



Workshop Report

Joy Delos Reyes

Welcome Remarks

Dr. Nguyen Xuan Hong, Director General of the Ministry of Agriculture and Rural Development (MARD), Vietnam opened the workshop by extending his gratitude to the Food and Agriculture Organization of the United Nations (FAO) and the International Rice Research Institute (IRRI) for organizing this event. His speech mainly emphasized on the importance of sustainable pest management to rice production like in Vietnam which had its own share of difficulty in the past before it became the 2nd largest rice exporter in the world. Vietnam is one of the 50 countries wherein insecticide misuse has been increasingly rampant and this threatens rice production. He further cited that in 2006 and 2007, Vietnam lost 1 million tons of rice due to plant hoppers. As a result, Vietnam has to stop exportation of rice and this eventually led to rice instability in 2008.

He further pointed out that planthoppers were induced by unnecessary insecticide sprays during early crop stage. Almost half of the farmers are into this practice

particularly during the first 40 days after sowing. Aside from the Integrated Pest Management training given to farmers and introduction of Ecological Engineering in the Mekong Delta, the Vietnamese Government through the Plant Protection Department (PPD) of MARD came up with an Administrative Order to all concerned directors cautioning them about insecticide misuse and its implications to sustainable agricultural production. It states that: (i) they should not participate in promotion of insecticides by insecticide companies; (ii) they should strengthen investigation and monitoring of pesticide regulation and impose strict penalties; (iii) cooperate with agencies who closely monitor pesticide that is locally approved by PPD; and (iv) train farmers to proper and effective pesticide use according to right chemical, dosage, timing and target.

To end, he hopes the workshop will be a venue wherein the participants will be able to plan strategies on how to protect farmers against wastage of resources and unnecessary exposure to pesticide.

Introduction to the Workshop

Dr. K.L. Heong explained that this workshop aims to re-examine the role of pesticide in the region by gathering data and tracing how wrong information on pesticide reaches the farmers. This workshop is also a follow-up of the previous workshops in Thailand and Malaysia wherein field survey has been conducted and the relationship of Brown Plant hopper (BPH) outbreak and rice yield was also looked into. However, given the large data sets gathered, some data are inconsistent among the 8 ASEAN countries hence it will be difficult to do a cross country analysis. In this regard, participants have to make the necessary corrections/revisions in their data sets by following the common code book. Once revisions are completed, data sets will be merged into a database for the cross country analysis. Lastly, participants have to prepare recommendations and ways forward to be presented in the International Conference on December 16.



Insecticides: Emerging Knowledge of Unanticipated Effects

Dr. Finbarr Horgan started his presentation with some pictures during his field visit in India last April 2011 which illustrates how insecticides induces increase of BPH population and other insects in the rice fields. He also cited results from several studies showing that: (i) plants become more susceptible to insects and diseases as sugars and proteins of the plant increases while phenols are decreased; (ii) plant hopper densities had increased for those plots sprayed with insecticides; and (iii) no yield increase from insecticides under normal insect densities even where host plant susceptibility is high.

In his current research, Dr. Horgan looked into the resurgence of leaf-folders in the Philippines. He used six (6) insecticides and observed its effects on leaf-folder, whorl maggot and stem borer. His preliminary observations were: no yield increase from insecticide use; increased yield variability due to difference chemicals used; no yield loss from insect damage but yield loss was observed due to one of the chemicals. He intends to introduce some minor changes in the conditions of this experiment next year. In summary, he expressed concern on farmers who suffer from economic losses due to blind recommendation of insecticide use.

Analysis of Pesticide Regulation in the South East Asia countries

As an IRRI consultant for ADB RETA 15, Dr. V. Rangunathan was tasked to do a research on the pesticide regulations in the following SEA countries: Malaysia, Philippines, Thailand, Vietnam, Lao PDR, Myanmar and Cambodia. While almost all these countries have regulations on pesticides, only Malaysia has a law on pesticides.

His review on pesticide regulations focused on provisions about pesticide advertising, pesticide transport, pesticide marketing and distribution. For pesticide advertising, Malaysia, Philippines, Thailand and Vietnam have specific regulations on advertisements which are approved by their own Board on Advertising, Consumer Protection Committee and PPD, respectively. In terms of pesticide transport, both Malaysia and Thailand have no specific provisions on transport of pesticides. On the other hand, Philippines and Vietnam prohibits transport of pesticides along with food and other materials for human and animal consumption and use. Pesticides are commonly marketed and distributed through established network of repacking agents and dealers. There is also a 'Product Stewardship Program' wherein dealers receive attractive incentives; individuals who are not licensed are part of the pesticide marketing and distribution network; and they market unregistered and fake or not approved pesticides.

Dr. Rangunathan also discussed on the penal provisions for violations stated in the regulations of each country. Some of the main operational issues to be addressed are: (i) monitoring of indiscriminate pesticide use and use of unregistered pesticides; (ii) quality control of bulk imports, ready-to-use products and repacked products; (iii) control on illegal trade; and (iv) disposal of obsolete and expired stocks.

As part of actions to be taken, he recommended to initiate talks with concerned departments and pesticide regulatory authorities to review pesticide regulations and amend as necessary in order to incorporate stringent penal provisions. There is also a need to train not only enforcement officers but also dealers and farmers about pesticides. He also suggested to have a dialogue with pesticide industry associations on adhering to uniform stewardship promotional activities. Partnership with international

organizations is also encouraged among ASEAN countries for post registration enforcement activities, adherence to FAO Code of Conduct and promotion of IPM-FFS in rice and other crops.

Dr. Ragunathan ended his presentation with a call to ASEAN countries to unite in strengthening the regulatory system against pesticide misuse, saving farmers from pesticide hazards, promoting IPM and pesticide risk reduction programs, preserving ecological resilience in rice and other crop landscapes and protect South East Asia region from food insecurity.

Thailand's "Stop Use of Abamectin and Cypermethrin" Campaign

Mr. Kukiatt Soitong of Thailand Rice Department presented how their country initiated the "Stop Use of Abamectin and Cypermethrin" campaign. He first gave a history of BPH outbreak in Thailand starting on 1978. BPH is their main pest accounting to 82% of the total pests affecting their rice fields. To control BPH, most farmers use a mixture of abamectin and cypermethrin and they apply it from seedling to heading stage. He also showed that farmers spray more frequent during dry season compared to wet season.

The major players of pesticide market in Thailand are the wholesalers, specialist retailers and generalist retailers. Generalist retailers have the most number in the market and they provide accessible information to about 6 million farmer families. However, most information comes in the form of marketing and promotion i.e. encouraging farmers to use more of their products.

After the first consultation and planning workshop last March 2011, Thailand's campaign started through a partnership between Rice Department and Thai Agro Business Association (TABA). They came up with posters, stickers and stating "Stop BPH Outbreak, Stop Use of Abamectin and Cypermethrin" as well as TV and radio ad campaigns. Thailand recognizes that this campaign program is one of the tools in controlling pesticide misuse but they still have to work further in developing new strategies.

FAO International Code of Conduct on the Distribution and Use of Pesticides

Dr. Heong gave an overview of the FAO Code of Conduct (COC) which contains the standards of conduct for both public and private entities engaged in pesticide distribution and use. This COC has been accepted by 191 countries. Basically, the government is responsible with pesticide regulation while pesticide industries should ensure safety of consumers.

To have better appreciation of the COC, Dr. Heong gave a group exercise (by country) for the participants. They were provided with a checklist from Article 11. Advertising and they have to rate if it occurs in their country: Never, Rarely, Sometimes and Always. Some of the results from this exercise were: (i) most pesticide advertisements always guarantee more profits or high yields; and (ii) inappropriate incentives or gifts or raffle tickets are always included upon purchase of pesticides. See Table 1. From this exercise, it clearly shows that farmers are misinformed and there is a need for the government to regulate pesticide companies e.g. inappropriate promotion.

Table 1. Degrees of non-compliance to selected sub-articles in Article 11.2 of the FAO Code of Conduct.

Degrees of non-compliance	Sometimes	Always
Pesticide industry should ensure that:		
2.2 advertisements DO NOT contain any statement or visual presentations which directly or by implication, omission, ambiguity or exaggerated claim, is likely to mislead the buyer, in particular with regard to the “safety” of the product, its nature, composition or suitability for use, official recognition or approval	3	5
2.5. advertising DOES NOT encourage uses other than those specified on the approved label	5	1
2.6. promotional material DOES NOT include recommendations at various with those of the recognized research and advisory agencies	5	2
2.11. NO guarantees or implied guarantees, such as “more profits with..” or “guarantees high yields,” are given unless definite evidence to substantiate such claims is available		8
2.13. advertising or promotional material draws attention to the appropriate warning phrases and symbols as laid down in the FAO labeling guidelines	3	5
2.14. technical literature provides adequate information on correct practices, including the observance of recommended application rates, frequency of applications and pre harvest intervals.	4	3
2.18. advertisements and promotional activities SHOULD NOT include inappropriate incentives or gifts to encourage the purchase of pesticides	5	4

Afternoon Session

Dr. Larry Wong of ISIS Malaysia explained to the participants what is expected from them during this two-day workshop. They were asked to map their respective Pesticide Supply Chain from national level to a specific major rice production area (refer to Figure 1) together with a Pesticide Information Supply Chain (refer to Figure 2). These supply chains will be supported by data from a Farm Survey on Farmers’ pesticide use from the specific major rice production area. He also gave some guide questions that each country has to discuss when they present their supply chains the next day. For instance, aside from the quantity and value of pesticides imported by the country, he also took into account the subsidies provided by the government and how the government addresses the problem of pesticide misuse. With regard to pesticide information, he emphasized on the key players who influence farmers and those who dominate the pesticide information given to farmers.

Figure 1. Generalized Rice Pesticide Supply Chain

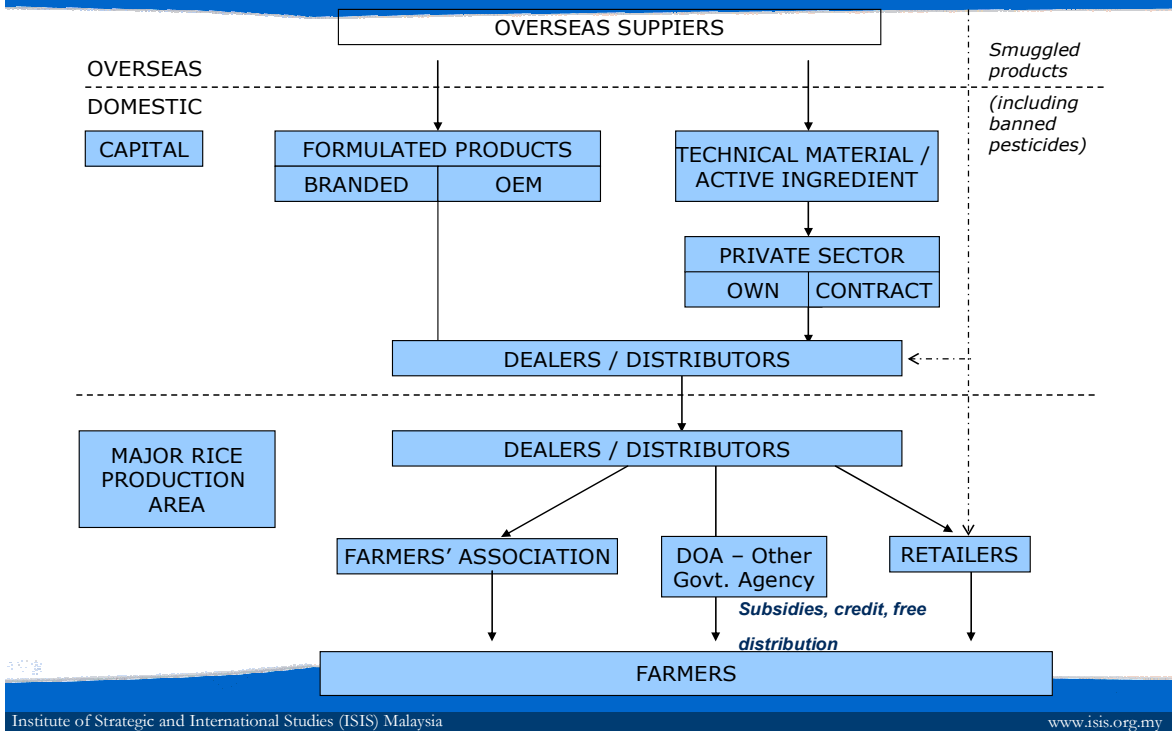
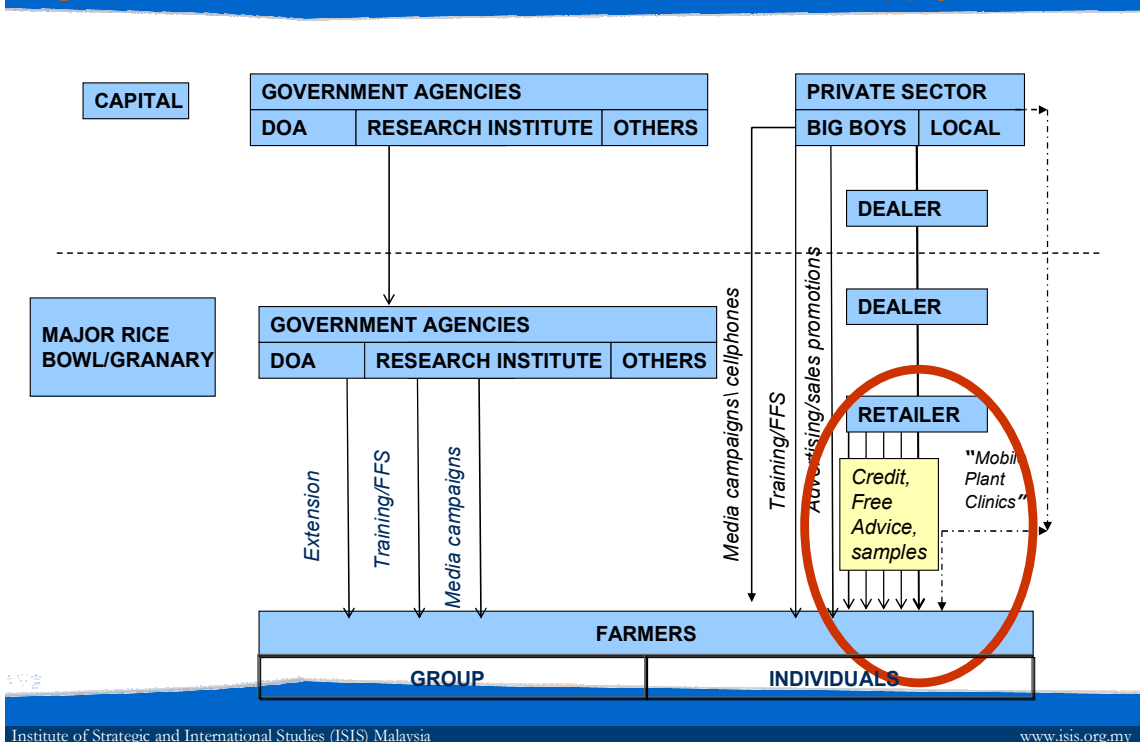


Figure 2. Generalized Rice Pesticide Information Supply Chain



For the conduct of cross country comparisons, Dr. Monina Escalada of VSU discussed on how the participants will merge the data sets from 8 countries. She explained that data sets must have the same variable name, follow the same sequence, use a common codebook and use the same value labels. With these requirements, participants were requested to review and correct as necessary their data sets before merging them. They were given the rest of the afternoon for this activity.

December 15, 2011

Each country team presented their Pesticide Supply Chain and Pesticide Information Supply Chain. Some of the highlights of their presentations were:

- Information provided by the government is limited compared with the private sector who heavily spends on media campaign, sale promotions etc. Aside from these, private sector through their retailers provides credit to farmers which give them more control.
- There is also a need to address the problem of informal trade or smuggling of both registered and unregistered pesticides.
- Since the government has limited resources, presence of non-governmental organization is deemed important when disseminating the necessary pesticide information to farmers.

In summary, the group came up with the following recommendations to be presented during the international conference:

1. In cognizance of the cross border nature of both plant hopper migration flow of pesticides (both formal and informal), we should work towards including “Threats of Insecticide Misuse in Rice Ecosystems and Regional Food Security” in ASEAN Minister of Agriculture Forum (AMAF) agenda via special Senior Officials’ Meeting (SOM).
2. Individual countries as well as ASEAN as a whole, under AMAF, should work towards the banning of pyrethroids and organophosphates, their mixtures and other insecticides that are conclusively found by focused research to be linked to plant hopper outbreaks, for use in rice production.
3. Individual countries and pesticide industries should work towards being compliant with the FAO Code of Conduct.
4. Work towards harmonizing pesticide regulations, especially those relating to advertising, transport and marketing in ASEAN.
5. Mainstream the threats of insecticide misuse and misinformation on food security and sustainable rice farming as well as how to maintain or restore ecological resilience – highlighting ecosystem services as a public good. Relatedly, coordinate public and private sector’s as well as civil society’s efforts in disseminating related information at both the National and Regional levels.
6. Recognizing the extent of insecticide misuse and misinformation, prioritize the strengthening of regulations and enforcement.
7. Regulate pesticide information through certification programs of retailers and information providers.