



Across Asia, something new is happening in rural schools: teachers and students are getting out of the classroom and into the local fields to study ecology. Integrated Pest Management (IPM) for schools is currently underway in Thailand, Vietnam, Cambodia, Bangladesh and the Philippines. IPM in schools is particularly relevant in places like Cambodia where approximately 50% of the population is under the age of 16 years. The future of the environment and agriculture lies in the hands, minds and hearts of the younger generation.

In most South East Asian countries, school systems are commonly concerned with providing 'basic education' which is divorced from the local social, environmental and economic contexts. This situation is changing. Educational theorists such as David Orr have called for the need for ecological literacy to be put at the centre of the formal education process. IPM schools around Asia are an excellent example of 'ecological literacy' in practice. These schools aim to provide children with an education that is relevant to their future lives.

Ecological Agriculture for Students and Teachers (EAST)¹ started in 1995 at a single school in Nakhonsawan Province, Thailand. Thai Education Foundation trainers who had learnt the farmer training approach developed by Community IPM inspired the activities at the Wat Nong Primary School. This approach, the Farmer Field School (FFS) involves weekly sessions in the rice field to conduct an analysis of the agro-ecosystem (See Fact Sheet: Community IPM). Participants discovered that this method gave school students a captivating starting point for integrated learning. It encompasses many parts of the curriculum that have traditionally been taught in the classroom: science, art, literacy and mathematics. The activities here attracted the attention of higher officials in the Ministry of Education and the IPM teachers were awarded a national prize. The schools continue to further refine the curriculum to encourage farmers themselves, parents and other members of the community to become involved in the monitoring of the schools' project and to participate in the students' surveys and other activities

The Ministry of Education together with with Thai Education Foundation (formally known as World Education Asia) established the use of the FFS in Thai primary schools. First used in the sixth class level in primary schools in a few provinces, it soon became the focus of national media. At first, parents were not pleased that their children were spending time in the rice field instead of in the classroom but it did not take long for communities to see the benefits for themselves as well as for the environment.

With UNICEF in Cambodia, CARE in Bangladesh and the FAO in the Philippines, Cambodia and Thailand, EAST is having a profound impact on the future management of natural resources and on the way in which 'education' is understood. In Thailand and Cambodia, IPM is attracting interest as part of national education reforms.

"It's fun to study out of the classroom. I enjoy looking at insets and learning about them". 11 year-old student in Nakhorsawan Province.

Student Field Schools (SFS)

A Student Field School is much more flexible than the standard school curriculum with much of the detailed content coming from the students' own observations and activities in the field. Students learn by thinking and doing things themselves rather than by listening and copying from a blackboard or a book. Emphasis is placed on teamwork, cooperation and the sharing of ideas and experiences not keeping knowledge a secret.



"It helps us to remember more if we see it alive rather than in a book", IPM Student in Cambodia

Courses are held during the major growing seasons. Most SFSs in rice use a 1000 sq. metre 'learning field'. Participants learn the broad principles of field preparation; soil nutrients; water cycle; rice plant morphology; ecology of the rice field; identification and classification of insects, studies of the life cycle, habitat, diet and characteristics of particular insects and other pests; the impacts of pesticides on the rice field ecosystem, and basic farming economics.

SFSs offer the opportunity to put into practice many components of lessons formally taught in the classroom. The SFS curriculum has proven to be an enjoyable practical way for students to experience, learn and explore subjects such as biology, ecology, mathematics, art, health and environmental issues. SFSs focus on the exploration and discovery of nature, ecology, the world of plants and insects, traditional wisdom and scientific analysis. In Thai schools it is incorporated with the compulsory course 'Sor Por Chor' which teaches practical skills for daily life. In addition to observing how rice is grown and how insect pests live, students also write a report and evaluate their work. This helps them to analyse, think for themselves and work out solutions. Group dynamic exercises and other non-formal education techniques are used in the training. The training has proven to raise confidence in decision-making and public speaking. Students have also helped their parents and villages to apply IPM.

¹ EAST is a new acronym which is proposed as a replacement for the range of names currently being used to describe the same approach, including 'Student Field Schools' (Cambodia), 'Children's Field Schools' (Philippines), 'Schools IPM' (Thailand), and 'CPI- Children's Participation Initiative' (Bangladesh).