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

Japan, 18th November to 2nd December 2017

1. BACKGROUND INFORMATION & JUSTIFICATION

The ASEAN Plant Health Cooperation Network (APHCN) – ASEANET Project **"Taxonomic capacity building to support market access for agricultural trade in the ASEAN region",** funded by the Japan ASEAN Integration Fund (JAIF) has successfully implemented several activities related to capacity building for ASEAN Plant Quarantine & Plant Protection officers and this project is due to be concluded in April 2017. We are considering proposing a 2nd Phase, based on the recommendations from the 10 ASEAN member countries, to organize more capacity building activities (mostly Training Workshop on Diagnostics of major pests and diseases for 2 weeks).

One key activity identified as the highest priority to be proposed is a "study visit" to Plant Quarantine & Plant Protection System in Japan to allow ASEAN plant health and quarantine personnel to better understand and appreciate the role played by an efficient plant quarantine system in preventing pest incursions. The National Plant Protection Office of Japan has demonstrated a very efficient plant quarantine and plant protection system in the Asia-Pacific and as a trading partner of ASEAN it is timely that this study visit *cum* training workshop should be organized under the project.

The activity has been planned to offer a hands-on opportunity for senior plant protection and quarantine officials to gain practical knowledge on the efficient operation of a national system in the developed world. This opportunity is not possible through something like a training workshop. Additionally, face-to-face swith Japanese personnel will help build relationships that will help in trade-related activities between Japan and ASEAN.

The Study Visit and Training Workshop on the Identification of Fruit Flies in Japan was organized from 18th November to 2nd December 2017 and participated by 8 plant health officers from ASEAN and 1 training coordinator from ASEANET. The study visit was coordinated by Prof. Keiko Natsuaki from Tokyo University of Agriculture, Japan.

2. OBJECTIVES:

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, 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 an overall impression 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.

3. PARTICIPANTS:

Eight senior officers from ASEAN NPPOs and one training coordinator from ASEANET participated in the study visit. The eight-senior plant quarantine and plant protection officers from the 8 ASEAN countries, i.e. Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand and Vietnam were selected by their NPPO/Project Focal Points (one per country). All travel arrangements to Japan were coordinated by ASEANET and their costs in Japan (food & accommodation, etc.) paid for by JAIF project, after their approval, through ASEANET.

The ASEAN participants were selected based on one or more of the following criteria:

- Have been in the position of Division/Section/Department Head and or as policy makers
- Minimum with BS degree in biology, agriculture or related field
- Have been working as researcher in entomology or closely related fields for more than 10 years.
- Plant health or quarantine officer involved in insect pest diagnosis and preferably in fruit flies with 10 or more years of experience.
- The successful candidates have a strong commitment to education and research, excellent communication skills, and the desire and ability to work cooperatively in their own country or in the regional-multi country projects.
- Willing to act as resource person in capacity building for other officers from the ASEAN member states following training.

The list of participants is given in the **Attachment 1.**

4. ARRANGEMENTS

Contact persons in Japan:

- **Prof. Dr. Keiko NATSUAKI**, Dean, Graduate School of Agriculture, Tokyo University of Agriculture, Sakuragaoka, Setagaya-ku, Tokyo 156-8502, JAPAN, E-mail: keiko@nodai.ac.jp
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5. PROGRAM OF THE STUDY VISIT

The program of the Study Visit was prepared by the Plant Quarantine Office, MAFF Japan in collaboration with the Graduate School of Agriculture, TUA, Japan. The Program is given in the **Attachment 2.**

6. SUMMARY OF ACTIVITIES

Tokyo University of Agriculture, Setagaya Campus

A series of lectures were given for participants at Setagaya Campus, Tokyo University of Agriculture in November 20th (1st day) and November 30 (last day).

- General guidance of the program (Dr. Prof. K.T.Natsuaki, Tokyo University of Agriculture, NODAI)
- History and education policy of Tokyo NODAI in agricultural and life sciences (ditto)
- Agriculture in Japan and recent topics in plant protection in Japan (ditto)
- Introduction of rice virus and their vectors in Africa (Mr. Patrick G. Odongo, National Crops Resources Research Institute=NaCRRI, Uganda, currently a master course student under ABE initiatives-JAPAN)
- Introduction of Cambodia, Thailand, Vietnam and Japan collaborating research project on new cassava diseases and pests (Mr. Phanuwat Moonjuntha, Rayong Field Crop Research Center-FCRC, Thailand, currently a long-term trainee under SATREPS project)
- General Introduction from plant protection office, MAFF (Mr. Yukio Yokoi, MAFF)

Tokyo University of Agriculture, Atsugi Campus

A series of observations, lectures and laboratory work were given to participants at Atsugi campus, Tokyo NODAI.

- Introduction of Weevils and Their Identification Primer by Dr. H.Kojima
- Launching of Nodai-branded Pepino Crop by Dr. T.Ishikawa
- Visit and observation of Atsugi campus fields and laboratories.

Plant Protection Office: Haneda Sub-station and Tsukuba Post-entry Quarantine Station, Ibaraki

Visit to Yokohama Plant Protection Station Haneda Sub-Station in the morning of November 22nd.

- Lectures on Principal Operations of Haneda Sub-Station, Import Plant Quarantine and Major Import Prohibited Items Brought into Haneda Airport
- Visit plant quarantine counter in the Airport
- Knowledge on Intrusion Caution Survey in the Vicinity of Haneda Airport.

Visit to Tsukuba Post-entry quarantine station, Ibaraki in the afternoon of November 22nd.

- Lectures on 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.

National Museum of Emerging Science and Innovation, Tokyo

Visit to National Museum of Emerging Science and Innovation in Tokyo to see exhibition including "Beautiful Rice - For a Sustainable Future" in November 23rd.

Naha Plant Protection Station in Okinawa

Lectures and observation at Fruit Fly Eradication Project Office and Naha Plant Protection Station in Okinawa. November 24-25.

- History and procedure which Okinawa made free from Oriental fruit fly and Melon fly
- Monitoring and evaluation project overview.
- 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.
- Exportation of dragon fruits from Vietnam to Japan using on-site VHT (Vapor heat treatment) to control fruit fly invasion.
- Fruit Fly Eradication Project Office

Yokohama Plant Protection Station, Yokohama

Lectures and practical at Yokohama Plant Protection Station (Shin-Yamashita office) in Yokohama, from November 27th to 29th.

- 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

Tokyo NODAI Food and Agriculture Museum

Visit to Tokyo NODAI Food and Agriculture Museum and Research Institute of Evolutionary Biology on November 30th morning under the guidance of Dr. Imaki.

Final presentation from participants

After the preparation and lectures on November 30 afternoon and on December 1, each of 8 participants gave oral presentations on plant quarantine for each of their country and also the outcome of this program for 15 min each with the attendance of Dr. Natsuaki, graduate and undergraduate students of Tokyo NODAI, and three plant quarantine officers from Yokohama at Tokyo NODAI.

Closing Ceremony and Presentation of Certificates

Participation to the certification ceremony and the farewell party on December 1. Interaction and communication with Japanese students and also international students from Thailand, Taiwan, Uganda, and others was facilitated. Some of the participants met Tokyo NODAI students from Myanmar, Thailand and others.

7. OUTCOMES OF THE STUDY VISIT AND TRAINING

a) All participants have learnt more advanced knowledge and information on plant protection and fruit fly management which is of crucial importance to all ASEAN countries.
b) By on-site training at plant quarantine research stations and related facilities, the participants better understood the latest information and identification techniques related to Plant Health/SPS issues.
c) All participants understood more about plant quarantine system in Japan as well as ASEAN countries by exchange of information among the participants and resource persons.
d) All participants have improved their ability and deepen their knowledge on fruit fly identification and management as well as plant protection science in general by discussion with resource speakers.

8. RECOMMENDATIONS

a) In future similar activities, at least two trainees from each of ASEAN counties to be selected to join the training workshop. This is because only one trainee per country is not enough to disseminate the outcomes of this training workshop to his/her institutions. Multiple trainees from each of ASEAN countries with different backgrounds (gender, specific fields, age, etc.) can offer better synergy between each other during the training workshop.
b) It was suggested by Prof. Natsuaki that the training program for diagnostics of Begomoviruses, the use of LAMP, and/or diagnostics of new cassava mosaic virus which emerged in Cambodia and Vietnam only very recently should be organized under JAIF Project. These newly discovered diseases were considered as serious plant health issues.

c) It was suggested that through this project a 3 months Attachment Program on Diagnostics of Fruitflies – through morphological and molecular identification should be organized at the Yokohama Plant Protection Research Centre.
d) The training on plant quarantine/protection should be given a high priority in the ASEAN as FAO has sets the year of 2020 as the “International Year of Plant Health (IYPH).
e) To maintain the network and communication among participants.

Photos taken during the Visit

The first day at Tokyo University of Agriculture at the main entrance with Dr. Natsuaki on November 20.

Greetings and general introduction of plant protection in Japan by Mr. Y.Yokoi, MAFF at Tokyo NODAI

Visit of Atsugi campus farm and lectures, Tokyo NODAI on November 21.

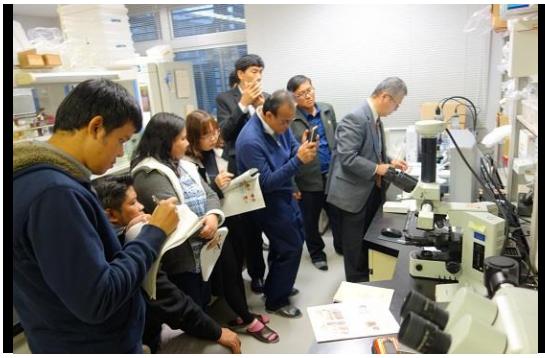

Observation at Atsugi university farm and lecture by Dr. Ishikawa

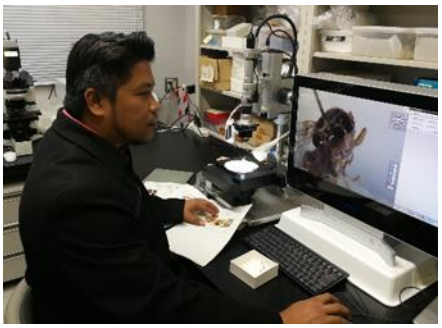
Visit to Haneda plant quarantine sub-stations on November 22.


Visit of post-entry quarantine facilities in Tsukuba on November 23.


Visit to Fruit Fly Eradication Project Office and Naha Plant Protection Station in Okinawa.
November 24-25


Visit to Miraikan=National Museum of Emerging Science and Innovation on November 26.




At Yokohama Plant Quarantine Research Station on November 27-29.

Visit to Tokyo NODAI Food and Agriculture museum and
The Research Institute of Evolutionary Biology on November 30 morning

Certificate awarding ceremony at Tokyo NODAI on December 1

Photo taken after the presentation by all participants together with TUA students and resource persons from MAFF on December 1

Farwell party at a Japanese style restaurant with PQ officers, one officer from MAFF, students and professors of TUA.

ATTACHMENT 1

LIST OF PARTICIPANTS

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ATTACHMENT 2

Study visit and training workshop in Japan
As a part of the JAIF Project phase 1 of "Taxonomic Capacity Building to Support Market Access for Agricultural Trade in the ASEAN Region"

Study visit and training workshop in Japan consists of the following contents.

*Highlighted by gray are holidays in Japan.

Date	Day	AM	PM	City to stay
Nov. 18 Sat.	1		=== > Arrival (Haneda or Narita)	Tokyo
Nov. 19 Sun	2	free		Tokyo
Nov. 20 Mon	3	Orientation (TUA, Setagaya, Tokyo)	Orientation (continued) Presentation on overview of plant protection in Japan [Reception]	Tokyo
Nov. 21 Tue	4	Lectures at TUA (Atsugi, Tokyo)		Tokyo
Nov. 22 Wed	5	Visit to Haneda airport	Haneda to Tsukuba (Post-entry quarantine station) Visit to post-entry quarantine facilities Tsukuba to Tokyo	Tokyo
Nov. 23 Thu	6	Tokyo --- > Haneda === > Naha		Naha
Nov. 24 Fri	7	Visit to the facilities operated by the Okinawa prefectural government on fruit flies	Overview of plant protection in Naha (eradication history and others)	Naha
Nov. 25 Sat	8	Naha === > Haneda --- > Tokyo --- > Yokohama	free	Yokohama
Nov. 26 Sun	9	Visit to the National Museum of Emerging Science and Innovation	free	Yokohama
Nov. 27 Mon	10	Lectures and discussions at Yokohama Plant Protection Station: ecology, control measures and treatments		Yokohama
Nov. 28 Tue	11	Lectures and practical exercises at Yokohama Plant Protection Station: classification and identification		Yokohama
Nov. 29 Wed	12	Lectures and practical exercises at Yokohama Plant Protection Station: diagnosis with molecular technology		Tokyo
Nov. 30 Thu	13	Lectures at TUA (Setagaya, Tokyo)		Tokyo
Dec. 1 Fri.	14	Presentation by the trainee (individually or in groups) at TUA	Presentation by the trainee, for comments from the reviewers followed by general discussions Certificates of training completion [Farewell cocktail]	Tokyo
Dec 2 Sat.	15	Departure (from Haneda or Narita)=== >		

Hotels

City to stay	Arr. Date	Dep. Date	Recommendation1	Recommendation2
Tokyo	18th Nov	23rd Nov.	the b tokyo sangenjaya	
Naha	23rd Nov.	25th Nov.	Toyoko Inn Okinawa Naha Asahibashi Ekimae	Toyoko Inn Okinawa Naha Shin-toshin Omoromachi
Yokohama	25th Nov.	29th Nov.	Toyoko Inn Yokohama Sakuragicho	Toyoko Inn Yokohama Kannai
Tokyo	29th Nov.	2nd Dec.	the b tokyo sangenjaya	