STDF Project " Beyond Compliance: Integrated Systems Approach for Pest Risk Management in Southeast Asia" (STDF/PG/328)

EX Post Evaluation Report

Submitted to
STDF Secretariat

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Date:26/04/2016

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Acronyms

APPPC	Asia and Pacific Plant Protection Commission
AusAID	Australian Agency for International Development
BN	Bayesian network
CABI SEA	CABI Southeast and East Asia
CP	control point
CPM	Commission on Phytosanitary Measures
DoA	Department of Agriculture
DSS	Decision Support System
EPPO	European and Mediterranean Plant Protection Organization
FAO	Food and Agriculture Organization
GeNIe	Graphical Network Interface, for SMILE
HACCP	Hazard Analysis Critical Control Point
IAEA	International Atomic Energy Agency
ISA	Integrated Systems Approach
ICL	Imperial College London
IPPC	International Plant Protection Convention
IRSS	Implementation Review and Support System
ISPM	International Standards for Phytosanitary Measures
NPPO	National Plant Protection Organization
PG	Project Grant
PPG	Project Preparation Grant
PRA	Pest Risk Analysis
PRATIQUE	Enhancements of Pest Risk Analysis Techniques, EU project
PVS	Performance, Vision and Strategy tool
QUT	Queensland University of Technology (Australia)
RPPO	Regional Plant Protection Organization
STDF	Standards and Trade Development Facility
WTO	World Trade Organization

Executive Summary

This report is an ex-post evaluation of the STDF project 328 *Beyond Compliance: Integrated Systems Approach for Pest RISK Management in South East Asia*. The main partners involved in the project were the National Plant Protection Organizations (NPPO) of Thailand, Malaysia Philippines and Vietnam. The project was prepared by the Imperial College of London (ICL) in collaboration with the participating NPPOs. Queensland University of Technology (QUT) implemented the project while regional logistics, reports etc. were managed by CABI Southeast and East Asia (CABI SEA). The project evaluation was conducted in line with the "*Guidelines for the evaluation of projects funded by the Standards and Trade Development Facility (STDF).* The main tools used include a desk study of project documents, a questionnaire to stakeholders, telephone /skype calls and emails to selected stakeholders for specific inputs and, field visits to Malaysia and Thailand. Implementation of the project began in July 2011 with an initial end date of 10 July 2013 extended by request until 10 July 2014.

The overall objective of the project was to enhance competency and confidence within the Southeast Asian sub-region for applying Integrated Systems Approach (ISA) to plant health. The project introduced a series of decision support tools to assist NPPOs in designing and evaluating risk management plans for trade in agricultural products that may be considered a source of pest risk. The approach required close collaboration between the NPPO and the producer/exporter to ensure compliance with recommended procedures for a target crop. Each participating country used a test case by selecting a commodity to which the ISA was applied and negotiated with a potential importing country for market access.

The project was *highly relevant* to the region in terms of market access, reduction in the use of pesticides and improving environmental and human safety. The Philippines have already reported remarkable *success*; Malaysia and Vietnam are currently in different stages of implementation of ISA and negotiations with their target importing partners.

The NPPOs and stakeholders considered the project to be *generally efficiently implemented* despite the one-year extension requested.

Sustainablity elements were thought to be carefully considered. The improved understanding of the application of the ISA among government and industry personnel, the level of NPPO's active engagement and support to farmers as well as the level of understanding and compliance demonstrated by the selected producers and exporters were among the obvious examples of sustainability.

The main lessons learnt relate to the importance of choice of industry partners, the selected commodity and, the false sense of immediacy of results.

1. Introduction

1.1 Background

The International Plant Protection Convention **(IPPC)** provides guidance to contracting parties for applying phytosanitary measures to prevent the spread and introduction of plant pests. International and regional trade have been recognized as major pathways for pest spread. Many of the published **International Standards for Phytosanitary Measures (ISPMs)** have been used extensively in harmonizing approaches to the application of measures aimed at mitigating pest risk.

The project Beyond Compliance: *Integrated Systems Approach to Pest Risk Management in South East Asia* is the first visible attempt to provide practical guidance in the implementation of ISPM #14 - *use of Integrated Measures in a Systems Approach* - to developing countries. This approach supports the principle of equivalence of measures in which several measures replace more restrictive single measure *and,* cumulatively achieve the appropriate level of phytosanitary protection of importing countries and with implications for environmental and human health.

The project was conceived by ICL within the context of the process of designing a pest risk management plan and evaluating the impact of measures in a region where these skills were considered very weak. A group from the SE Asian sub-region discussed and proposed the formulation of a project to address these issues. A Project Preparation Grant (PPG 328) was funded by the STDF and supported the elaboration of a project that was subsequently was approved for funding (US$ 904,000) of which US$600,000 was provided by the STDF. The full project was led by partners at QUT, to take advantage of additional Australian funding, and experts on the technical tools and on plant health governance at ICL. CABI SEA provided logistical support.

The objective of the project was to enhance competency and confidence within the Southeast Asian sub-region for applying Systems Approach to plant health.

Tools introduced ranged in complexity and included : (i) poster presentation (to select trade cases and clarify objectives) or a check list (what should be done to prepare for meeting stakeholders, (ii) the production chain (which allows mapping of each step or intervention points and the potential of each intervention for reducing pest risk), (iii) the decision support system (DSS) (an Excel™-based decision tool which draws on ISPM 11 and organizes information from a Pest Risk Analysis (PRA) or dossier for a PRA), and (iii) the Bayesian networks (BN) which allows for mathematical modelling showing causal relationships between each phytosanitary measure and the overall pest risk for a particular consignment.

Each participating country used a test case by selecting a commodity to which the ISA was applied and negotiated with a potential importing country for market access.

The project objectives, outcomes, outputs and activities are summarized in the log frame presented below.

STDF 328: Beyond Compliance: Integrated Systems Approach for Pest Risk Management in South East Asia		
Overall Objective		
To increase capacity of the participating country NPPO staff, and to the degree possible other NPPO colleagues, in market access through a deeper understanding of the Pest Risk Management step in Pest Risk Analysis (PRA) and an increased confidence in negotiating alternative measures		
Specific Objectives		
A. Decision tools for enhanced competence in market access	**B. Relevant NPPO staff and stakeholders with capacity to put tools into use**	**C. Facilitate global dissemination and uptake of the tools**
Outputs		
A.1 A **series of tools to support evaluation and design of pest risk management systems developed** **A2. Facilitation of the use of the tools**	B.1 **Case studies developed based on output of tools** **B.2 Tools filled in through consultation with stakeholders** **B.3 Increased confidence in representing Systems Approach in trade negotiations** **B4 Overall enhanced communications and management skills**	C.1 **The global plant health community was shown the tools** **C.2 Those working in risk management were shown the tools**
Specific Activities		
A.1 Develop Beyond Compliance (BC) tools for Systems Approach ***A.2*** Conduct Case Studies in project country for potential exports, and for two Cases for import to the region as a whole A.3Determine institutional needs, acceptability and the potential for Systems Approaches A.4 Raise awareness about the BC method for Systems Approaches amongst targeted plant health stakeholders	**B.1** Technical resources provided for developing capacity of NPPO staff and other stakeholders in the use of BC Systems Approach tools B.2 Establish and develop a regional network for Systems Approach linked to existing wider plant health network	C 1 the tools were shown to members of the Secretariat of the IPPC as well as from the Codex Alimentarius, in Rome mid-2012, and SPS Committee side meeting in2013 & 2014 c.2 results of the cases involving fruit fly pests were presented at the 9th International Symposium on Fruit Flies of Economic Importance, Bangkok, Thailand, in May 2014 c.3 the use of BNs for this purpose at the 4th Annual Conference of the Australasian Bayesian Network Modelling Society (ABNMS2012)
Outcomes & Indicators for Success		
A.1 Guidance documents and project tools: production chains, decision support system, Control Point-Bayesian Networks were developed A2. The tools were applied in case studies prepared by each participating NPPO **A.3** The four national partners held stakeholder meetings, and evaluations by NPPOs on use and potential were held. Feedback from NPPOs	B.1 Explanatory materials and guidance on stakeholder interactions are available B.2 Common regional Systems Approach concepts and tools are demonstrated in several NPPOs within the region; promotion of Systems Approach concepts and tools within RPPO	

1.2 Objectives of the Evaluation

The STDF selected Dr Jeffrey Jones as the consultant to conduct the ex-post evaluation of the STDF 328 project. Jeffrey Jones was employed as senior phytosanitary capacity building officer with the Secretariat of IPPC for 12 years. He represented the IPPC at SPS Committee and the STDF Working Group meetings. He is an international phytosanitary consultant and is independent from all the parties concerned and has no conflict of interest which could affect the objective conduct of the project evaluation.

The project evaluation was conducted in line with the "*Guidelines for the evaluation of projects funded by the Standards and Trade Development Facility (STDF)*" According to the terms of reference for the project evaluation (see also Appendix I).

The objective of this evaluation was to:

> Draft a detailed evaluation report (on the basis of all the information collected and feedback received from the various stakeholders consulted) that analyses and assesses the overall performance and results of the project STDF 328 and update the existing Project Fact Sheet (PFS) to take into account any finding information or recommendation.

2. Methodology

2.1 Criteria and Phases of the Evaluation

The evaluation of project STDF 238 focused on the objectives, implementation and outcomes. The criteria applied were relevance, effectiveness, efficiency, impact and sustainability, as well as the lessons learned/recommendations to be issued, in accordance with the evaluation guidelines prepared by STDF.

The evaluation was conducted in three separate phases:

(a) Desk study

The first stage of the evaluation consisted of a detailed study of the documentation provided by the STDF Secretariat and the ICL. This included project preparation grant, the project document, progress reports, final report and any other appropriate reference material that was deemed useful for the evaluation. The consultant also had skype conversations with the Ms. Megan Quinlan (ICL) who was at the forefront of the conception and implementation of the project and other important stakeholders like Ms. Ana Peralta (IPPC Secretariat) and Mr Robert Ahern (IICA) and Ms. Kenza Le Mentec (STDF) to broaden understanding of the context and scope and intent of the project.

(b) Gathering the views and impressions of project beneficiaries and managers

The second phase focused on gathering the opinions and impressions of project beneficiaries and partners as well as exchanges of views. For this purpose, one questionnaire was prepared in collaboration with the STDF Secretariat. The questionnaire was sent to about 28 beneficiaries and stakeholders of the project, and of these, 17 were returned completed.

In addition to the questionnaires, the consultant undertook field missions to Malaysia and Thailand. Malaysia was selected based on the fact that the NPPO was reported to be actively involved in follow up work with the producers and exporters of Jack fruit, the opportunity to discuss with the NPPO and visit producers and exporters to gauge compliance with NPPO procedures and, to have discussions with CABI –SEA located in Malaysia with regard to project implementation issues. The Consultant also took the opportunity to speak directly with the NPPO of the Philippines.

Thailand was selected as the other country partly because the scope of involvement in the project and application of ISA (beyond the desire to find a solution to *Trips palmi* as a constraint to exports of orchids) was unclear, and as a principal beneficiary, the consultant went there to understand better how the knowledge gained from the project was being utilized. It also provided the opportunity to make telephone contact with the Republic of Korea who participated in the project and was viewed as an important trading partner in the region with whom negotiations could target the import of produce under the ISA. Vietnam has officially submitted a request to South Korea regarding imports of its Dragon fruit under the ISA protocol.

In both of these countries, the level of cooperation and planning for the field visit was excellent. In Malaysia, the consultant had the opportunity to observe the level of interaction between producers, exporters and the NPPO on six farms as well as the level of compliance and commitment of these stakeholders. In Thailand, two important orchid producers were visited and interviewed.

(c) Analysis of information gathered and completion

The results of the desk study of all the reports, the information gathered from the questionnaires, skype interviews, face to face discussions, information and observations from the field missions were analysed. Information gaps or further clarification was sought where necessary through follow-up emails or telephone conversations. A draft final report was prepared on the basis of all data collected and the STDF Secretariat was invited to make comments and suggest changes to the draft evaluation report.

2.2 Limitations and challenges

The main limitations were linked to the period when the evaluation was carried out. The length of time that lapsed between the ending of the project (July 2014) and the start of the evaluation (January 2016) led to some difficulty in contacting, locating and finding especially workshop participants. Some participants and important personnel had retired from the NPPO. Three key

persons from the NPPO of Malaysia and one from the NPPO of Thailand had retired. With the assistance of CABI SEA, it was possible to eventually contact them and their role in the evaluation in terms of information provided and facilitating the missions were invaluable.

It was important to the evaluation to associate one of the retirees who was really instrumental in the implementation of the project to organize and participate in the field visits. Similarly, it was useful for to engage another key retired professional who was also very instrumental in the on farm implementation and development of the manual for guiding the ISA for Jackfruit to provide transportation and hence his expertise throughout the mission.

Some respondents to the questionnaires had to be prodded and coaxed to respond while others have not responded even after telephone calls and emails. Again CABI-SEA was helpful in contacting some of these persons and urging their responses.

Stakeholders who had management or facilitation roles during the workshop excused themselves from the evaluation because they felt their responses were not appropriate.

Eventually, about 17 out of 28 questionnaires were returned. These, interviews and face to face meetings provided very good and sufficient information along with other data for the completion of a good analysis and report.

3. Main Findings

3.1 Relevance

The Southeast (SE) Asian sub-region exported over US$6 billion per year in fresh produce and facing multiple restrictions to trade and requirements which are generally imposed by the importing contracting parties without much negotiation (Whittle, Quinlan and bin Tahir (2011)). The region had very little experience in applying integrated approaches to pest risk management as an alternative to single treatments. Pesticides used during production and the use of methyl bromide as an end point treatment were relied upon very heavily and in many cases proved inadequate to meet importing countries' requirements evidenced by rejections, notifications and annual crop losses. Regional capacities to apply, present and negotiate equivalent alternatives were very low and compliance with importing countries' requirements was the accepted norm. Against this background, **the project proved highly relevant** for the sub region.

The responses from the NPPOs, as well as stakeholders, confirmed that their exports were constrained by the absence of Integrated Approaches to which they were introduced. They gave examples of consignments being rejected because of the inefficacy of single treatments such as methyl bromide and consequent notifications for example of *Thrips palmi* intercepted in

consignments of orchids exported to the Netherlands, or mealybugs on jack fruit and dragon fruit.

While the project may not have been initially foreseen by the NPPOs as a need to remove pest risk management constraints, all participating NPPOs signed onto the project because of the potential for success of the ISA as an alternative to their single endpoint chemical treatments. Most stakeholders were of the view that it has and will contribute positively to national capacity to meet export standards in several SE Asian countries once the systems approach is prudently applied.

The project was seen as providing the right answer to the needs of those countries who had already experienced some level of success, but was deemed by others as being "too early to tell" or "somewhat". The Philippines reported success in accessing and reopening markets by utilizing the ISA. It was able to gain market access for bananas to the Continental USA and US territories such as Guam, Hawaii and Marianas Islands. The production chain approach used to identify the pest management approach and address the specific pests that constrained exports of pineapple to Korea was the basis of successful negotiations with Korea, this approach was also used for specific pests of bananas to China to have the suspension lifted.

Malaysia's submission to China for import of jackfruit resulted in a visit from China in September/October 2014. Specific concerns raised by China (e.g. specific pests, bagging material used to protect the fruits from pests in the field, packing and storage conditions) were addressed by the NPPO, producers and exporters. Malaysia is now anticipating a follow up visit this year. One of the immediate consequences of this intervention is that the fruit browning caused by the use of methyl bromide as an end point treatment has been eliminated through the use of ISA.

Vietnam officially presented its request to the NPPO of Korea at a bilateral meeting in Hanoi in 2014. Documents requested by Korea were submitted for further consideration and discussion. Vietnam is still awaiting an official response from Korea since officially submitting its request to the NPPO. There is some evidence of disappointment at the lack of response to date. Vietnam has also indicated that the current measure of treatment using vapour heat treatment for the Korean market is in itself a constraint to the volumes that could be exported to that country.

Based on the set of tools introduced, **Thailand** has prepared a protocol for selected orchid farmers and now await administrative permission to engage these farmers. It is thought by some NPPO members that perhaps the focus on the problem of *Thrips palmi* on orchids might not have been the best choice for the case study, and now plans to attempt application of ISA to guavas and rose apple where the target pests are fruit flies, and to mangoes where the principal target pest is mango seed weevil *Sternochetus olivieri.* In general, there is great anticipation that the project will bring the desired results.

NPPOs and stakeholders alike thought that the project gave them the capacity to plan, manage, and monitor the implementation of the ISA adequately and successfully. The fact that the NPPOs

and stakeholders have the ability and the confidence to apply the tools to other products for export, direct development of capacities to negotiate, create confidence in the negotiators and gain consistency and ability to rationalize the setting of ISA were all considered added value of the project. One stakeholder indicated that project demonstrated how such systems could be used and add value even in less developed (under-resourced) production systems.

One NPPO thought the project cannot be seen as the answer to the problem and that the need still exists by pointing to the pending decision by the importing country to accept the ISA proposal. However as one stakeholder indicated, the project may have given a false sense of immediacy of results, but as in any other proposed measure, there will be necessary negotiations which may take time before a decision is reached.

3.2 Effectiveness

The objective of the project was to The project was very effective when viewed against the stated objective of enhancing competency and confidence within the Southeast Asian sub-region for applying Integrated Systems Approach to plant health. In particular, the case studies were not based on theoretical situations, but on real and important issues which affected market access in the region. Each participating country was guided through the ISA process applied to country-selected product targeting a selected trading partner. This method had the advantage of imparting great confidence in participants in the use of the methodology even beyond the selected product. It further provided a platform for constructive engagement and negotiations between the potential exporter and the potential importer.

3.3 Efficiency

In general, the components of **efficiency were given a rating of average or just above**, while stakeholders consistently gave higher ratings. The timeliness of implementation was rated by the NPPOs at 2.5 on a scale of 1 to 5. While the stakeholder responses averaged 4.6. For the organizational arrangement, the NPPOs gave a rating of 3.2 compared with 4.5 for stakeholders. Provisions and facilitation of the workshop were rated at 3.2 and 4.0 respectively by NPPOs and stakeholders. Delivery of information was rated the highest component at 4.7 by the NPPO and 4.0 by stakeholders. The availability and use of funds was rated at 3.2 and 4.0 by the NPPOs and stakeholders respectively. In all of the above cases, ratings were given without comments.

The project activities were initially scheduled to conclude by July of 2013, but the project had to be extended by one year at no extra cost to allow completion of all activities and to give more time for project partners to implement some concepts. The project worked to a schedule agreed jointly among all the participants.

The project was seen by most respondents as a cost-effective contribution to addressing the needs of the beneficiaries. The fact that the project used real cases, providing for a strengthened

collaboration between industry and the NPPOs, between NPPOs of potential importing and exporting country as well as paved a pathway for successful negotiations suggest that limited funds were used in a very cost effective manner stakeholders/industry. Some stakeholders consider this a first step in understanding ISA. The development and use of the set of tools were deemed definitely cost effective although many respondents point to the need for more funds to aid further understanding and application of the tools. In addition, they point to the training and experience that NPPOs and stakeholders received for using the tools in pest risk management as well as negotiations. The transfer to and application of knowledge by stakeholder industries opened the way for concrete results. In addition, the project developed a common comprehension of concepts and terms among the participating NPPO staff in the sub-region which should facilitate discussion of issues within SE Asia and Australia.

3.4 Output of the project

In evaluating the tools produced by the project, most of the NPPOs and stakeholders thought the production chain was easy to understand and apply with minimum initial hands on facilitation. Most respondents thought that the DSS, would be easy to apply with substantial initial hands-on facilitation. Respondents were split almost evenly in their views on the BN. Some thought it to be easy to understand and apply with substantial initial hands on facilitation (4 respondents) while 3 respondents thought it to be difficult even with initial training.

Half the limited number of respondents said they were capable of re-using the tools without facilitators' assistance after the end of the project, while the others said the tools –DSS and BN- were either too difficult, or that they needed substantial practice in their use, and that much discussion on the identification of critical points and decision making processes is needed.

The majority of limited respondents thought that they would be capable of training others if they themselves were trained and had the necessary experience in their application, but two respondents maintained that they considered the DSS and BN too difficult and that more training and practice would be necessary to promote user friendliness of the tools.

A statement from the NPPO of the Philippines summarized the outputs very well: ***"The DSS and CP BN will be very helpful to us if we fully understand it and how we can use it to our advantage. At this time we are not confident in using it. Hands on training and guidance from somebody who knows it will ensure that we will be able to use it. They are very good tools which will help us negotiate and gain access to different markets."***

The comments regarding the difficulties in using the DSS and CP-BN should not be interpreted in a negative light or diminishing the value of these tools. Rather, it is suggested that more training and guidance in their application or perhaps more importantly, facilitated application of these tools be considered as in the case of phytosanitary capacity evaluation (PCE) tool.

3.5 Impact of the Project

3.5.1 Immediate outcomes of the project (usefulness of BC tools)

All of the NPPOs and stakeholders were very positive in their responses to the immediate outcomes of the project. They thought that the tools developed and implemented in the project promoted their understanding of the procedures regarding the use of integrated approaches for pest risk management in general. **They indicated that the project provided a framework for stimulating stakeholder consultation**. **The tools assisted them in identifying the array of risk management options for a specific pest-crop combination.**

With respect to improving confidence in negotiating and improving negotiation capacity, all respondents were **positive in their responses**. They indicated that the tools prepared them for the negotiations process with potential trading partners (organizing their information, building a case for proposed alternative measures). This was particularly obvious in the field in Malaysia where the NPPO was very confident in its ISA programme on Jackfruit targeting the Chinese market, the registered farmers in that programme were confident in their compliance with the requirements of the NPPO of China (documentation, bagging with appropriate material, brushing, new or remodeled packing and processing houses, sanitation and security levels etc.) and ready for the next audit mission, and where there was NPPO dedicated monitoring of and consultations with registered farmers and exporters.

Some responses were of the view that greater quantities of the fruit used in the case studies as well as other products being considered can definitely be exported to target markets based on the increased confidence and knowledge in applying integrated approaches to solve existing pest risk management problems.

Although confidence in negotiations based on the ISA were high, during interviews there were a few who voiced concerns that some potential partners were also using the occasional presence of non-regulated pests as a barrier to acceptance and requiring that measures be applied for their elimination. Even in this situation, they pointed to their knowledge of the related ISPMs to be used in such situations.

NPPOs and stakeholders alike thought that all the tools developed and used brought them new knowledge. On a scale of one to five where five was the most useful, the NPPOs rated production chain as 4.6, the DSS as 4.3 and the CP-BN 3.5. Stakeholders' ratings were similar to those of the NPPO.

Two NPPO respondents reported that the tools helped them to successful negotiations and market access as reported for the Philippines, however, most of the respondents settled for a "somewhat" response because of the state of engagement or negotiations with their importing counterparts where outcomes are still pending. Two respondents specified documentation issues as a concern raised by the potential importer during the negotiations. One stakeholder suggested that in some cases a lack of understanding (trust in) of the use of integrated systems approaches to managing risk has limited their readiness to accept produce under the ISA to pest risk management.

All respondents agreed that **the tools can have a direct and measurable impact on market access where volumes of export through the ISA can be measured when market access is achieved**. In the case of the **Philippines**, the impact may be measurable even at this point, but some felt that generally it was too early to quantify.

The perceived impact of ISA tools on plant health and the environment was very positive. All respondents thought that the consequent reduction in the use of pesticides was a good outcome and that in some cases it supported government's policy. They also noted the **increased level of awareness achieved on the protection of environment** among the workers.

3.5.2 General impact

NPPOs and stakeholders alike were quite positive about the general impact of the training and the possibilities now open to them. They look beyond the case studies and are already considering other export commodities to which ISA can be implemented. In general it is felt that **general impacts are too early to report**. As some NPPO and stakeholders pointed out, it will take time, but downstream work will begin to have a considerable impact on market access in many areas. This is difficult to show in a short time because there are many factors affecting the outcome of trade discussions.

The Philippines report on their use of the production chain to describe actions to overcome complaints on two export trades that were temporarily disrupted is in itself very encouraging. All the participating NPPOs were more actively involved with their stakeholder industries as a result of the project, which should enable them to more effectively articulate industry actions to meet phytosanitary requirements of partners, and similarly to engage domestic industry partners in meeting importer requirements.

Environmental impacts were deemed too early to tell although respondents felt that any set of measures which reduces the need for pesticides use can only benefit the environment, animal and human health. Regarding **domestic plant health,** most NPPOs said that the farmers could improve their practices especially in chemical use because of their improved knowledge of alternatives methods. Some stakeholders noted that among the participants, there is some

realisation on the advantages of the integrated systems approaches and working towards improvement in overall sanitation within farms, while others thought this is variable, depending on the roles of particular units within NPPOs with respect to domestic responsibilities.

All respondents thought that the **most important horizontal issues relate to the environment in that the approach required the application or use of significantly less pesticides** which could harm not just the environment, but human health, and this was envisaged in the project. System approach deals with environment indirectly focusing on Good Agriculture Practices, where pesticides are used judiciously. Recycling of farm waste and use of organic matter are emphasized.

Gender was not identified specifically as an issue in phytosanitary negotiations at any point in the project and **participants** from all countries and institutions involved directly in the project **included both female and male staff**. Social issues, such as support for smallholder suppliers, were considered in the development of the project.

Impacts on regional trade were also deemed too early to tell by most NPPOs. The respondents noted that the improved understanding and common language now understood within the region was a good basis for trading products among those countries under the ISA.

The NPPOs and stakeholders thought that any effect on poverty reduction would definitely be too early to tell. They thought that improved quality and cosmetic look relate to improved price which helps in increased income. They pointed to the need for inclusion of not only big industry producers, but also small farmers who struggle to make a profit under current practices. They noted that large industry farmers often move on with their skills while the small producers are without this capacity.

3.6 Sustainability

All NPPO and stakeholders who responded thought that **the tools were applicable beyond the case studies and could be applied to other commodities for pest risk management**. The approach was considered generic and could apply to any commodity-pest combination. There was evidence of this as some of the participating countries have already identified other commodities for which the approach will be tried. None of the tools is commodity or case specific and they have been taken up in several further EU projects, and are being used with for example in a large fruit industry growing passionfruit in Vietnam to develop new pest management procedures. One stakeholder pointed out that New Zealand is currently developing similar tools for use in forest pest management and market access.

All respondents thought that all the tools- the production chain, the DSS and the BN, were all applicable to other commodities and target pests. One respondent noted the need to do scientific evaluation on the reduction of pest at every stage of control point. **Everyone agreed that the benefits of the project will continue after the end of the STDF funding.** They noted that successful trading and acceptance of the system by trading partners will drive its application. They had good experience and confidence in the production chain in particular and industry will remain interested as long as it is sustainable. One stakeholder pointed out that the participating staff in NPPOs have been exposed to new concepts and practised them, they have engaged with domestic industries and trading partners, the tools have been published in reports and in an accessible eBook, so they are likely to be used further in the future. Projects are being developed to further promote application of these tools in ISA.

Almost all respondents thought that recipient countries, NPPOs and industry alike have the capacity to sustain the results. Malaysia for example has demonstrated its ability to work closely with industry and encourage implementation and compliance by developing a manual for guiding industry actions. They have competent trained staff, and committed industry partners. Similarly, in Thailand the DoA has developed a protocol for farmers to guide the application of ISA for orchids and is already considering developing one for the risk mitigation of mango seed weevil in order to boost exports. The Philippines has already demonstrated its success in application of the system to reopen markets that were closed to bananas for example. Such success depends on well informed NPPO and stakeholders alike. It was noted that the DSS and the CP-BN needed further support to improve the level of understanding and applicability

NPPOs gave several ideas, some specific and some general on actions taken or to be taken in order to sustain the results over time. They suggested for example:

- the **need for quantitative and qualitative evaluation at all control points or critical points** to remove very subjective estimates and create the confidence level on the reduction of pest or diseases that could be more reliable.

- **using their knowledge on application of an integrated systems approach** for negotiation in bilateral or multilateral discussion with other NPPOs on trade market access in the future

- **encouraging full commitment from all sectors** such as higher management, officials and stakeholders
- **developing best practices** manuals that may be used to guide product certification
- **conducting systems approach management** in orchid farms in order to test the effectiveness of the CP-BN model obtained from the case study (specific to Thailand)

- the **tools should be adopted by the IPPC for promoting the application of ISPM14** (recommendation from the IPPC representative to the project who was genuinely impressed with the actual and potential application of the tools)

Other stakeholders suggested for example that:

- the **STDF should disseminate the tools and make their application more accessible through training of facilitators and documenting more cases of their use in different parts of the world in order to ensure global uptake. The STDF should further support in-country trainings** through project preparation grants or project grants.
- an **accessible e-book** describing the concepts, tools and case studies has been produced. Numerous EU research projects are using the tools and developing further variants. Work is being done with a Taiwanese fruit company operating in Vietnam to make use of them for passionfruit production. The concepts and tools could be incorporated into further IPPC standards or training on systems approach.

NPPOs and stakeholders pointed to several **factors that influenced the sustainability** of the project, these include for example

- success in achieving market access
- support from import NPPO regarding the use of an integrated systems approach for pest risk mitigation
- success in the application of Production Chain tool to solve an urgent pest problem based trade negotiations
- market price of the commodity and applicability of the tools
- awareness raising on the value of the process

4. Conclusions and recommendations

- It is clear that the NPPOs found it convenient and straightforward to follow and implement the production chain as a risk management measure. The Decision Support System and the Bayesian Network were not so straightforward to them. Training the DSS and the CP-BN is therefore highly recommended.

- It may be prudent to train facilitators to assist in the application of these tools in response to the suggestion by some, that experts who have broad experience in applying these tools could be made available to guide their use as a follow up activity of the project.

- The use of the tools could also be enhanced by organizing study visits to countries that have successfully implemented ISA programmes.

- The project demonstrated the importance of ISA tools in the implementation of ISPM #14 in the ASEAN region. The application of these tools should be strongly encouraged for

wider uptake in other regions with similar implementation difficulties and with pest/commodity relationships that lend themselves to ISA. The findings of this study lend strong support to a proposed project for expanding the use of the tools developed for the ISA to other countries and regions.

- It is really important to **select and fund projects that are likely to succeed** and result in significant positive impacts on trade. Similar projects may draw on this project for design, practical implementation methodology and, based on a real need as it relates to standard implementation and trade facilitation.
- **The tool development team being based in the UK and Australia** and primary users based in South East Asian countries placed pressure on the budget so that allocations for in country training and confidence building in the use of the DSS and CP-BN tools may have been compromised. Similar projects should ensure adequate **budget for travel as well as the required activities**.
- **Mixed responses were given to the question as to whether sustainability was adequately considered. In this regard,** similar types of projects in future should **try to involve more actively engaged importing partners** in order to create understanding, closer cooperation and readiness to engage in meaningful negotiations for successful outcomes.
- The **strong endorsement of the tools by NPPOs and stakeholders**, and recommendations that they be adopted by the IPPC or the STDF (even though it was conceded that more training is necessary for the application of the DSS and the CP- BN) suggest that the project fulfilled a real need, effectively targeting the implementation of ISPM 14. Perhaps other ISPMs with implementation difficulties for developing countries can be identified and funded to promote their implementation.

5. Lessons learnt

Regarding the process of project design and implementation of the project, several lessons were learnt and summarized as follows:

- This project was **well planned and well implemented with realistic goals** that were based upon identified needs and therefore was able to produce good results. The project was designed to benefit NPPOs and industry alike, with shared risk management responsibilities. In this regard, i**t could only have produced the desired results because of the establishment of a close collaboration between the NPPOs and Industry** on the one hand **and** on the other**, dedicated NPPO support to ensure compliance with the approach.** This was envisaged in the design of the project.

- The project ensured that the NPPO and industry had the capacity and **confidence to continue implementation of the ISA beyond the end** of the project, and the ability to apply this approach to other commodities for market access. The training methodology using real cases and the consequent relationships and interactions between industry, NPPOs and among the concerned NPPOs provided the required basis for such level of confidence.

- The countries selected in many cases had **limited staff resources** and made a significant commitment to involve staff in the project. Those countries that had dedicated personnel following up with industry for example, preparing guidance manuals for industry and checklists of issues to be addressed, all of which was encouraged in the project implementation, had a much greater chance of success in exploiting the ISA.

- **Simple tools can be enormously helpful** in framing solutions to trade issues and **facilitate removal of constraints as soon as possible.** However, in this project, participants might feel a false sense of security by thinking that ISA is the solution to all problems. Reliable modelling of the tools is subject to good available data that need to be analysed and applied. Expectations should be well managed and explained.

- **Training was an issue with the tool development team being based in the UK and Australia** and primary users based in South East Asian countries so, perhaps, a **greater travel budget to facilitate in-country training courses may have enabled the case study** countries to have greater experience and confidence in the use of the DSS and CP-BN tools.

ANNEX 1

TERMS OF REFERENCE

EX POST EVALUATION OF STDF PROJECT " BEYOND COMPLIANCE: INTEGRATED SYSTEMS APPROACH FOR PEST RISK MANAGEMENT IN SOUTTHE APPROACH WAS GENEROIHEAST ASIA" (STDF/PG/328)

BACKGROUND

1. In March 2011, the STDF Working Group approved a project application (STDF/PG/328: " Beyond Compliance: Integrated Systems Approach for Pest Risk Management in Southeast Asia "). This application was developed through an STDF PPG (STDF/PPG/328) which was approved in July 2010 and implemented by Imperial College London (ICL) in collaboration with Queensland University of Technology (QUT) and the Malaysian National Plant Protection Organization (NPPO). The beneficiaries of the project were the NPPOs of Malaysia, Philippines, Thailand, Viet Nam and Indonesia.

2. In July 2011, WTO signed a contract with QUT defining the terms and conditions for implementation of this project by QUT. The operational implementation of the project was carried out by CABI SEA (South East Asia office) and Imperial College London (ICL) in collaboration with QUT. The total project value is US$ 904,686, with the STDF contribution amounting to US$ 600,000. The project start date was 11 July 2011, with an end date of 10 July 2013. In October 2012, the STDF Working Group agreed to QUT's request to extend the project, at no additional cost, until 10 July 2014.

3. The project objective was to enhance competency and confidence in the Southeast Asian sub-region in applying Systems Approach to trade opportunities through the use of innovative decision-support tools. Confidence in market access negotiations using this complex approach to pest risk management can be enhanced by using frameworks for organizing information, showing causal relationships and representing graphically the components of risk management. This was applied to priority trade opportunities already of interest to the participating countries. The tools support the design and evaluation of risk management plans for pest risks associated with trade. The systematic thinking required to apply the tools, coupled with the data and judgements contributed by stakeholders using the tools, increases competency of those representing specific trade cases and therefore the confidence for market access negotiation.

4. The Beyond Compliance tools (which range from a set of questions to consider when meeting stakeholders, through to advanced probabilistic modelling and Bayesian Networks) are based on the idea that if the NPPO staff and other members of a trade team understand the purpose, role and impact of each measure which they or their trade partners are proposing, then

they can approach negotiations with more confidence. Well-prepared negotiators are more equipped and able to deliver trade agreements featuring pest risk management measures suitable to the exporting sector's realities and proportional to the actual risk.

5. The tools were tested in the Southeast Asian sub-region (Indonesia, Malaysia, Philippines, Thailand and Vietnam) on real trade cases. Reportedly, this project increased inclusion of stakeholders in the process of considering preferred and feasible risk management systems, particularly through the use of the tool for mapping pest management measures in the Production Chain. The Vietnamese partners reported that a formal network has been formed in the dragon fruit industry, which did not exist prior to this project. In addition, the project achieved an increase in capacity of relevant NPPO staff and stakeholders to put tools into use through the development of technical resources. Reportedly, the Thai partners in the NPPO and Standards Institute are showing enthusiasm for Systems Approach as a way to introduce better practices for *Thrips* control in the orchid cut flower industry and minimize the problems due to use of methyl bromide. Similarly, the final project report points out that the project already changed experiences for one NPPO with additional trade proposals arising since the case study. As a matter of fact, simply using the versatile and effective method to map out and model pest risk management in trade, one equivalence proposal was agreed within weeks (Philippines to Korea).

6. The project contract included provision for an independent ex post evaluation of the project, subject to the decision of the STDF Working Group. In March 2015, the STDF Working Group selected this project for independent ex post evaluation. This document sets out the Terms of Reference for the International Consultant to carry out this evaluation.

DESCRIPTION OF TASKS

7. Under the overall supervision of the STDF Secretariat, and in cooperation with QUT, CABI-SEA and ICL, as well as other stakeholders involved in this project, the Consultant shall carry out an independent ex-post evaluation of STDF/PG/328 in accordance with the STDF Evaluation Guidelines (Appendix 1). Specifically, the consultant shall:

i. Review all available documentation related to the project together with a list of key stakeholders involved in the project and their contact details. The information will be provided electronically by the STDF Secretariat and the implementing agencies.

ii. Contact stakeholders involved in project implementation to obtain other relevant information or documents, as appropriate.

iii. Develop an evaluation framework, which should be discussed with the STDF Secretariat prior to its finalization and use. This framework should:

- clearly elaborate the questions to be asked during the evaluation, based on standard evaluation criteria (i.e. relevance, effectiveness, efficiency, impact, sustainability and key lessons learned), as well as the indicators identified in the project document's logical framework to measure performance;
- identify and elaborate the methods and tools (e.g. survey questionnaires, key questions for face-to-face/Skype interviews, analysis of the use of websites/blogs developed under the project, etc.) to be used to conduct the evaluation;
- identify key individuals to be consulted during the evaluation including representatives of: (i) organizations involved in implementing the project (i.e. QUT, CABI-SEA and ICL); (ii) participants/beneficiaries of activities carried out under the project; and (iii) government departments responsible for SPS management in Malaysia, Philippines, Thailand, Viet Nam and Indonesia, as well as any other related stakeholders with a particular interest in the project (such as counterpart NPPOs involved in the case studies e.g. Republic of Korea, the IPPC Secretariat and relevant development partners);
- outline a time-frame to conduct the evaluation and finalize the evaluation report.

iv. Contact representatives of project stakeholders and beneficiaries (using methods identified in the evaluation framework), based on the evaluation framework, to obtain their views and feedback about the project, addressing, *inter alia*, key questions related to the project's relevance, effectiveness, efficiency, impact, sustainability and main lessons learned. This should include a detailed assessment of the effectiveness, efficiency, impact, sustainability related to key project activities, including:

    - the extent to which the case studies conducted during the project led to a successful resolution of a specific trade problem (this should be documented with a description of a tangible outcome in relation to market access),
    - for the cases where no enhanced market access resulted from the use of the tools, explain any external factors that constrained the achievement of market access, and whether the tools were considered by stakeholders practical enough to be used in a market access negotiation context,
    - a description of whether the case studies confirmed the usefulness of the set of tools (or parts thereof) in solving market access issues i.e. Do the tools have a direct impact on market access? (including a description of any pre-requisites identified to achieve this impact)
    - if no direct market access impact can be attributable to the use of the tools, what is the value added of the tools mainly, but not limited to, from a trade perspective?

- whether the tools are user-friendly or what should be done to improve their ease of use?
- the extent to which the skills and competencies acquired during the project by the case study countries are continuing to be used for other market-access issues.

v. On the basis of all the information collected and feedback received from the various stakeholders consulted, draft a detailed evaluation report that analyses and assesses the overall performance and results of the project, and update the existing Project Fact Sheet (PFS) to take into account any finding information or recommendation.

vi. The evaluation report should make recommendations specific to the activities conducted under this project (for instance consideration should be given to ways to enhance the uptake of the tools if judged useful and/or their improvement, if needed), as well as more general recommendations that may be useful to the improve the design and delivery of future projects that address SPS-related trade capacity building for specific value chains and/or include the development of decision-support tools, or beyond. In addition to considering key evaluation questions, this report should identify the context in which the project was implemented, linkages (if any) to other related projects/programmes, opportunities created by the project and/or any challenges faced, as well as any follow-up actions or outstanding needs, etc. This report should be drafted in accordance with the agreed format (see Appendix 1)

vii. The report and the updated PFS should be submitted to the STDF Secretariat no later than 15 February 2016. The Consultant should revise the reports and the PFS taking into consideration the Secretariat's comments and suggestions (several rounds of comments can be expected) until these are acceptable to the Secretariat. The deadline for finalization of the report and PFS is 29 February 2016.

Annex 2: Persons contacted

Annex 2.1 Questionnaire Recipients

Name	Designation	Contact
Malaysia		
Ms. Wan Normah Wan Ismail	Director (now retired) Department of Agriculture Malaysia	E-mail: wann54@yahoo.com
Mr. Yusof bin Othman	Deputy Director Department of Agriculture Malaysia	yusofothman@doa.gov.my
Ms. Lailatul Jumaiyah Saleh Huddin	Department of Agriculture Malaysia	lailasaleh@doa.gov.my
Ms. Aini Rozaini bt Abu Bakar	Department of Agriculture Malaysia	rozaini@doa.gov.my

Mr. Ho Haw Lang	Department of Agriculture Malaysia (Retired)	hawlengho@doa.gov.my
Mr. Palasuberniam	Department of Agriculture Malaysia (Retired)	pala k <k_pala12@yahoo.com
Hussain Bin Tahir	Department of Agriculture Malaysia	hussain@doa.gov.my
Philippines		
Ms. Merle Palacpac	Department of Agriculture (DA	merle.palacpac@gmail.com
Ms. Loreta Casubha Dulce **Thailand**	Department of Agriculture (DA	loretadulce@yahoo.com
Ms. Tasanee Pradyabumrung	Ministry of Agriculture and Cooperatives	tasanee@acfs.go.th
Dr. Manita Kongchuensin	Department of Agriculture (Retired)	manitathai@gmail.com
Mr. Sarute Sudhi-Aromna	Department of Agriculture	sarutes@yahoo.com
Mrs. Chortip Salyapongse	Department of Agriculture	annsalya@yahoo.com
Dr. Charuwat Taekul	Department of Agriculture	charuwatt@gmail.com
VIET NAM		
Dr. Duong Minh Tu	Ministry of Agriculture and Rural Development (MARD)	duongminhtu60@gmail.com
Ms. Dinh Thi Nhu	Ministry of Agriculture and Rural Development (MARD)	nhupra@gmail.com
Mr. Luong Ngoc Quang	Ministry of Agriculture and Rural Development (MARD	lnquang73@yahoo.com
Mr. Nguyen Tuan Anh	Ministry of Agriculture and Rural Development (MARD)	tuananh.ppd@gmail.com
South Korea		
Ms. Ji JungYoun	Animal and Plant Quarantine Agency	jyji@korea.k
Kyu-Ock YIM	Animal and Plant Quarantine Agency	koyim@korea.kr
Mr. Sang-Han Beak	Animal and Plant Quarantine Agency	ignis@korea.kr
CABI South East Asia		
Dr. A Sivapragasam	CABI Southeast & East Asia Regional Centre	a.siva@cabi.org; sivasamdr@yahoo.com
Dr. Lum Keng Yeang	CABI Southeast & East Asia Regional Centre	ky.lum@cabi.org
Ms. Sue Jean Mei	CABI Southeast & East Asia Regional Centre	mjsue@cabi.org
Indonesia		
Mr. Hermawan	Technique and Method Development for Plant Quarantine	hermawan1961@gmail.com
IMPERIAL COLLEGE LONDON (ICL)		
Professor John D Mumford	Imperial College London (ICL	j.mumford@imperial.ac.uk
Ms. M. Megan Quinlan	Imperial College London (ICL	m.quinlan@imperial.ac.uk 29
r. Adrian Leach		

	Imperial College London (ICL	a.w.leach@imperial.ac.uk
Dr. Johnson Holt		
	Imperial College London (ICL	j.holt@imperial.ac.uk
Dr. Jon Knight	Imperial College London (ICL	Jon.knight@hdc.ahdb.org.uk
QUEENSLAND UNIVERSITY OF TECHNOLOGY (QUT)		
Professor Kerrie Mengersen	Queensland University of Technology	k.mengersen@qut.edu.au
Dr. Peter Whittle	Queensland University of Technology	peter.whittle@horticulture.com.au
Dr. Sandra Johnson	Queensland University of Technology	sandra.johnson@qut.edu.au
FOOD AND AGRICULTURE ORGANIZATION (FAO)		
Dr Piao Yong Fan	FAO Regional Office for Asia and the Pacific	Yongfan.Piao@fao.org
Ms. Ana Peralta	International Plant Protection Convention Secretariat (IPPC)	Ana.Peralta@fao.org
MINISTRY OF AGRICULTURE AND FORESTRY, NEW ZEALAND		
Dr. Michael Ormsby	Ministry of Agriculture and Forestry	Michael.Ormsby@maf.govt.nz 30
Professor Kerrie Mengersen	Queensland University of Technology	k.mengersen@qut.edu.au
Dr. Peter Whittle	Queensland University of Technology	peter.whittle@horticulture.com.au

2.2 Other persons contacted by skype or telephone

Robert G. Ahern, Ph.D.
Líder/Leader
Sanidad Agropecuaria e Inocuidad de Alimentos
Agricultural Health and Food Safety
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Ms. Merle Palacpac, Department of Agriculture. Manilla, Philippines

During the Field visit, the Consultant had meetings and interviews with CABI- SEA staff, staff of Ministry of Agriculture Malaysia and Thailand. Several other stakeholders were visited and interviewed. These are given in the table below:

2.3 Stakeholders visited and interviewed

Malaysia		Farm Area
Mr. Francis Hong - State President of Fruit Producers Association	Kawan Pertanian Sdn Jackfruit Farm Kluang Packing House	200 ha
Mr. Jeffrey Choon – national Secretary of Fruit Producers Association	Exotic Star Sdn(M) Selangor	200 acres
Mr. Kho Heng Meng	Selangor	40 acres
Mr Richard Thang. Vice President of KLAND Selangor Fruit Farmers Association	Selangor	130 acres
En. Yosoff Buyamin	Pahang	40 acres
Mr. Lau	Pahang	??
Thailand		
Orchid Farmer 1		2 acres
Orchid farmer 2		7acres

Annex 3: Questionnaire

Ex Post Evaluation of STDF PG 328

Questionnaire for Involved Beneficiaries, Government Agencies, Project Partners and Implementing institutions

This questionnaire is intended to evaluate the relevance, effectiveness, efficiency, impact and sustainability of the **STDF project 328 - *Beyond Compliance (BC): Integrated Systems Approach for Pest Risk Management in Southeast Asia***. The information requested from you will be very valuable for improving future activities funded by the STDF. We would very much appreciate if you could provide your honest inputs and return the completed questionnaire to the address indicated below by **5th February**, **2016**. We will greatly value your inputs and treat them with the strictest confidentiality. We will only present consolidated results in the final report without identifying responses by individuals or agencies.

Thank you for taking the time to complete this questionnaire.

Please return the completed questionnaire via e-mail to:

Jeffrey Jones-STDF Consultant
E-mail: jonespq@yahoo.com

PART 1. PERSONAL DATA

Name	
E-mail	
Telephone	
Institution	

Part 1. Respondent's Profile

Based on your level of involvement in the project and your answers to the questions below in Part 2 of this questionnaire, some questions in Part 3 may not be applicable to your case, please skip questions that are not applicable.

1. Where you **DIRECTLY** involved in the BC project:

   ☐ Participated in training sessions on the use of the BC tools

   ☐ Participated **directly** in the implementation of the case studies (collection of data, preparation of information dossiers, as a producer/exporter of the product subject to case study; etc.)

   ☐ Participated **indirectly** in the implementation of the case studies (provided information from the importing country side, provided information on management options, provide information on the crops, etc.)

   ☐ Other (specify)……..

2. Where you I**NDIRECTLY** involved in the BC project:

   ☐ Participated in general stakeholder workshops and information sessions on the project

   ☐ Participated in the Steering Committee of the project

   ☐ You have a management role in the institution that was leading the implementation of the case study and were informed on progress

   ☐ You were consulted for advice on a specific aspect of the project

   Other (specify)……..

3. Have you had experience in using integrated approaches for pest risk management for exports based on ISPMs before this project?

   Yes---- No……

   Comment……

4. Have you had experience negotiating the use of integrated approaches for pest risk management suggested by an exporting country before this project

   Yes …… No……

   Comment (provide examples where possible)……

5. Have you had experience in accepting imports based on integrated approaches for pest risk management before this project?

Yes…… No……

Comment (provide examples where possible) ……

PART 3. PROJECT RELATED QUESTIONS

Relevance of the Project

6. Is your national export potential constrained by issues related to pest risk management?

   Yes…. No ……

   Comment (provide examples where possible)……

7. Was the project foreseen as a need to remove these constraints?

   Yes…… No……

   Comment……

8. Did the project actually provide the right answer to your needs regarding market access?

   Yes…… No……Somewhat……

   Comment……

9. If **YES** to the Q8, what was the value added of this project, compared to other support programmes?

   Comment……

10. If **NO** to Q8, to what extent do the needs which gave rise to the project still exist?

    Comment……

Efficiency

11. Consider the level of efficiency with which aspects of the project were carried out and rate these aspects on a scale of 1 to 5 with 5 being extremely efficient

    - ☐ Timeliness in implementing and delivering the planned activities
    - ☐ Organizational arrangements for workshops
    - ☐ Workshops provisions and facilitation
    - ☐ Delivery of information
    - ☐ Availability and use of funds (budget allocation to the various activities of the project, etc.)

☐ Flexibility (capacity to respond to required change to achieve objective)

☐ Synergies and linkages with other initiatives

Comment……

12. Were the activities and outputs delivered according to the project document (i.e. on time and within the budget)?

    Yes……. No…….

    Comment……

13. What changes, if any, were made during project implementation?

    Comment……

14. Overall, do you consider the project as a cost-effective contribution to addressing the needs of the beneficiaries?

    Yes…… No……Somewhat……

    Comment……

<u>Output of the project (accessibility of BC tools)</u>

15. If you were trained on the use of the tools, please rate the technical accessibility of the tools and their user friendliness:

    a. The Production Chain

    ☐ Easy to understand and to apply <u>without</u> hands-on facilitation

    ☐ Easy to understand and to apply <u>with minimum</u> initial hands-on facilitation

    ☐ Easy to understand and apply with <u>substantial</u> initial hands-on facilitation

    ☐ Difficult to understand and to apply <u>even</u> with initial training

b.The Decision Support System

- ☐ Easy to understand and to apply without hands-on facilitation
- ☐ Easy to understand and to apply with minimum initial hands-on facilitation
- ☐ Easy to understand and apply with substantial initial hands-on facilitation
- ☐ Difficult to understand and to apply even with initial training

c. The Control Point–Bayesian Network (CP-BN)

- ☐ Easy to understand and to apply without hands-on facilitation
- ☐ Easy to understand and to apply with minimum initial hands-on facilitation
- ☐ Easy to understand and apply with substantial initial hands-on facilitation
- ☐ Difficult to understand and to apply even with initial training

16. If you were trained on the use of the tools, do you consider yourself capable of re-using the tools without facilitators' assistance after the end of the project?

    Yes……. No…….

    Comment……

17. If you were trained on the use of the tools and have applied them, do you consider yourself capable of training others on their use?

    Yes……. No…….

    Comment……

18. If you have described the tools (or parts thereof) as "*difficult*", what in your view could be done to enhance the user friendliness of the tools?

    Comment……

Immediate outcomes of the project (usefulness of BC tools)

Were the BC tools developed and implemented in this project helpful in any of the following?

- ☐ understanding the procedures regarding the use of integrated approaches for pest risk management in general,
- ☐ providing a framework for and/stimulating stakeholder consultation
- ☐ identifying the array of risk management options for a specific pest-crop combination
- ☐ preparing for negotiations process with potential trading partner (organising your information, building a case for proposed alternative measures, etc.),
- ☐ conducting the actual negotiation with potential trading partner (improving confidence in negotiation, challenging measures, etc.)
- ☐ none of the above
- ☐ Other (specify)……..

Comment……

19. In your opinion, which of the tools was useful in providing new knowledge of the process of integrated approaches to pest risk management? Rate each on a scale of 1-5 with 5 being the most useful

- ☐ The Production Chain
- ☐ The Decision Support System
- ☐ The Control Point–Bayesian Network (CP-BN)
- ☐ None of the above

Comment……..

20. If the implementation of the tools led to/ helped in the negotiation process with trading partner on the case study, did it lead to a successful outcome?

Yes…… No……Somewhat……

Comment……

21. If **NO** to Q21 above, what were the main obstacles to progressing the negotiations (if attempted in the case study) to a favourable outcome?

Comment……

22. As a user, and considering the above, to what extent, in your view, can the set of tools have a direct and measurable impact on:

    - market access

Comment ……

    - improved domestic plant health

Comment……

    - environmental protection

Comment……..

23. If no impact can be attributable to the tools, do you have specific suggestions to enhance their impact?

Comment……..

<u>General impact of the project</u>

24. To what extent did the project (or can the project) contribute to having

    - measurable impact on market access

    Comment……

    - improved domestic plant health

    Comment……

    - intra-regional trade

    Comment……..

    - poverty reduction

    Comment……

25. If none of the above, what real difference (expected and/or unexpected) has the project made or is likely to have on the final beneficiaries, if any?

    Comment……

Sustainability

26. Outside of the project case study, in your view, is this set of tools applicable to other commodities or target pests which could be subject to integrated approaches for pest risk management?

    Yes…… No……Somewhat……

    Comment……

27. If **YES** to Q 27 above, which components of the tools will be applicable to other commodities or target pests?

- ☐ The Production Chain
- ☐ The Decision Support System (DSS)
- ☐ The Control Point–Bayesian Network (CP-BN)
- ☐ None of the above

    Comment……

28. If **NO** to Q17, provide suggestions as to how to enhance the applicability of the BC tools?

    Comment……

29. If you mentioned any benefits above, to what extent will the benefits of the project continue after the end of STDF funding?

    Comment……..

30. Do the recipients of the project have the necessary capacity to sustain the results?

    Yes…….. No……..

    Comment……

31. What follow-up activities, if any, were implemented/are planned and/or are required to sustain these results over time?

Comment……

32. What are the major factors which influenced sustainability of the project?

    Comment……

33. Was sustainability adequately considered at the project design phase?

    Yes……. No…….

Lessons learned

34. What lessons can be learned from the project regarding the process of project design and implementation?

    Comment……

35. To what extent were horizontal issues (particularly related to gender and environment) adequately addressed in the project?

    Comment……

36. What lessons can be learned from the project, which may be of importance to the broader donor community and which should be disseminated more widely?

    Comment……

Annex 4: Analysis of Responses to Questionnaires

Questions	Yes		NO/ SOMEWHAT	NPPO and Stakeholder Comments
	NPPO	OTHERS		
Q.1Direct involvement in project				
-training sessions	3	2		Three NPPO and two stakeholder respondents were involved in training sessions
-implementation	4	-		Four NPPO respondents were directly involved in implementation
-indirectly in implementation	3	2		Three NPPO respondents and two stakeholders indirectly involved
-Other	1	3		
Q.2 Indirect involvement				
-stakeholder workshops	2	4		Two NPPO respondents and four stakeholders were involved here
-steering committee	2			Two NPPO respondents reported being on the steering committee
-management role				
-consulted	3	2		Five reported that they were consulted
Q. 3 Have you had experience in using integrated approaches for pest risk management for exports based on ISPMs before this project	1	4	3	NPPOs was not well promoted for use and not fully understood Stakeholders For the export of produce produced in New Zealand and the review of export systems (mainly in Asia) for the export of plant produce to New Zealand I have led and been a member of numerous projects involving export and domestic horticultural production pest management needs in Asia, Africa and S America. I have been a member of two working groups drafting ISPMs. I have reviewed major importer country responses to Pest Risk Analyses. …
Q 4 Have you had experience negotiating the use of integrated approaches for pest risk management suggested by an exporting country before this project	2	3	4	Stakeholders On a number of occasions, but most significantly when I undertook a systems review in China on their production and post-harvest systems for the export of pears, grapes and onions to New Zealand
Q.5 Have you had experience in accepting imports based on integrated approaches for pest risk management before this project?	0	2	2	Stakeholders The export of orchids from Taiwan to New Zealand. This system involved management interventions along the entire chain of production, harvesting and storage/transport.
RELEVANCE of the project				
Q.6 Is your national export potential constrained by issues related to pest risk management?	5	4	0	All NPPOs and five stakeholders indicated that their national exports were constrained by pest risk management issues and that integrated approaches offered a good alternative risk management option
Q.7 Was the project foreseen as a need to remove these constraints?	4	3	1	While it may not have been specifically foreseen as such, all participating NPPOs signed onto the project because of the potential for success of the ISA as an alternative to their single treatments. Some consignments were being rejected by some trading partners

				because regulated pests were being intercepted in spite of fumigation with methyl bromide. Some stakeholder responses also suggest that it has and will contributed positively to national capacity to meet export standards in several SE Asian countries. <u>Stakeholders</u> - In NZ, Australia and Europe. The adoption of Beyond Compliance concepts is striking in recently funded European research projects related to pest management. ….
Q 8 Did the project actually provide the right answer to your needs regarding market access?	1	1	No - 1 Somewhat - 4	<u>NPPPOs</u> - Philippines: definitely - Vietnam; Target importing country has not yet accepted the proposal as alternative to VHT - Malaysia: work in progress; This project provides the holistic approach for market access if is implemented successfully - Thailand's case is to identify alternative measures shown to be equivalent to methyl bromide fumigation of orchid cut flowers that are exported to EU. NPPO already prepared protocols for engaging farmers. We illustrated CP-BN model in our case study. If we use system approach management along through the production chain, we can eradicate or at least reduce the number of *Trips palmi* which may be contaminated on orchid flowers (Thai) <u>Stakeholders</u> - Somewhat- In establishing a framework for using the Systems Approach and a scientific basis but not yet applicable at a quantifiable stage which would help with country negotiations - The use of the Bayesian Networks to measure the effectiveness of integrated management systems has been particularly valuable, leading to a number of significant domestic programmes to develop such networks for import and export risk management in NZ. However the lack of obvious uptake by governments in SE Asia may constrain the acceptance of such methods in some of NZs markets
Q.9 If YES to the Q8, what was the value added of this project, compared to other support programmes	1	2		<u>NPPOs</u> - ability to plan, manage, monitor the implementation of the project adequately and successfully - Stakeholders - Direct development of capacities to negotiate, creation of confidence in the negotiators and possibility to make evident the need of not of integrating other phytosanitary measures to a SA. Additionally it gave consistency and rationalizes the setting of SA's: <u>Stakeholders</u> This project demonstrated how such systems could be used and add value even in less developed (under-resourced) production systems, making them widely applicable to NZs biosecurity system
Q.10-If NO to Q8 to what extent do the needs which gave rise to the project still exist?	1	1	1	<u>NPPOs</u> Vietnam: decision by importing country still pending; currently exploring other target markets e.g. China. Malaysia: awaiting visit from China <u>Stakeholders</u> - The real value of this project would have been the widespread

				understanding and adoption of these methods in these developing (poorly resourced) production systems in SE Asia. First world systems such as those in NZ can develop and implement advanced system such as these but not have them accepted by developing countries due to lack of understanding. We also find developing countries struggle to achieve our required level of protection for imported product if they do not understand the value of integrated management systems but rely on end-point treatments - Project may give a false sense of immediacy of results, but as in any other proposed measure, there will be necessary negotiations which may take time before a decision is reached
EFFICIENCY				
Q 11 Consider the level of efficiency with which aspects of the project were carried out and rate these aspects on a scale of 1 to 5 with 5 being extremely efficient				no comment given
- Timeliness in implementing and delivering the planned activities	2.5	4.5		no comment given
- Organizational arrangements for workshops	3.2	4.5		no comment given
- Workshops provisions and facilitation	3.2	4		no comment given
- Delivery of information	4.7	4		no comment given
- Availability and use of funds (budget allocation to the various activities of the project, etc.)	3.2	4		no comment given
- Flexibility (capacity to respond to required change to achieve objective)	3.2	4		no comment given
- Synergies and linkages with other initiatives	3	4.5		no comment given
Q12 Were the activities and outputs delivered according to the project document (i.e. on time and within the budget	3	3		<u>Stakeholders</u> The project worked to a schedule agreed jointly among all the participants. Activities were extended for a year due to cost savings to give more time for project partners to implement some concepts. …
Q.13 What changes, if any, were made during project implementation?	y		1	<u>Stakeholders</u> concept training was provided in project meetings and in specific training visits by experts. The project adapted to changing staff roles and personnel in NPPOs in all of the participating countries during the period it operated. …

Q.14 Overall, do you consider the project as a cost-effective contribution to addressing the needs of the beneficiaries?	3	2	Somewhat - 2	NPPOs Somewhat Stakeholders somewhat, As a first step in understanding of SA and developing a set tools to assist SA decisions then it was cost effective Staff in participating NPPOs were trained in concepts related to systems approach and how to use some tools to demonstrate a systems approach. They were given advice and training on how to discuss these with stakeholder industries and all participating NPPOs organised meetings with stakeholder industries. Awareness was increased amongst importing NPPOs (Australia NZ, S Korea and some EU countries). The NPPO/Industry meetings were novel in several cases and gave NPPOs much greater awareness of industry knowledge and capacity, and let industry and NPPOs discuss export negotiation strategies more effectively. Some NPPOs used tools in discussions with trading partners on import requirements. Such negotiations take time and involve many considerations. The Philippines, in particular, reported some success in resolving phytosanitary compliance issues on two trades by use of descriptive tools from the Beyond Compliance Project. In addition, the project developed a common comprehension of concepts and terms among the participating NPPO staff which should facilitate discussion of issues within SE Asia and Australasia. …
OUTPUT of the Project				
Q 15 If you were trained on the use of the tools, please rate the technical accessibility of the tools and their user friendliness				
a) The Production Chain				
Easy to understand and to apply without hands-on facilitation	1			One respondent thought this tool was easy to apply without hands on facilitation
Easy to understand and to apply with minimum initial hands-on facilitation	3	2		All respondents thought It was easy to understand with minimum hands on facilitation
Easy to understand and apply with substantial initial hands-on facilitation	3			Three respondents thought substantial hands on facilitation was requires
Difficult to understand and to apply even with initial training	0			None deemed it difficult to apply
b) The Decision Support System				
Easy to understand and to apply without hands-on facilitation	0			None thought it was easy to apply without facilitation
Easy to understand and to apply with minimum initial hands-on facilitation	1	2		three respondents suggested minimum hands on facilitation
Easy to understand and apply with substantial initial hands-on facilitation	5			All respondents thought it required substantial hands on facilitation
Difficult to understand and to apply even with initial training	0			No support for this
c) The Control Point –				

Bayesian Network (CP-BN)				
Easy to understand and to apply without hands-on facilitation				No support for this
Easy to understand and to apply with minimum initial hands-on facilitation		2		Two stakeholders agreed to the need for minimum facilitation; no support from NPPOs
Easy to understand and apply with substantial initial hands-on facilitation	4			All NPPO responses saw the need for substantial facilitation
Difficult to understand and to apply even with initial training	2	1		Two NPPO responses supported this categorization
Q.16 If you were trained on the use of the tools, do you consider yourself capable of re-using the tools without facilitators' assistance after the end of the project?	2		2	Two NPPO responses were positive in response while two were negative and considered it very difficult
Q.17 If you were trained on the use of the tools and have applied them, do you consider yourself capable of training others on their use?	4	1	2	4 NPPO responses were positive, while two were negative and considered it too difficult
Q 18 If you have described the tools (or parts thereof) as "difficult", what in your view could be done to enhance the user friendliness of the tools			2	NPPOs • more training needed, • too complicated
Immediate outcomes of the project (usefulness of BC tools)				
19 Were the BC tools developed and implemented in this project helpful in any of the following?				
- understanding the procedures regarding the use of integrated approaches for pest risk management in general,	6	3		All positive responses
- providing a framework for and/stimulating stakeholder consultation	5	2		All positive responses
- identifying the array of risk management options for a specific pest-crop combination	6	3		All positive responses
- preparing for negotiations process with potential trading partner (organizing your information, building a case for proposed alternative measures,	3	3		All positive responses
- conducting the actual negotiation with potential	2	3		All positive responses

trading partner (improving confidence in negotiation, challenging measures, etc.)				
Q20 In your opinion, which of the tools was useful in providing new knowledge of the process of integrated approaches to pest risk management? Rate each on a scale of 1-5 with 5 being the most useful				
- The Production Chain	4.6	4.6		usefulness considered very high by respondents
- The Decision Support System	4.3	4.3		usefulness considered very high by respondents
- The Control Point–Bayesian Network (CP-BN)	3.5	4		usefulness considered medium-high
Q 21.If the implementation of the tools led to/ helped in the negotiation process with trading partner on the case study, did it lead to a successful outcome?	2		Somewhat - 5	Two NPPO respondents had positive responses Five respondents from NPPOs who were still in the negotiation phase and awaiting a response from the importing country gave the "Somewhat" response and pointed to the need for substantial follow up action to ensure success in implementation <u>Stakeholder response</u> "Somewhat"- Much of the work is still in progress, but the biggest benefit has been the ability to test and demonstrate the effectiveness (and sensitivity) of current risk management systems (mainly with regards to managing the risk of tephritid fruit flies
Q22 If NO to Q21 above, what were the main obstacles to progressing the negotiations (if attempted in the case study) to a favourable outcome?			2	<u>NPPOs</u> incomplete documentation, importing country not yet accept the ISA proposal <u>Stakeholder</u> In some cases a lack of understanding (trust) in the use of integrated systems approaches to managing risk has limited their acceptance/adoption
Q23 As a user, and considering the above, to what extent, in your view, can the set of tools have a direct and measurable impact on:				
- market access	6	2		All NPPO responses were positive regarding the direct measurable impact Stakeholders agreed and pointed to the Philippines pineapple trade with Korea where the Production chain tool was used to fix a potential trade dispute and in time measurable results can be obtained. They further thought that the widespread acceptance and use of these tools would add considerable value (by reducing risk management costs) to the international movement of risk goods.
- improved domestic plant health	5	2		NPPO respondents all agreed that domestic plant health would be improved by reducing insecticides in the field and in some cases supported the Ministry's policy <u>Stakeholders</u> The widespread acceptance and use of these tools would considerably enhance our ability to manage risk pathways both by allowing us to measure management efficacy and identify sensitive components in the system
- environmental protection	5	1		All NPPO and one stakeholder responses were positive and indicated that a reasonable level of awareness on the protection of environment among the workers was achieved

Q24 If no impact can be attributable to the tools, do you have specific suggestions to enhance their impact?				NPPOs A study visit to the successful implementation project or country will certainly create positive response among the participants
General impact				
Q25. To what extent did the project (or can the project) contribute to having				
- measurable impact on market access	5	3		Five NPPO respondents thought it was too early to tell Three stakeholders thought It will take time, but downstream work will begin to have a considerable impact on market access in many areas. This is difficult to show in a short time because there are many factors affecting the outcome of trade discussions.
- improved domestic plant health	6	3		All responses were positive. NPPOs pointed to the increased awareness of dangers of pesticides. The farmers could improve their practices especially in chemical use. Stakeholders responses - Among the participants, there is some realisation on the advantages of the system approach and working towards improvement in overall sanitation within farms - will take time - This is variable, depending on the roles of particular units within NPPOs, some do not have domestic responsibilities.
- environmental protection	3	3		Stakeholder: will take time
- intra-regional trade	1	3	Somewhat - 2	One NPPO and 3 stakeholder responses were positive. 2 NPPO respondents thought it was too early to tell Stakeholder response The project brought NPPO staff from the participating countries together on a regular basis, developed common tools and language and discussed openly common trade issues they face. This should support discussions on intra-regional trade as they arise. …
- poverty reduction	2	3	Somewhat - 3	NPPOs - too early to tell, - With improved quality and cosmetic look relates to improved price which helps in the increased income - will take time Stakeholders - Maintenance of intra-regional trade should have a positive impact on poverty reduction - This is indirect and depends on direct impact on small producers being involved in export trade, which is often not the case. Support to export industries may have an effect on domestic producers through demonstration and copying of approaches. Workers on larger farms involved in export often move on with their skills and trade domestically as smallholders. …
Q26. If none of the above, what real difference (expected and/or unexpected) has the project made or is likely to have on the final beneficiaries, if any				no response

SUSTAINABILITY				
Q27. Outside of the project case study, in your view, is this set of tools applicable to other commodities or target pests which could be subject to integrated approaches for pest risk management	6	4		NPPOs - We have been trying to use this similar system in pineapple production and also aquatic plant production for export. Both are for export market**.** - The approach is generic and could be applied to any commodity/pest combinations Stakeholders - NZ is currently developing such tools for use in forest pest management and market access. - None of the tools is commodity or case specific and they have been taken up in several further EU projects, and are being used with an employee of a large fruit industry growing passionfruit in Vietnam to develop new pest management procedures.
Q28 If YES to Q 27 above, which components of the tools will be applicable to other commodities or target pests?				Stakeholders All of these tools are completely applicable to other commodities or pests; they are already being applied in other cases
- the Production Chain	6	4		All positive responses
- the Decision Support System (DSS)	6	4		All positive responses
- the Control Point–Bayesian Network (CP-BN)	3	4		All positive responses
- none of the above				One NPPO suggested the need to do scientific evaluation on the reduction of pest at every stage of control point.
Q 29 If **NO** to Q17, provide suggestions as to how to enhance the applicability of the BC tools?				One NPPO respondent suggested to make it easier
Q 30 If you mentioned any benefits above, to what extent will the benefits of the project continue after the end of STDF funding?	NPPOs - As long as this system is acceptable by the trading partners and sustainable, it will continue even after the end of STDF funding - successful trading under the IAS will drive benefits after the project - the production chain - Present the results of our case study to Thai orchid exporter association of Thailand. - Give a training of system approach management to the colleagues in DOA. - Will present the results of our case study in Asia Pacific Orchid Conference 2016. Stakeholders - It would depend on the approval of a second proposal to the STDF to train more NPPOs. - Hopefully they will continue, especially if the production chain concept is maintained during negotiations/discussions between NPPOs - The benefits should be ongoing, assuming uptake of the tools by producers/governments - The participating staff in NPPOs have been exposed to new concepts and practised them, they have engaged with domestic industries and trading partners, the tools have been published in reports and in an accessible eBook, so they are likely to be used further in the future. …			

Q31. Do the recipients of the project have the necessary capacity to sustain the results?	4	2	N	Al but one NPPO respondent agreed that they have the necessary capacity to sustain the results Stakeholders agreed with the following comments - Yes, for the Production chain and DSS, the BN tools may require further support. - The project developed both concepts and tools and offered training and experience through their use. The main constraint on sustainability is the turnover of staff within NPPOs to other duties, although that may spread ideas even if it dilutes the specific capacity in trade units.
Q32. What follow-up activities, if any, were implemented/are planned and/or are required to sustain these results over time?	<u>NPPO</u> - Quantitative and qualitative evaluation is needed at all control points or critical points to create the confidence level on the reduction of pest or diseases. This was not done at the early stage of implementation of this project - Using knowledge on application of an integrated systems approach for negotiation in bilateral or multilateral discussion with other NPPOs on trade market access in the future. - More training time - Full commitment from all sectors such as higher management, officials and stakeholders. - Best practices manual, Certification system - Conducting system approach management in orchid farms in order to test the effectiveness of the CP-BN model obtained from our case study <u>Stakeholders</u> - The STDF should consider this as one of its tools and support the in-country trainings through PPGs. - An accessible eBook describing the concepts, tools and case studies has been produced. Numerous EU research projects are using the tools and developing further variants. We are working with a Taiwanese fruit company operating in Vietnam to make use of them for passionfruit production. The concepts and tools could be incorporated into further IPPC standards or training on systems approach.			
Q33. What are the major factors which influenced sustainability of the project?	<u>NPPOs</u> - Succeeding market access is critical especially for jackfruit and pineapple that Malaysia embarked on currently - The support from import NPPO on using of an integrated systems approach for export - Success in the application of Production Chain tool to solve an urgent pest based trade negotiation - Market price of the commodity - Acceptable of CP-BN model <u>Stakeholders</u> - Awareness raising on the value of the process. - Countries and industries want trade that meets phytosanitary requirements and they need the concepts, tools and experience to develop and articulate multiple measure systems that help them to produce and deliver quality produce. The outputs of the project are sufficiently accessible to allow continued development and use. …			
Q34 Was sustainability adequately considered at the project design phase?	2	3	3	No comment given
LESSONS LEARNT				

Q35. What lessons can be learned from the project regarding the process of project design and implementation	NPPOs - Ability to convince all sectors that it will benefit all sectors - Follow up activities is crucial to ensure every step is implemented successfully - DSS process have to assemble the comments from many stakeholders involved. - Capacity of the Project Team had not only been increased on systems approach also on trade market negotiation skill Stakeholders - A well planned and implemented project is always going to produce good results. - Training was issue with the tool development team being based in the UK and Australia and primary users based in south east Asian countries so, perhaps, a greater travel budget to facilitate in-country training courses may have enabled the case study countries to have greater confidence in the use of the BN tool - should increase the awareness and promote the importance on the use of this approach to all sectors - NPPO staff turnover should be anticipated. - Trade is like dancing, not much fun if only one partner has learned how or is willing, so something like this in future should involve some actively engaged importers as well.
36. To what extent were horizontal issues (particularly related to gender and environment) adequately addressed in the project	NPPOs - Gender neutral - Farm families were directly involved in the management of the farms and gender was not an issue. System approach deals with environment indirectly focusing on Good Agriculture Practices, where pesticides are used judiciously. Farm waste are recycled and use of organic matters are emphasized. Stakeholders - Environment was considered appropriately and in many aspects the project was gender neutral Gender issues were not explicitly addressed. - Environmental issues were considered by the ability to assess the efficacy of implementing alternatives to pesticide based measures. - To the extent they were relevant they were addressed effectively. Gender was not identified specifically as an issue in phytosanitary negotiations at any point in the project and participants from all countries and institutions involved directly in the project included both female and male staff. Environmental issues were addressed in criteria for measures included in the Decision Support tool. Social issues, such as support for smallholder suppliers, were considered in the development of systems measures. … - Gender neutral

37. What lessons can be learned from the project, which may be of importance to the broader donor community and which should be disseminated more widely?	<u>NPPOs</u> Donors should engage researchers to provide scientific data or evidences at all control points for various crops and pests of concern so that it will provide the necessary evidence for phytosanitary inspectors or NPPO's to make an appropriate decisions - The importance of selecting projects that are likely to succeed and result in significant impacts and changes - ensure implementation constrains be resolved as soon as possible and not let the constrains become difficult to resolve in the later stage - The phytosanitary measures should be agreed by mostly stakeholders, not only the NPPO. <u>Stakeholders</u> - Incredible benefits in developing capacities to fairly negotiate market access could be developed with minimum investment and training. - It is important to rationalize the establishment of systems approaches to be able to facilitate trade, protect environment avoiding the use of treatments with MB and ensure that trade is safe from a phytosanitary point of view. - Serious projects proposers and implementers are needed to ensure success in the projects - Simple tools can be enormously helpful in framing solutions to trade issues ensure constrains be resolved as soon as possible and not let the constrains become difficult to resolve in the later stage - Smaller countries have limited staff resources and must make a significant commitment to involve staff in such projects in the short term, which may pay dividends in the longer term. Staff turnover to other duties during projects can affect uptake of ideas, knowledge experience and should be anticipated, with succession plans for staff involved. - Trading partners should also be actively involved to ensure there is a cooperative approach to the process, this may involve training for importer NPPOs and some commitment to work jointly to develop a trade using the techniques.