

JAIF PHASE 1 PROJECT MONITORING & EVALUATION

BACKGROUND

Capacity building in diagnostic skills continues to be emphasized in the regional plant health initiatives especially in the ASEAN member economies. This is understandable as the capacity for accurate and timely diagnosis and identification of pests and diseases underpins the development and maintenance of robust pest lists, and provides key skills needed in monitoring and surveillance, and border inspection systems.

During the JAIF Project Steering Committee Meeting *cum* Project Inception Meeting held in Port Dickson, Malaysia in July 2015, the SC members discussed and proposed several activities for prioritizing by the National Plant Protection Offices (NPPOs) of the AMS and to be used in developing Phase 2 of the Project. The compiled list of activities was then circulated to all NPPOs of the AMS for further prioritizing (Attachment 1) and then it was presented to and endorsed by the 18th ASEAN EWG-PS Meeting held in Vientiane, Laos, in 2016 (Attachment 2).

During the Project Monitoring trip to Japan from 23-28 August we managed to discuss with Prof. K. Natsuaki of Tokyo University of Agriculture and Dr. H. Sato of Nara Women University as well as several potential resource persons for the Phase 2 Project. The most important discussion was on the List of Activities endorsed by the 18th EWG-PS Meeting, especially on the availability of Japanese resource persons to implement these activities. Based on the discussion the revised activities were prepared and used in the Phase 2 proposal, i.e.:

1. Study visit to SPS/Plant Health laboratories and training workshop on identification of fruit flies in Japan
2. Training workshop on diagnostics of plant parasitic nematodes
3. Training workshop on diagnostics of begomovirus and the use of LAMP kit
4. Identification of weed seeds associated with cereal commodities
5. Training workshop on DNA extraction and barcoding
6. Diagnostic protocols/techniques for thrips
7. Training workshop on pest surveillance techniques
8. Pest risk analysis

One of the above activities, i.e. “Study visit to national SPS/Plant Health laboratories and training workshop on identification of fruit flies in Japan” has been organized from 18th November to 2nd December 2017, using the unspent budget of the Phase 1 project.

As the indicative budget for Phase 2 is only US\$ 500,000, this revised proposal will comprise only 2 (two) training workshops and 1 (one) attachment program in Japan, i.e. on:

1. Training workshop on diagnostics of plant parasitic nematodes (in Indonesia)
2. Training workshop on diagnostics of begomovirus and the use of LAMP kit (in the Philippines)
3. Attachment program on diagnostics of plant parasitic nematodes (in Japan)

This proposal was presented and endorsed by the 19th Meeting of EWG-PS held in Kuala Lumpur, Malaysia from 10-11 July 2017.

In compliance with donor requirements to gauge the success of the above Project, and upon guidance from the ASEAN Secretariat, monitoring and evaluation was carried out from March to July 2017, in the form of an output survey that targeted personnel from ASEAN Member States (AMS) who participated in the training events organized under the Project.

Where appropriate, Project counterparts have also been contacted for inputs based on the questionnaire prepared by ASEAN Secretariat (Attachments 3 & 4).

THE SURVEY

The object of the survey focussed on the three main training activities successfully organized under Project funding with the objective of building taxonomic capacity of AMS personnel. Topics for these training events were chosen based on the consensus of the Project Steering Committee; the training events typically consisted of hands-on training in the form of a two-week workshop with participants drawn from AMS. The main objective of this activity is to achieve diagnostic capacity at least at generalist level for the pest taxonomic group targeted. From this training event, three participants who have demonstrated promise at the workshop were selected for a two-month attachment at the laboratories of the designated resource persons/experts for advanced/specialist training. The three training topics organised were:

1. Diagnostics of Plant Viruses
2. Identification of leafminers of agricultural importance, and
3. Identification of weevils of quarantine importance.

THE RESPONSE

At the close of the survey period, responses were received from practically all AMS, including ex-workshop participants as well as Project counterparts. The largest number of responses came from ex-participants of the weevils and leafminer training courses. In the case of leafminers, this perhaps reflects in some way, the popularity of the topic or the gravity of the pest problem among AMS. Not unexpected was the fact that the weevils course being the most recently completed, generated good response perhaps because the activity remained fresh in participants' minds. For a similar reason, less response was received for the training course on plants viruses, it being the earliest activity held.

THE FEEDBACK

A. Number of trained personnel before the Project, following the training event and after

Responses appropriately confirmed

- ***an increase in personnel able to conduct diagnosis of the target pests and disease (at least at generalist level) following the taxonomic capacity building workshop.*** Where a country participant was chosen for the more advanced attachment program, this accordingly meant an increase in the number of competent diagnostician.
- ***Overwhelmingly***, respondents expressed confidence that ***there will be in-country training following the Project which is expected to result in a 'cascading' effect of increasing overall taxonomic capacity to address the much-needed support for market access.***

B. Number of pest specimens correctly identified

As the survey exercise was conducted soon after the completion of the training events, this question deemed not appropriate at this stage.

C. Number of specimens deposited in diagnostic laboratories

Responses recorded

- **a significant increase in their confidence to identify pest specimens in the target taxonomic group for which they received training.** This is followed by **a corresponding increase in the number of specimens for these pest groups in their diagnostic collections, thus improving their value as reference resources.** Although plant virus diagnosis typically requires more technical resources to facilitate diagnosis, respondents still were able to improve their diagnostic capacity as a result of the training.
- a significant observation from the survey were comments **that participants improved their ability to identify a larger range of species which have quarantine status in their respective countries.** This has been made possible as a result of the training workshop environment, where participants are able to share information and specimens with each other and the wider knowledge of the resource person(s).
- some participants reported that **a number of publications have already been produced with the benefit of the training received, leading to dissemination of new information.**

D. Database/directory of experts

Participants reported **an increase in their directory of personnel capable of diagnosis in the target pest groups for which training have been delivered.** This, together with the various planned in-country training, would lead to a significant population of diagnosticians worthy of an updated ASEAN database.

E. ARDN website

While the ARDN website is already up, we expect that, as AMS deliver on their planned follow-on activities following the various JAIF training activities as well as in-country training and publications, much more related information (including an updated database of diagnosticians) will be uploaded to the ARDN website.

F. Number of policy recommendations

As the Project has only entered its second year of implementation, the relatively short time frame has yet to yield any policy recommendations based on new taxonomic knowledge and information. It is expected that new surveys and information gathered following this added competency will support any necessary changes/recommendations regarding policy.

G. Number of training course modules/ training manuals developed

Most AMS have indicated that **the training manuals provided at the workshops and other guides and handouts are useful as the basis for national protocols in the diagnosis of the target pests.** In some cases, as in the case for leafminers, the training has enabled national survey plans and factsheets. This is direct evidence of the longer-term impact of the Project and the resources produced and their contribution to sustainability. A few AMS have indicated in-country training course are being planned to extend the newly-acquired skills to other plant protection and quarantine officers in the near future.

H. Information feedback from clients/stakeholders

I. Number of crops exported, volume and value

The two questions did not elicit any responses as they perhaps constitute not so useful indicator in view of short time frame of project. Market access applications take time and are influenced by factors beyond diagnostic capacity.

List of proposed training/workshop activities for 2nd Phase of JAIF project

No.	TITLE OF THE ACTIVITY	PRIORITY IN EACH COUNTRY									
		Brunei	Cambodia	Indonesia	Laos PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
1	Training workshop on identification of fruit flies by molecular techniques				X	X	X	X	X	X	
2	Training workshop on identification of plant pathogens by molecular techniques	X					X				
3	Training workshop on identification of weed seeds associated with import/export commodities (specific to cereal products)		X		X	X	X			X	
4	Training workshop on identification of pine wood nematode			X				X	X	X	
5	Supply and training of remote microscopy for taxonomic identification	X					X				
6	Reference collection management										
7	Detection and identification of phytoplasmas (e.g. for cassava)		X	X	X		X	X		X	
8	Detection and identification of Phytophthora spp.		X	X	X	X	X	X	X	X	
9	Isolation, detection and identification of tuber-rot of cassava		X						X		
10	Training workshop on rust-fungi (morphology and molecular techniques)	X			X			X			
11	Workshop on IAS and its management	X		X	X	X					
12	Training workshop on diagnostic protocols/techniques for thrips	X	X	X		X			X		
13	Training workshop on surveillance techniques	X	X			X			X		
14	Training workshop on plant pathogenic bacteria using LAMP-PCR			X	X	X		X	X	X	
15	Training workshop on diagnostics of papaya dieback					X			X		
16	Training workshop on diagnostics of moko disease of banana	X	X						X	X	
17	Training workshop on PRA (including the supply and use of support tools)	X	X	X	X	X	X	X	X	X	
18	Training workshop on sampling techniques for detection	X	X			X			X		
19	Training workshop on preservation techniques for plant/disease/insects specimens	X	X		X	X		X	X	X	
20	Training workshop on detection and identification of cassava witches broom		X								X
21	Training Workshop on diagnostics of Begomoviruses (recommendation by Prof. Natsuaki)				X				X	X	
22	Study visits to SPS/Plant Health laboratories and entry points in Japan (recommendation from the 1 st attachment program)	X	X	X	X	X	X	X	X	X	X
23	Advanced training workshop on DNA Extraction and Barcoding (recommendation from the 1 st attachment program)			X						X	X

Attachment 2- List of Potential Activities endorsed by 18th ASEAN EWG-PS in Laos

No.	Topic
1	Identification of fruit flies by molecular techniques
2	Identification of weed seeds associated with cereal commodities
3	Study visit to SPS/Plant Health laboratories and entry points in Japan
4	Detection and identification of phytoplasmas (e.g. for cassava)
5	Detection and identification of <i>Phytophthora</i> spp.
6	Diagnostic protocols/techniques for thrips
7	Training pest surveillance techniques
8	Application of LAMP-PCR in the identification of plant pathogenic bacteria
9	Pest risk analysis
10	Preservation and management of plant/disease/insect specimens

Output Survey Questionnaire
Japan ASEAN Integration Fund (JAIF)-supported Taxonomic capacity building to support market access for agricultural trade in the ASEAN region

Dear All,

The survey questionnaire below is an integral monitoring and evaluation process required by the ASEAN Secretariat in compliance with the requirements of the Japan ASEAN Integration Fund (JAIF) which has funded the above project in the past two years.

ASEAN Member States (AMS) which participated in this project are requested to complete the form below to help support our request to JAIF to continue support for taxonomic capacity building for AMS for another phase. We look forward to your prompt response to this request and hope to receive your comments as soon as possible.

Below are some notes to help guide you in responding to the questions. If you still have questions, please do not hesitate to contact us at s.soetikno@cabi.org

Thank you for your continued support of ASEANET and the ASEAN Regional Diagnostic Network (ARDN) in its efforts to build diagnostic capacity in ASEAN.

Guidance Notes

In Phase 1 of the JAIF Project, a Training Workshop followed by an attachment program for selected participants have been organized for each of three topics: a) Diagnostics of Plant Viruses, b) Identification of Leafminers of Agricultural Importance, and c) Identification of Weevils of Quarantine Importance.

Question A. In this question we would like to know how many general diagnosticians and how many specialist diagnosticians you have i) before the start of the JAIF Project, ii) at the end of Phase 1 of JAIF Project and iii) the expected number of general and specialist diagnosticians by the end of Phase 2 (year 2018), particularly if you are planning to have your own in-country training activities.
Please provide figures separately for identification of a) Plant Viruses, b) Leafminers and c) Weevils

Question B. We would like to know if the JAIF Project has resulted in any increase in the number of specimens correctly identified for each of a) Plant Viruses, b) Leafminers, and c) Weevils.
Please give numbers separately for each of these three areas, before and after training.

Question C. Following on from the question above, please let us know if, as a result of officers trained by the JAIF Project, correctly identified specimens have been added to your specimen collection. These can be previously unidentified specimens or newly collected specimens.

Question D. If you have a list of trained personnel or experts, or a database, have you added the names of the newly-trained officers in a) plant viruses, b) leafminers and c) weevils to the list/database.

Question E & F. If you have additional comments, please add, thank you

Question G. In this question, we would like to know if you have organized (or are planning to organize your own in-country training in the diagnostics of a) plant viruses, b) leafminers, or c) weevils. Also, whether you have developed your own training manuals or identification guides in your own language, after the training from the JAIF Project.

Question H & I. Please let us have your comments on the JAIF Project so far. For example, how has it helped national diagnostic capacity? Or has it facilitated in securing or maintaining market access for your export crops?

Attachment 4

<i>Output Outline</i>				
PP on Taxonomic capacity building to support market access for agricultural trade in the ASEAN region (Phase I and Phase II)				
	Baseline (condition before commencement of ARDN)	Achieved Level after Phase I (2015-2017)	Expected Condition after Phase II (2017-2018)	References data/hyperlink
<u>A. No. of trained personnel/experts/interns</u>				
<i>1. Training on diagnostics of plant viruses</i>	<i>Number of generalists/specialists before project</i>	<i>Number of generalists/specialists following completion of training program</i>	<i>Additional number of staff to be trained in-country?</i>	ASEANET report based on email survey participating country/participant survey following training events
<i>Generalist level (training workshop)</i>				
<i>Specialist level (attachment program)</i>				
<i>2. Training on identification of leafminers of agric. importance</i>	<i>Number of generalists/specialists before project</i>	<i>Number of generalists/specialists following completion of training program</i>	<i>Additional number of staff to be trained in-country?</i>	ASEANET report based on email survey participating country/participant survey following training events
<i>Generalist level (workshop)</i>				
<i>Specialist level (attachment program)</i>				
<i>3. Training on identification of weevils of quarantine importance</i>	<i>Number of generalists/specialists before project</i>	<i>Number of generalists/specialists following completion of training program</i>	<i>Additional number of staff to be trained in-country?</i>	ASEANET report based on email survey participating country/participant survey following training events
<i>Generalist level (workshop)</i>				
<i>Specialist level (attachment program)</i>				
<u>B. No. of insect/disease specimens correctly identified</u>	<i>Number of identified specimens before project</i>	<i>Number of identified specimens after completion of training program</i>	-	

1. Plant viruses				ASEANET report based on email survey participating country/participant survey following training events
2. Leafminers of agric. importance				
3. Weevils of quarantine importance				
<u>C. No. of specimens deposited in diagnostic laboratories</u>	<i>Number of identified specimens in collection before project</i>	<i>Number of identified specimens in collection after project training</i>	-	
1. Plant viruses				ASEANET report based on email survey participating country/participant survey following training events
2. Leafminers of agric. importance				
3. Weevils of quarantine importance				
<u>Number of publications /information materials disseminated</u>	<i>Number of publications or Information materials available</i>	<i>Number of publications or Information materials after training</i>	-	
1. Plant viruses				
2. Leafminers of agric. importance				
3. Weevils of quarantine importance				
<u>D. Database/directory of experts or trained diagnosticians developed for:</u>	<i>Number of trained diagnosticians before project</i>	<i>Number of trained diagnosticians before project</i>	<i>Expected number of trained diagnosticians after further in-country training</i>	
1. Plant viruses				
2. Leafminers of agric. importance				
3. Weevils of quarantine importance				
<u>E. Website on ARDN launched</u>	No	Established but yet to be widely promoted	Widely promoted	
<u>F. Number of policy recommendations (long-term measure)</u>	1. Support for project by AMS 2. Endorsement of ARDN concept	Establishment of national diagnostic network in	More AMS establish functional national	

<u>beyond project duration)</u>	by ASWGC and SOM AMAF 3. Funding support from JAIF	Vietnam and Cambodia	diagnostic networks	
<u>G. No. of training course modules developed; training manuals produced or training events conducted locally</u>				
<i>1. Plant viruses</i>	-	Training manual and guides		
<i>2. Leafminers of agric. importance</i>	LUCID Guide	Training manual and guides		
<i>3. Weevils of quarantine importance</i>	ASEAN PLANTI guide	-		
<u>H. No. of information feedbacks from clients/stakeholders (long-term measure beyond project duration)</u>	-	<i>Has JAIF project had a positive impact on national diagnostic capacity?</i>	-	
<u>I. No. of crops exported and its volume and value increased^a (Has the project assisted in the market access for any of your export crops?)</u>				

^a Not a useful indicator in view of short time frame of project. Market access applications take time and are influenced by factors beyond diagnostic capacity