Beyond Compliance: Integrated Systems Approach for Pest Risk Management in SE Asia

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Introduction

In August 2010, the National Plant Protection Organisation (NPPO) of Malaysia, the Department of Agriculture, hosted a meeting in Kuala Lumpur to develop a project proposal concerning the use of Systems Approaches for managing risks in plant health. Under the auspices of the WTO-STDF funded PPG-328, the NPPOs of Thailand, Vietnam, Indonesia, The Philippines and Malaysia met with Imperial College London (ICL) and Queensland University of Technology (QUT) to consider the further development and implementation of a method to model and make decisions about managing pest risks in plant commodity trade.

Rationale

SE Asian countries together export over US$6 billion in fresh produce each year. Much of this trade is subject to pest risk management requirements imposed by the importing countries, usually based on the rigid application of single measures such as field applications of pesticides or a post-harvest commodity treatment. There is increasing dissatisfaction with single measures, which may be damaging to product quality, hampered by limited availability or capacity, or detrimental to the environment. Furthermore, when single measures fail, trade may be disrupted entirely. Another reason to seek improved pest risk management approaches is because imports to SE Asia pose significant threats of pest introduction into the region, particularly the contiguous countries where a pest entering one country can spread unimpeded to neighbouring countries.

A Systems Approach is the responsive application of two or more independent risk management measures in an integrated management system [International Standard for Phytosanitary Measures no. 14, FAO 2002]. This offers more flexible pest risk management, allows for more proportionate response to pest challenges, and shifts more responsibility to producers and traders. Systems Approach plans are developed jointly between exporting and importing countries, rather than being imposed by importers, creating a more symmetric relationship in trade negotiations.

In some regions, Systems Approaches have been used for decades. While there are examples of their use in SE Asia, there are significant conceptual, technical and institutional issues that must be resolved in order to take full

DEFINITION of SYSTEMS APPROACH

"The integration of different risk management measures, at least two of which act independently, and which cumulatively achieve the appropriate level of protection against regulated pests"

[ISPM No. 14, 2002; revised ICPM, 2005]

MEETING ORGANISERS

Imperial College London

Queensland University of Technology

Crop Protection and Plant Quarantine Division, Department of Agriculture, Malaysia

MEETING PARTICIPANTS

Agency for Agricultural Quarantine, Ministry of Agriculture, INDONESIA

Department of Agriculture, MALAYSIA

Department of Agriculture, THE PHILIPPINES

Ministry of Agriculture and Cooperatives, THAILAND

Ministry of Agriculture and Rural Development, VIETNAM

advantage of opportunities from Systems Approaches to move beyond compliance with plans imposed by trade partners, to a position of strength for negotiation and evaluation.

One method for enhancing confidence is using Bayesian Network probabilistic modelling to clarify and negotiate a proposed trade system based on a Systems Approach. This tool is in development in Europe and Australia. If the approach proves effective in the proposed sub-regional SE Asia project, it will be of interest for global adoption.

Proposed Activities, Outputs and Outcomes

The project plans will be developed in partnership between NPPOs in SE Asia, the Asian Pacific Plant Protection Commission, QUT, ICL, and the SE Asian centre for CAB International (CABI), which has a strong track record in plant health support. The project will be discussed with appropriate agencies for potential funding. The initial project would last for three years and would produce:

- A review that describes pest risk management for imports and exports in the region, including design and evaluation of these measures
- A conceptual framework for Systems Approach decision-making, incorporating analysis and quantification using Control Points and Bayesian Networks
- Demonstrations of Control Points and Bayesian Networks
- Case studies of priority trade opportunities using Systems Approach for pest risk management (five export and two import cases have been identified for study)
- Establishment of a SE Asian competency base with the methodology
- A plan for a harmonised framework (possibly leading to a Regional Standard for Phytosanitary Measures) for Systems Approach.

Outcomes of the application of Systems Approach include more robust pest risk management in the region, greater inclusion of stakeholders in the process, more confidence in trade negotiations and new opportunities for trade in a phytosanitary context.

Proposed case studies for the project

Commodity	Exporting country	Importing country
Fresh produce (not rubber plants) that may carry South American leaf blight of rubber	Countries with SALB	Malaysia (for the region)
Oil palm tissue culture seedlings	Countries outside the region	Thailand (for the region)
Dragon fruit	Vietnam	South Korea, Taiwan
Mangosteen, avocado	The Philippines	USA
Jackfruit	Malaysia	China, Australia
Orchid cut flowers	Thailand	Europe

Contact: Dr Peter Whittle, QUT, Brisbane, Australia, peter.whittle@qut.edu.au

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