

**REPORT**  
**JAIF FINAL PROJECT MEETING**  
**26 – 27 March 2019**  
**Putrajaya, Malaysia**



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## 1. INTRODUCTION

This report summarises the key points highlighted during the presentations and discussions of the JAIF Final Project Meeting. The meeting was held on 26<sup>th</sup> February 2016 at the Everly Hotel, Putrajaya, Malaysia with the following objectives:

- a) To present the summary of all project activities to the Meeting
- b) To finalize in detail the contents of the final project report
- c) To discuss and finalize the Monitoring and Evaluation report
- d) To brief, discuss and follow-up on the Phase 2 of the JAIF project
- e) In conjunction with the Final Project Meeting, convene an ASEANET Board Meeting to discuss and decide on the future status of ASEANET (and APHCN) and its sustainability.

The full program of the meeting is given as **Annex 1**. All partners expressed their thanks to the Technical Secretariat of APHCN-ASEANET for organising and hosting a successful meeting.

## 2. PARTICIPANTS (Annex 2)

The meeting was attended by 15 participants which comprised of NPPO representatives and ASEANET Board members of 9 (nine) ASEAN member states, i.e. Brunei Darussalam (2), Cambodia (1), Laos (1), Malaysia (4), Myanmar (1), Indonesia (1), Singapore (1), Thailand (1) and Vietnam (1) and from APHCN-ASEANET (2). The participation of Cambodia, Laos and Myanmar were possible with funding support from ASEANET. Unfortunately, due to government administrative constraints, approval for the nominated person could not be processed in time for the participant from the Philippines to attend the meeting. APHCN-ASEANET would like to thank all representatives for their active participation and cooperation given in the meeting and their continued support to the project. This report will be circulated to all those who were unable to attend for their comments and feedback.

## 3. MEETING SUMMARY

### *Session 1: Opening*

The opening session was chaired by **Dr. Lum Keng Yeang**, Chairperson of APHCN-ASEANET. Dr. Lum thanked **Mr. Ahmad Kamil Mohd Yunus**, Director of Plant Biosecurity Division, Department of Agriculture Malaysia for his willingness to open and chair the meeting despite his busy schedule. He also welcomed the NPPO representatives and gave a brief overview of the history BioNET-ASEANET, APHCN and ARDN and the role of APHCN in securing and implementing the JAIF funded project on “**Taxonomic Capacity Building to Support Market Access for Agricultural Trade in the ASEAN Region**”. The project proposal was approved in May 2015 and started in June 2015.

Dr. Lum then invited **Mr. Ahmad Kamil**, Director of Plant Biosecurity Division on behalf of the host country, to give his opening remarks. In his remarks, Mr Kamil thanked all NPPO representatives from the other 8-member states for their attendance, despite their busy work schedules. He also thanked APHCN-ASEANET for their tireless efforts in the implementation of the JAIF Project starting from the approval by JAIF in May 2015. He also acknowledged the strong commitment and support from all ASEAN member states in supporting all activities of JAIF Project by sending participants. He also acknowledged the support given by all ASEAN member states in supporting/endorsing the proposal for Phase 2 of the project which is

currently under final consideration by the Government of Japan. He went on to express his hope and expectation that the APHCN-ASEANET will continue looking for project opportunities with the strong support of the member states. Finally, he requested the overseas participants to enjoy their stay in Malaysia by visiting several interesting places in Putrajaya and surroundings.

## ***Session 2: Summary of JAIF Project Implementation***

**Dr. S.S. Soetikno** from the APHCN-ASEANET Technical Secretariat gave an overview of the JAIF project activities which comprised of 3 project components, i.e. 1) Training & Capacity Building, 2) Networking & Institutionalization, and 3) Management & Coordination. The overall objectives of the Project were:

1. To develop and strengthen capacities in taxonomic knowledge to identify and manage quarantine risks associated with agricultural commodities, and
2. To accurately diagnose pests and diseases among the ASEAN Member States (AMS).

In addition, the Project's intermediate objective is to increase the taxonomic capacity of scientists/officers from AMS in 3 groups of insect pests and diseases, i.e. in plant viruses, leaf miners of agricultural importance, and weevils of quarantine importance.

### **2.1. Project Component 1 – Training & Capacity Building (Annex 3)**

Dr. Soetikno gave an overview of the JAIF project activities that made up Component 1 of the Project. Two types of activities have been organised, i.e. a) Training workshops – 3 training workshops and an additional study visit to Japan have been completed, and b) Attachment programmes – 3 attachment programs in Japan have been organized.

#### ***2.1.1. Training Workshops***

##### ***Training Workshops on Diagnostics of Plant Viruses***

This "Training Workshop on the Diagnostics of Plant Viruses" was implemented by 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 paying participant from Bogor Agricultural University. The ultimate goal of the training workshop is to develop capacity 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 17 lectures, 14 practicals in 5 sessions:

- Session 1: Opening Program & Introduction
- Session 2: Plant viruses of agricultural crops
- Session 3: Transmission of common plant viruses
- Session 4: Detection of plant viruses using serological and molecular assays.
- Session 5: Strategies in protecting crops from viruses

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). From the training workshop, one

participant each from Indonesia, Malaysia and Vietnam were selected to participate in the Attachment Program on Plant Viruses organized in Japan.

### ***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, two participants each from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. The majority of them are attached to Plant Quarantine/Biosecurity/Plant Health and Plant Protection Centres of their respective countries under their Departments of Agriculture.

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 agriculture importance with focus on improvement of skills in the identification of leaf miners and their parasitoids using morphological characters and molecular technique. During the training 15 sessions were delivered to participants:

- Session 1: Opening Program & Introduction
- Session 2: Biology of Leafminers
- Session 3: Dipteran leafminer resources on the web
- Session 4: CABI Crop Protection Compendium
- Session 5: Field Trips
- Session 6: Preparation of specimens collected from the field
- Session 7: Dissection and slide preparation
- Session 8: Identification
- Session 9: Biology of Lepidoptera
- Session 10: Parasitoids associated with Dipteran & Lepidopteran leafminers
- Session 11: Dissection and preparation of genitalia slides
- Session 12: Preparation of wings
- Session 13: Identification of Lepidopteran leafminers
- Session 14: Slide preparation for larvae
- Session 15: DNA Barcoding

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).

### ***Training Workshop on Diagnostics of Weevils of Quarantine Importance***

The training workshop was organized in the Philippines with the collaboration of the Institute of Weed Science, Entomology and Plant Pathology (IWEPP), UPLB, Los Banos-Philippines from 10-22 July 2017. The training workshop was coordinated by Dr. Sheryl A. Yap from IWEPP-UPLB, assisted by Dr. Priscilla Barcial and graduate students. Several senior lecturers from UPLB, e.g. Dr. Pio Javier, Research Professor, Dr. Celia dR. Medina, Associate Professor, Dr. Barbara L. Caoili, Professor contributed. The only resource person from Japan was Dr. Hiraku Yoshitake from the Institute of Agro-Environmental Sciences, NARO, Tsukuba. Nineteen participants from 10 ASEAN member states (2 each from Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand and Vietnam, and one from Singapore) attended the training workshop.

The 2-weeks Training Workshop comprised 12 sessions, i.e. Opening Program & Introduction, Habitat Identification of Weevils, Weevils in Agricultural Crops, Field Collection in Storage Facilities and Agricultural Areas, Weevils as Storage Pests and their Control, Collection and Preservation Techniques, DNA Sequencing, Quarantine Policies, Information Resources on Weevils from the Web, and Training Evaluation and Closing Program.

Based on their performances in the class and laboratory as well as the evaluation results, the 5 resource persons involved in the training selected 3 participants, one each from Indonesia, Thailand and Vietnam for the 2-months attachment program in Japan.

### ***Study Visit & Training Workshop on Identification of Fruitflies in Japan***

This activity was in the priority list of proposed activities (in total 10 activities) endorsed by the 18th Meeting of the ASEAN EWG-PS held in Vientiane, Lao PDR from 18-19 July 2016.

The Study Visit & Training Workshop was organized by Prof. Dr. Keiko NATSUAKI, Dean, Graduate School of Agriculture, Tokyo University of Agriculture, Japan in collaboration with the Plant Quarantine Office, Ministry of Agriculture, Forestry and Fisheries (MAFF), Japan from 18th November to 2nd December 2017. Nine participants from the ASEAN member states accompanied by a coordinator from ASEANET-APHCN, participated in the training. The following institutions in Japan were visited, during which lectures, demonstrations and practical were given to all participants, especially related to fruitflies.

The objective of the Study Visit and Training Workshop on the Identification of Fruit Flies in Japan were as follows:

1. To have an overview on the plant quarantine and plant protection system in Japan
2. To understand the functions and operations of each division under the plant quarantine system of Japan (domestic and international quarantine, export and import divisions, Pest Risk Analysis, etc.)
3. To visit the Research Center in Tsukuba and Haneda, Yokohama & Nara Plant Protection Station
4. To discuss, learn and share field experiences in plant quarantine (inspection, interception, and identification of exotic pests, e.g. fruit flies) from Japanese plant quarantine officers

Specific objectives of the Study Visit were to obtain the general idea of how Japan operates its plant protection by visiting several facilities and will be familiarized with fruit flies' issues, such as pest risk analysis, ecological research, inspection, diagnostics using molecular technology and other regulatory perspectives.

Several resource persons from the following institutions were involved in the study visit:

- Tokyo University of Agriculture (Setagaya & Atsugi Campus)
- Yokohama Plant Protection Station
- Tsukuba Post-entry Quarantine Station
- Naha Plant Protection Station, Okinawa
- Fruit Fly Eradication Project Office, Okinawa

### ***2.1.2. Attachment Programs***

#### ***Attachment Program in Tokyo University of Agriculture, Japan***

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, a diagnosis of infected plants, and to learn the latest technology and 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 thesis defence of PhD students of Tokyo NODAI.

#### ***Attachment Program in Nara Women's University, Nara, Japan***

The attachment program was held at the Department of Biological Sciences, Faculty of Science, Nara Women's University, Nara, Japan from 1 August - 30 September 2016 with the objective to improve their knowledge and skills for the study of leafminers and to encourage them to contribute towards development of this field in the ASEAN region.

The two-plant health/biosecurity officers, one each from Singapore and Thailand, who participated in the attachment program are:

1. Ms Ariene G. Castillo, Scientist, Management Executive 12, Animal and Plant Health Centre, Agri – Food & Veterinary Authority, Singapore
2. Dr Yuvarin Boontop, Senior Entomologist, Insect Taxonomy Group, Plant Protection Research Department of Agriculture, Bangkok, Thailand

During the attachment program they were supervised by Assoc. Prof. Hirosaki Sato from the Department of Biological Sciences, Faculty of Science, Nara Women's University, Nara, Japan. The program of the 2 months attachment consisted of: a). Series of lectures given by resource persons and invited speakers, b). Laboratory work supervised by Dr. Sato and others scientists on the preparation of genitalia slides and molecular study of leafminers c) Field studies covering several field collections of leafminers from different locations and habitats d) Specimen collection study in different insect museums, i.e. Entomological Laboratory of Osaka Prefecture University, Natural History Museum of Osaka City, etc. e) Other activities such as visit and discussion with other scientists working on leafminers from universities and private/national research institutions in Japan.

#### ***Attachment Program on Natural Enemies and Parasitoids of Leafminers***

The attachment program was held at the Museum Zoologicum Bogoriense, LIPI, Cibinong, Indonesia from 15th January – 17th March 2017 with the main objective to improve his knowledge and skills for the study of natural enemies of leafminers and to encourage him to contribute towards development of this field in the ASEAN region.

One plant health/biosecurity officer from Malaysia participated in the attachment program, i.e. Mohd Sanusi Mohd Kasim, Assistant Director Plant Biosecurity Division, Department of Agriculture Malaysia.

During the attachment program he was supervised by Prof. Dr. Rosichon, Dr. Awit Suwito, Dr. Hari Sutrisno. The topic of the lectures and discussion during the 2 months attachment program were as follows:

1. Understanding of Dipteran and Lepidopteran Leaf Miners in South East Asia.
2. Understanding the South East Asian parasitoids of dipteran leafminer
3. Understanding the use of species identification key and related references for leafminers and their parasitoids.
4. Understanding surveillance technique, sampling and rearing, mounting specimens of leafminers and the parasitic wasps that associated with leafminers.
5. Practical use of Dino lite digital microscope for imaging specimens, making scales on the pictures for each magnification and to learn how to combine multilayer images using Helicone focus/Combine ZP as well as editing pictures using Adobe Photoshop,
6. Technical drawing of specimens digitally/ conventionally
7. Understanding the concept of leafminers and their parasitoid management, how seriously they damage horticultural crops, and how to control them appropriately using some potential parasitoid.

### ***Attachment Program on Diagnostics of Weevils of Quarantine Importance***

The attachment program was implemented from 7 November to 19 December 2018 with three participants, i.e.,

1. Mr. Kemas Usman (Indonesia)
2. Dr. Hoang Kim Thoa (Vietnam)
3. Mr. Ittipon Bannakan (Thailand)

During the 1.5-month program, they were attached and worked in several laboratories in Japan, i.e. Tokyo University of Agriculture (NODAI) Setagaya and Atsugi campuses, and Tsukuba Post-entry Quarantine Centre, Yokohama Plant Protection Research Centre and Kobe Plant Protection Station, all under the Ministry of Agriculture, Forestry and Fisheries (MAFF) Japan. The program of the attachment consisted of 3 (three) activities related to weevils of quarantine important, they were: lectures, laboratory practices, and field trip, and these divided into 5 (five) locations, i.e.,

- Tokyo University of Agriculture/NODAI - Setagaya Campus from 7-11 November 2018 and from 17-18 December 2018,
- Yokohama Plant Protection Station from 12-16 November 2018,
- Kobe Plant Protection Station from 19-21 November 2018,
- Tsukuba Center of Yokohama Plant Protection Station from 26-30 November 2018, and
- Tokyo University of Agriculture (NODAI) - Atsugi Campus from 3-14 December 2018.

## **2.2. Project Component 2 – Networking & Institutionalization (Annex 4)**

**Dr. Soetikno** briefed the meeting that the objectives of the Project Component 2 were:

- Information sharing & dissemination through the website
- Networking through project activities
- Mainstreaming and institutionalization of information through such activities

There were 3 activities in the Component 2, i.e.:

**Activity 1:** Developed expertise register i.e., a database of individual experts and diagnostic laboratories available to the Network (e.g. name of experts, contact details and particular expertise, laboratories that provides diagnostic work and assistance, etc.).

**Activity 2:** Developed a website to include, e.g. expert register (from ASEAN and from anywhere in the world), major pests & diseases of potential crops in the ASEAN, diagnostic resources and tools, e-application for diagnostic services, etc.

**Activity 3:** Developed promotional materials, e.g. flyers, posters, data-sheets, stickers, standard presentation, etc.

### 2.2.1. Expert Register

The expert register has already been 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 in the past (SPS-CB Program, NZAid Project, APEC Project and AANZ-FTA ECW Program). Currently, there are a total of 194 names with accompanying contact details of individuals who have attended taxonomy and capacity building workshops. Their expertise span across several pests and diseases. The expert register is currently being updated to include all participants of training workshops and its resource persons from the Phase 1 Project and it is expected to complete by end of March 2019. The expert register list is accessible from the following link: <http://aseanet.org/Login.asp?f=ER>

After logging in, the user is taken to the expert register page where the list is. The login credentials to access the Expert Register is: *User Name: **expert** and the Password: **regist3r*** Located at the top left corner, there is an export function identified by an Excel icon. The function exports the details of experts from the database and puts them into an Excel sheet for sorting, listing and editing/adding.

### 2.2.2. JAIF Project Website

The address of the JAIF project website under ASEANET is as follows: <http://aseanet.org/JAIF1.asp>

The website is updated whenever there are new activities to report, documents and other media to upload. The backend of the website is updated, tested and backed up monthly to ensure the integrity of the data. Several additions to the functionality of the content management system (CMS) have been incorporated from time to time.

In the website, the main content is uploading of project activity with the following contents:

- Summary section
- Images for each activity
- Longer description of the activity
- uploading of project activity
- document section at the bottom of the activity section displaying all outputs related to that activity.

Second content is the project download:

- Documents and other outputs related to activities carried out
- Different formats depending on the output produced during the project activity
- Different icons are used for different formats to provide visual differentiation

Third content is publications:

- Publications from project activity displayed on the 'Publications' page
- Saved as PDF format and downloadable for viewing after logging in

Fourth content is image gallery:

- The gallery now holds updated images from the latest attachment program workshops and activities
- Clickable images to open a bigger window for viewing

### **2.2.3. Promotional Materials, Presentation & Publication**

Five hundred project flyers have been printed and distributed to many participants of several regional meetings (e.g. ARDN, ASEAN EWG-PS), conferences and training workshops (AANZ-FTA ECP).

A standard presentation template for all Project Activities has been established and used in several regional meetings and training workshops.

Three training reports, i.e. on Diagnostics of Plant Viruses, Diagnostic of Leafminers and Diagnostics of Weevils were printed (100 copies each) and distributed to the participants of the 20<sup>th</sup> ASEAN EWG-PS Meeting in Myanmar in 2018 and also during this Final Project Meeting.

## **2.3. Project Component 3 – Management & Coordination (Annex 5)**

Dr. Soetikno gave an overview of the JAIF project activities that made up Component 3 of the Project, i.e. 1) Establish Project Steering Committee, 2) Project Inception & Final Meeting, 3) Prepare Progress Reports (six monthly), 4) Monitoring & Evaluation, and 5) Participation in the ASEAN EWG-PS Meetings.

### **2.3.1. Project Steering Committee**

Project Steering Committee was established during the Project Inception Meeting in 2015. The composition of the Steering Committee members, comprised of:

- Representative of the NPPO Malaysia as the Chair
- Chairperson of APHCN-ASEANET/Project Manager as the Secretary
- Representatives of the NPPOs from Indonesia, Philippines, Singapore, Thailand and Vietnam as Members

In the Final Project Meeting, representatives of the NPPOs from Brunei, Cambodia, Laos and Myanmar were also invited with sponsorship from ASEANET as a board meeting on the future status of APHCN-ASEANET was also scheduled .

### **2.3.2. Project Inception & Final Meetings**

The Project Inception Meeting was organized on 27th July 2015 in Port Dickson and participated by Project Steering Committee members from Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. The report of this Inception Meeting has been prepared and reported to ASEC and JAIF MT (see 1st JAIF Progress Report).

The Final Project Meeting is organized in Putrajaya, Malaysia on 26-27 February 2019. The report is still being finalized for submission to ASEC and JMT.

### **2.3.3. Project Progress Reports (Technical & Financial)**

So far 8 (eight) Progress Reports have been prepared since June 2015:

- 1st Report – 30th October 2015
- 2nd Report – 30th April 2016
- 3rd Report – 30th November 2016
- 4th Report – 20th June 2017
- 5th Report – 30th June 2017
- 6th Report – 28th February 2018

- 7th Report – 28th August 2018
- 8th Report – 10th January 2019

The Project Final/Completion Report is being prepared and will be submitted to ASEC and JAIF MT by end of March 2019.

### **2.3.4. Project Monitoring & Evaluation**

M&E was conducted using a survey instrument provided by the ASEAN Secretariat and data gathered from two ASEANET surveys between August 2017 to September 2018 targeting both training workshop and attachment program participants.

A total of 30 out of 60 trainees from these activities responded to the survey. It is worth noting that while all trainees retain work responsibilities in their area of training, 17 have received further training, while 5 have been promoted. This provided assurance that the trainees were able to disseminate their knowledge to colleagues at work. 3 individuals have published papers. Some 28 trainees reported contributing to specimen collections from the field, being involved directly in project implementation with colleagues, while 21 indicated they provided training for some 30 to 100 other department staff.

Trained individuals have also been the target of further capacity building by their respective departments, 3 individuals have gone on to pursue MSc and PhD degrees.

Responses recorded appropriately support positive conclusions that:

- 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
- respondents confident 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.
- a significant increase in their confidence to identify pest specimens in the target taxonomic group for which they received training, this supported by an increase in the number of specimens for these pest groups in their diagnostic collections, thus improving their value as reference resources.
- publications produced with the benefit of the training received, together with reference laboratory manuals received during training, have led to dissemination of new information.

### **2.3.5. Participation in the ASEAN EWG-PS Meetings**

So far, 3 Progress Reports have been prepared for submission and presentation in the ASEAN EWG-PS:

- a). JAIF Project – Progress Report to 18th ASEAN EWG-HPM
- b). JAIF Project – Progress Report to 19th ASEAN EWG-HPM
- c). JAIF Project – Progress Report to 20th ASEAN EWG-HPM

### ***Session 3: Update on Project Phase 2 (Annex 6)***

Dr. Soetikno briefed the meeting on the selection process of activities that have been used in the preparation of Phase 2 Proposal.

The proposal was based on the list of potential activities discussed and agreed during the Phase 1 Project Inception Meeting in July 2015. These, together with proposals offered by resource persons during the training workshops and attachment programs have been circulated by e-mail to NPPOs of AMS to be ranked based on their respective country

priorities. Ten project activities have been selected and endorsed/approved by the 18th Meeting of ASEAN EWGPS in Laos in July 2016. Based on the approval, these 10 activities were used to prepare the Phase 2 Proposal.

The proposal for Phase 2 of the Project has been developed and submitted to ASEC in November 2016, to seek continued support from JAIF. In this project 10 (ten) Training Workshops and 3 (three) attachment programs with a proposed budget of almost US\$ 2 million had been proposed. After consultation with JAIF Management Team, ASEC has replied in December 2016 with several comments on the Phase 2 proposal for further revision, improvement and submission. ASEC has also suggested the APHCN-ASEANET conduct a survey in the AMS especially for ex-participants of the Phase 1 of the Project on the benefits of the project as well the status of their capabilities relating to their diagnostics expertise and facilities. ASEC has also indicated that JAIF will only accept the Phase 2 project for one year with a maximum budget of US\$ 500,000.-

The revision of the Phase 2 proposal has been prepared with only 2 (two) training workshops and 1 (one) attachment program in Japan, i.e. on:

- a). Training workshop on Diagnostic of Plant Parasitic Nematodes to be held in Indonesia with a Japanese resource person, Dr. Prof. Dr. Hideaki Iwahori from Department of Bioresource Sciences, Faculty of Agriculture, Ryukoku University, Otsu, Shiga 520-2194, Japan.
- b). Training workshop on Diagnostics of Begomovirus and the Use of LAMP-PCR to be held in the Philippines with a Japanese resource person, Prof. Dr. Masashi Ugaki from Laboratory of Bioresource Technology, Department of Integrated Biosciences, Graduate School of Frontier Science, The University of Tokyo, Kashiwa-shi, Chiba-ken 277-8561, Japan.
- c). Attachment program on Diagnostic of Plant Parasitic Nematodes to be held at the Department of Bioresource Sciences, Faculty of Agriculture, Ryukoku University, Otsu, Shiga 520-2194, Japan under the supervision of Prof. H. Iwahori.

The proposed budget has been revised three times with the final budget of US\$ 374,867.85. The revised proposal under new format of ASEAN Project has been submitted to ASEC and JAIF Management Team on 8th January 2019 for their funding consideration and approval.

#### **4. DISCUSSION POINTS FROM THE SESSION**

A total of 66 (sixty-six) plant health officers from the ASEAN member states have participated in the JAIF Training Workshops and 9 (nine) officers attended the Attachment Program. Out of 66 participants in the training workshops, 30 participants (45%) are males and 36 (55%) are females and out of 9 participants in the attachment program, 4 participants (45%) are males and 5 participants (55%) are females.

The SC members agreed to review the list of 23 potential project activities that was used to develop Phase 2 Proposal and to select & submit a list of proposed activities (maximum 5 topics) from their respective countries that they would like to be considered for future project applications. The SC members could also submit new topics related to diagnostics of pests and diseases that are very relevant with current issues on agricultural trade and market access. The SC members requested that the Technical Secretariat of APHCN-ASEANET to prepare a concept proposal based on the agreed new proposed activities.

Related to JAIF Project Monitoring and Evaluation, the SC members agreed to use their good offices to improve the percentage response of trainees to the Post-training Workshop Survey which is currently only 30, i.e. < 50% of the total participants (66). The Technical Secretariat

is requested to then revise the M&E report by including any additional responses in the analysis and use this updated report in the Final Project Report to ASEC and JAIF-MT.

## **5. OTHER MATTERS**

The discussion and recommendations on “Sustainability of APHCN-ASEANET after 2019” is given under a separate report.

## **ACKNOWLEDGEMENT**

This meeting is funded by the Japan-ASEAN Integration Fund (JAIF) through ASEAN Secretariat under the Project No. AGF/CRO/11/007/REG. The Steering Committee members are greatly thankful to JAIF and ASEAN Secretariat for the financial support and assistance.

## **ANNEXES**

Annex 1 – Agenda of the Meeting

Annex 2 – List of Participants

Annex 3 – Report on Project Component 1: Training & Capacity Building

Annex 4 – Report on Project Component 2: Networking & Institutionalization

Annex 5 – Report on Project Component 3: Management & Coordination

Annex 6 – Update on JAIF Project Phase 2 Proposal



## JAIF PROJECT FINAL MEETING CUM ASEANET BOARD MEETING

Putrajaya, Malaysia, 26-27 February 2019

### *Tentative Agenda*

<b>Date &amp; Time</b>	<b>Topics</b>	<b>Moderator</b>
25 <sup>th</sup> February, Monday	Arrival of participants	
26 <sup>th</sup> February, Tuesday		
08.30 am	Registration	
09.00 am	Welcome Address	Dr KY Lum (APHCN-ASEANET)
09.15 am	Opening Address	Mr. Ahmad Kamil (DOA Malaysia)
09.30 am	<b>Session 1:</b> Summary of Project Implementation <ul style="list-style-type: none"> <li>Component 1 – Training &amp; Capacity Building</li> </ul>	Chairperson: Mr. Ahmad Kamil (DOA Malaysia) Dr. Soetikno (APHCN – ASEANET)
09.45 am	<ul style="list-style-type: none"> <li>Component 2 - Networking &amp; Institutionalization</li> </ul>	Dr. Soetikno
10.00 am	<ul style="list-style-type: none"> <li>Project Component 3 – Management &amp; Coordination</li> </ul>	Dr. Soetikno
10.15 am	<b>Morning Tea/Coffee</b>	
10.45 am	Discussion on Project Implementation	All participants of the meeting
11.00 am	Project Monitoring & Evaluation (M&E)	Dr. KY Lum
11.30 am	Discussion on Monitoring & Evaluation	All participants of the meeting
12.00 pm	Update on Project Phase 2	Dr. Soetikno
12.30 pm	Lunch	
02.00 pm	<b>Session 2:</b> Sustainability of APHCN-ASEANET from 2019 & Discussion	Dr. KY Lum
03.00 pm	Other Matters	
03.30 pm	Closing	Dr. KY Lum & Mr. Ahmad Kamil
04.00 pm	<b>Afternoon Tea/Coffee</b>	
27 <sup>th</sup> February, Wednesday	Departure of Participants	



## JAIF PROJECT FINAL MEETING CUM ASEANET BOARD MEETING

Putrajaya, Malaysia, 26-27 February 2019

### List of Participants

1. **Ms. Jormasita @Masita Binti Jormasie**  
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## SUMMARY OF THE PROJECT

The project 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. The project will be completed in 31<sup>st</sup> March 2019 after extended twice.

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

Project Component 1 - Training and Capacity Building  
 Project Component 2 - Networking and Institutionalization  
 Project Component 3 - Management and Coordination



JAIF PROJECT FINAL MEETING *CUM* ASEANET BOARD MEETING  
 “Taxonomic capacity building to support market access  
 for agricultural trade in the ASEAN region”  
 Putrajaya, Malaysia, 26-27 February 2019

## SUMMARY OF PROJECT IMPLEMENTATION

### COMPONENT 1: TRAINING & CAPACITY BUILDING

#### Training Workshops

- a) Diagnostics of Plant Viruses
- b) Diagnostics of Leafminers of Agricultural Importance
- c) Diagnostics of Weevils of Quarantine Importance

#### Attachment Program:

- a) In Plant Viruses
- b) In Leafminers and its Parasitoids
- c) In Weevils with special emphasis on stored product insect pests

## TRAINING WORKSHOP ON DIAGNOSTICS OF PLANT VIRUSES

*Venue:* Institute of Plant Breeding, UPLB, Philippines

*Dates:* 17-28 August 2015

*Resource Persons:*

- 1 from Japan (Prof. Keiko Natsuaki, NODAI, Tokyo)
- More than 5 from IPB-UPLB
- 1 from Indonesia ( Prof. Sri Handrastuti Hidayat, BAU, Bogor)

*Participants:* In total 19 participants with no participant from Singapore and one paying participant from Indonesia. Three males and 16 females.

*Topics given:* 17 lectures, 14 practical in 5 sessions

- Session 1: Opening Program & Introduction
- Session 2: Plant viruses of agricultural crops
- Session 3: Transmission of common plant viruses
- Session 4: Detection of plant viruses using serological and molecular assays.
- Session 5: Strategies in protecting crops from viruses

*Post Evaluation (%):*

- Excellent Results: 73.4
- Good 23.5
- Average 3.1

*Training Outputs:*

- Training Workshop Report
- Training Manual
- Diagnostic Manual

*Participants selected for the Attachment Program:*

- One participant each from Indonesia (F), Malaysia (F) and Vietnam (M)



### TRAINING WORKSHOP ON DIAGNOSTICS OF PLANT VIRUSES

Institute of Plant Breeding, Crop Science Cluster, College of Agriculture,  
University of the Philippines Los Baños, College, Laguna, Philippines  
17-28 August 2015



1<sup>st</sup> ROW: L.R. Prof. Teresita H. Borromeo (Philippines), Nonhaya Sri Madha (Malaysia), Mh. Norhazret Binti Lemia (Malaysia), Germina P. Eusebio (Philippines), Danh Thi Anh Tuyet (Vietnam), Khomsawan Chidamath (Laos/POD), Sangaphol Phalakhone (Laos/POD), Nur Fatmawati Mili (Indonesia), Fatima Sison (Philippines), Su Myt Thare (Myanmar), Sor Sareka (Cambodia), Sani Nurulita (Indonesia), Myint Myint Kheng (Myanmar), Dr. Maria S. Poni (Philippines)  
2<sup>nd</sup> ROW: L.R. Alina Pamela Pizarro (Philippines), Laila Syahira Binti Abdulrahim Lim (Brunei Darussalam), Adi Liana Binti Mimi Aditya (Brunei Darussalam), Darani M. Landoko (Philippines), Tuan Sai Chien (Vietnam), King Sereh (Cambodia), Dr. Lem Keng Thang (Chairperson, APHCA-ASEANET), Dr. Swakiko S. Saiboulomo (Secretary, APORNA-ASEANET), Dr. Koko T. Natsuki (Japan), Sri Setyawan (Indonesia), Lotta M. Dolores (Philippines)  
3<sup>rd</sup> ROW: L.R. James Ann Tumilaka (Philippines), Alexis de Castro (Philippines), Prapen Porapapich (Thailand), Yuenapa Tanbawanch (Thailand), Vima Riza G. Lee (Philippines), Raul P. Pamoca (Philippines), Marcel C. Gonzales (Philippines)



## TRAINING WORKSHOP ON DIAGNOSTICS OF LEAFMINERS OF AGRICULTURAL IMPORTANCE

**Venue:** Museum Zoology Bogor (MZB), LIPI, Cibinong, Indonesia

**Dates:** 29 February – 11 March 2016

**Resource Persons:**

- 1 from Japan (Dr. Hiroaki Sato, Nara Women University, Nara)
- More than 4 from MZB
- 1 from Australia (Dr. Mallik Malipatil, La Trobe University)

**Participants:** In total 20 participants from 10 AMS. Nine males and 11 females.

**Topics given:** 15 sessions

- Session 1: Opening Program & Introduction
- Session 2: Biology of Leafminers
- Session 3: Dipteran leafminer resources on the web
- Session 4: CABI Crop Protection Compendium
- Session 5: Field Trips

*Topics given:*

- Session 6: Preparation of specimens collected from the field
- Session 7: Dissection and slide preparation
- Session 8: Identification
- Session 9: Biology of Lepidoptera
- Session 10: Parasitoids associated with Dipteran & Lepidopteran leafminers
- Session 11: Dissection and preparation of genitalia slides
- Session 12: Preparation of wings
- Session 13: Identification of Lepidopteran leafminers
- Session 14: Slide preparation for larvae
- Session 15: DNA Barcoding

*Post Evaluation (%):*

- Confident in leafminers identification: 70.0
- Confident in giving advice on leafminers: 55.0
- Confident in preparing slides: 50.0
- Sufficient facilities to conduct DNA analysis: 45
- Good to excellent results in technical evaluation: 85.5

*Training Outputs:*

- Training Workshop Report
- Training Manual

*Participants selected for the Attachment Program:*

- One participant each from Indonesia (F), Malaysia (F) and Vietnam (M)



## TRAINING WORKSHOP ON DIAGNOSTICS OF WEEVILS OF QUARANTINE IMPORTANCE

**Venue:** Institute of Weed Science, Entomology and Plant Pathology (IWEP), UPLB, Philippines

**Dates:** 10 - 22 July 2017

**Resource Persons:**

- 1 from Japan (Dr. Hiraku Yoshitake, Institute for Agro-Environmental Sciences, NARO, Tsukuba)
- More than 5 from IWEP

**Participants:** In total 19 participants from 10 AMS (Only one from Singapore). Twelve males and 7 females participants.

**Topics given:** 11 sessions (15 lectures and 10 practicals)

- Session 1: Opening Program & Introduction
- Session 2: Habitus identification of weevils using keys
- Session 3: Weevils in agricultural crops
- Session 4: Field collection in storage facilities

*Topics given:*

- Session 5: Field collection in agricultural farms
- Session 6: Weevils as storage pest and their control
- Session 7: Preservation techniques
- Session 8 & 9: DNA sequencing techniques
- Session 10: Quarantine policies
- Session 11: Weevils information resources on the web

*Post Evaluation (%):*

- Excellent Results: 21
- Good: 37
- Average: 26
- Below average: 16

*Training Outputs:*

- Training Workshop Report
- Training Manual

*Participants selected for the Attachment Program:*

- One participant each from Indonesia (M), Thailand (M) and Vietnam (F)



## STUDY VISIT TO JAPAN NATION SPS/PLANT HEALTH LABORATORIES CUM TRAINING-WORKSHOP ON THE IDENTIFICATION OF FRUIT FLIES

*Coordinator:* Graduate School of Agriculture, Tokyo University of Agriculture

*Dates:* 18 November – 2 December 2017

*Resource Persons:*

- From Tokyo University of Agriculture (Setagaya & Atsugi Campus)
- From Yokohama Plant Protection Station
- Tsukuba Post-entry Quarantine Station
- Naha Plant Protection Station, Okinawa
- Fruit Fly Eradication Project Office , Okinawa

*Participants:* In total 8 participants from 8 AMS (No participants from Brunei and Singapore) and one from ASEANET. Six males and 2 females participants.

*Topics given:*

- History and education policy of Tokyo NODAI in agricultural and life sciences
- Agriculture in Japan and recent topics in plant protection in Japan
- Introduction of Weevils and Their Identification Primer
- Principal operations of Haneda Sub-Station: Import plant quarantine & Major import prohibited items brought into Haneda Airport
- Principal operations of Tsukuba Post-entry quarantine station.
- Observation of vine and other orchard tree seedlings under 24 hrs air-conditioned green houses for at least one cropping season for plant quarantine confirmation.
- Morphological classification and identification of fruit fly
- Ecology, control measures and treatments for fruit fly
- Fruit fly diagnosis with molecular technology
- Classification and identification for fruit fly
- Mass rearing of fruit flies to be prepared for outbreak
- Sterile fruit fly male using irradiation of Co 60 and male annihilation technique, sterile insect technique used for eradication program.

### *Training Outputs:*

- Training Workshop Report
- Training Manual



### ***OBJECTIVES OF THE ATTACHMENT PROGRAM***

- 1. To transfer skills and knowledge of Japanese experts on a particular group of insect pests/nematodes/diseases to counterparts in ASEAN countries so as to promote confidence of the participants in the diagnostics of pests and taxonomic identification.**
- 2. To strengthen the diagnosis capacity by providing participants with practical understanding of the problems caused by insect pests/nematodes/diseases, their identification (morphological and molecular) and management practices, and**
- 3. To tap the selected participants that would undergo more intensive technical training towards being a potential ASEAN resource person on identification of this pest and disease to provide them gained expertise to ASEAN member states and the ASEAN Diagnostic Network.**

## ATTACHMENT PROGRAM IN ADVANCED DIAGNOSTICS OF PLANT VIRUSES

*Coordinator:* Graduate School of Agriculture, Tokyo University of Agriculture

*Dates:* 26 October – 25 December 2015

*Main Resource Persons:*

- Prof. Keiko Natsuaki, Tokyo University of Agriculture (Setagaya Campus)
- Dr. Marita Pinili, Institute of Plant Breeding, UPLB, Philippines

*Participants:*

1. Ms. Norhayati bti Madiha (Malaysia)
2. Mr. Tran Van Chien (Vietnam)
3. Ms. Nur Fitriawati (Indonesia)

*Main topics given (lectures and practical):*

1. History and education policy of Tokyo NODAI
2. Molecular detection of plant viruses
3. Plant Nematology
4. Use of database and phylogenic analysis

*Main topics given (lectures and practical):*

5. Artificial inoculation including preparation of inoculation buffer and index plants.
6. Aphid inoculation of banana viruses.
7. RT-PCR detection of the genus Potyvirus and Cucumber mosaic virus including preparation of necessary solutions.
8. PCR detection of DNA virus such as Banana bunchy top virus including preparation of necessary solutions.
9. Electron microscopic observation technology including preparation of samples and PTA staining solution.
10. ELISA for Potyvirus using several samples such as bamboo, passion fruits, papaya and others. Preparation and results analysis were also included.
11. Gel-electrophoresis for protein analysis.
12. FTA sheets sample storage
13. Detection of ds-RNA for unknown viruses at Utsunomiya University

*Training Outputs:*

- Attachment Reports (by 3 participants)
- Attachment Report by Prof. Natsuaki



## ATTACHMENT PROGRAM ON DIAGNOSTICS OF LEAFMINERS OF AGRICULTURAL IMPORTANCE

*Coordinator:* Department of Biological Sciences, Faculty of Science, Nara Women's University, Nara, Japan

*Dates:* 1 August –30 September 2016

*Main Resource Persons:*

- Prof. Hiroaki Sato, Nara Women's University, Nara, Japan
- Resource persons from different universities in Japan.

*Participants:*

1. Ms. Ariene Garcia-CASTILLO (Singapore)
2. Dr. Yuvarin BOONTOP (Thailand)

*Program of the Attachment:*

1. Nara Women's University
  - a). Lectures on leafminer taxonomy, morphology and ecology using articles and specialist books
  - b). Collecting leafminers in natural fields in the vicinity of Nara City

*Program of the Attachment:*

- c). Rearing leafminers in the laboratory
- d). Making genitalia preparations
2. Kyoto Prefectural University
  - a). Lectures on “Phylogeography on the basis of DNA sequence data”.
  - b). How to use software for alignment of DNA sequences and analysis of population genetic structure and phylo-geography
  - c). How to extract DNA, amplify COI barcoding region by PCR, purify PCR products and sequence COI barcoding region.
  - d). How to keep a lepidopteran leafminer, *Acrocercops transecta*, through successive generations in the laboratory.
3. Osaka Prefectural University
  - a). Visit to Entomological Laboratory of Osaka Prefectural University and observe insect specimen collection
  - b). Lecture on taxonomic work on small moths of Thailand

*Program of the Attachment:*

4. Natural History Museum of Osaka City

- a). Visit Natural History Museum of Osaka City and observe insect specimen collection.

5. Kyushu University

Lectures and practical courses on the following topics:

- a). Two invasive dipteran leafminers, *Liriomyza trifolii* and *L. sativae*, in Japan
- b). Taxonomy of Japanese lepidopteran leafminers
- c). Observation of genitalia of *Liriomyza trifolii* and *L. sativae*
- d). Observation of the larva of *Gronotoma micromorpha* (Hymenoptera, Eucolidae) attacking dipteran leafminer *Liriomyza trifolii* and *L. sativae*
- e). How to keep dipteran leafminers, *Liriomyza trifolii* and *L. sativae*, and their parasitoid, *Gronotoma micromorpha*, through successive generations in the laboratory
- f). How to identify the families at basal clades of lepidopteran phylogeny.

*Program of the Attachment:*

6. Agriculture Research and Development Center of Nara Prefecture

Lectures and visits on “Management of dipteran leafminers *Liriomyza trifolii* and *L. sativae*”-

- a). In greenhouses on the center
  - b). In local farmers' greenhouses in which tomatoes and spinach were cultivated
  - c). In a local farmer's field of long onions
7. Hokkaido University
- a). Field trip to see leafminers attacking *Quercus dentata*. Collection of leafminers specimens from oak trees in the forest and rearing them in the laboratory. Prepare specimens from collected adults.
8. Apple Research Institute of Aomori Prefecture
- a). Lectures on the history and activities of the institute and on an apple leafminer, *Phyllonorycter ringoniella* and its control.
  - b). Field trip to apple plantation to see and discuss on apple trees management from pests including apple leafminers.

**Training Outputs:**

- Attachment Reports (by 2 participants)
- Attachment Report by Prof. H. Sato



## ATTACHMENT PROGRAM ON DIAGNOSTICS OF LEAFMINERS AND THEIR PARASITIDS OF AGRICULTURAL IMPORTANCE

**Coordinator:** Department of Entomology, Museum Zoology Bogor (MZB), Cibinong, Indonesia.

**Dates:** 1 August –30 September 2016

**Main Resource Persons from MZB:**

- Dr. Awit Suwito (Diptera)
- Dr. Hari Sutrisno (Lepidopteran moths)
- Profesor Dr. Rosichon Ubaidillah (Parasitic Wasps)

**Participants:**

1. Mohd Sanusi Mohd Kasim (Malaysia)

**Program of the Attachment:**

Lectures, field collection and practical on:

- a). Dipteran leaf miners in South East Asia and minor subject of lepidopteran leaf miners.
- b). South East Asian parasitoids of dipteran leafminers

*Program of the Attachment:*

- c). the use of species identification key and related references for leafminer and their parasitoid.
- d). Understanding surveillance technique, sampling and rearing, mounting specimens leafminers and the parasitic wasps that associated with leafminers.
- e). Practical using Dino lite digital microscope for imaging specimen, making scales on the pictures for each magnification and learn how to combine multilayer image using Helicone focus / Combine ZP as well as the editing pictures using Adobe Photoshop.
- f). Technical drawing specimens digitally/ konvensional
- g). Understanding about the concept of leafminers and their parasitoid management, how seriously they damaged horticultural crops, and how to control them appropriately using some potential parasitoids.

*Training Outputs:*

- Attachment Reports (by the participant)
- Attachment Report by Dr. Hari Sutrisno



## ATTACHMENT PROGRAM ON DIAGNOSTICS OF WEEVILS OF QUARANTINE IMPORTANCE

*Coordinator:* Graduate School of Agriculture, Tokyo University of Agriculture

*Dates:* 7 November – 19 December 2018

*Main Resource Persons:*

- Prof. K. Natsuaki and Prof. H. Kojima, Tokyo University of Agriculture
- Resource persons from different stations of Yokohama and Kobe Plant Protection Centres, Ministry of Agriculture, Fisheries and Forestry Japan.

*Participants:*

1. Mr. Kemas Usman (Indonesia)
2. Dr. Hoang Kim Thoa (Vietnam)
3. Mr. Ittipon Bannakan (Thailand)

*Program of the Attachment with focus on storage insect pests:*

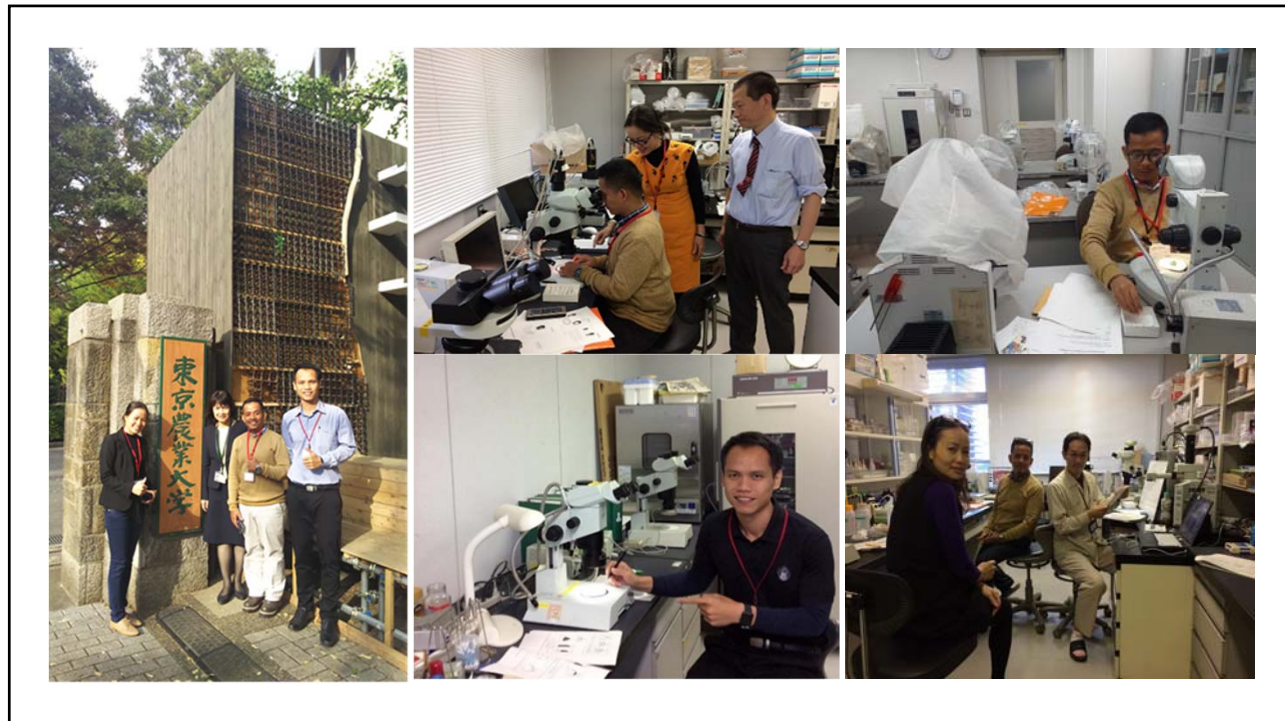
1. Identification of some families in Coleoptera (as a storage pests) by morphological characters using identification key.
2. Identification of some species in Dermestidae (as a storage pests) by morphological characters using identification key.

*Program of the Attachment:*

3. Identification of Lepidopteran larvae (as a storage pests) by morphological characters using identification key.
4. Identification of Lepidopteran imago by morphological characters using identification key.
5. Identification of Darkling Beetles
6. Identification of Seed Beetles
7. Identification of some families and sub families of Coleoptera (as a storage pests and field pests) by morphological characters using identification key

*Training Outputs:*

- Attachment Reports (by the 3 participants)
- Attachment Report by Prof. Keiko Natsuaki



*Program of the Attachment:*

3. Identification of Lepidopteran larvae (as a storage pests) by morphological characters using identification key.
4. Identification of Lepidopteran imago by morphological characters using identification key.
5. Identification of Darkling Beetles
6. Identification of Seed Beetles
7. Identification of some families and sub families of Coleoptera (as a storage pests and field pests) by morphological characters using identification key

*Training Outputs:*

- Attachment Reports (by the 3 participants)
- Attachment Report by Prof. Keiko Natsuaki

*Program of the Attachment:*

3. Identification of Lepidopteran larvae (as a storage pests) by morphological characters using identification key.
4. Identification of Lepidopteran imago by morphological characters using identification key.
5. Identification of Darkling Beetles
6. Identification of Seed Beetles
7. Identification of some families and sub families of Coleoptera (as a storage pests and field pests) by morphological characters using identification key

*Training Outputs:*

- Attachment Reports (by the 3 participants)
- Attachment Report by Prof. Keiko Natsuaki

**GENDER COMPOSITION OF PARTICIPANTS***Training Workshops:*

	Male		Female		Total	
Plant Viruses	3	(16)	16	(84)	19	(100)
Leafminers	9	(45)	11	(55)	20	(100)
Weevils	12	(63)	7	(37)	19	(100)
Study Visits	6	(75)	2	(25)	8	(100)
<b>Total</b>	<b>30</b>	<b>(45)</b>	<b>36</b>	<b>(55)</b>	<b>66</b>	<b>(100)</b>

## GENDER COMPOSITION OF PARTICIPANTS

*Attachment Program:*

	Male		Female		Total	
Plant Viruses	1	(33.4)	2	(66.6)	3	(100)
Leafminers	1	(33.4)	2	(66.6)	3	(100)
Weevils	2	(66.6)	1	(33.4)	3	(100)
<b>Total</b>	<b>4</b>	<b>(44.4)</b>	<b>5</b>	<b>(55.6)</b>	<b>9</b>	<b>(100)</b>

Thank  
you




## SUMMARY OF PROJECT IMPLEMENTATION

### COMPONENT 2: NETWORKING AND INSTITUTIONALIZATION

**Activity 1 : Developed expertise register** i.e., a database of individual experts and diagnostic laboratories available to the Network (e.g. name of experts, contact details and particular expertise, laboratories that provides diagnostic work and assistance, etc.).

**Activity 2: Developed a website** to include, e.g. expert register (from ASEAN + 3 nations and from anywhere in the world), major pests & diseases of potential crops in the ASEAN, diagnostic resources and tools, e-application for diagnostic services, etc.

**Activity 3: Developed promotional materials**, e.g. flyers, posters, data-sheets, stickers, standard presentation, etc.



JAIF PROJECT FINAL MEETING *CUM* ASEANET BOARD MEETING


“Taxonomic capacity building to support market access  
for agricultural trade in the ASEAN region”

Putrajaya, Malaysia, 26-27 February 2019

### ACTIVITY 1: TO DEVELOP EXPERT REGISTER

The expert register has already been 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 in the past. The register is currently being updated to include all participants of training workshops and its resource persons from the Phase 1 Project.

There are a total of 194 experts who have attended taxonomy and capacity building workshops. Their expertise span across several pests and diseases.











## ASEANET - The ASEAN Network on Taxonomy

Bringing taxonomy and biosystematics to the ASEAN region

▼ HOME
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### Expert Register

	Name	Country		
+	<b>Add Expert (194)</b>		◀	<b>Prev 20 of 20</b>
	Dr Silvino Merca	Philippines		<b>X</b>
	Isabelita Oña	Philippines		<b>X</b>
	Dr T.W. Mew	Philippines		<b>X</b>
	Maria Ymber Reveche	Philippines		<b>X</b>

Welcome Chan Fook Wing

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**Activities**

**Expert register list - <http://aseanet.org/Login.asp?f=ER>**

## ACTIVITY 2: TO DEVELOP WEBSITE

<http://www.aseanet.org/JAIF1.asp>



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### Taxonomic capacity building to support market access for agricultural trade in the ASEAN region

[Activities](#) | [Publications](#) | [Images](#)

#### Overview

This project will develop and strengthen capacities in taxonomic knowledge to identify and manage quarantine risks associated with agriculture 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 Workshop on the Planning Meeting of ARDN held in Vientiane, Lao PDR, organized by ASEANET in collaboration of and supported by NZAid-Plant Health and AusAID SPS Capacity Building programs.

[See more...](#)

Three (3) major activities will be undertaken in this project in line with

**ARDN (ASEAN Regional Diagnostic Network)**

The ASEAN Regional Diagnostic Network is envisaged as a system that would provide identifications of organisms of agricultural importance (especially plant pests, diseases and weeds) detected in the South-East Asian region.

[See more...](#)

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**Activities**

Training Workshop on Diagnostics of Leafminers of Agricultural Importance

Training Workshop on Diagnostics of Plant Viruses


Project Inception & Steering Committee Meeting

**News**

A new species of pest fruit fly (Diptera: Tephritidae: Dacinae) from Sri Lanka and Africa

Biodiversity and Human Well-being: A Synthesis Report for the Convention on Biological Diversity

**Front page of the Website – JAIF Project**






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### JAIF - Project Activities

- ▶ **Training Workshop on Diagnostics of Leafminers of Agricultural Importance, 29th Feb - 11th March 2016, Research Center for Biology, Cibinong, Bogor, Indonesia**






The workshop teaches participants on the importance of taxonomy and ecology of leafminers from the viewpoint of pest management and providing instruction on identification of leafminers by morphological characteristics and DNA barcoding


[Read more...](#)




[Background Information and](#)



[Participant List](#)



[Participant List 2](#)



[Poster - Liriomyza in Indonesia](#)

### Search

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### Activities

- Training Workshop on Diagnostics of Leafminers of Agricultural Importance
- Training Workshop on Diagnostics of Plant Viruses
- Project Inception & Steering Committee Meeting

### News

- A new species of pest fruit fly (Diptera: Tephritidae: Dacinae) from Sri Lanka and Africa
- Biodiversity and Human Well-being: A Synthesis Report for the Convention on Biological Diversity

**Section on Project Activities with Summary, Images and Reports**



## ASEANET - The ASEAN Network on Taxonomy


Bringing taxonomy and biosystematics to the ASEAN region

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### Attachment Program in Plant Virology at Tokyo University of Agriculture, Japan

*Date: 26th Oct - 25th Dec 2015*

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 of providing a basic understanding of the concepts of plant viruses and practical measures, a diagnosis of infected plants, and to learn the latest technology and management of diseases involving viral diseases




### Search

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### Activities

- 18th Meeting of the Experts Working Group on Harmonisation of Phytosanitary Measures in ASEAN
- Attachment Program in Diagnostic of Leaf-miners at Nara Women University, Japan
- Attachment Program in Plant Virology at Tokyo University of Agriculture, Japan

### News

- A new species of pest fruit fly (Diptera: Tephritidae: Dacinae) from Sri Lanka and Africa
- Biodiversity and Human Well-being: A Synthesis Report for the Convention on Biological Diversity

**Section on Attachment Program with Summary, Images and Description**

## ACTIVITY 3: TO DEVELOP PROMOTIONAL MATERIALS

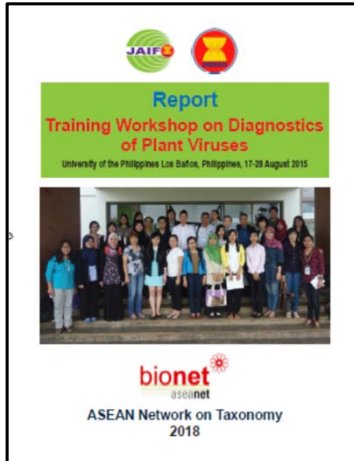
### Printing Fliers:



### Standardized Presentation:



**JAIF FUNDED PROJECT -  
"Taxonomic capacity building to support market access  
for agricultural trade in the ASEAN region"**



### PRINTING TRAINING REPORTS

Thank  
you



## SUMMARY OF PROJECT IMPLEMENTATION

### COMPONENT 3: MANAGEMENT AND COORDINATION

1. Prepare Progress Reports (six monthly)
2. Monitoring & Evaluation
3. Project Inception & Final Meeting
4. Participation in the ASEAN EWG-PS Meetings



JAIF PROJECT FINAL MEETING *CUM* ASEANET BOARD MEETING  
 “Taxonomic capacity building to support market access  
 for agricultural trade in the ASEAN region”  
 Putrajaya, Malaysia, 26-27 February 2019

### COMPONENT 3: MANAGEMENT & COORDINATION

#### 1. Progress Reports (Technical and Financial)

So far 8 (eight) Progress Reports have been prepared:

- 1<sup>st</sup> Report – 30<sup>th</sup> October 2015
- 2<sup>nd</sup> Report – 30<sup>th</sup> April 2016
- 3<sup>rd</sup> Report – 30<sup>th</sup> November 2016
- 4<sup>th</sup> Report – 20<sup>th</sup> June 2017
- 5<sup>th</sup> Report – 30<sup>th</sup> June 2017
- 6<sup>th</sup> Report – 28<sup>th</sup> February 2018
- 7<sup>th</sup> Report – 28<sup>th</sup> August 2018
- 8<sup>th</sup> Report – 10<sup>th</sup> January 2019

## **2. Monitoring & Evaluation**

- a). M&E using questionnaire from ASEC**
- b). M&E using questionnaire from ASEANET**
- c). Monitoring visit to Japan to discuss with collaborators and potential collaborators on the current and future programs**

**(M&E will be presented by Dr. KY Lum)**

## **3. Project Inception & Final Meetings**

- a). Project Inception Meeting – 27<sup>th</sup> July 2015 in Port Dickson  
Participated by Project SC members from Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam**
- b). Project Final Meeting – 26<sup>th</sup> February 2019 in Putrajaya**

## **4. ASEAN EWG-PS Meetings**

- a). JAIF Project – Progress Report to 18<sup>th</sup> ASEAN EWG-HPM**
- b). JAIF Project – Progress Report to 19<sup>th</sup> ASEAN EWG-HPM**
- c). JAIF Project – Progress Report to 20<sup>th</sup> ASEAN EWG-HPM**

### FINANCIAL OVERVIEW OF THE PROJECT (US\$)

	JAIF	In kind / Other	Total
Total project budget (US\$)	892,354.10	10,000.00*	902,354.10
Total amount received to date (US\$)	847,736.40	10,000.00	857,736.40
Total expenditure to date (US\$)	732,108.85	10,000.00	742,108.85
Unspent/(Overspent) funds (US\$)	160,245.24	0	160,245.24

\* From AANZ-FTA Program to support 1 resource person from Australia

Thank  
you




## SUMMARY OF THE PHASE 2 PROPOSAL

The proposal was based on the list of potential activities discussed and agreed during the Phase 1 Project Inception Meeting in July 2015. These, together with proposals offered by resource persons during the training workshops and attachment programs have been circulated by e-mail to NPPOs of AMS to be ranked based on their respective country priorities. Ten project activities have been selected and endorsed/approved by the 18<sup>th</sup> Meeting of ASEAN EWGPS in Laos in July 2016. Based on the approval, these 10 activities were used to prepare the Phase 2 Proposal.



JAIF PROJECT FINAL MEETING *CUM* ASEANET BOARD MEETING  
 “Taxonomic capacity building to support market access  
 for agricultural trade in the ASEAN region”  
 Putrajaya, Malaysia, 26-27 February 2019

### List of training/workshop activities for future project development

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

List of proposed training/workshop activities for 2<sup>nd</sup> 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 <i>Phytophthora</i> 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 meko 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/insect 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 <sup>st</sup> attachment program)	X	X	X	X	X	X	X			X
23	Advanced training workshop on DNA Extraction and Barcoding (recommendation from the 1 <sup>st</sup> attachment program)			X					X	X	

From August  
to December  
2015

**Prioritized Topics for a Second Phase to the Project  
(Endorsed by the 18<sup>th</sup> Meeting of ASEAN EWG-PS, July 2016)**

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

**Prioritized Topics for a Second Phase to the JAIF Project  
(After consultation in Japan in August 2016)**

No.	Topic
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
9	Detection and identification of phytoplasmas (e.g. for cassava)
10	Preservation and management of plant/disease/insect specimens

**Proposal for Phase 2 JAIF Project**

**PROJECT TITLE: TAXONOMIC CAPACITY BUILDING TO SUPPORT MARKET ACCESS FOR AGRICULTURAL TRADE IN THE ASEAN REGION**

**PROJECT PREPARATION: August to October 2016**

**PROJECT SUBMISSION: November 2016**

**PROJECT ACTIVITIES:**

1. Training & Capacity Building - 7 Training Workshops & 3 Attachment Programs
2. Networking & Institutional Management
3. Project Monitoring & Management

**TOTAL BUDGET: US\$1,955,838.00**

**COMMENTS FROM ASEC: December 2016**

Budget limited to US\$ 500,000.- with only 1-year Project

**1<sup>ST</sup> REVISED PROPOSAL: May 2017 with proposed budget of US\$ 500,000.-**

**REVISED PROJECT ACTIVITIES:**

1. Training & Capacity Building - 2 Training Workshops & 2 Attachment Program
2. Networking & Institutional Management
3. Project Monitoring & Management

**2<sup>nd</sup> REVISED PROPOSAL: June 2017 with proposed budget of US\$ 379,163.00**

**3<sup>rd</sup> REVISED PROPOSAL: 8 January 2019 with proposed budget of US\$ 374,867.85**

## TRAINING WORKSHOPS

1. Study visit to national SPS/Plant Health laboratories and training workshop on identification of fruit flies in Japan
2. Training Workshop on Diagnostics of Pest Nematodes
3. Training Workshop on Diagnostic of Thrips of Agricultural Importance
4. Training Workshop on DNA Extraction and Barcoding
5. Training Workshop on diagnostics of Begomovirus and the use of LAMP-PCR
6. Training Workshop on Pest Risk Analysis
7. Training Workshop on identification of Weed Seeds associated with grain commodities
8. Training Workshop on Detection and Identification of Phytoplasmas (e.g. for cassava)
9. Training Workshop on Preservation and Management of plant/disease/ insect specimen's collections
10. Training Workshop on Pest Surveillance Techniques

## ATTACHMENT PROGRAM

1. Diagnostics of Pest Nematodes
2. DNA Extraction and Barcoding
3. Detection and Identification of Phytoplasmas

### Component 1 of Phase 2 JAIF Project

- a). Training workshop on Diagnostic of Plant Parasitic Nematodes to be held in Indonesia with a Japanese resource person, Dr. Prof. Dr. Hideaki Iwahori from Department of Bioresource Sciences, Faculty of Agriculture, Ryukoku University, Otsu, Shiga 520-2194, Japan.
- b). Training workshop on Diagnostics of Begomovirus and the Use of LAMP-PCR to be held in the Philippines with a Japanese resource person, Prof. Dr. Masashi Ugaki from Laboratory of Bioresource Technology, Department of Integrated Biosciences, Graduate School of Frontier Science, The University of Tokyo, Kashiwa-shi, Chiba-ken 277-8561, Japan.
- c). Attachment program on Diagnostic of Plant Parasitic Nematodes to be held at the Department of Bioresource Sciences, Faculty of Agriculture, Ryukoku University, Otsu, Shiga 520-2194, Japan under the supervision of Prof. H. Iwahori.

Thank  
you

