



Agricultural intensification in the last half of the 20th century has resulted in the loss of biodiversity, degradation of soils, and the pollution of waterways. In light of this devastating impact on rural communities and the environment, further development of agriculture in the 21st century must involve approaches that preserve and restore natural resources and local communities. A revolution in the way rural people think about their local environment is crucial. An understanding of native ecological and biological systems is pertinent for this transformation of rural thinking. This knowledge provides rural communities with a basis for making management decisions and performing activities that are sustainable and productive. Community IPM has been facilitating such a transformation across Asia since 1980.

A Response to the Green Revolution

With funding from Australia and the Netherlands, the FAO Integrated Pest Management (IPM) Asia program was initiated in 12 South East Asian Countries in response to the growing awareness of the dangerous impacts pesticides were having on the ecosystem and on health.

This program was inspired by the shortcomings of the Green Revolution, the principle target of which was to increase rice production with high yielding varieties (HYV). These rice varieties, however, came as part of a 'miracle seed' package containing the improved seeds, fertilisers and pesticides. Farmers were obliged to adopt the whole package that inevitably meant that farmers embraced a calendar application of pesticides. Pesticides are perceived to:

- Disregard farmers' lives and health;
- Symbolise the greed, exploitation and hypocrisy of chemical companies;
- Be 'anti-ecology' in that many are general biocides that kill everything with a nervous system;
- Allow corporations to capture benefits, while hazards, environmental damage, and costs are 'socialised' among farmers and the public;
- Present a major threat to food security by causing widespread insect damage.

Of particular concern was the destruction of the natural balance in rice fields leading to epidemic outbreaks. Nowhere was this more clearly demonstrated than for the Brown Plant hopper in rice. In Indonesia, the destruction of thousands of hectares of paddy rice as a result of pesticide-induced outbreaks of the Brown Plant Hopper contributed to food shortages.



Farmer Field Schools

IPM is based on an experiential learning approach encapsulated in the Farmer Field School (FFS). The FFS is a learning process for groups of farmers during which they discover the ecological relationship between pests, natural enemies and other factors affecting the health of their crop, thus enabling them to make more efficient and healthier crop management decisions. The rice field is used as the 'FFS book' providing all the information that is needed for the learning process. Farmer Field School Basics:

- FFS is field based and lasts for a full cropping season
- FFS educational methods are experiential, participatory, and learner centred
- Each FFS includes at least 3 activities: the agro-ecosystem analysis, a 'special topic', and a group dynamics activity
- In every FFS participants conduct a study comparing IPM with non-IPM treated plots
- Between 25 and 30 farmers participate in a FFS. Participants learn together in small groups of five to maximise participation
- Preparation meetings precede a FFS to determine local needs, and concluding meetings to organise 'follow-up' activities

Farmers trained in Community IPM grow healthier crops and minimise constraints, such as those imposed by pests, through a better understanding of how their management decisions affect the ecology of their fields. Armed with this knowledge, IPM farmers become better managers and

- reduce their dependence on agro-chemicals
- reduce costs of production and increase their incomes
- stabilise their yields
- safeguard their health
- protect the environment

The FFS has ignited millions of farmers' self-confidence across Asia and set them on a path of continued learning and collective action to improve their livelihoods.

Evolution of the Program- Community IPM

Now in its forth phase, Community IPM involves farmers organising and implementing their own IPM activities. These farmers become the instigators of local agricultural development rather than the recipients. Community IPM is based on group

