



Towards a Non-toxic  
South-East Asia

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Front cover

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Pesticide Risk Reduction Programme

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# Towards a Non-toxic South-East Asia

“Towards a Non-toxic South-East Asia” is a programme that aims to reduce health and environmental risks by monitoring, regulating and managing agricultural, industrial and consumer chemicals. The programme covers the Mekong Region countries: Cambodia, Lao PDR, Myanmar, Thailand and Vietnam as well as the Yunnan, Guangxi and Hainan provinces in China. Other ASEAN countries are also invited to participate in our activities.

The programme is coordinated by the Swedish Chemicals Agency (KemI) and implemented in association with:

- Food and Agriculture Organisation (FAO) Regional Office for Asia and the Pacific
- Pesticides Action Network in Asia and the Pacific (PAN AP)
- The Field Alliance (TFA)



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**SWEDEN**

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# The Chemicals Challenge

## **Governments need to take action**

Chemicals are part of everyone's life. They are essential for virtually every sector in today's society. However, besides their many benefits, there are also deep concerns about the threats posed by chemical usage to health and the environment.

Chemicals production, use and disposal will continue to increase worldwide. Assessments and forecasts predict that global chemical sales will grow by about 3% per year until 2050 and the major part of that increase will take place in Asia. Chemical manufacturing and processing activities are steadily expanding into developing countries and countries with economies in transition.

Of the tens of thousands of chemicals on the market, only a fraction has been thoroughly evaluated to fully determine their effects on human health and the environment. Even if some progress is being made to fill some of the gaps about health and environment effects, this data remains limited to the evaluation of individual chemicals. Real-life exposures are rarely limited to a single chemical and very little information is available on the health and environmental effects of multiple chemical exposure.

Trace levels of chemicals, such as DDT, PCBs, mercury, lead and other toxins, have been found in people and animals all over the world. But very few people are aware of how this can impact their health.

In 2011, researchers from the World Health Organization (WHO) used available estimates for certain toxic chemicals to calculate

the global burden of disease. They estimated that in 2004, at least 4.9 million deaths and 86 million disability-adjusted life years (referred to as DALYs, which address a blend of death and disease impact), could be attributed to exposure and handling of selected chemicals. Of special note was the finding that children under age 15 years were a highly susceptible group.

It is only when a sudden accident or disaster happens that we come to realise the toxic dangers of the chemicals that we live with. We may recall Bhopal in 1984, when a toxic chemical leakage from a Union Carbide fertiliser plant led to more than 5,000 deaths and hundreds of thousands of individuals poisoned. Many years after the event, this tragedy is still the cause of pain and trauma for hundreds of families while the environment of Bhopal remains contaminated.





## Challenges for Southeast Asia

With rapid industrialization, countries in Southeast Asia face many challenges in the area of chemicals management. The intensive, and often insufficiently controlled, use of pesticides in the large agriculture sector is a big part of the issue. The most readily available pesticides in Southeast Asia are often the older broad-spectrum and most toxic products. Many industrial and consumer chemicals are still not regulated in the region. The effects on public health and the environment can be devastating. Institutions, legislation, enforcement and general awareness need to be enhanced.

Besides the obvious negative effects on health and environment, the lack of control over pesticide use and resulting residues has also affected trade. Due to tough restrictions on the use of chemicals in the European Union and the USA, entire shipments of vegetables and seafood with unacceptably high levels of chemical residues have been sent back to the country of origin. The economic losses are considerable to farmers, industry and governments – and ultimately all citizens of the affected countries.

Governments need to take action to control and regulate these chemicals more effectively. “Towards a Non-toxic South-East Asia” provides assistance in taking on this challenge.

# The Programme

## Scope

This programme is intended to benefit a range of stakeholders including government officials, rural farming communities, consumers and students.

## Objectives

The long-term objective of the programme is to contribute to:

- Better management and more sustainable use of agricultural, industrial and consumer chemicals
- Reduced risks from chemicals to human health and the environment
- More sustainable intensification of agricultural production and improved resilience to climate change

The programme's mid-term objective is "Strengthened capacity and regional collaboration for efficient pesticide risk reduction and chemicals management within and among partner countries".

Short-term objectives:

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 (implemented by PAN-AP and TFA)
2. Enhanced international, national and local advocacy on sustainable pest management/agriculture (implemented by PAN-AP and TFA)

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 (implemented by FAO RAP)
4. Strengthened regulatory framework for the control of pesticides in selected partner countries (implemented by FAO HQ and KemI)
5. Strengthened capacity for chemicals management within authorities, industries and among relevant CSO's in the partner countries (implemented by KemI)





## Seeking a holistic approach

The responsibilities and activities for chemical management are spread among many government ministries and institutions. Instead of dealing with one chemical substance at a time, governments need to take action in a more concerted and coordinated manner. Changes in the institutional and regulatory framework policy reform and implementation must go hand in hand.

The programme is based on a holistic and inclusive approach that facilitates and supports synergies among stakeholders at all levels.

- At the grassroots level, rural communities are empowered to tackle pesticide-related problems from a risk-reduction perspective.
- Use of the most hazardous pesticides must be eliminated.
- Overall use of chemicals must be reduced in favour of more sustainable alternatives, such as Integrated Pest Management and Agrobiodiversity.

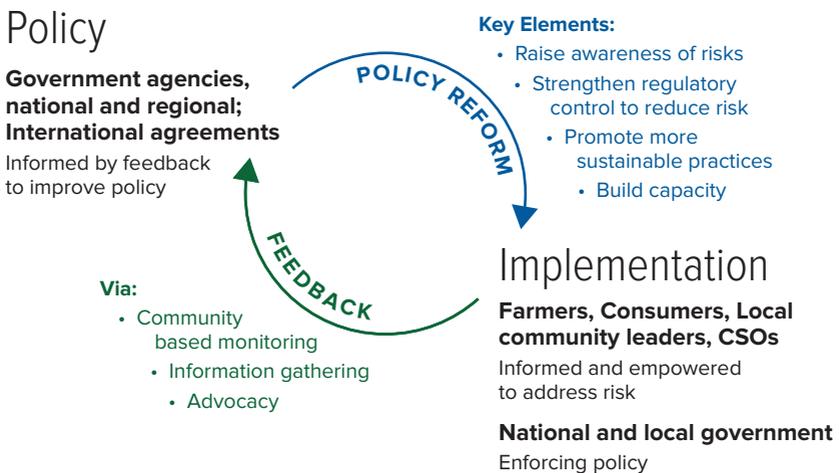
- Training of farmers for sustainable intensification of crop production and education of farmers and school children in pesticide risk reduction are important parts of this work.

But empowering communities at the grassroots level alone is not enough. Simultaneously, the programme helps enhance policy reform and strengthening of regulatory control at national and regional levels. A particular strength of the programme is its commitment to translating feedback from community based monitoring and information gathering directly into policy formulation on national, regional and global level.

Working both with both governmental agencies at different levels and with civil society organisations (CSOs) increases the opportunity to change behaviours and policies at all levels of society.

Informed and empowered farmers, consumers and local community leaders enhance change from the bottom-up, while strengthening of regulatory control and enforcement of legislation simultaneously addresses the issues from the top-down.

By using similar linkages, a sustainable system to control the use of chemicals can be built up.



It is our vision that a successful and broad regional programme on chemical safety can be developed most effectively through the gradual expansion of scope and focus. The programme started with a specific focus on the most urgent and widespread problems relating to pesticide use, with an emphasis on the elimination of highly hazardous and persistent pesticides. Key elements of the approach include broad awareness raising, strengthening of regulatory control and promotion of integrated pest management. In parallel, the experiences gained from the work on pesticides are being used to help build up a general chemicals management capacity.

## Key activities

- Provide support for development or improvement of legislation on pesticides, industrial and consumer chemicals.
- Provide support for capacity building for efficient enforcement of such legislation.
- Arrange regional chemicals management forums and workshops for information sharing, networking and training.
- Conduct assessments of pesticide use at community level, support implementation of community action plans for pesticide risk reduction and inform policy-making at national and local levels.
- Arrange awareness-raising activities on the risks of pesticides, risk reduction measures and alternatives to chemical pesticides through face to face trainings and meetings, production and distribution of informational material and use of conventional and social media.
- Develop capacity in public sector extension agencies for pesticide risk reduction farmer training.

- Support adoption of Integrated Pest Management by smallholder farmers through participation in Farmers Field Schools.
- Link with private sector for better farmer access to biological pest control options and integration of farmers in more rewarding value chains.
- Promote scaling up of farmer education on IPM and pesticide risk reduction by local governments and other donors.
- Contribute and actively engage in various instruments on pesticide policy advocacy like the Stockholm Convention and Rotterdam Convention and SAICM (Strategic Approach to International Chemicals Management).
- Strengthen the implementation of the Code of Conduct on Pesticide Management and SAICM as a standard for pesticide use and distribution.
- Promote communities' action plans to reduce the exposure and use of toxic chemicals.

## Geographical scope

The geographical scope of the Programme is South-East Asia with a primary focus on the Mekong region countries of:

- Cambodia
- Lao PDR
- Myanmar
- Thailand
- Vietnam

The Yunnan, Guangxi and Hainan provinces in China are also part of the programme. Other ASEAN countries are also invited to various activities.



# Background to the Programme

Concerned about the growing risks posed by chemicals to health and safety in Southeast Asia, Sida commissioned in 2004 several studies to get an overview of the situation and to develop ideas for possible interventions.

The studies highlighted several serious issues that needed immediate attention, particularly the fact that vulnerable groups were being disproportionately affected by hazardous chemicals. The studies showed that there was virtually no proper enforcement of laws and regulations around the management and use of dangerous chemicals and a serious lack of capacity and political commitment to tackle the problem. This prompted a recommendation that regulations governing pesticides should be an important initial target in order to phase out WHO Hazard Class I (extremely and highly hazardous) pesticides. It also recommended that a multi-sectorial approach including more effective regional cooperation should be used to confront the issues.

In response to these recommendations, the programme “Towards a Non-Toxic Environment in South-East Asia” was initiated in January 2007. The programme builds on a strong partnership with well-established organisations that together had many years of experience in dealing with chemicals management issues in the region. At present, the programme comprises four different components that contribute to awareness raising and capacity building with regards to pesticides, industrial and consumer chemicals in the Mekong Region through multiple pathways.

During September–November 2011, a mid-term evaluation of phase I of the programme was conducted by independent consultants. The evaluation confirmed that the programme has produced expected results and achieved considerable positive improvement of the management and use of chemicals. The content of the programme remains highly relevant to the recipient countries and continues to fit well with the Swedish government’s priorities for improving health, safety and well-being as well as reducing poverty in Asia. The evaluation confirmed that it was correct to adopt a 10-year horizon for the programme in order to attain changes towards sustainable development in the region.

In July 2013, Sida approved a second phase of the programme from mid-2013 to mid-2018. This new phase will enable the various



contributors to continue to launch their training programmes to reach a critical mass of beneficiaries and other relevant stakeholders in new regions. It will also enable the programme to strengthen regional cooperation and to continue the reform of the regulatory framework for the control of pesticides and further strengthen enforcement activities. Besides pesticide risk reduction, the management of industrial chemicals will continue to be addressed through further development of the regional chemicals management forum, other regional activities and pilot projects. Special emphasis will be put on strengthening of regional cooperation and facilitation of information sharing.

## What has been achieved so far?

Since its inception in 2007, the programme has been highly successful in raising public and policy-makers' awareness of the risks and dangers of toxic chemicals and issues related to safe management and disposal. Moreover, the programme has been highly effective in improving the capacity of relevant government agencies in chemical management. Following are some of the highlights of the programme's achievements so far.

### *Regulatory framework and institutional capacity*

- Three countries have been assisted with the preparation of new pesticide legislation.
- Inspection schemes for the enforcement of pesticide legislation were piloted in two countries and scaling up to national level has started in one of these.
- Raised awareness about the globally harmonised system for classification and labelling (GHS) in all partner countries.
- Development of legislation and strategies for chemicals management in Lao PDR, Cambodia and Vietnam has been enhanced through regional cooperation.

### *Capacity for sustainable agricultural production*

- Capacity of relevant government agencies (extension services, crop protection services) and non-governmental development partners to conduct IPM field programmes has been strengthened in all GMS partner countries and more than 70 000 farmers have learnt about risks from pesticides and alternative techniques to handle pest outbreaks in ‘fortified’ Farmers Field Schools.

### *Awareness raising*

- More than 18 000 farmers, women, youth and the public have been involved in campaigns including the “Protect our Children from Toxic Pesticides” and “No Pesticide Use Week” as well as 15 000 people participated in mass actions. These campaign activities on the impacts of pesticides on the health and environment include trainings, seminars, workshops, art exhibits and bicycle rallies. Through online platforms, conventional and social media, PAN AP and partners were able to connect to a wider audience to raise awareness and to draw attention to our call for actions. Most of the 480 women who participated in leadership trainings of rural women and in the Women’s Travelling Journal from China, Cambodia, Philippines and Vietnam have become active in local campaigns and activities.
- The Field Alliance and its partners have successfully implemented the Rural Ecological Agriculture for Livelihood (REAL) program in Cambodia, China, Laos, Thailand and Vietnam. Over 150 teachers, officials and community members have been strengthened on their understanding and application of agro-biodiversity and impact of pesticide use and approximately 2 500 students have participated in REAL activities.

## *Advocacy*

- By providing timely technical information on the hazards of endosulfan and its alternatives and by active participation in the technical committees, PAN AP actively contributed to the listing of endosulfan in the Stockholm Convention on Persistent Organic Pollutants and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

## *Regional collaboration*

- A regional chemicals management forum has been established. The forum serves as a base for exchange of information, lectures, networking and pilot projects. The member countries have appointed focal points for the forum. In connection to the forum a joint working group for planning and further development has been created. Gradual transfer of more responsibilities and decision to the working group has increased the status of the group and persons in key positions at the concerned ministries participate in the meetings.
- Strengthened regional collaboration in the area of pesticide risk assessment and phasing out of highly hazardous pesticides through the establishment of an electronic information exchange forum.



- PAN AP, “Illegal Pesticide Trade in the Mekong Countries: Case of Lao PDR”
- PAN AP, 2013 “Breast Cancer, Pesticides and You!”

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## Publications

- FAO, 2013 “Empowering Farmers to Reduce Pesticide Risks”. Impact Assessment Study Report-Cambodia and Vietnam for period 2007–2012.
- PAN AP, 2014 “Children & Pesticides: Protect Our Children from Toxic Pesticides”
- PAN AP, HHP Factsheet Series
- PAN AP, 2013 “Poisoning Our Future: Children and Pesticides”



# Profiles of implementing partners

## LEAD AGENCY

### **Swedish Chemicals Agency (KemI)**

KemI is the driving force in Swedish efforts to attain a non-toxic environment. It is a central supervisory authority under the Ministry of the Environment and works for preventive chemicals control, making sure that companies producing or importing chemicals take responsibility for the safety of the products placed on the market. KemI maintains a products register and a number of national databases. KemI assesses the risk of chemicals and handles permits to place pesticides on the Swedish market. In addition to work within the EU, KemI represents Sweden in worldwide cooperative work on chemicals, taking a frontline role in the work to introduce the global chemical strategy, SAICM. The agency also has an important role in providing support to other countries. Since 1994, KemI has managed a number of bilateral projects in Eastern Europe, Africa, Asia and the Balkans, providing expertise in chemicals management, legislation, inspection, product registration and pesticides.

Under the programme, Kemi has initiated the establishment of a Regional Chemicals Management Forum where government representatives and other stakeholder from Cambodia, Lao PDR, Myanmar, Thailand and Vietnam and invited experts meet on a regular basis to discuss chemicals management issues.

From mid 2014 to mid 2016, Kemi has an expert placed in Bangkok, Thailand, to facilitate the internal coordination of the programme and work more actively with its implementation.

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## ASSOCIATED ORGANISATION

### **Food and Agriculture Organization of the United Nations**

FAO leads the development of the international framework for the control of pesticides with the International Code of Conduct on Pesticide Management as the key reference instrument. Member Countries are assisted with capacity development for sustainable pest and pesticide management within the framework of sustainable intensification of crop production.

The FAO Asia Regional Integrated Pest Management/Pesticide Risk Reduction Programme, is the main Programme partner. It is based at the FAO Regional Office for Asia and the Pacific and supports governments and NGOs in capacity building for the development and application of IPM in smallholder crop production throughout the Asia region. It works closely with the Pesticide Risk Reduction Group at FAO Headquarters and the Regional Office's Crop Protection Programme, which both provide assistance to countries in strengthening regulatory control of pesticides.

Regional IPM/Pesticide Risk Reduction Programme in Asia  
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Food and Agriculture  
Organization of the  
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## ASSOCIATED ORGANISATION

### **Pesticide Action Network Asia and the Pacific**

Pesticide Action Network Asia and the Pacific (PAN AP) is one of the regional coordinating centres of PAN. This international coalition of public interests groups and people's movements work to reduce the reliance on pesticides, supports safe, sustainable pest management and promotes ecological agriculture. PAN has evolved a strong Asian perspective, linked to more than 150 groups, and works consistently with some 50 groups in 18 countries in the Asia Pacific region. PAN AP's Community based Pesticide Action Monitoring (CPAM) project is a comprehensive programme for awareness raising and empowerment of local communities. It simultaneously delivers valuable documentation for advocacy and networking at the national and international level. PAN AP provides information, analysis and campaign materials for network partners. The organisation is actively involved in international initiatives like the Rotterdam and Stockholm conventions, the FAO Code of Conduct on the Distribution and Use of Pesticides and the policy framework SAICM. The empowerment of women is a conscious effort in all PAN AP's work.

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## ASSOCIATED ORGANISATION

### The Field Alliance

The Field Alliance (TFA) derives from the FAO Regional IPM Programme, which played a prominent role in capacity building for sustainable agriculture in Asia. What began as a pest control project became an umbrella for farmer-led experimentation, training, organising and advocating for a range of production and community health issues, rural education and farmers' rights. The vision, methods and expertise that drove the Regional IPM Programme are now the basis for an independent foundation dedicated to the empowerment of Asian farmers – The Field Alliance. One of the allied organisations, the Thai Education Foundation (TEF), has played a leading role in the development of environmental education programmes for school children based on the 'farmer field school' approach. Following the pilot activities in a number of Thai primary schools, similar programmes are currently implemented in Bangladesh, Cambodia, Lao PDR, Philippines, Thailand and Vietnam.

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