



**JAIF FUNDED PROJECT ON “TAXONOMIC CAPACITY BUILDING TO SUPPORT
MARKET ACCESS FOR AGRICULTURAL TRADE IN THE ASEAN REGION”**

REPORT TO:

**ASEAN EXPERTS WORKING GROUP FOR THE HARMONISATION OF
PHYTOSANITARY MEASURES (EWGHPM)**

&

ASEAN SECTORAL WORKING GROUP ON CROPS (ASWGC)

Vientiane, Laos, 18 – 19 July 2016

The project on “Taxonomic capacity building to support market access for agricultural trade in the ASEAN region” has been approved for funding by the Japan-ASEAN Integration Fund (JAIF) on 15th April 2015 for 2 (two) years starting in 1st May 2015.

This project will develop and strengthen capacities in taxonomic knowledge to identify and manage quarantine risks associated with agricultural commodities and to accurately diagnose pests and diseases among the ASEAN Member States (AMS). Key activities of the project would be a small part of the major activities of the ASEAN Regional Diagnostic Network (ARDN) Strategic Plan, an output of the 2009 Planning Meeting of ARDN held in Vientiane, Lao PDR, organized by ASEANET in collaboration with and supported by NZAid-Plant Health and AusAID SPS Capacity Building programs. The concept of an ARDN has been endorsed repeatedly by the Experts Working Group on the Harmonization of Phytosanitary Measures and the ASEAN Sectoral Working Group on Crops (first in Bali, Indonesia in 2005, then in Langkawi, Malaysia in 2007, and in Nay Pyi Daw, Myanmar in 2008). These meetings recommended pilot activities, in particular the development of a list of regional resources (expertise and laboratories) and taxonomic capacity building on several major invasive pest & diseases.

The three (3) major components undertaken in this project in line with the ARDN Strategic Plan are:

Project Activity 1 - Training and Capacity Building

Project Activity 2 - Networking and Institutionalization

Project Activity 3 - Management and Coordination

The full project document has been given as ANNEX 10 of the 17th EWG-PS Meeting Report held in Jogjakarta, Indonesia in May 2015.

PROGRESS OF THE PROJECT

Five major activities have been carried out during the period May 2015 to June 2016, i.e.:

- Activity 1.1. Training Workshop on Diagnostics of Plant Viruses, and Training Workshop on Diagnostics of Leafminers of Agricultural Importance.
- Activity 1.2. Attachment Program on Plant Viruses
- Activity 2.2. Development of project website
- Activity 2.3. Development of promotional materials
- Activity 3.1. Project Inception Meeting

1. Training Workshop on Diagnostics of Plant Viruses

This “Training Workshop on the Diagnostics of Plant Viruses” was implemented at the Institute of Plant Breeding (IPB) – Crop Science Cluster, College of Agriculture, University of the Philippines – Los Baños from 17-28 August 2015 and was participated by 19 (nineteen) plant pathologists from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Vietnam. The majority of them are attached to Plant Quarantine and Plant Protection Centres of their respective countries under the Department of Agriculture and one from Bogor Agricultural University. The ultimate goal of the training workshop was to develop capacity building among plant virologists across the ASEAN region in addressing virus diseases in each country that may pose potential threats (emerging or invasive) in the exchange/movement of crops or planting materials. The training workshop caters to the need to equip our plant virologists who are working in universities, research institutions and plant quarantine and plant protection offices with basic knowledge on disease identification, detection and characterization using available tools (symptomatology, transmission, serology and molecular assay). The main resource persons of the workshop were from Tokyo University of Agriculture (Prof. K. Natsuaki), Japan; Bogor Agricultural University (Prof. Sri Hendrastuti Hidayat), Indonesia and from IPB-UPLB (Dr. Marita Pinili and her team).

2. Training Workshop on Diagnostics of Leafminers of Agricultural Importance

This “Training Workshop on the Diagnostics of Leafminers of Agricultural Importance” was coordinated by the Museum Zoologicum Bogoriense, Centre for Research Development in Biology, LIPI, Cibinong, Bogor, Indonesia from 29 February to 11 March 2016 and was participated by 20 (twenty) entomologists from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

The ultimate goal of the training workshop was to develop capacity among entomologists across the ASEAN region in addressing leafminer pests in each country that may pose potential threats (emerging or invasive) to their economic crops intended for export or as planting materials. The training workshop provided the participants with basic knowledge on the ecology and taxonomy of leafminers of agricultural importance with focus on improvement of skills in the identification of leaf miners and their parasitoids using morphological characters and molecular techniques. The main resource persons of the workshop were from Nara Women University, Nara, Japan (Prof. Hiroaki Sato); School of Applied Systems Biology, Centre for Agri-Bioscience, La Trobe University, VIC 3083, Australia (Assoc. Prof. M. Malipatil), and from the Museum Zoologicum Bogoriense Bogor (Dr. Hari Sutrisno, Prof. Rosichon Ubaidillah and Dr. Awit Suwito and his team).

3. Attachment Program on Plant Viruses

The attachment program was held at the Laboratory of Tropical Plant Protection, Tokyo University of Agriculture (Tokyo NODAI), Japan from October 26 – December 25, 2015 with the objective to strengthen understanding of the concepts and practice with plant viruses, diagnosis of infected plants, and to learn the latest technologies associated with the management of diseases attributed to plant viruses.

The attachment were participated by 3 (three) plant health/biosecurity officers, one each from Indonesia, Malaysia and Vietnam, i.e.

1. Ms. Nur Fitriawati, BBUSKP, Plant Quarantine and Biosafety Centre, Indonesian Agriculture Quarantine Agency (IAQA), Jakarta, Indonesia
2. Ms. Norhayati binti Madiha, Agriculture Officer Plant Biosecurity Division Department of Agriculture Jalan Gallagher, 50632 Kuala Lumpur Malaysia

3. Mr. Tran Van Chien, Post Entry Quarantine Centre I, Plant Protection Department, Ministry of Agriculture & Rural Development, Hanoi, Vietnam

During the attachment program they were supervised by Prof. Keiko Natsuaki from Laboratory of Tropical Plant Protection, Tokyo University of Agriculture, Japan. The selection of participants was based on the individual performance and evaluation results as well as observation and evaluation by all resource persons during the “Training Workshop on the Diagnostic of Plant Viruses” that was organised at UPLB, Philippines from 17-28 August 2015. The program of the 2 months attachment comprised four components, i.e.:

- a) Series of lectures given by resource persons and invited speakers,
- b) Individual experiments and laboratory work supervised by Prof. Natsuaki and Dr. M. Pinili,
- c) Participation in the International Congress of International Society for South East Asian Agricultural Sciences (ISSAS) organized by Tokyo NODAI from 7-9 November 2015, and
- d) Participation in the seminar and defence of PhD students of Tokyo NODAI.

4. Development of project website

The website for the project has been developed and is now up and running at the URL address: <http://www.aseanet.org/JAIF1.asp>. The website serves three main purposes: repository for all activities, updates, news and reports for the project; communication, publicity and awareness where the project is publicized to stakeholders and where project partners communicate and interact; knowledge exchange where the website serve as a platform for knowledge exchange and resources for taxonomy.

The website has sections on project activities, news, gallery showcasing images from workshop and project activities, resources where project documents are uploaded, expert register and content management system. Project documents are behind a password protected section and logins will be provided to project partners for download.

The expert register comprises information and contact details of individual experts and diagnostic laboratories that provide identification and diagnostic services and facilities for plant pests and diseases. The register is populated with data from the previous database of contacts comprising participants and resource persons from capacity building workshops on taxonomy carried out over a number of years. The experts and diagnostic laboratories are mainly located in the region i.e. Southeast Asia

The mobile version of the register has been developed and is compatible on major mobile platforms, allowing for quick access and reference to the register from smartphones and mobile devices that users have on them.

5. Development of promotional materials

One thousand copies of the Project Brief flyer were printed and until June 2016 has been distributed to participants at the following events:

- a. Project Inception Meeting (in Malaysia)
- b. 29th Session of the Asia Pacific Plant Protection Commission (in Bali, Indonesia)
- c. JAIF Training Workshop on Diagnostics of Plant Viruses (UPLB, Philippines)
- d. AANZFTA - Training Workshop on Whiteflies (MARDI, Malaysia)
- e. AANZFTA – Training Workshop on Diagnostics of Plant Diseases (Chiang Mai University, Thailand)
- f. JAIF Training Workshop on Diagnostics of Leafminers of Agricultural Importance (LIPI, Cibinong, Indonesia, March 2016)
- g. AANZFTA - Workshop on Diagnostics of Immature stages of Pest Lepidoptera (Bekasi, Indonesia, November 2015)
- h. AANZFTA – ASEAN Diagnosticians Forum (Putrajaya, Malaysia, December 2015)

- i. AANZFTA – Weed Identification and Risk Assessment Workshop (Vientiane, Laos, February 2016)

6. Project Inception Meeting

The meeting was held on 27th July 2015 at the Avillion Admiral Cove Hotel, Port Dickson, Malaysia with the objectives: a) To establish a Steering Committee for the Project b) To finalize details for identified project activities b) To discuss and finalize the budget for each activity c) To discuss and confirm the selection criteria for training workshop participants The meeting was attended by 11 participants composed of NPPO representatives of 6 (six) ASEAN member states, i.e. Malaysia (2), Indonesia (1), Philippines (2), Singapore (1), Thailand (1) and Vietnam (1) and from APHCN-ASEANET (3).

The project steering committee members are the following:

- a. Ms. Faridah Aini binti Muhammad, Director, Plant Biosecurity Division
Department of Agriculture, Ministry of Agriculture & Agro-based Industry, Jln. Sultan Salahuddin, 50632 Kuala Lumpur, Malaysia. E-mail: faridah@doa.gov.my
- b. Ms. Benavidez, Paz Il Joson, Assistant Secretary for Regulations, Department of Agriculture and OIC Director, Bureau of Plant Industry, Elliptical Road, Diliman, Quezon City, 692 San Andres St., Malate, Manila, Philippines. E-mail: asec.regulations2014@gmail.com
- c. Dr. Antario Dikin, Director, Centre for Plant Quarantine and Biosafety, Indonesian Agricultural Quarantine Agency, Ministry of Agriculture, Jalan Harsono RM. No. 3, Building E, 5th Floor, Ragunan-Jakarta 12550, Indonesia. E-mail: antario_dikin@yahoo.com
- d. Ms. Yap Mei Lai, Jenny, Programme Chief (Plant Health) and Director, Plant Health Laboratory Dept., Agri-Food & Veterinary Authority, Animal & Plant Health Centre, 6 Perahu Road, 718827 Singapore. E-mail: YAP_Mei_Lai@ava.gov.sg
- e. Dr. Pornpimon Athipunyakom, Senior Plant Pathologist, Plant Pathology Research Group, Plant Protection Research & Development Office, Department of Agriculture, Chatuchak, Bangkok 10900, Thailand.
E-mail: pathipunyakom@gmail.com
- f. Dr. Duong Minh Tu, Director, Plant Quarantine Diagnostic Centre, Plant Protection Department, Ministry of Agriculture and Rural Development (MARD), 149, Ho Duc Di Street, Dong Da District, Ha Noi, Viet Nam. E-mail: thanhtam1992@yahoo.com

PROPOSED PROJECT ACTIVITIES UNTIL DECEMBER 2016

1. Attachment Program on Leafminers of Agricultural Importance and its Natural Enemies

The attachment on leafminers taxonomy has been planned for 1st August to 30th September at Nara Women University, Japan under the supervision of Assoc. Prof. Hiroaki Sato, Department of Biological Sciences, Faculty of Science. Two participants from the training workshop held in LIPI, Indonesia have already been selected by the resource persons and approved by the Project Steering Committee to attend the attachment program in Japan, i.e.:

- a) Dr. Yuvarin Boontop, Senior Entomologist, Insect Taxonomy Group, Plant Protection Research, Department of Agriculture, 50 Phaholyothin Road, Bangkok 10900, Thailand. E-mail: yuvarin_b@yahoo.com
- b) Ms. Ariene Garcia Castillo, Scientist, Agri-Food & Veterinary Authority of Singapore, Animal and Plant Health Centre, 6 Perahu Road, Singapore 718827. E-mail: Ariene_Garcia_Castillo@ava.gov.sg

The attachment on leafminer natural enemies will be held from 3rd October to 30th November 2016 at Muzeum Zoologicum Bogoriense, LIPI, Cibinong, Indonesia under the supervision of Prof. Rosichon Ubaidillah. A participant from Brunei has been selected, pending their government approval, to attend this attachment program.

2. Training Workshop on Diagnostics of Aphids of Agricultural Importance

This training workshop would be organized in Thailand, pending confirmation from the Japanese resource person, Prof. Shin-ichi AKIMOTO, Laboratory of Systematic Entomology, Graduate School of Agriculture, Hokkaido University.

PROPOSED 2nd PHASE OF JAIF PROJECT

The current project has been scheduled to be completed by April 2017. During the Project Inception Meeting held in July 2015, several potential activities have been proposed and approved by the Project Steering Committee (PSC) for further consideration and approval by the ASEAN NPPOs. The approved PSC training activities together with proposals offered by resource persons during the training workshops and attachment programs have been circulated by e-mail to NPPOs of the 10 ASEAN countries with the request that the activities be ranked based on their respective country priorities. The result of this exercise is given in ANNEX 1.

Ten activities have been selected for possible funding consideration by JAIF in the Phase 2 of the Project. The full proposal of the 2nd Phase Project would be prepared after the approval is sought and after consultation with the relevant authority in Japan.

The meeting is requested to endorse the list of possible activities for approval by the SOM Meeting.

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	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	X
5	Supply and training of remote microscopy for taxonomic identification	X						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
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	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	X
17	Training workshop on PRA (including the supply and use of support tools)	X	X			X	X	X			X
18	Training workshop on sampling techniques for detection	X	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	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
23	Advanced training workshop on DNA Extraction and Barcoding (recommendation from the 1 st attachment program)			X					X	X	