Indicators	Baseline	Target (2018)	Results up to 2014	Assessment of status	
4.1 The number of legislative instruments that have been updated or newly introduced.	2 countries adopted new primary instruments	4 countries have new primary instruments	3 countries (Cambodia, Lao PDR and Vietnam) have a new primary legal instrument		
4.2 The number of inspectors trained and the number of inspections conducted.	Pilot completed and initial scaling up in Lao PDR	Inspection schemes established and scaled up in 3 countries	In Lao, work is on-going to clarify the mandate of inspectors in order to enable punishment of shops that continue to violate the regulation.		

			<p>In Cambodia, DAL is working on new regulations and guidelines for inspections.</p> <p>Training of inspectors will resume when these documents are available.</p>		
4.3 Percentage of pesticide labels in local language	No baseline available	Main distributors in two countries have labels in local language on their products	Initial meetings were held in Lao and Cambodia during phase I. Cambodia is now finalising new regulations on labelling. This needs to be ready before specific, further action, can be taken. In the meantime, based on ground work done during Phase I, the percentage of pesticides with Khmer labels has started to increase steadily.		



## 5.9 Immediate objective 5


### *Strengthened chemicals management capacity within authorities, industries and among relevant CSOs in the partner countries*

Since the interest and participation in programme activities remains high and participants are satisfied with topics etc., Kemi sees no need for major changes of the structure and design of activities. The big difference in capacity for chemicals management in the participating countries could, however, benefit from targeted activities in individual countries in order to strengthen particular areas. A general increase in the capacity for chemicals management can benefit the whole region and training material etc. from such targeted activities and trainings can be reused in the neighbouring countries. The member countries' interest for this will be explored in 2015.

### *Major achievements during 2014*

- Increased knowledge about the Globally Harmonised System for Classification and Labelling (GHS), improved skills in applying the criteria for classification and labelling of substances and mixtures and understanding about enforcement of GHS as a result of two regional workshops organised within the programme.
- Strengthened regional capacity and collaboration in the area of chemicals management through the addition of Thailand as a permanent member of the regional collaboration, increased involvement of Myanmar and expanded exchange of information and cooperation between member countries.

Programme objective 5 (med-term objective)					
Strengthened chemicals management capacity within authorities, industries and among relevant CSOs in the partner countries					
Indicators	Baseline	Target (2018)	Results up to 2014	Assessment of status	Comments
5.1 Number of staff trained and participating in programme activities on chemicals management.	Approximately 165 persons	Approximately 80 % increase in the number of participants	Total increase of 50 % in the number of participants.  83 new participants (41 % women) took part in Forum 7 and 8.		
5.2 Participant's opinion of enabling activities and the degree of usefulness of programme activities on chemicals management for participants/relevant ministries.	No baseline available	A majority of the participants consider the programme activities to be very useful in their work on chemicals management.	Evaluation of Forum 7 and 8 showed that the mean score was 4.5 (of 5).  Around 90 % of the participants expressed that the topics are highly relevant for their work and they find the network and knowledge very useful.		

<p>5.3 Examples of chemicals management measures (highlighting measures for protection of vulnerable groups) taken at different institutions in partner countries.</p>	<p>No baseline available</p>	<p>Approximately 50 examples of chemicals management measures taken at different institutions in partner countries</p>	<p>Total number of examples: 11</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>• Myanmar hosted the 8<sup>th</sup> Regional chemicals Management Forum.</li> <li>• Thailand became permanent member of the regional collaboration on chemicals management</li> <li>• Development of a new chemicals law in Lao PDR</li> <li>• Strengthened capacity in implementation and enforcement of GHS in all partner countries.</li> <li>• Vietnam is discussing a change of position in their attitude towards listing of asbestos chrysotile under the Rotterdam convention.</li> <li>• Improved coordination and collaboration between concerned ministries in Lao PDR and Cambodia</li> <li>• Chemicals issues have been integrated in national development plan for Cambodia.</li> <li>• Improved capacity to give guidance to industry on chemicals management in Myanmar.</li> <li>• Creation of networks and exchange of experiences among members that are beneficial for enhancing the effectiveness of chemicals management in the member countries.</li> </ul>		
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## 6 Organisation and administration

### 6.1 Collaboration with other projects and organisations

The programme has had continuous contact with representatives from the Sida supported CASP project run by ADB in order to keep each other informed about on-going activities. The programme has offered to provide its expertise during trainings organised within the CASP project but it has, so far, not been requested to make any concrete contributions and/or get engaged in collaborative joint initiatives.

The programme has also been in continuous contact with the Chemicals and Waste unit of United Nations Environment Programme (UNEP) in Bangkok to inform each other about on-going activities and explore areas for possible collaboration. A representative from the Chemicals and Waste unit was invited to the 8<sup>th</sup> Forum in Myanmar to present UNEP's work in the region and inform about possible support to the Southeast Asian countries.

Thai Education Foundation assisted ASEAN Eco-school Network in developing a regional action plan. Keml have continued their efforts to establish contact with relevant persons/working groups within ASEAN.

Through collaboration with Sansai School and the Sansai Mahavong hospital in the Saraphi District of Chiang Mai Province, 693 farmers underwent blood tests. The results were used by local administration to develop joint action plans with the hospital, the Medical Department of Chiang Mai University and Farmers Network for Pesticides Reduction through farmer training programs and support of organic farmers markets. The Uttaradith Non Formal Vocational Training Center worked with the local hospital and set up organic market at the hospital for staff and consumers.

PAN AP collaborated with PAN India, the Berne Declaration, and the International Union of Food workers in a project that documented the conditions of use of paraquat by farmers and plantations in several states in India where the herbicide is used. A report on the conditions of paraquat use in India will be released in April 2015, followed by a press release. The report will be presented to the government authorities of India to counteract their claims that paraquat use in India is safe and persuade them to agree to the listing of paraquat dichloride in the Rotterdam Convention. To this end, PAN India will meet with Indian authorities to present the report. Also, PAN India, PAN AP, the Berne Declaration, and IUF will present the findings at a side events organized at COP 7 of the Rotterdam Convention, May 4-15, 2015 in Geneva, Switzerland. With regards to PAN AP's work on paraquat in the Philippines, PAN AP is currently working with two lawyer groups - one in Germany (the European Centre for Constitutional and Human Rights) and the other in the Philippines (CentreLaw) - to file for a Writ of Kalikasan, which is a legal remedy under Philippine law for persons whose constitutional right to "a balanced and healthful ecology" is violated by an unlawful act or omission of a public official, employee, or private individual or entity. This is in line with the current situation of oil palm plantation workers (in Agusan Del Sur) who have been poisoned by paraquat while working in the plantation. Several meetings and discussions have taken place with the aim of filing the Writ in 2016. The Writ will call for a total ban of paraquat in the Philippines

PAN AP and partners in collaboration with Oxfam's East Asia GROW launched a women's traveling journal in 2013. Since then, the journal has recorded the accounts of women's experiences and personal accounts of 75 women from 18 countries from Asia Pacific (including Vietnam, Cambodia and Philippines) and Africa. Also with the aid of Ministry of Foreign Affairs of the Netherlands, 1313 women farmers and advocates from over 16 countries (including Vietnam) have been trained in the past 3 years. The training entitled the Irene Fernandez Leadership Training for rural women is a comprehensive training programme for rural women on leadership, suitable agriculture, policy and campaign advocacy.

PAN AP collaborated with researchers from University Kebangsaan Malaysia for a study on pesticides residues in Cameron Highlands. Cameron Highlands is a main agricultural area that supplies vegetables to Peninsular Malaysia and Singapore. Residues of highly toxic organochlorine pesticides (OCs) were found in surface waters of two rivers, Bertam and Terla, and tap water in the town of Brinchang. These results of the water testing will be presented in a seminar in April 2015.

Technical support on IPM and FFS programme development was provided by FAO RAP to several on-going FAO implemented projects in Lao PDR, including [UNTS/LAO/015/GEF](#) "*Mainstreaming Agro-biodiversity in Lao PDR's agricultural policies, plans and programmes (FSP)*" and [MTF/RAS/242/CFC](#) "*Production of Certified Fruit and Vegetables for Export from Lao PDR and Myanmar through Integrated Supply Chain Management*". Through a new strategic partnership with an IFAD funded and MAF implemented rural development (Soum Son Seun Jai) project in the northern Lao provinces of Sayabouly and Oudomxay and with FAO technical support provided under [GCP/GLO/508/IFA](#) "*Accelerated FAO/IFAD Initiative on Capacity Development for better Management of Public Investments in small-scale agriculture in developing countries*", FAO developed agreements for up-scaling of the implementation of farmer training on pesticide risk reduction and Farmers Field Schools in northern Laos. A workshop held in Luang Prabang in December 2014 helped raise awareness about the latest Lao policies and regulations for pesticide management and facilitated agreement and planning for 36 Farmer Training on Pesticide Risk Reduction, involving 1,080 farmers, to be implemented in 9 target districts during the 1<sup>st</sup> half of 2015.

The IPM component continued to be engaged in another FAO-led regional project aimed at greater access for Myanmar's smallholder fruit and vegetable farmers to more rewarding value chains. Assistance focused on development and application of IPM for *Bactrocera* fruit flies in mango production in Southern Shan State (SSS). Testing of the innovative area-wide *Bactrocera* fruit fly IPM, including use of lures and protein baits accessed from the private sector, continued during the 2014 mango production season in SSS. FAO-RIPM staff participated in – and delivered an IPM presentation at – the 1<sup>st</sup> Myanmar Mango Festival, organized by the Myanmar Fruit, Flower and Vegetable Producer and Exporter Association in Yangon in May 2014.

## **6.2 Internal collaboration/coordination**

Programme partners have had two coordination meetings during 2014. In one of the meetings, FAO HQ and PAN AP participated via Skype in order to minimize costs and time for travelling. Apart from these bi-annual meetings, partners have had continuous contacts with each other via e-mail and all



important information is sent to everyone within the coordination group in order to keep everyone updated and involved. Partners are regularly invited to each other's activities, when it is found relevant.

The presence of Kemi's programme manager in the region has facilitated every day contact with programme partners and with the section for development cooperation at the Embassy of Sweden in Bangkok. A deeper insight in partners' on-going work and contact/information about activities in connected areas and organisations will enable strengthened synergies both within the programme itself as well as with other important actors in the area of chemicals management.

TFA assisted Kemi to establish linkages with the Food and Drug Administration and the Pollution Control Departments in Thailand during the process of including Thailand in the regional collaboration on chemicals management.

TFA and partners provided technical assistance to the FAO Agro-biodiversity Programme to facilitate two 2-months training courses on the ABD, PIA and IPM for approximately 60 farmers, teachers, and officials in Luang Prabang and Xieng Khuang provinces.

### **6.3 Bi-annual meetings with Sida**

Representatives from Sida and all programme partners met two times during 2014 (in May and November) in order to discuss progress, work-plans for 2015 and other important issues. Minutes from the meetings are available.

### **6.4 Other meetings**

Apart from the bi-annual meetings between Sida and programme partners, the programme manager from Kemi and the contact person for the programme at the Embassy of Sweden in Bangkok have met regularly to discuss current issues.

## 7 Budget follow-up

The large amount of remaining funds from 2013 was mainly a result of the transition between phase 1 and 2, where some of the activities were delayed. Most of these funds were used during 2014 when all programme activities were running as planned. Due to TFA's delay in securing partner for Myanmar program and postponed regional workshop and documentation, there was a large amount of funds carried over from 2014 to 2015. The amount is expected to be used for planned activities during 2015 and to compensate for the loss from currencies depreciation.

Overall budget year 2014		Remaining balance from 2013 (SEK)	Budget according to agreement (SEK)	Proposed budget for 2014 (SEK)	Transferred by Kemi (SEK)	Total budget, incl remaining balance from previous year (SEK)	Expenditure (SEK)	Percentage of total expenditure	Balance (SEK)	Comments
Objective	Organisation									
1	Increased awareness and enhanced capacity in farming communities, schools, institutions and among consumers within partner countries to reduce the risk associated with pesticide use and enhanced use of alternatives.	PANAP	2 012 500	1 988 140			2 084 562	68		
	TFA		1 925 000	1 683 974			1 648 976	98		
2	Enhanced international, national and local advocacy on sustainable pest management/agriculture	PANAP	787 500	811 860			986 672	32		
	TFA		175 000	442 533			253 400	2		
<b>Total PANAP</b>		<b>3 400 980</b>	<b>2 800 000</b>	<b>2 800 000</b>	<b>2 800 000</b>	<b>3 440 098</b>	<b>3 071 534</b>		<b>68 764</b>	
<b>Total TFA</b>		<b>720 357</b>	<b>2 100 000</b>	<b>2 126 047</b>	<b>2 090 000</b>	<b>2 810 357</b>	<b>1 674 316</b>		<b>1 136 041</b>	
3	Strengthened capacity to innovate and scale-up integrated Pest Management (IPM) and pesticide risk reduction training for sustainable intensification of crop production in partner countries.	FAO/RAP	7 385 000	7 385 000			8 904 357	89		
4	Strengthened regulatory framework for the control of pesticides in selected partner countries.	FAO/HQ	1 750 000	1 750 000			1 150 891	11		
<b>Total FAO</b>		<b>2 205 676</b>	<b>9 135 000</b>	<b>9 135 000</b>	<b>9 134 000</b>	<b>11 539 676</b>	<b>10 055 248</b>		<b>1 484 428</b>	
4	Strengthened regulatory framework for the control of pesticides in selected partner countries.	Kemi	700 000	770 000			527 730	12		
5	Strengthened capacity for chemicals management within authorities, industries and among relevant CSOs in the partner countries.		2 916 000	2 681 000			2 149 274	47		
General technical support to the programme			1 330 000	1 295 000			1 196 141	26		
Overall programme coordination (including review, evaluation, reporting and communication)			840 000	840 000			659 444	15		
<b>Total Kemi</b>			<b>5 586 000</b>	<b>5 586 000</b>		<b>5 586 000</b>	<b>4 532 789</b>		<b>1 053 212</b>	Since Kemi invoices are for actual costs, this remaining balance is not available to the programme unless Kemi sends a specific request to transfer funds from one year to the next. Remaining funds from Kemi are therefore not included in the total balance.
<b>Total</b>		<b>3 266 317</b>	<b>19 621 000</b>	<b>19 563 047</b>	<b>14 024 000</b>	<b>23 076 317</b>	<b>19 333 687</b>		<b>2 689 232</b>	

Since the format for detailed financial reporting was developed during 2014, there is no budget for different types of costs for 2014. Such figures will be available for 2015.

<b>Details year 2014</b>	<b>Type of cost</b>	<b>Expenditure 2014 (SEK)</b>	<b>Percentage of total expenditure</b>	<b>Comments</b>
<b>Organisation</b>				
Pesticide Action Network Asia Pacific (PAN AP)	Salaries	442 481	14	
	Travel expenses	385 950	13	
	Other costs	2 242 903	73	
<b>Total PAN AP</b>		<b>3 071 335</b>		
The Field Alliance (TFA)	Salaries	775 565	46	
	Travel expenses	75 958	5	
	Other costs	822 794	49	
<b>Total TFA</b>		<b>1 674 317</b>		
FAO Regional Office Asia Pacific (FAO RAP)	Salaries	2 700 551	30	
	Travel expenses	683 984	8	
	Other costs	5 519 822	62	
<b>Total FAO RAP</b>		<b>8 904 357</b>		
FAO Headquarters (FAO HQ)	Salaries	686 525	60	
	Travel expenses	312 711	27	
	Other costs	151 655	13	
<b>Total FAO HQ</b>		<b>1 150 891</b>		
Swedish Chemicals Agency (KemI)	Salaries	2 408 989	53	
	Travel expenses	1 185 877	26	
	Other costs	937 922	21	
<b>Total KemI</b>		<b>4 532 788</b>		
<b>Total</b>	<b>Salaries:</b>	<b>7 014 111</b>	<b>36</b>	
	<b>Travel expenses:</b>	<b>2 644 480</b>	<b>14</b>	
	<b>Other costs</b>	<b>9 675 096</b>	<b>50</b>	
	<b>Total:</b>	<b>19 333 688</b>		

## **8 Proposals for future work**

### **General**

TFA will continue to expand REAL program to new communities, create network within the countries and further linking the program activities with program partners and with the policy level. Emphasis will be placed on documentation and dissemination of the results at the national and regional level.

### **Gender issues**

In order to further advance the programme's gender responsiveness, partners will make a gender case study during 2015. The study will document stories of women in the communities on how they have been influenced by trainings, projects or initiatives of pesticide risk reduction and on ecological agriculture. The stories will be about the situation and issues that women face and the differences in the impact of pesticides/chemicals on their health and well-being, both physical and mental, compared to men. It will also include the promotion of equality between women and men, girls and boys in the area of pesticide risk reduction and promotion of ecological agriculture and opportunities for women to participate equally in decision-making. Possible areas for improvement in design of trainings, curricula etc. will also be documented.

### **Sustainability**

The aging farmer population and the unwillingness of young people to stay/become farmers will soon be a substantial problem in the region. So far, no specific strategy aimed at combating this trend has been developed. This issue might, however, be something that partners need to put more efforts in within the near future.

### **Anti-corruption**

Given the fact that corruption is widespread in the region, Keml plans to include a presentation about the issue at the regional chemicals management Forum in June 2015. The presentation will be followed by discussions within and among country groups. An increased level of awareness at government level about the negative effects of corruption and how it can be combated is a first step towards improvement of the situation.

### **Private sector collaboration**

Keml is currently planning to organize a workshop focusing on "Chemicals in Products", early in 2016. Representatives from the private sector will be invited to learn more about the problem, regulations etc. as well as to present how they work to avoid hazardous chemicals in products.

TFA is encouraging partners to assist communities to establish linkages with markets, private food distributors and local hospitals to assist participating farming communities for stable supply of productions and prices.

### **Communication**

Within the collaboration on chemicals management (Forum), discussions with participating countries have revealed that there is a great demand for information/data/reports on various aspects of chemicals management. To respond to this need, increased efforts are put into making

presentations, contact details, training materials etc. available on line. Enhanced access to and exchange of information will therefore continue to be a prioritized issue.

## Appendix 1: Risk matrix

Risks	Initial Estimated Risk Value*	Risk level during year 2014	Risk mitigation measures during 2014	Comments	
<b>Short-term objective 1 and 2 (implemented by PAN AP and TFA):</b>					
1	General backlash	Medium-High	Stable		
2	People turnover, brain drain (internal and external)	Medium	Stable		
3	Policy Change	Medium	Stable	TFA: Adjusted strategies to focus on the on-going activities.	Changes of government and policies in Thailand
4	Funding uncertainties	Medium-High	Stable	TFA: Anticipate budget reduction for 2015.	
5	Aggressive corporate campaigns	Medium	Stable		
<b>Short-term objective 3 (implemented by FAO RAP):</b>					
1	Brain drain	Medium	Stable		
2	Aggressive marketing strategies of pesticide companies	Medium	Stable		
3	Limited access to additional donor resources to ensure maximization of implementation capacities	Low	Stable		
4	Low interest from Ministry of Agriculture in project participation (Myanmar)	Medium	Lower		
5	Low potential for programme stakeholder collaboration (China)	Low	Stable		
<b>Short-term objective 4 (implemented by FAO HQ and Kemi):</b>					
1	Change of key staff within Ministry (notably Lao, but also in Cambodia)	Low	Increased	Exploration of possibility to maintain current government specialist in Lao as project consultant after her upcoming retirement from the government.	
2	Countries do not ask FAO assistance for formulation of regulations	Low	Stable		
3	Abuse in inspections	Low	Stable		

Risks	Initial Estimated Risk Value*	Risk level during year 2014	Risk mitigation measures during 2014	Comments
4 Other external risks beyond the control of the project	Low	Stable		
<b>Short-term objective 5 (implemented by Keml):</b>				
1 Brain drain	Low	Stable	No specific measures	
2 Lack of resources within partner countries (time and funds)	Medium	Stable	No specific measures	
3 Lack of political will	Low	Stable	No specific measures	
4 Conflicts between or within partner countries	Low	Stable	No specific measures	
5 Suboptimal donor coordination.	Low	Stable	No specific measures	
6 Difficult to identify and reach relevant and committed stakeholders	Low	Stable	During the process of identifying relevant persons in Thailand, Keml was supported by TFA	

\*Risk value 1-8: Low. Risk value 9-17: Medium, Risk value 18-25: High

## Appendix 2: Detailed narrative reports

### Programme objective

- Strengthened capacity and regional collaboration for efficient pesticide risk reduction and chemicals management within and among partner countries

PAN AP's local partners in Vietnam successfully presented the results of the joint survey on the use of chlorpyrifos and paraquat to policy makers, scientists, local NGOs, farmers, victims of pesticides poisoning and local media. The survey assessed the knowledge, attitude and practise (KAP) of 230 farmers on the use of chlorpyrifos and paraquat in 3 provinces (Phu Tho, Nam Dinh and An Giang Province). Studies show that paraquat and chlorpyrifos is still being used, as farmers feel that there are very few non-chemical alternatives. The results of the survey were shared at the provincial and national levels and were attended by local authorities, researchers and farmers. At the national level the representative from the Ministry of Agriculture and Rural Development will consider the recommendations given by the three organizations (including the ban of paraquat and chlorpyrifos). More awareness campaigns and technical trainings will be organized in 2015.

Project experiences from the development and establishment of inspection schemes provided an important contribution to the foundation for new international guidelines on licensing and inspection of pesticide retailers and distributors. This use of project experiences to strengthen important international FAO/WHO Guidelines was regarded as a manner to enhance sustainability of project results.

The number of farmers in the region that are implementing pesticide management according to IPM continue to grow due to efforts by FAO and its partners.

The coverage of labels in Khmer has started to steadily increase following the groundwork on enforcement of pesticide regulation that was done in collaboration with DAL and JICA during Phase I of the programme.

During 2014, Lao PDR started the development of a chemicals law. The programme facilitated input from systems in the neighbouring countries and EU.

During the regional workshop on "Practical aspects of pesticide risk assessment and phasing out of Highly Hazardous Pesticides" a foundation for strengthened regional collaboration was established through the creation of an e-mail exchange forum on pesticide registration issues.

During 2014, countries in the region showed a continued and growing interest in regional collaboration in the area of pesticides and chemicals management. Myanmar and Thailand are now permanent members in the regional collaboration on chemicals management.



## Immediate objective 1

- Increased awareness and enhanced capacity in farming communities, schools, institutions and among consumers within partner countries to reduce the risk associated with pesticide use and enhanced use of alternatives

### Narrative report PAN AP

More than 10,000 farmers, women, youth, government representatives and consumers participated in workshops, campaigns, radio shows, rallies and monitoring efforts by our partners in China (PEAC), Vietnam (SRD, RCRD and CGFED), Lao PDR (SAEDA), Cambodia (CEDAC) and Philippines (PAN Philippines).

### *Protecting children against toxic pesticides campaign*

PAN AP, in collaboration with PANNA (Pesticide Action Network North America), launched the global “Protect our Children from Toxic Pesticides” Campaign (POC) on June 5<sup>th</sup> 2014, targeting a phase out of 20 highly hazardous pesticides in Asia and the Pacific.

Various campaign materials including the Children and Pesticide booklet, factsheets on the 20 pesticides, an infographic, bookmarks, stickers and colouring sheets were produced. The campaign targeted conventional media and new social media including Facebook and Twitter. The booklet entitled “Children and Pesticide” and other campaign materials were translated to several languages including Mandarin, Khmer, Korean, Vietnamese and Urdu.

PAN AP and partners hit social media on International Children’s Day (November 20) for the Asia Pacific level launch with the #PesticidesFreeWorld hashtag. This campaign gathered 11,000 impressions (viewers) on twitter and 173 organizational signing on to our global petition on phasing out of HHPs.

In various parts of Asia Pacific, interactive and fun workshops for children were launched to create awareness on the impacts of pesticides as well as to give useful guidelines to protect children against pesticide in schools, home and in public places. These workshops were held in collaboration with local schools and local government units and other civil society organisations. Children painted, drew cartoons and spoke about their vision of a world without poisons and pesticides.



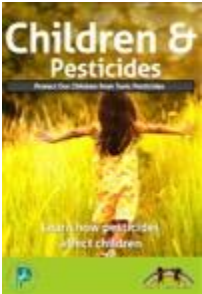
“A healthy body comes from healthy food” - 9 year old, Zhang Juan Xian from China draws her understanding of health.



Children from Vietnam with the hashtag #PesticidesFreeWorld. While the children are very young, it is the parents who are committed to the campaign.



A family during the Penang, Malaysia level launch of the POC campaign



POC Materials - the infographic, logo and booklet



5-year-old David from Philippines

"I like eating organic food and stay away from junk food. Pesticides harm children"

### ***Media training, Information and Communication***

PAN AP is dedicated to helping improve the skills and capacity of its partners and staff on media outreach and therefore we organised the three-day training on Media and Advocacy in Penang in September 2014. About 51 participants from 13 countries representing PAN AP partners and staff joined the training, which was both productive, and a fun event. The training helped the participants acquire new skills and capacity in media work. As a result, partners have been able to design effective media campaign plans to support on-going campaigns on rural women, pesticides and food sovereignty.

A new website, launched in May 2013, is continuously being enhanced for better and easier usability. In 2014, the PAN AP website received 3,567,880 hits, while PAN AP's Facebook page has 1,156 likes and PAN AP's twitter has 363 followers.

### ***Local Partner in Cambodia, CEDAC***

CEDAC, our local partner in Cambodia, has conducted training, seminars and workshops for approximately 1000 people. CEDAC has organized 10 workshops in 5 provinces including Takeo, Prey Veng, Kampong Cham, Svay Rieng and Kandal. The workshop covered a variety of topics including impact of pesticides on human health and agro-ecology.

CEDAC staff and CFAs (community-based field assistants) had conducted regular field visits to provide follow-up advice to key farmers and farmers in Kampong Cham, Prey Veng, Takeo, Kampot and Kandal provinces for 45 key farmers. CFA's also trained key farmers on organic vegetable seed production.

CEDAC continues to host their radio show on Radio Sarika on new farming techniques and bio-diversity based ecological practices. In 2013, CEDAC was given an extra time slot and this year they

produced 40 talk shows. The talk shows cover a broad range of topics including System of Rice Intensification (SRI), food safety, consumer's issues, No Pesticide Use Week and the launch of Children and Pesticides Campaign. During the live session of the programme there are at least three to seven callers who raise questions and share their experiences. CEDAC was also featured in radio free Asia (RFA) for an hour to highlight issues of pesticides use in Cambodia, the signs and symptoms, the project's approach and sharing of alternatives to pesticides.

CEDAC organized a Participatory Guarantee System (PGS) for consumers to certify producers based on active participation, dialogue and knowledge exchange with food producers. A total of 41 consumers and the local media participated in this programme and visited several project areas including Thnoug Kambot Village, Svay Chhroum commune, Thmor Reap Village, Dok Kroung village and Pong Ror commune of Rolea Baer District.

56 student from 8 universities also participated in a workshop on Ecological Agriculture, System of Rice Intensification (SRI) and organic agriculture and agrochemical free agriculture. Over 1000 booklets of the Khmer version of "Children and Pesticides" were distributed to university students, farmers, school teachers, local government officers and local CSO's.

CEDAC organized the "No Pesticide Use Week" in Cambodia from December 3 to 11, 2014. During seven days, CEDAC conducted several activities, including Radio talk show, organic farm visit and the National Farmer Forum in Phnom Penh and the No Pesticide Use Day at Kratie province. More than 1000 people participated including peasant communities affected by pesticides, traders (buying-selling), students, professors, monks and national, international civil society organization, focusing on the theme "Together we shall reduce the impact of pesticides to ensure the welfare and safe food".

### *Local Partner in China, PEAC*

PEAC's trainings have brought about a few impacts in their project sites. In Hei Er Village, more farmers have joined the local farmer's cooperative and have received over 1000 RMB by planting traditional rice varieties. Some farmers in Hei Er village are using intercropping methods by growing other crops like taro, tartary buckwheat or fruit trees along the rice field. In Hei Nigou Village 57 % of farmers trained have stopped using pesticides on corn and more farmers are moving towards ecological practices. In total there are 122 farmers who practicing eco- farming in PEAC's project sites.

PEAC conducted Community-based pesticides monitoring (CPAM) with an updated CPAM module in 10 counties in the Yunnan province. 137 households were surveyed for the specific use of endosulfan and chlorpyrifos. Results of the study showed that 20 % of households in Dali Prefecture, Li Jiang Prefecture and Yong Shen County used chlorpyrifos for pest control in rice and vegetables, while 5.8 % of households are using endosulfan for pest controls. Some farmers have stated that they were not aware of the current regulations and impacts of chlorpyrifos and endosulfan. PEAC will focus on conducting more studies on chlorpyrifos in 2015.

PEAC was given an Excellence Award for two educational posters in a contest co-organized by the Ministry of Culture, Environment Protection, Ministry of Education, Ministry of Science and

Technology and the Association of Science and Technology. PEAC was also invited by the Yunnan Provincial Science and Technology Bureau to publicize pesticides risks and relevant regulations at Xiang Yun Country, Wen Shan County, Er Yuan County and other local community centres. During the national publicity week, 3000 materials were distributed to visitors.



Public Education

*PEAC's publicity booths to create awareness on the impacts of pesticides*

More consumers to farmer events were organized this year. The event that was attended by 200 consumers had various activities including sticky rice tasting party, colouring event for children, eco-markers and linking farmers to restaurants.

PEAC has actively embraced the mobile chat application called “We Chat” and had 2,816 readers. In 2014, 603 reports on HHPs issues we updated on 6weidu, the online learning portal, that also got 5,791,135 website hits. PEAC has also published materials on HHPs including alternatives to endosulfan, flyers and posters on paraquat, endosulfan, chlorpyrifos and methamidophos, and a brochure “eco-alternatives to pesticides”. More than 10,000 copies on HHPs and other materials have been distributed widely online, during workshops and trainings.



Publicity Materials

*PEAC's publicity materials and posters*

### ***Local Partner in Philippines, PAN Philippines (PAN Phils)***

Eight workshops on Community-based Pesticides Action Monitoring (CPAM) were organized for Tiniwisan village, Sta. Josefa village, Unidos Village, General Santos City Village, Libert, Dajay village, and Sitio Budoy Village and were attended by 348 people. Future plans of the workshops include follow up sessions on sectorial organizing on health and environmental issues and participation in public awareness activities on health and environmental effects of highly hazardous pesticides.

Ongoing project activities in South Catabato, Agusan and Surigao have brought about positive impacts. For example, in South Catabato, Mindanao, activities has resulted in strong citizen's movement to ban aerial spraying in the province. As a result of initial community organizing and public awareness activities more awareness has spread among various sectors. A broad coalition of citizen groups calling themselves BATOAN (roughly translated to Citizens Opposing to Aerial Spraying of Pesticides) have been formed and have initiated various public awareness events, mass actions and lobbying activities against pesticides used by banana plantations. In Surigao and Agusan provinces, through the initiatives of PAN Phils local partners (including the Tandang Community Health Program) the farmer's organization KAMASS, and the oil plantation workers' union organized various public awareness activities, medical missions and direct actions in affected communities. These activities have resulted in increasing citizens awareness and actions to address the problem of Highly Hazardous Pesticides, particularly those use in banana and oil palm plantations and increased utilization of suitable agro-ecological practices among farming communities in the region.

More than 15,000 people have been involved in Earth Day gatherings. 1000 materials on the impacts of pesticides and HHPs have been shared in various activities, and 10 people are currently practicing agro-ecology.

### ***Local Partners in North Vietnam, SRD and CGFED***

During the No Pesticide Use Week, 300 students, teachers and local authorities attended a workshop on the impacts of pesticides with a focus on children's health in Phu Tho province. The book "Poisoning Our Future" written by Dr. Meriel Watts and published by PAN AP was translated into Vietnamese for distribution. In addition, the video on "Children and Pesticides" was also translated to Vietnamese for easy understanding of the issue.

### ***Local Partner in South Vietnam, RCRD***

RCRD implemented three experimental suitable farming models and published one research paper in An Giang province (Tri Ton and Cho Moi districts) and Dong Thap province (Hong Ngu and Thanh Binh districts). The sustainable farming model without the use of pesticide includes the promotion and conservation the traditional floating rice variety, sustainable vegetable farming and aquaculture farming and conservation. RCRD carried out a series of experimental models to demonstrate the value of the suitable farming model with policy makers, customers, and rice farmers. In 2013, there were 11 farmers with 36 ha floating rice cultivated area while in 2014, there are nearly 100 farmers with 200 ha cultivated floating rice area. One of the challenges that farmers practicing floating rice is market demand, thus RCRD are trying to build the network among rice farmers, customers and companies to ensure that this agricultural model will develop widely and sustainably.

RCRD was consulted by the Chau Phu district of An Giang province to introduce their experimental floating rice, sustainable vegetable farming and conserve the natural aquaculture model to farmers in Chau Phu. Farmers in Chau Phu district have cultivated high yield rice varieties (two - three crops/year) while using pesticide and inorganic fertilizers. Chau Phu district heads recognized that high yielding rice is not suitable for the economy or the environment. They are currently testing the model and would like to expand the planting of floating rice if the model is successful.

RCRD has organized a series of workshops on suitable agriculture and impacts of pesticides for more than 570 participants from various communes in An Giang Province. The participants include local retailers, government representatives, farmers, local media, faculty members and students from An Giang University. The workshop organized during the rice floating festival was covered by local and national media, including the Vietnam Television, An Giang Television and Radio Station, Saigon Times, the local An Giang newspapers and the Agriculture newspaper.

A video on RCRD sustainable farming model was produced including the history, culture, ecology, environment and economic efficiency of alternative model. RCRD updated their website with new information on the sustainable farming model which attracted 12,000 visitors.

During the No Pesticide Use Week, the teachers in A My An primary school (Cho Moi District) commune organized a talk show for their students, a poster art competition and prepared an agro-ecological garden for their school children. Art exhibitions in universities were also organized to create awareness of the impacts of pesticide using abstract art.



*Abstract Artwork*



*Trainings on floating rice*

### *Local Partner in Lao PDR, SAEDA*

In 2014, SAEDA translated and distributed 80 CPAM modules to project partners and government agencies. A training of trainers (ToT) for 18 participants on CPAM was conducted for government officers and local CSOs.

SAEDA's on-going advocacy has encouraged local authorities to organize two workshops on pesticides and its' impacts. For example, in Loung Namtha province, 509 officers and community members attended a workshop organized by the Department of Natural Resources and Environment (DNRE) on raising awareness on pesticides use, impacts on human health and the environment. While in Vientiane, the Department of Public Health organized another workshop for 221 participants from five different communities.

SAEDA also organized a workshop to share results on pesticide residue testing on 20 samples of fruits and vegetables in various markers. Out of 159 samples from fruits and vegetables, 52 tested positive for pesticides. More studies will be done in the future for awareness raising activities. There were 50 participants including representatives from the Provincial Agriculture and Forestry Office (PAFO) and District Agriculture and Forestry Office (DAFO), Provincial Office of Natural Resources and Environment (PONRE), District Office of Natural Resources and Environment (DONRE), health officers, community representatives and media/local reporters that attended the workshop.

During No Pesticide Use Week, SAEDA organized an event that was attended by government officials from PAFO, DAFO, the Agriculture Extension Office, the Sikhottabong district governor, DAFO Pak Ngum and others.



*Pesticide residue testing and pesticide use surveys in Lao PDR*

### **Narrative report TFA**

The survey and statistical data collected in 2014 indicated that the average amount of pesticides used (litres per person per year) was the following:

Diluted pesticides	Cambodia	Lao PDR	Thailand	Vietnam
Average litres/ person/ year	5,000 – 20,000	3,181	10,461	424
Average litres/hectare/year	4,285 (Vegetables)	996 (Vegetables)	2,294 (Rice)	1,272 (mixed crops)
No. spray days/person/year	Over 200	20	8	n/a



The amount varied from one location to another based on the size of farmland, number of crops grown per year and the ability of farmers to procure pesticides. In Uttaradith, 82 rice farmers sprayed 857,860 litres of diluted pesticides over 374 hectares (average 2,294 litres/ hectare). In Laos, 41 vegetables farmers sprayed 7,470 litres over 7.5 hectares (average 996 litres/hectare). The amount of pesticides used in rice had greater impacts to ecosystems, habitats, environment and food chains than vegetables due to the size of plots used for rice farming. However, in north Vietnam, the average plot size for each household is only 0.3 hectare which is extremely small, compared to 6-9 hectares in Laos or Thailand, and required much more intensive farming to maximize the use of land to produce adequate foods and income. The amount of pesticides used by each farmer is 424 litres/ person/ year or 1,272 litres/ hectare which is three times less than vegetables farmer in Cambodia who used approximately 4,285/ litres/ hectare. Cambodian farmers also have the highest exposure frequency to pesticides of over 200 spray days/year compare to the average of 20 spray days/year in Laos and 8 spray days/year in Thailand. The data collected are being used as baseline data for community planning, tracking the progress and for dissemination.

It was also found that Class I pesticides were used in Cambodia, Thailand, and Vietnam. In the Hoa Binh Province of Vietnam that borders China, 62 % of pesticides were determined to be from China, while another 10 % each were from India, USA and Vietnam. Farmers used 35 % of class Ia and 35 % of class II pesticides. The banned pesticide paraquat was found being used in Laos and endosulfan was found being used in Thailand.

The excessive use of chemical fertilizers was common practice among Vietnamese farmers and Cambodian farmers in Kring Khmer Village reported that pesticides were sprayed approximately 300 days of the year.

Various dissemination activities were conducted at the local level to increase awareness for thousands of farmers. Action plans were developed to reduce the amount of pesticides used. A wide range of intervention activities including: tutorials on how to produce bio-fertilizers, composts, herbal pesticides, and bio-control; Sustainable Rice Intensification (SRI); Integrated Pest Management (IPM); and conservation of agrobiodiversity including fish and other aquatic life, insects, and plants species were conducted. As a result of these interventions, the vast majority of participating farmers were able to reduce pesticide use by approximately 50 % while also reducing input costs and quadrupling the mean income of conventional farmers. Specific results from each country were as follows:

### *Cambodia*

A total of nine schools with 771 students (57 % female) conducted the surveys on Pesticides Impacts Assessment (PIA) and agrobiodiversity with approximately 30 farmers in each village. The PIA surveys included: the name of pesticides; amount used; type; distance from farm to school or community that spraying occurred; protective devices used/clothes worn while spraying; spraying techniques; storage and disposal methods; effects on human, animal, and environment; signs and symptoms of pesticide poisoning; type and amount of pesticide that farmers used; and gender-specific data detailing the specific activities of women v. men. Two groups of twenty university students studying agriculture volunteered to observe and monitor pesticide use and then work with

the community to reduce use. As a result, school vegetable gardens were made, several concrete tanks for disposal of pesticides were built, various plants conservation projects were initiated, communal fish-ponds were created, and 153 rice-fish habitats were formed.

### *Laos*

REAL activities were implemented with 2,468 (49 % female) students and 105 (57 % female) teachers from 24 schools from Vientiane, Luang Prabang, and Xieng Khuang Provinces. School vegetable gardens for school lunches and herbal garden were created. ABD conservation projects involving aquatic and terrestrial animals, plants, and herbal species were implemented in 17 villages with 593 (38 % female) farmers participating. Farmers were trained to make and use bio-fertilizers and herbal pesticides to reduce the use of chemical pesticides. Indigenous practices of weaving fishing baskets, sticky rice boxes, fish traps, rice-winnowing baskets and making local string instruments were taught to the younger generation. The Lao FAO Agrobiodiversity Programme (ABP) requested assistance from the Thai Education Foundation to train 60 governmental officials and farmers during two-month courses of PIA, ABD and IPM in the Phonexay District of Luang Prabang and the Phukout District of Xiengkhuang Province.

### *Thailand*

Thai Education Foundation provided technical supports to The Office of Non-Formal and Informal Education to continue expand the program in 2014. The Office of Non-Formal and Informal Education contributed over 2 million baht to support trainings for two groups of thirty teachers from seventeen provinces, and eleven participants from the NFE Laos from five border provinces for two months on PIA, ABD, IPM in July and November of 2014 with trainers provided by TEF. As a result, 87 Farmer Field Schools were formed with 804 farmers (62 % female) participating. TEF also trained twelve teachers and 334 students from six schools to use test kits to detect pesticide contamination in foods and disseminate the results to the larger community. Support from local administration and hospitals was solicited and collaboration was made to periodically monitor pesticide residue in and on foods in the school and local market. Chemicals commonly used in homes and schools were added to the curriculum for pilot schools. The National Food and Drug Administration (FDA) contributed with materials, with particular emphasis on the Globally Harmonized System for classification and labelling (GHS). Subsequently, schools have stopped using chemical cleaning products and now produce their own herbal liquid dish washing and floor cleaning solutions for use in schools and in the home.

### *Vietnam*

The Initiatives on Community Empowerment for Rural Development (ICERD) has developed an agreement with the Continuing Education Department and Secondary Education Department within the Ministry of Education & Training to integrate agrobiodiversity and pesticide risk reduction into the national curriculum and as well as into the educational materials for the Continuing Learning Centers (CLC's). The CLC's are located in each district and are responsible for teaching out-of-school young adults and adults. A marketing training program was piloted with two groups of farmers in Quynh Son and Xuan Phu to produce rice in compliance with the VietGAP certification and marketing plan. As a result, the Center For Clean Food private sector enterprise met with the groups to solidify a plan for future collaboration. 1040 students (47 % female) from 7 secondary schools and two CLCs,

and 2,161 farmers (62 % female) farmers participated in REAL activities. As a result, participating farmers were able to save 52 % of seeds, reduce the use of nitrogen fertilizer by 20 %, increase rice yield by 6.25 % and increase profit by 11 % compared to conventional farming practices. In addition, they also reduced overall pesticides use by 52 %, saved up to 30 % of water and increased 27 % of beneficial insects and 14 % of aquatic species. The Center for Environment and Community Assets Development (CECAD) in collaboration with Hanoi University piloted the REAL activities with the Muong ethnic group in the Tan Lac District of Hoa Binh Province where large amounts of pesticides were being applied. Schools and communities engaged in the ABD conservation and IPM training for farmers to produce clean and organic vegetables. CECAD supported 27 households with organic vegetable production, a Participatory Guarantee System (PGS) cropping and marketing plan and assisted in the processing, packaging, transportation and selling of vegetables, pork, mushrooms, bamboo shoots and honey in Hanoi via e-mails, Facebook, and farm to table delivery to 50 customers in Hanoi.

## **Immediate objective 2**

- Enhanced international, national and local advocacy on sustainable pest management/agriculture

## **Narrative report PAN AP**

### ***Strategic Approach to International Chemicals Management (SAICM)***

PAN AP made major contributions to advocacy on HHPs through the SAICM process in 2014, beginning with the regional workshop in Kuala Lumpur in March. Then PAN AP, on behalf of PAN Int, worked with IPEN to develop a collaborative agreement for the two networks to work jointly on HHPs through the SAICM process, and then to develop a strategy for a Global Alliance on HHPs. PAN AP then worked with FAO to get their support for the proposal. PAN AP, again on behalf of both PAN and IPEN, provided an Information paper on HHPs and a presentation at the Technical Briefing on HHPs, for the Open Ended Working Group (OEWG) in December 2014. PAN collaborated with IPEN on some materials on HHPs and endocrine disrupting pesticides, which were available at both organisations' information booths at the OEWG. The PAN Int Global Sign-on Appeal to phase-out HHPs was displayed at the information booth, as was also the Consolidated List of Bans, developed by PAN AP on behalf of PAN Int. PAN AP also provided presentations on Women and Pesticides, and Pesticides and Breast Cancer at WECF's (Women in Europe for a Common Future) side event on women and chemicals. The African region took up the PAN/IPEN proposal for a Global Alliance and presented it to the plenary at the OEWG. It was later discussed in a small group which resolved to "Invite FAO, UNEP and WHO to facilitate a multi-stakeholder process to develop a proposal for ICCM4 (submitted well in advance) taking into account the resolutions from the SAICM regional meetings in the Africa and LAC regions, the proposal from the African region and the FAO non paper presented at the OEWG2, as well as relevant text from other regional meeting reports and relevant information documents to the OEWG2."

Thus, PAN and IPEN succeeded in securing a major focus on HHPs within the SAICM process. The collaboration with IPEN, although providing moments of difficulty in communications, was overall highly successful in coordinating and magnifying our individual efforts on HHPs.

### ***International Code of Conduct on Pesticide Management and its Guidelines – Joint Meeting on Pesticides Management (JMPM)***

In 2014, PAN AP, on behalf of PAN Int, participated in the development of several technical guidelines that support the International Code of Conduct on Pesticide Management. These are developed by a panel of experts appointed by FAO and WHO, called the Joint Meeting on Pesticide Management (JMPM). PAN has observer status at the JMPM. Since 2007, HHPs has been a special focus area for the JMPM in implementing the Code. One of the most important guideline under development is the guideline on HHPs. PAN AP is leading the PAN contributions to this guideline. PAN AP is also contributing with advice for the development of guidelines concerning personal protective equipment (PPE), household pesticides and microbial pesticides.

### ***Rotterdam Convention***

In October 2014, PAN AP participated in the Chemical Review Committee (CRC) meeting, successfully advocating for the listing of methamidophos and a Severely Hazardous Pesticide Formulation (SHPF) of fenthion. PAN AP, via PAN ANZ and together with National Toxics Network (Australia), also entered discussions with the Rotterdam Convention secretariat for a proposed workshop in the Pacific on paraquat, with the aim of phasing out paraquat in the sub-region and replacing it with non-chemical weed management. This followed attendance at a sub-regional FAO workshop in Fiji, in which it became clear that paraquat is the major pesticide used in the region and that some countries are keen to phase it out.

### ***Stockholm Convention***

In October 2014, PAN AP, on behalf of PAN, participated in the POPs Review Committee (POPRC) in Rome, and successfully advocated for the nomination of dicofol by the EU to be accepted as meeting the screening criteria as a POP. PAN AP was also instrumental in getting Canada to drop its opposition to recommending the listing of PCP (pentachlorophenol), a timber treatment chemical that has also been used as a pesticide, under Annex A of the Convention for global phase-out, with a time-limited exemption for certain uses.

### ***Local Partner from Cambodia, CEDAC***

CEDAC continued their local advocacy work by presenting the results of CPAM and the alternatives of pesticides during the seminar on the development of national Action Plan for the implementation of the Rotterdam Convention, organized by Ministry of Agriculture, Forestry and Fisheries (MAFF) and FAO.

CEDAC was also a resource person and participated in workshops and seminars including the 4<sup>th</sup> Project Partner Meeting “ASEAN Sustainable Agrifood Systems (Bio- control), in the National workshop on Use and Trade of Bio control agent (BCA) which was organized by MAFF, GIZ and HARVES Cambodia, bi-monthly meetings of NDF (Network of Development Food safety and security; a former Pesticide Reduction network in Cambodia) and the Public Private Partnership Regional

Forum, in Bangkok, Thailand as well as the National Platform on “Land and Natural Resource Management” that was organized by Star Cambodia at CJCC, Phnom Penh.

### *Local Partners in Vietnam, RCRD, SRD and CGFED*

A national seminar was organized in Hanoi to present the results of the joint survey on the use of chlorpyrifos and paraquat. The seminar was entitled the Knowledge, Attitude and Practice (KAP) on chlorpyrifos and paraquat and the workshop was attended by over 80 participants, including policy makers, scientists, local NGOs, famers, victims of pesticides poisoning and local media.

The results of the survey on chlorpyrifos and paraquat were also shared in provincial levels in Phu Tho, Nam Dinh and An Giang Province that was attended by local authorities and farmers.

### **Narrative report TFA**

According to the pesticides data collected, seven communities in Cambodia continue to use a community concrete tank for disposal of pesticide containers in order to reduce the environmental and human health impacts from exposure of pesticide. Until now, approximately 4,640 containers have been collected. This data was used for advocacy at the local level. Although, the practice helped minimize the impacts to the environment, the solution to manage the collected containers still remained. Recycle vendors refused to collect the containers since no one want to buy the toxic recycle containers. Effort is being made to discuss with pesticides shops to return the bottles to the distributors/ companies.

In Thailand, 96 students from Banrai School in Hangdong District underwent blood test to detect residue levels from organophosphate, carbamate and pyritroid with over 50 % of students and teachers indicating unsafe levels. Responsive measures included: a safe school lunch program; creation of school and home vegetable gardens; and student production of herbal dishwashing soaps and bathroom and floor cleaning liquids to replace the chemical-based products in school and at home. Through collaboration with Sansai School and the Sansai Mahavong hospital in the Saraphi District of Chiang Mai Province, 693 farmers underwent blood tests. The results showed that 288 farmers (24 %) were unsafe, 267 farmers (39 %) were at risk, and 111 farmers (16 %) were safe with only 27 persons showing normal blood levels. Students also assisted local hospitals in periodically testing chemical residues in food derived from local crops and markets. The results were used by local administration to develop joint action plans with the hospital, the Medical Department of Chiang Mai University, and Farmers Network for Pesticides Reduction through farmer training programs and support of organic farmers markets. A Farmer Field Day was held at the NFE Vocational Training Center in Tron District of Uttaradith Province with approximately 1,200 farmers, governmental officials and representatives from FAO and Keml, and policy makers from the Lao NFE participating. Thai Education Foundation also participated in various meetings and forums to draft the national legislation of chemical management for Thailand.

In Vietnam, four Farmer Field Days were organized in two provinces of Bac Giang and Quang Binh with 280 farmers (49 % female) participating to disseminate information and exchange lessons learned. A “Green Environment Day” campaign was organized by a CLC in Quang Binh with over 700

participants (50 % female) including students, farmers, teachers, community leaders, farmer's unions, women's unions, and youth unions. Pesticide containers were collected and over 500 trees were planted in schools and other public places.

### Immediate objective 3

- Strengthened capacity to innovate and scale up Integrated Pest Management (IPM) and pesticide risk reduction training for sustainable intensification of crop production in partner countries.

### Narrative report FAO RAP

#### *Cambodia*

Work continued on the development of materials and curriculum for farmer training on IPM/pesticide risk reduction activities focusing on pesticide-related health exercises and biological control alternatives to chemical pesticides, e.g. *Trichoderma harzianum* for disease management in vegetables. The GCP/RAS/229/SWE project supported 54 Farmers Field Schools/Post FFS activities involving 982 rice and vegetable farmers. Support continued for 59 active Farmers' Clubs now with a total Saving Funds in the amount of approximately 90,593 USD from members' contributions for loans to improve agricultural production and emergency personal needs. The National IPM Programme also provided support to farmer training activities under other projects implemented by the main government counterpart agency, the General Directorate of Agriculture. Among others, this includes the 14M USD IFAD-supported Project for Agricultural Development and Economic Empowerment (PADEE). This project supports upscaling of IPM and pesticide risk reduction farmer training in 5 southern provinces in Cambodia.

#### *China PR*

Apart from on-going FAO assisted and government funded Farmer Trainings on Pesticide Risk Reduction (FT-PRR) in the 2 southern provinces of Yunnan and Guangxi in 2014, Hainan became the 3<sup>rd</sup> and newest Chinese province involved in the FAO supported pesticide risk reduction project. Hainan is a major producer of winter season fruits and vegetables intended for the urban markets in northern and north-eastern China. Concerns over recently detected high levels of pesticide residues on fruits and vegetables has prompted the Hainan Provincial Government and its Plant Protection Station to strengthen its pesticide policies and regulations and assist farmers with pesticide risk reduction training. A training of trainers on Pesticide Risk Reduction was held in Qionghai county in Hainan Province in December 2014. The 10-day ToT, participated in by 20 government plant protection station workers from 19 counties, marks the first of a sequential set of FAO and NATESC supported capacity building activities on pesticide risk reduction and IPM to be implemented in Hainan during the 2014-18 period. Some 120 farmers also participated in pilot 3-day FT-PRR courses implemented as part of the training. The ToT was successfully implemented and the first set of FT-PRR courses will be implemented in 19 counties during the period January-April 2015.

#### *Lao PDR:*

The project supported farmer training on pesticide risk reduction (FT-PRR) in 9 Lao provinces, with good national and local government support. As of December 2014, some 4,942 Lao farmers (including 1,611 women (33 %)) have participated in FT-PRR courses in 149 villages of 34 Districts in

9 provinces (Vientiane Capital, Borkeo, Louang Prabang, Phongsaly, Louang Namtha, Oudomxay, Sayabouly, Xiengkhouang, and Vientiane Provinces) throughout the life span of the GCP/RAS/229/SWE project. A monitoring & evaluation mission undertaken by FAO staff/consultants and national/local government staff mission in March 2014 confirmed that communities benefit from training received, resulting into substantial behavioural changes in the handling of pesticides and use patterns, overall indicating a reduction in pesticide risks as communities implement their risk reduction action plans.

### **Myanmar**

The process for formalisation of Myanmar's participation in the FAO GCP/RAS/229/SWE regional project was finally concluded in January 2015. A 1<sup>st</sup> formulation mission for the IPM component will take place in March 2015.

### **Vietnam:**

Support continued to activities in five provinces in line with the government's 2030 National Target Programme (NTP) on new rural area development coordinated by the Ministry of Agriculture and Rural Development (MARD). Activities focused on strengthening pesticide management for food safety by improving sustainable crop production following food safety/GAP guidelines. Communities are assisted in developing, implementing and monitoring their own activities based on their vision for their "new rural community", including community action plans on how to reduce pesticide risks. Work also continued on the development of alternative pest management strategies to reduce pesticide use like the production and application of the entomopathogen *Metarhizium anisopliae* for brown plant hoppers in rice and *Trichoderma harzianum* for soil-borne disease management in cucumber. Support continued for management of *Bactrocera* fruit flies and rearing and releases of the parasitoid *Anagyrus lopezi* for management of the invasive pest cassava pink mealybug.

### **Regional**

By December 2014, some 11,768 (50 % female) additional farmers participated in 'fortified' Farmers Field Schools or focused 3-day Pesticide Risk Reduction trainings supported by FAO with Trust Fund project resources in the Greater Mekong Subregion during January-December 2014, adding to a cumulative total of 70,484 farmers trained since inception of the GCP/RAS/229/SWE project in 2007. During this period, thousands of additional farmers benefited from participation in local government and/or other donor funded FFS programmes that were implemented with FAO technical and coordination support provided under the project.

Active coordination and management support provided at regional level for implementation of country IPM programmes in all Mekong region countries. Programme development that was supported provided for design of updated project implementation strategies. No major regional meetings were organized by IPM component in 2014. Support was provided to the Secretariat of the Asia Pacific Plant Protection Commission for the implementation of the IPM workplans for the biennium 2014-15. This included technical support for a regional workshop on *Bactrocera* fruit fly management held in Bangkok in May 2014. FAO regional programme staff participated in several international and regional meetings, workshops and conferences to share project experiences and results.

The regional IPM programme website ([www.vegetableipmasia.org](http://www.vegetableipmasia.org)) is regularly updated, with 9 news articles posted in 2014. The website is used widely and frequently, with some 106,450 hits as of December 2014.

## **Immediate objective 4**

- Strengthened regulatory framework for the control of pesticides in selected partner countries.

### **Narrative report FAO HQ**

#### ***Cambodia:***

Extensive pilot inspections in Kandal Province during 2011-2012 revealed that procedures to punish pesticide retailers who continue to violate the law were inadequate. Following the adoption of a new Law on the Management of Pesticides and Fertilizer in 2012, the Department of Agricultural Legislation (DAL) started work on new regulations, including one on inspections and a package of documents to support its implementation. The latter includes a joint declaration on collaboration between inspectors of the Ministry of Agriculture, Forestry and Fisheries and the police. The project agreed to support the launch of this new package once it was ready, as well as its printing and distribution. Pilot inspections would be resumed after the launch. Unfortunately, the finalising of the package of documents by DAL took more time than initially anticipated and its launch is now foreseen for the first half of 2015.

In the meantime, the project supported a national workshop on implementation of the Rotterdam Convention that was delivered by the Secretariat of the Convention. Among other things, participants received training in the preparation of country responses and it was agreed that preparation of such responses was a priority for follow-up. Due to staff changes, Cambodia eventually submitted these responses early 2015. Work on new guidelines on pesticide labelling is still in progress at DAL. In the meantime, the coverage of labels in Khmer has started to steadily increase following the groundwork done in collaboration with DAL and JICA during Phase I and is now reported to be 50-80 %.

#### ***Lao PDR:***

The first nation-wide rounds of inspections of pesticide retailers revealed that there was a legislative gap related to enforcement of the new Pesticide Regulation. The procedure to punish retailers who continue to violate the Pesticide Regulation was not clear enough. It was agreed that the Ministry of Agriculture and Forestry together with the Ministry of Justice would examine this issue and propose a solution. In order to help expedite this work, the project offered to make available a national legal consultant. It took the Ministry of Agriculture a long time to find someone who could do this work, but this person then did not deliver. This resulted into considerable delays to the implementation of the inspection scheme. In January 2015, renewed efforts will be made to identify a new consultant.

In the meantime, the project supported the preparation and printing of a poster on banned pesticides that was broadly distributed and put up in a large number of pesticide shops and border crossings. Further, the project finalised an "Update on the pesticide management situation in Lao



PDR”, which was translated into Lao and distributed within the government and used at national workshops.

#### ***Myanmar:***

A scoping mission was conducted in February 2014 to assess the pesticide management situation in Myanmar and to identify areas for technical assistance that could be provided to Myanmar within the framework of this project. This resulted in a provisional work plan. The process for formalisation of Myanmar’s participation in this regional project was finally concluded in January 2015. In the meantime, there were extensive communications with the Dutch to coordinate and align their plans for assistance in pest and pesticide management to Myanmar with those of FAO.

#### ***Vietnam:***

A new law on Plant Protection and Quarantine, which includes a chapter on pesticides, was issued in December 2013. In 2014, the project made FAO-Lex staff available to review and help finalise the English translation. Draft reports of a FAO\GEF project on pesticide management were reviewed and discussed with PPD. It was agreed that the FFS curriculum on pesticide risk reduction would be reviewed to strengthen the knowledge part on pesticides. Next steps regarding business-to-business support to enhance the use of biological control agents were discussed and resulted in a step-by-step plan that will be implemented in 2015.

#### ***Regional:***

A regional workshop on “Practical aspects of pesticide risk assessment and phasing out of Highly Hazardous Pesticides” was held in Nanjing in May 2014. The workshop was organised in close collaboration with the APPPC Secretariat and hosted by ICAMA, the Chinese authority responsible for pesticide registration. Participants from 15 Asian countries took part in the workshop and it provided an opportunity to participating countries to compare experiences in pesticide risk assessment. The workshop laid a foundation for further collaboration through creation of an electronic information exchange forum.

Work was initiated jointly with Keml to develop a reference tool to assist countries in identifying highly hazardous pesticides for phasing out.

#### ***Changes in project design:***

1. From Phase II onwards, Myanmar has become eligible as recipient country. Formalisation of Myanmar’s participation the project was completed in January 2015.
2. Because of delays in Cambodia and Lao as described above, it was agreed with Keml that part of the staff time earmarked for technical assistance to countries during 2014 could be used to formulate inputs to FAO’s international normative work on pesticide management, based on lessons learned from the project. Project experiences from the review of pesticide legislation in project countries were used to improve draft international guidelines on pesticide legislation. Project experiences from the development and establishment of inspection schemes provided an important contribution to the foundation for new international guidelines on licensing and inspection of pesticide retailers and distributors. This use of project experiences to strengthen important

international FAO/WHO Guidelines was regarded as a manner to enhance sustainability of project results.

### **Narrative report Swedish Chemicals Agency**

During 2014, the Swedish Chemicals Agency continued the development of a guidance document on how to access information from the EU pesticide registration process. The aim of the guidance document is to provide an overview of the procedures for evaluation and decision making for active substances in pesticides at EU-level, describe which registration data can be found in different information sources at EU-level and how this data can be accessed. The guidance document will become a part of the FAO toolkit that is being developed in order to support pesticide registration officers in countries with limited resources.

Two experts from KemI presented the guidance document together with an introduction to health and environment risk assessment at the regional workshop on “Practical aspects of pesticide risk assessment and phasing out of Highly Hazardous Pesticides” that was held in Nanjing, China.

KemI and FAO HQ continued the development of a priority tool to identify highly hazardous pesticides for phasing out.

## **Immediate objective 5**

- Strengthened chemicals management capacity within authorities, industries and among relevant CSOs in the partner countries.

### **Narrative report Swedish Chemicals Agency**

During 2014, two regional workshops on the Globally Harmonised System for classification and labelling (GHS) and enforcement was organised by KemI with participation of two experienced inspectors from the Department of enforcement and registries at KemI. A total number 24 (33 % women) and 30 (47 % women) representatives from government level participated in workshop 1 and 2, respectively. Theory was mixed with exercises on how to apply the criteria in order to prepare the participants for practical work connected to enforcement of GHS. Evaluations of the workshops showed that the participants were very satisfied with the training. More than 90 % of the participants expressed high or very high satisfaction with the lectures and exercises. Below are some comments from the evaluations.

- “The exercises are very useful for a deeper understanding”
- “The training on inspection and GHS is very useful to my current work. I hope I will have the opportunity to learn more experiences of managing chemicals and inspecting GHS from the other countries in the region.”
- “I have many knowledge from the presentations on GHS criteria. That will help us improve the chemicals regulation.”

The second workshop was combined with a study visit at an international chemicals company in Vietnam that informed about their on-going work on implementation of GHS.

In April, a meeting with the Forum working group was organised in order to decide on agenda and timing of the 8<sup>th</sup> Forum and plan other activities within the regional collaboration.

October 28-30, Kemi, in collaboration with the Ministry of Industry in Myanmar, organised the 8<sup>th</sup> regional chemicals management forum in Yangon, Myanmar. A total of 64 participants (47 % women) from Cambodia, Lao PDR, Myanmar, Thailand and Vietnam, together with invited speakers from China, Thailand and Sweden, took part in the 3-day workshop.

The following topics were presented and discussed at the Forum:

- Experience from the development and implementation of the REACH regulation in EU
- Vietnam's positive and negative experiences of its chemicals law
- Overview of Thailand's chemicals management and its challenges for future development
- Presentation of the LIRA guidance developed by UNEP
- UNEP regional office in Bangkok, presentation of plans for activities in the region
- Substitution of Asbestos chrysotile, practical examples
- Chemicals legislation and waste legislation. How do they connect?
- Examples of e-waste handling in Cambodia
- Presentation of the Stockholm and Basel Convention Regional Centre, special focus on activities connected to e-waste
- Presentation of the International Training Program (ITP) on Chemicals Management

Evaluation of the Forum showed that the participants were very satisfied with the topics, discussions and network that have been created. Mean score for the meeting was 4.4 of 5. More than 90 % of the participants expressed that the topics have very high or high relevance for their work. Between 95 and 100 % said that the network and knowledge that they have gained have very high or high usefulness.

Interviews with some of the national focal points for the regional collaboration on chemicals management expressed that the collaboration is highly valuable for the strengthening of chemicals management in the countries as well as for the priority of these issues within the government.

Below are some voices from participants at the Regional Chemicals Management Forum:

"Yes, the regional collaboration is beneficial for the chemicals management in Lao PDR. The competent authorities coordinate and cooperate more and better to manage the risks of chemicals." says Mr. Sivong Sengaloundeth, Deputy Director General at the Food and Drug Administration, Lao PDR.



Mr. Laska Sophal (assistant to the Secretary of State at the Ministry of Environment, Cambodia) expresses that there have been great positive impacts from the regional collaboration on the policy making level.

“Chemicals management issues have received significant attentions and supports from the policy making level. Chemicals issue have been integrated in national development plan 2013-2017 and cooperation between relevant agencies have been easier” says Mr. Laska.



The experiences obtained from forums and workshops organized by KemI were beneficial for the drafting of the new chemicals law and help us give guidance on chemicals management to the private sector.

“We gain knowledge, experience, and technical know-how by exchanging ideas and opinions freely with our neighboring ASEAN countries” says Dr. Khin Pa Pa Soe from the Ministry of Industry in Myanmar.

