

Pesticide (Mis)use and (Mis)information: A Pesticide and Pesticide Information Supply Chain Perspective



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[The views expressed herein are entirely those of the presenter and do not necessarily reflect the position of the agency he serves]

Outline:

1. INTRODUCTION
2. BACKGROUND
3. PESTICIDES AND PESTICIDES INFORMATION SUPPLY CHAINS MAPPING
4. FINDINGS AND KEY TAKE HOME MESSAGES
5. RECOMMENDATIONS

Introduction:

- **Purpose:** Highlight the application of supply chain approach to understanding the threat of **pesticide misuse and misinformation** to **sustainable rice farming and food security** in ASEAN in general and Myanmar in particular, towards developing **sustainable interventions, structures and policies** at the **country and regional** levels.
- **Underlying theme:** Crucial to understand and articulate this threat and the need to develop a **Framework using the Supply Chain Approach** so as to enable insightful analyses and **constructive policy engagement** in developing innovative and **sustainable interventions, structures and policies** in Myanmar. A key challenge is in **getting the 'basics' and 'balance' right.**



Key Take Home Messages:

- The pest **control landscape have changed**, in varying degrees, in ASEAN – disturbing trend of increasing **insecticide misuse and misinformation** leading to recurrent plant hopper outbreaks – **food security, sustainability and productivity concerns** – demands rethinking and reframing the problem – urgent action!
- Blindingly clear that **pest management information** is increasingly **dominated by the pesticide industry**;
- The growing and worrisome **FMCG phenomena** is facilitated by **weak regulations coupled with poor enforcement**.
- Given the various **cross-border dimensions**, regional countries should work towards developing a **common framework** to address pesticide misuse at both the national and regional levels, coupled with options like Ecological Engineering.
- Relatedly, all efforts be taken by those involved in addressing this issue to act in concert to **help Myanmar avoid this ‘slippery slope’** – and become the **‘standout nation’** or **‘counter factual’** that have avoided this trap/addiction.


Background:

Addressing the Preharvest Challenges of
the Rice Supply Chain
ADB - TA 7493


Subproject 1

**Reducing vulnerability of crops to
preharvest losses caused by
planthopper pest outbreaks**

**Review and Planning
Workshop**



January 17 to 19, 2011
Mercure Fortune Hotel
Bangkok, Thailand

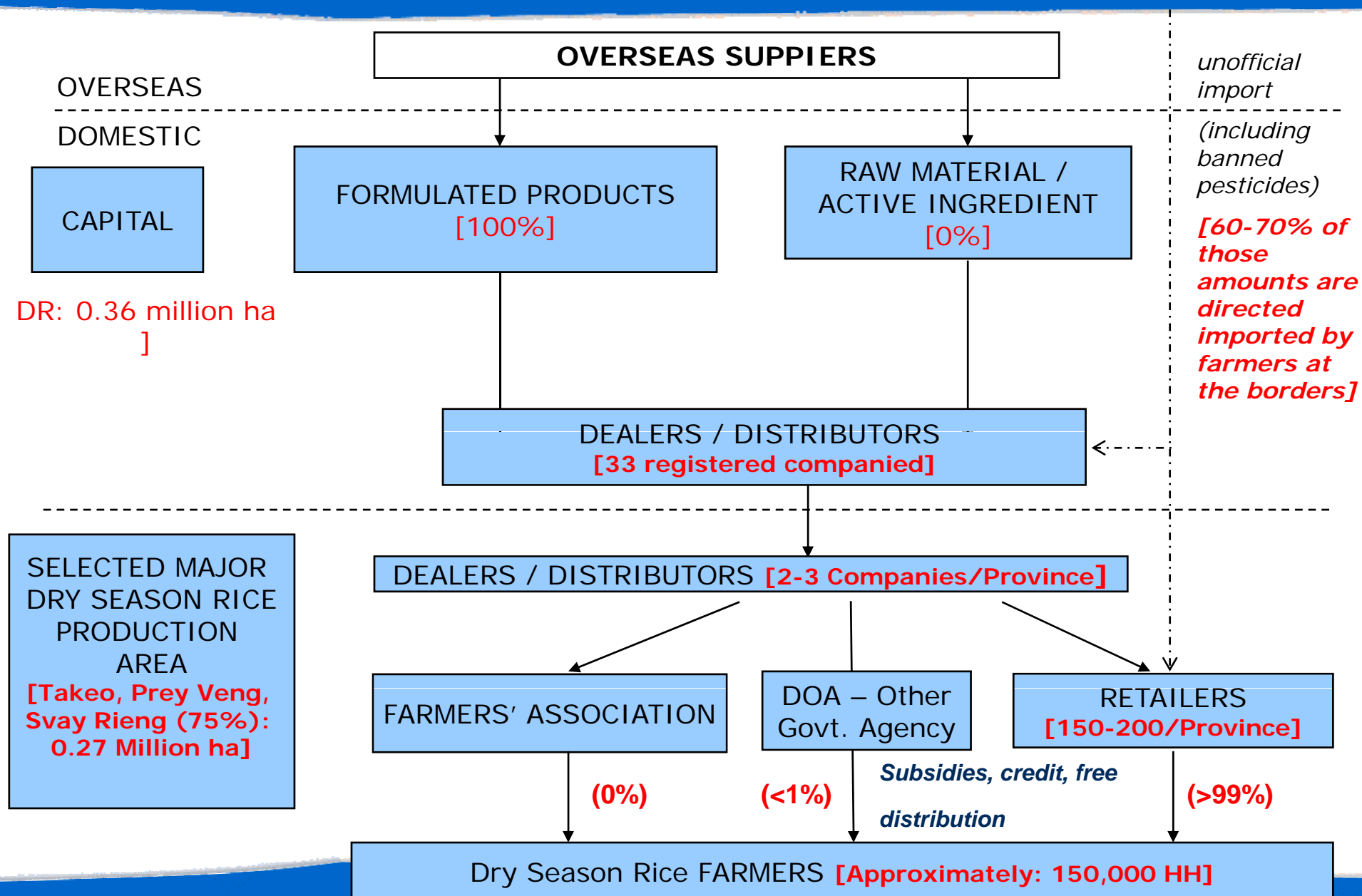


- Sustainable Asian rice farming and food security is increasingly threatened by recurrent **synchronized planthopper outbreaks**
- Arising from 2008 food crisis ADB 13th RETA (Regional Technical Assistance) – **ADB-IRRI Rice Planthopper Project**
- In **2009 & much of 2010** – outbreaks in Thailand, Viet Nam, Malaysia, Indonesia, Cambodia, Philippines, Laos, China
- **2011** – Outbreaks in Indonesia, Thailand and Viet Nam
- Major Finding: **Pesticide overuse, unnecessary use, and misuse** are important **causes** of these planthopper outbreaks
- 2011 to 2012 – Phase II of Project – **sustainable interventions, structures and Policy Engagement**

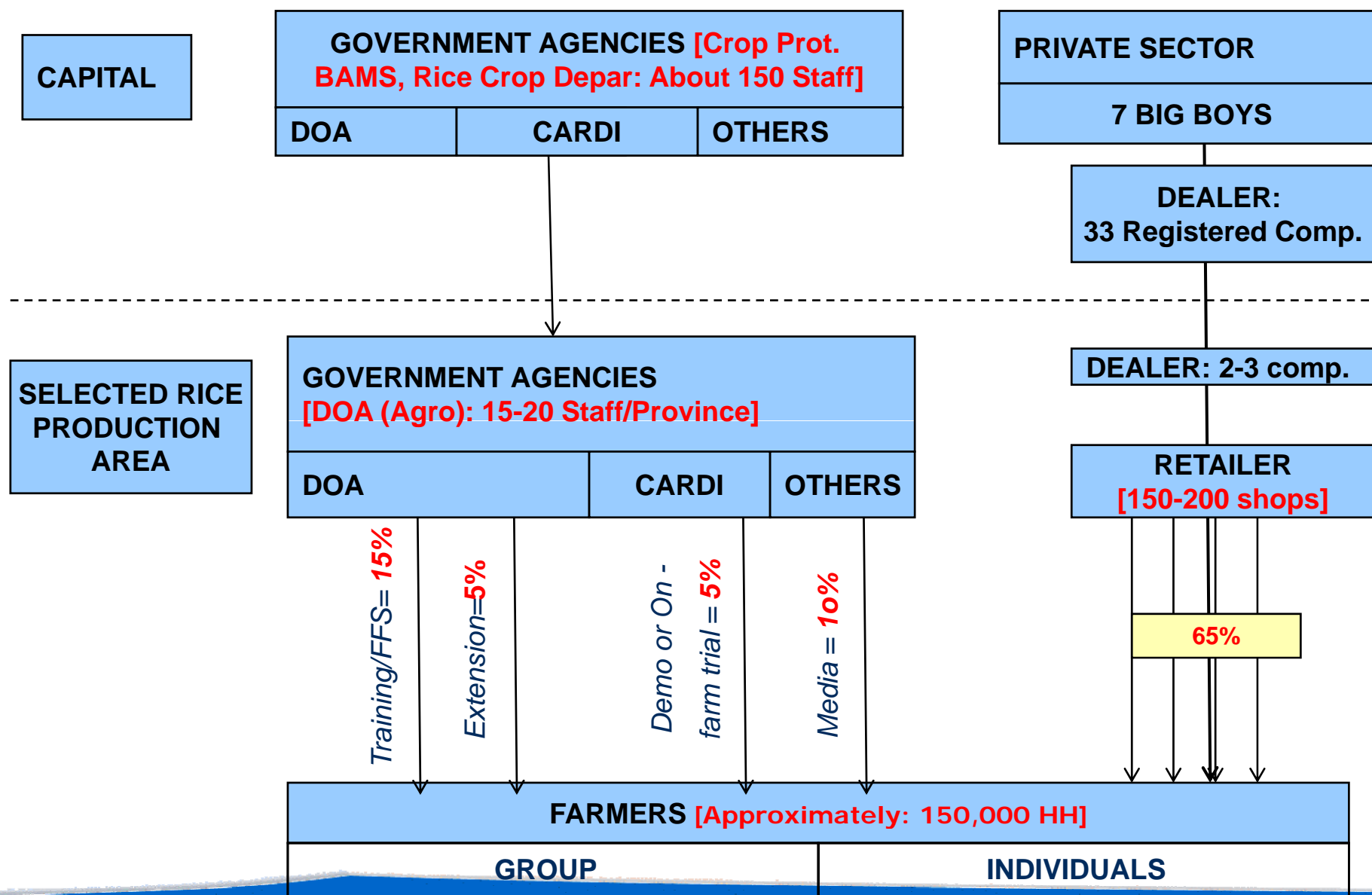
Background (Cont'd):

- Cognizant of the new issue/dimension of the **marketing of pesticides as 'fast moving consumer goods' (FMCG)** in the region, a proposal on using a **supply chain approach** was presented at a consultation and planning workshop on **'Rice planthopper problems and insecticide misuse - developing sustainable interventions, structures and policies'** in March 2011, Bangkok.
- Then a study covering **Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand and Viet Nam** was mounted involving the **mapping** of both the **pesticide and pesticide information supply chains**, augmented by the tracking and quantifying of farmer's status and practice with respect to pesticide (mis)use and (mis)information via a **farm survey**.
- Drawing from the **results of this study** and subsequent **follow up work**, we **revisit policy issues** surrounding rice planthopper management from a **pesticide and pesticide information supply chain perspective**

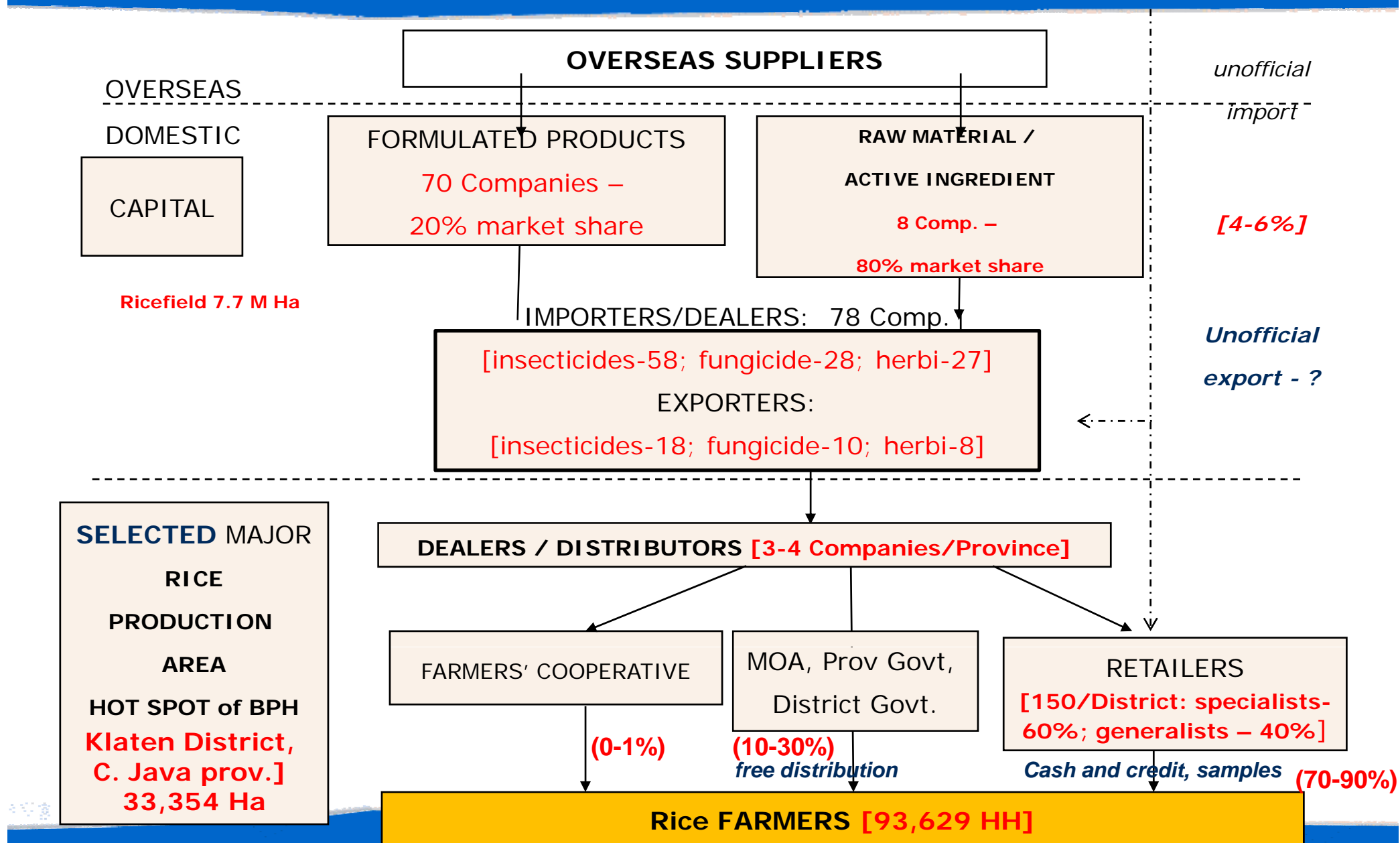
Cambodia Rice Pesticide Supply Chain - 2010



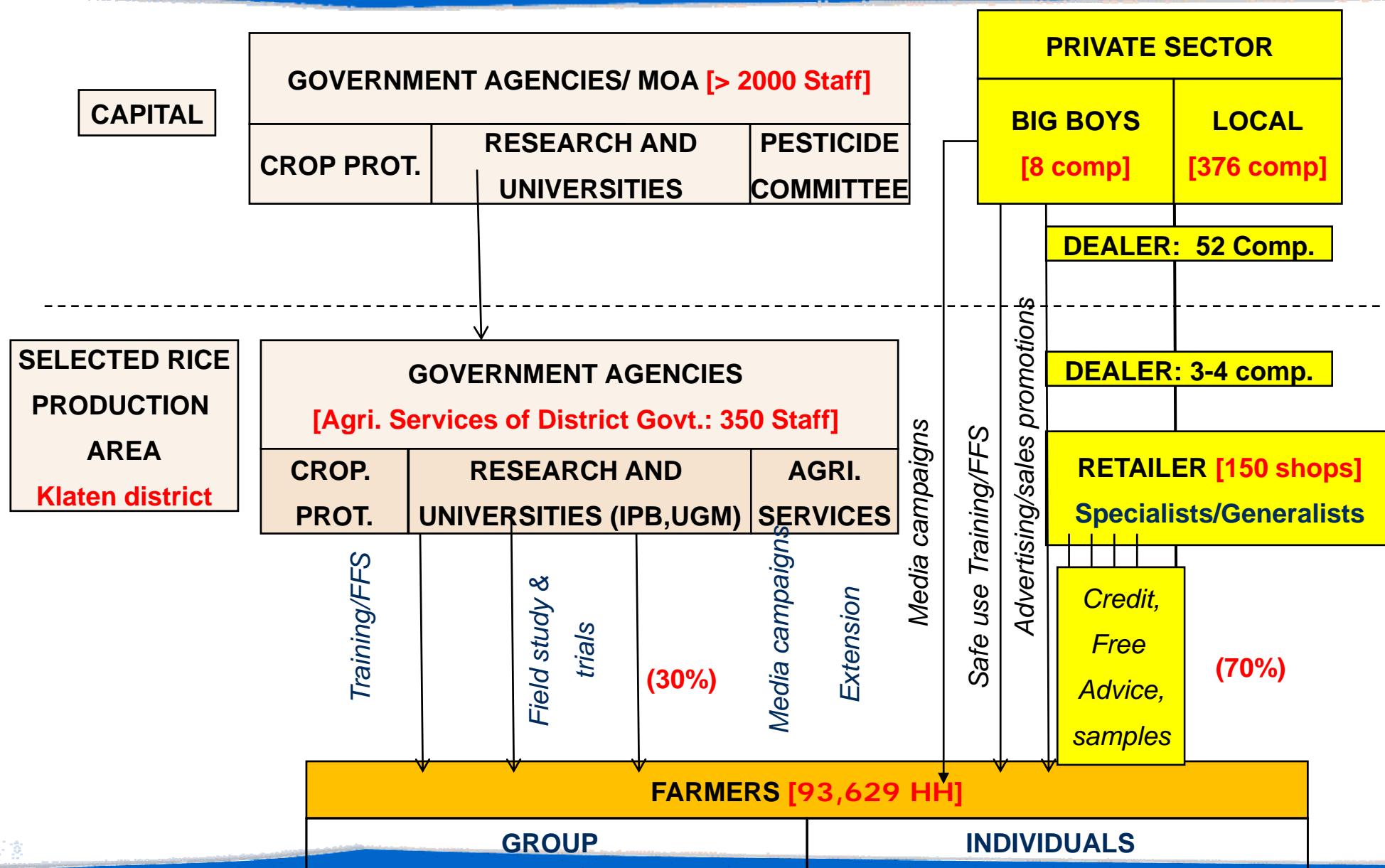
Cambodia Rice Pesticide Information Supply Chain - 2010



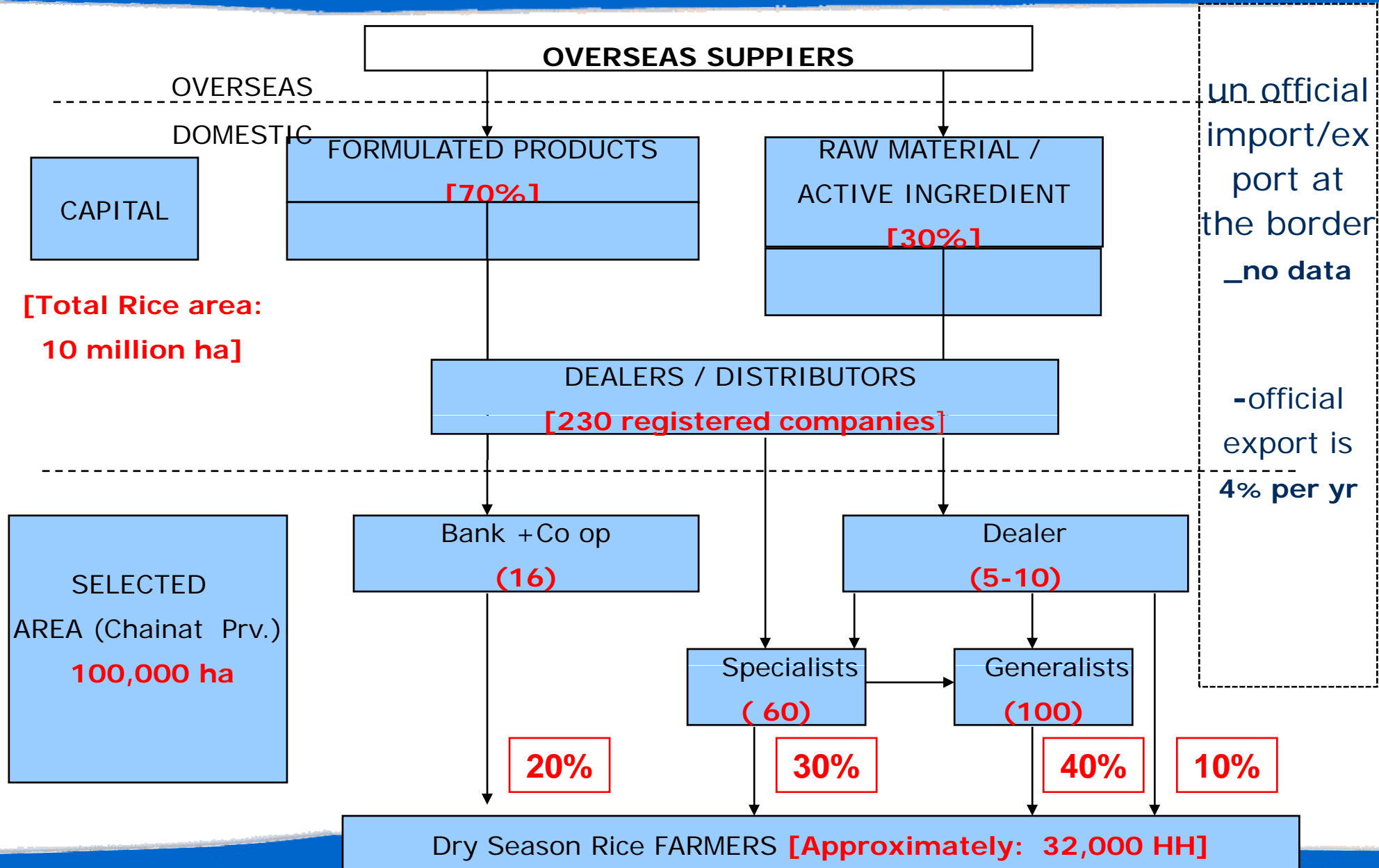
Indonesia Rice Pesticide Supply Chain - 2010



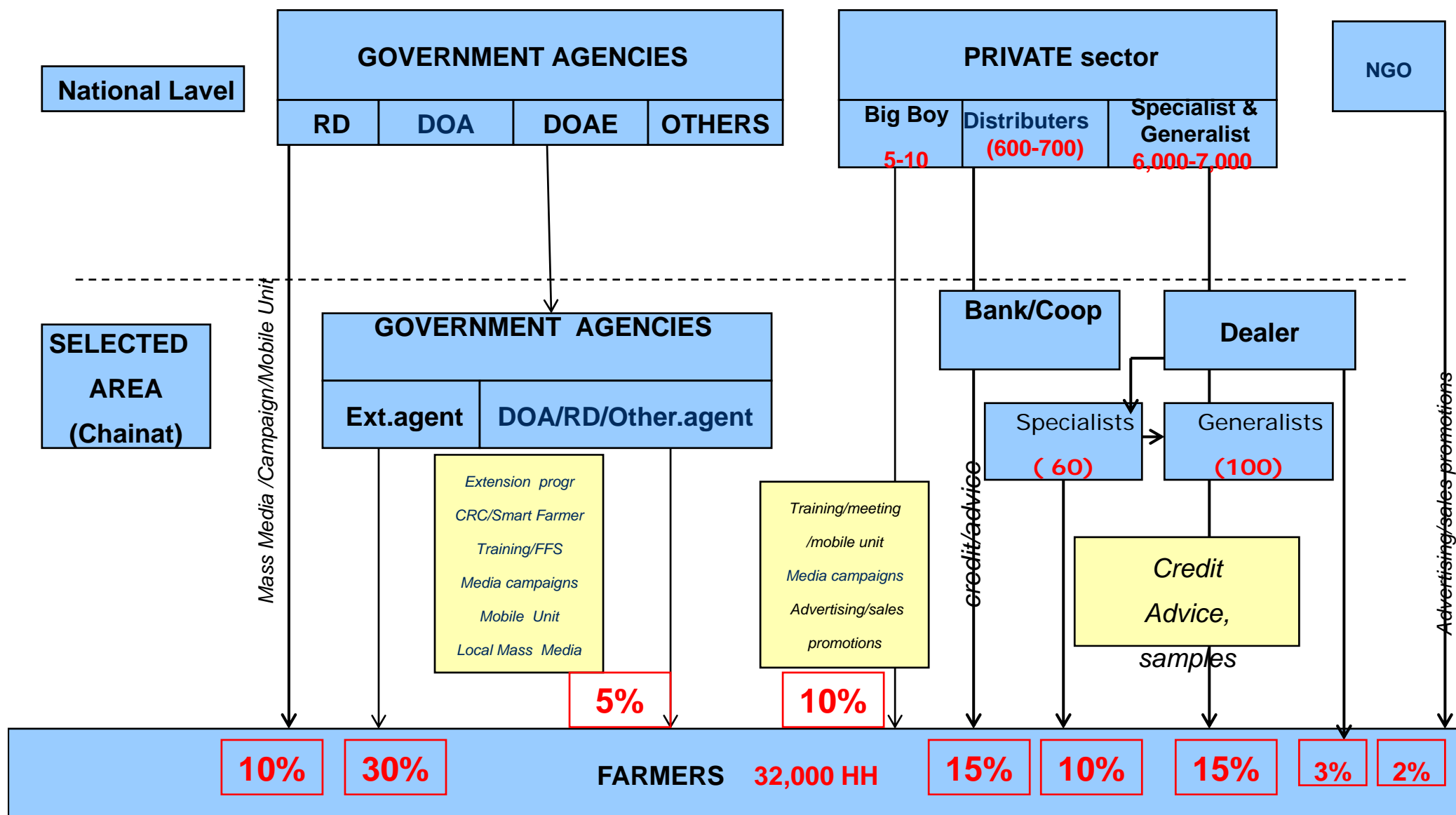
Indonesia Rice Pesticide Information Supply Chain - 2010



Thailand-Rice Pesticide Supply Chain - 2010

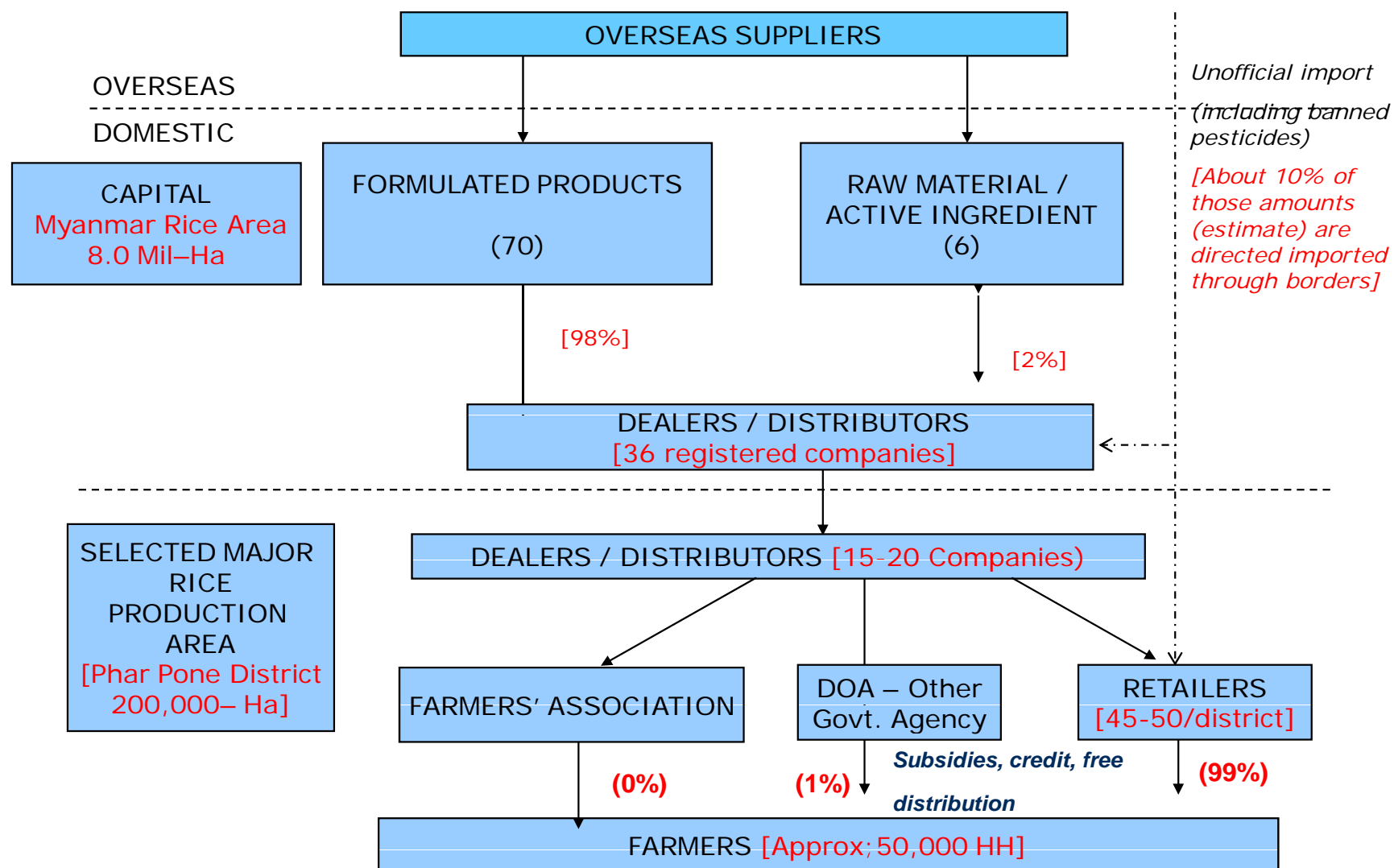


Thailand Rice Pesticide Information Supply Chain - 2010

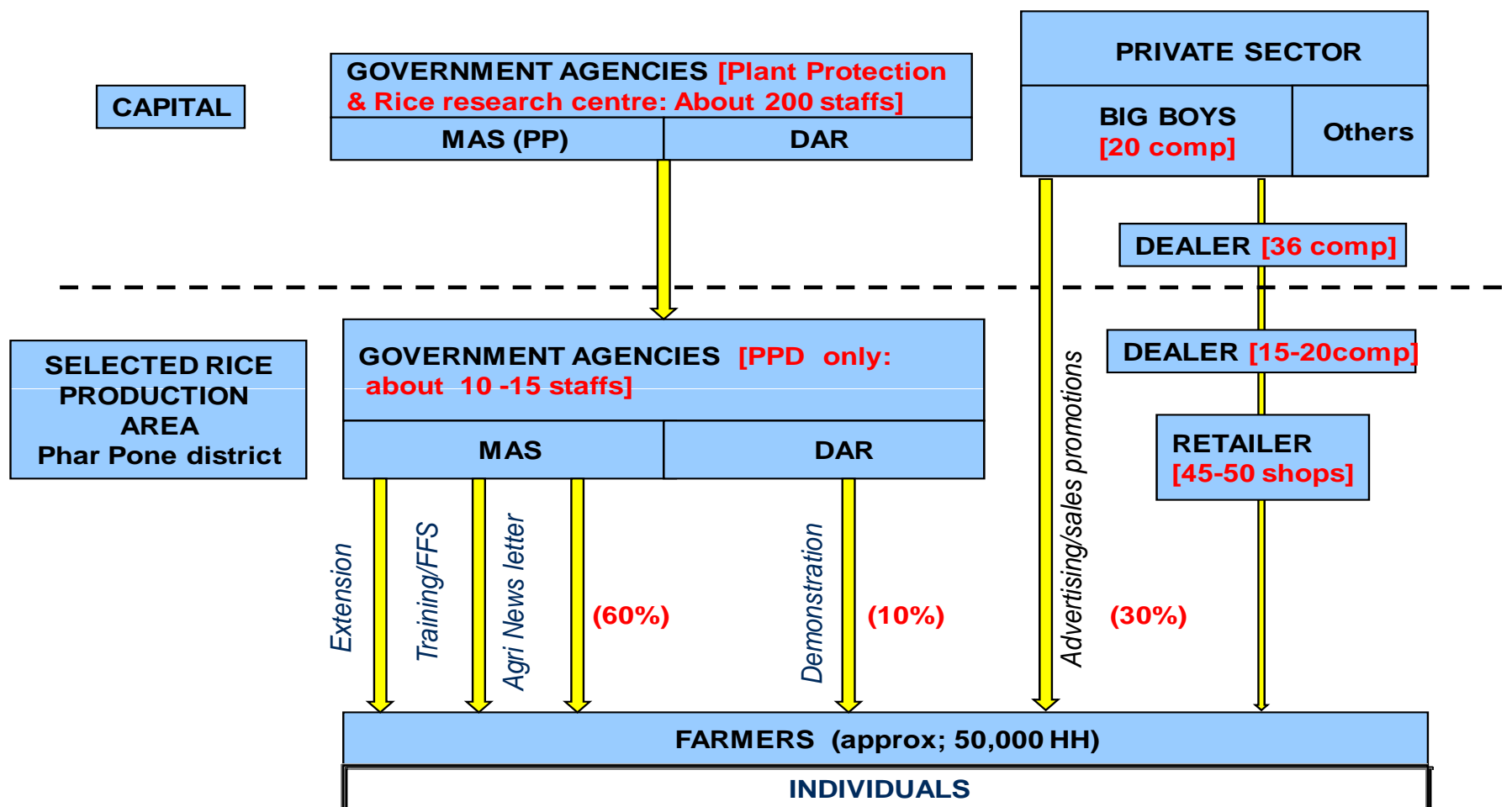


Remark: % of information /K on pesticide use to Farmers
 Institute of Strategic and International Studies (ISIS) Malaysia

Rice Pesticide Supply Chain (Myanmar) - 2010



Myanmar Rice Pesticide Information Supply Chain - 2010



Findings:

- **Cross-border** dimension involving **both plant hopper and pesticides**;
- **Significant cross-border trade** - both formal and informal – with the latter involving **banned insecticides**;
- **Layering in the pesticides supply chain** and the **increase in 'generalists' retail outlets**;
- **Dominance and 'innovation' of private sector in pesticide information supply chain**;
- **Sales & marketing – ala 'Fast Moving Consumer Goods' (FMCG)**

Findings (Cont'd):

- High **number of sprays**;
- Many spray against **leaf-folder**;
- Presence of **illegal pesticides and fakes** – list of pesticides used;
- Many farmers used **pyrethroids and organophosphates**;
- Response to question regarding where farmers obtain **pesticides** and where they obtain **pesticides information** in all countries **indicates dominance of private sector in both supply chains.**



Advertisements – like Fast Moving Consumer Goods (FMCGs)



“Why are **pesticides**,
which are **poisons**,
allowed to be sold
as **FMCGs**?”



“How did things
ever come to
this?”

Other Marketing/Sales Strategies

Waktu Aplikasi Virtako Untuk "Crop Enhancement" Pada Tanaman Padi

Tahapan Pertumbuhan Tanaman Padi	Rekomendasi Syngenta
Pembibitan	
12-15 HSS	VIRTAKO 10 ml
1-2 HSC	VIRTAKO 10 ml
15-20 HST	VIRTAKO 200 ml/Ha
30-35 HST	VIRTAKO 200 ml/Ha
45-45 HST	VIRTAKO 200 ml/Ha + Amistartop 300 ml/Ha atau Score 240 ml/Ha
55-57 HST	VIRTAKO 200 ml/Ha + Amistartop 300 ml/Ha atau Score 240 ml/Ha

Keterangan :
• HSS : Hari Setelah Sebar
• HSC : Hari Sebelum Cabut
• HST : Hari Setelah Tanam

A

B

A: Spray calendars are distributed to farmers to promote prophylactic applications.

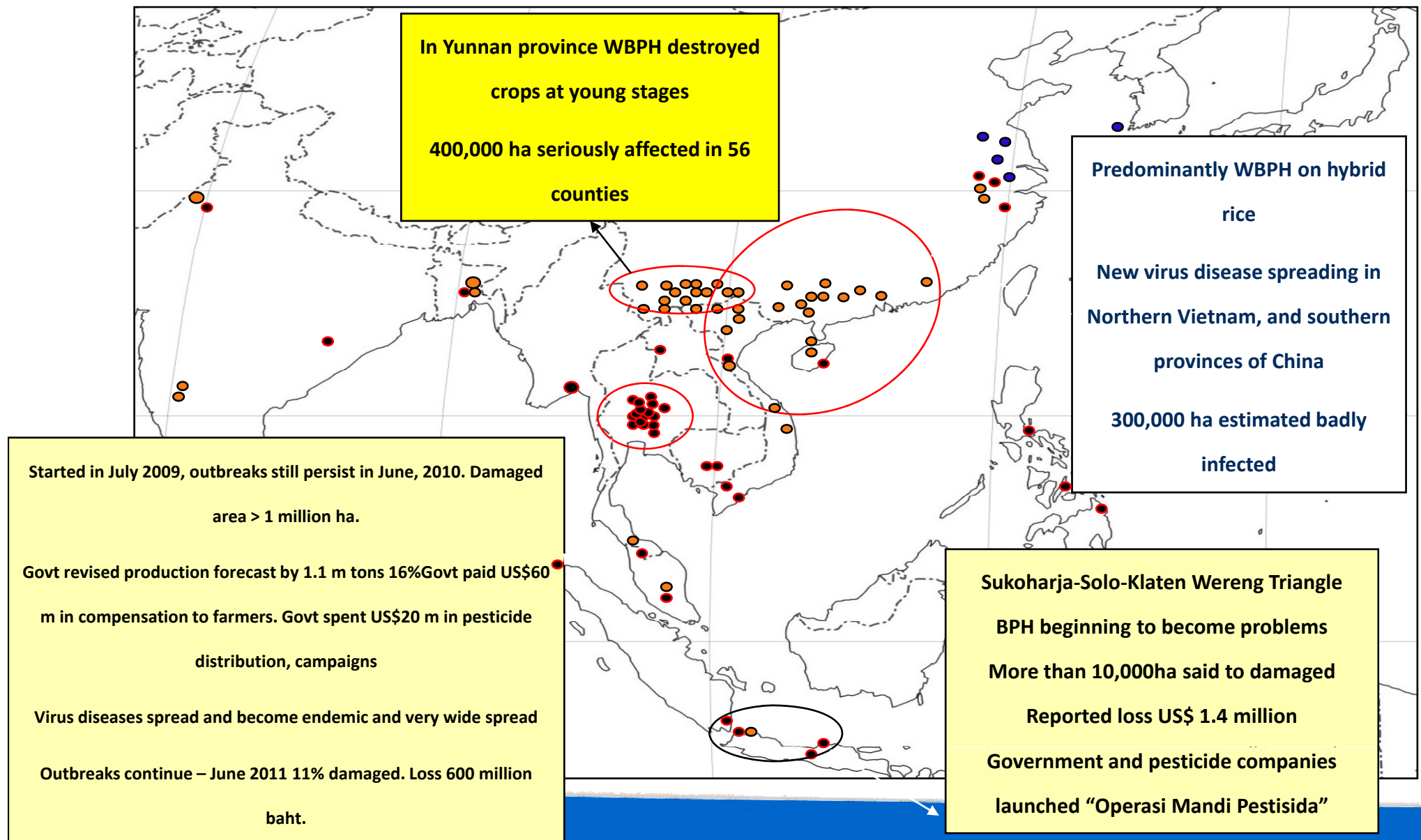
B: Sales promotion lottery ticket for a chance to win a motor cycle as an incentive to buy.

Thailand has 16 strategies, including the above and free gifts, dinners, lucky draws, and redemption vouchers.

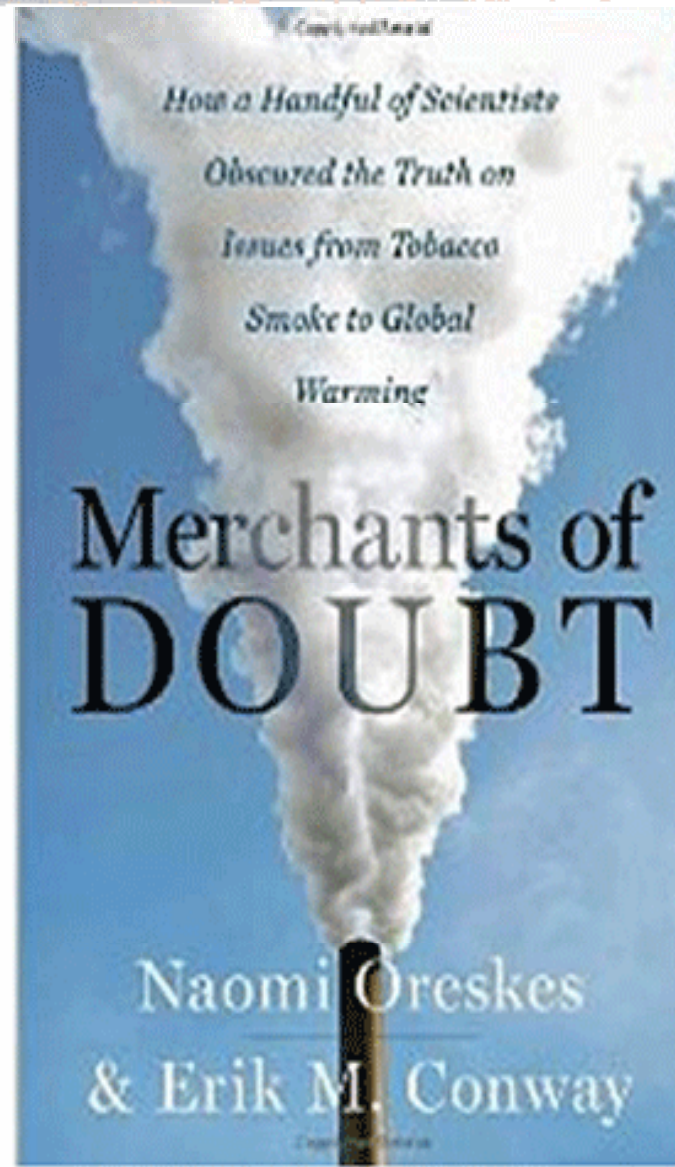
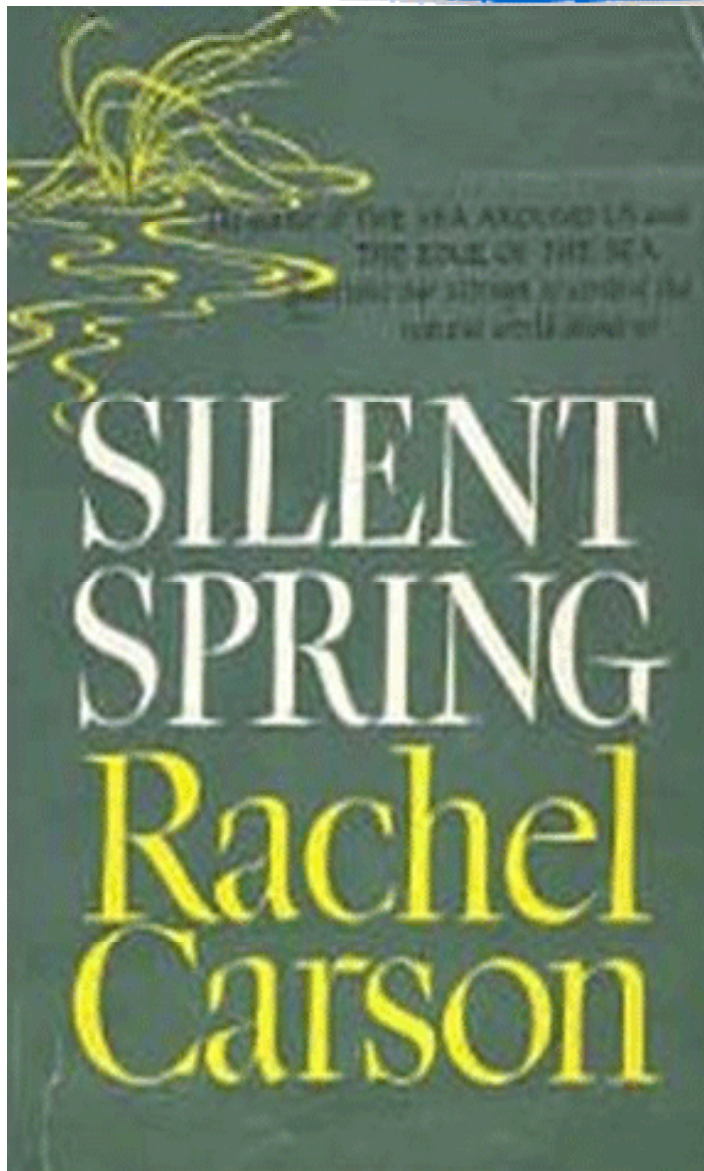
Pesticide Retail Outlets:



Planthopper outbreaks in Asia in 2009/11



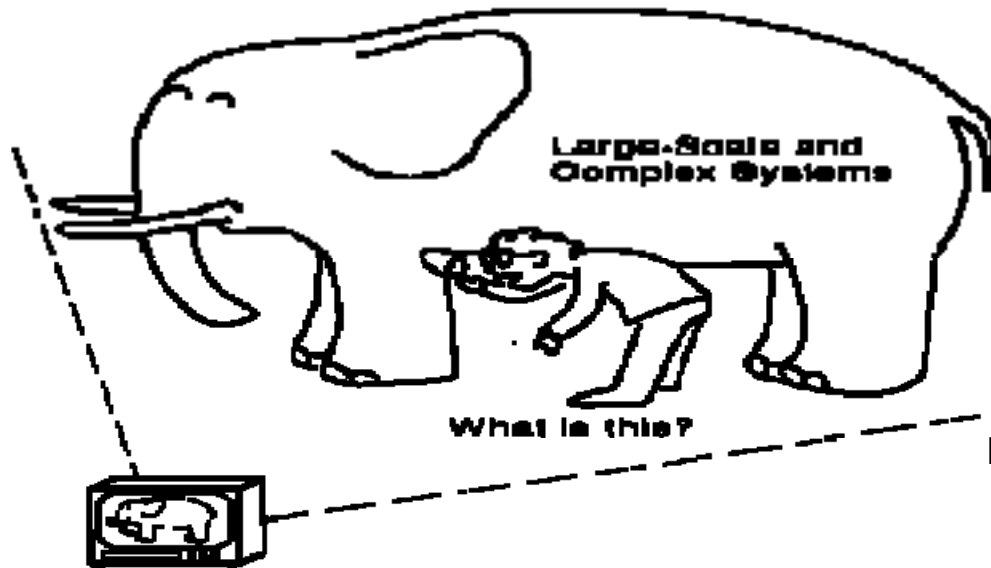
Can this be what we are up against?



**Also 'FUD' –
“Fear,
Uncertainty,
Doubt”**

**And '3Es' –
‘Embrace,
Extend,
Extinguish’**

We are dealing with... 'Wicked Problem'



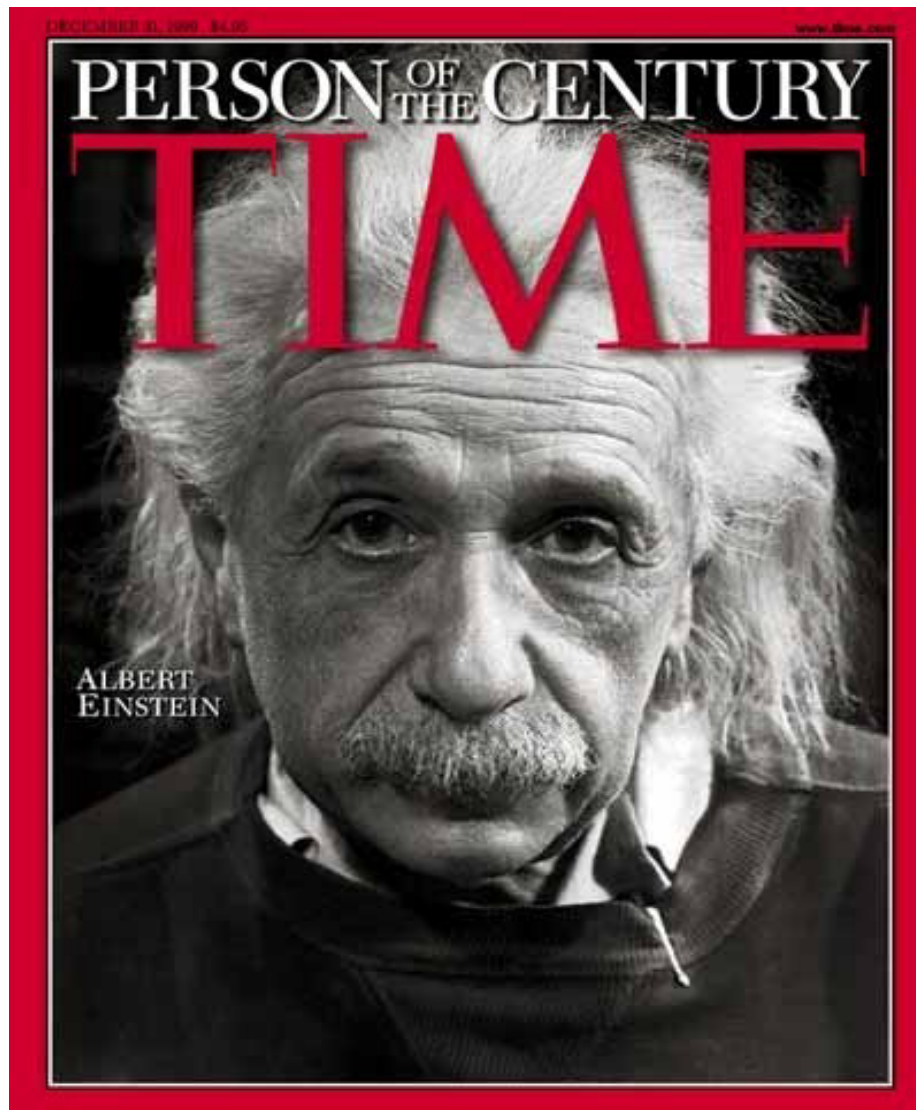
Synoptic View



If all you have is a hammer, then everything looks like a nail!



Stakeholders have different perspectives of the best solution to the problem & will continue to adhere strongly to them



“The significant problems we face today cannot be solved at the same level of thinking we were at when we created them”

Albert Einstein

Key Take Home Messages:

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Recommendations:

- Individual countries as well as region as a whole, 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**.
- Individual countries and pesticide industries should work towards being compliant with the **FAO Code of Conduct**.
- Work towards **harmonizing pesticide regulations**, especially those relating to **advertising, transport and marketing**, in ASEAN and further afield.



Recommendations (Cont'd):

- **Mainstream the threats of insecticide misuse and misinformation on food security** 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.
- Recognizing the extent of insecticide misuse and misinformation, **prioritise the strengthening of regulation and enforcement**.
- Regulate pesticide information through **certification programs of retailers and information providers**.
- Do what is needed, **collectively**, to **prevent Myanmar from becoming the next victim** – realize potential to serve as a 'counter factual' or 'standout nation'.

THANK YOU!

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