



# **REPORT**

Regional Workshop
FAO Global Action (GA)
for Fall Armyworm (FAW)
Control in Asia and the
Pacific (The Philippines)

11-12 October 2022

**FAW Secretariat, Global Action for FAW Control** 

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## Field visit to Barangay Camanggaan, Binalonan, Pangasinan maize fields (11 October 2022)

- The Food and Agriculture Organization of the United Nations (FAO), in partnership with the Philippines Department of Agriculture Bureau of Plant Industry, participated in a field visit and workshop to review and update current initiatives under the Global Action for Fall Armyworm Control (GA) in the Asia and the Pacific region.
- [2] FAO plant production experts, farmers, and representatives from the GA's demonstration and pilot countries visited the Department of Agriculture Regional Field Office (RFO) where integrated pest management-prevention, avoidance, monitoring and suppression (IPM-PAMS), use of improvised pheromone traps and various biological control agents (BCA) and other management options were demonstrated.
- [3] Farmers showcased and discussed technologies they had learned to apply against fall armyworm (FAW) during farmer field school (FFS) trainings conducted between November 2021 and March 2022. Four technology options (treatments) with the use of BCA to control FAW were applied on a 1.3-hectare farm owned by **Mr Benjamin Tomboc**.
- [4] The various options used included combinations of luring traps, trichogramma, beauvaria bassiana, nuclear polyhedrosis virus (NPV) and Bacillus thuringiensis.
- The visit was led by **Ms Marivic Begonia** of Regional Crop Protection Center 1, the Philippines, with support from **Ms Wilma Cuaterno**, National IPM Specialist, and Mr Christian June Reyes, Project Assistant, both of FAO Philippines. Farmers involved with FFS were interviewed and responded to questions from participants.
- Farmers heard about the current status of FAW in pilot countries under the GA, as well as coordination mechanisms, monitoring and dynamics of FAW populations over several years, IPM tactics, training and capacity enhancement; and the actions needed to provide continuity and build on successes in GA implementation. Presenters came from GA pilot countries including Bangladesh, Fiji, Indonesia, Samoa, Solomon Islands, Sri Lanka, Vanuatu, and Viet Nam.

# Regional Workshop and Technical Discussions on the Global Action for Fall Armyworm Control in Asia and the Pacific (12 October 2022)

## 1. Welcome Remarks

- **FAO Country Office.** Ms Tamara P. Duran, Assistant FAO Representative in the Philippines, welcomed participants and emphasized the importance of the Global Action (GA).
- Department of Agriculture, the Philippines. Mr G.G. Panganiban, on behalf of Senior Undersecretary Domingo F. Panganiban, Department of Agriculture of the Philippines, described the significant impact of FAW on the maize industry in the country, and why the GA is therefore essential. He described the pioneering of detection, monitoring, and validation activities since the first FAW sighting in Piat, Cagayan, and said the Philippines has confidence in the GA because of FAO's guidance through trainings and other support mechanisms.

[9] FAO Plant Production and Protection Division (NSP) Director. Mr Jingyuan Xia Director, Plant Production and Protection Division (NSP), Executive Secretary of the FAW Secretariat, FAO emphasized the fact that the GA, implemented across Africa, the Near East, and Asia and the Pacific, has created a functional and effective coordination network across eight geo-zones, each with a demonstration country — one of which is the Philippines. He emphasized the country's demonstration efforts including community-based monitoring, its biological control-based IPM package, and establishment of FFS.

## 2. Reports on Implementation of Global Action for FAW Control from Demonstration Countries

[10] The session was moderated by Mr Hemant Nitturkar, Sub-regional Plant Production and Protection Officer for the Pacific Islands.

## 2.1. National Task Force, the Philippines

- [11] Ms Gabertan reported that the annual trend of FAW infestation from June 2019 to September 2022 was decreasing. Actions taken under the GA included field detection, quarantine measures, technical assistance to farmers, pest advisories, provision of BCAs, and collaborative and adaptive research. Other measures included mobile application-based pest surveillance and early warning and biological control-based IPM. Information material was distributed.
- [12] A farmer-managed, community-based FAW Monitoring and Surveillance System in eight municipalities in Pangasinan involving 320 Bantay Peste farmers was implemented; as was a 16-week Prevention, Avoidance, Monitoring and Surveillance (PAMS)-based curricula for FFS. Participatory technology development emphasizing various BCA in Pangasinan was implemented involving eight management strategies for FAW; and 370 farmer students completed the season-long FFS IPM-PAMS programme. Participatory Technology Development on the management of FAW with emphasis on the utilization of different BCA in Pangasinan was implemented.
- [13] A pilot FFS IPM-PAMS on sustainable management techniques and technologies also implemented, links strengthened with local government units (LGU), farmers, and other stakeholders; and promotion of BCA technologies to control FAW population, and on-farm evaluation of FAW technology package, were also put in place. Sixteen FFS sites were established in the eight municipalities in Pangasinan. A large-scale field demonstration is among the upcoming activities planned by the Philippines on FAW IPM-PAMS.

## 2.2. National Task Force, China

(NATESC) Ministry of Agriculture and Rural Affairs (MARA), said that FAW occurrence in 2022 was less severe than in the previous three years due to colder weather from January to March 2022. That resulted in a reduced occurrence of FAW and its dispersal distance and speed were limited and slower than in previous years. Releasing natural enemies, such as *Telenomus remus* was proving to be an effective BCA against FAW with Bt maize reporting control efficacy in field tests of between 60 and 96 percent, while chemical control was over 98 percent effective. Pheromone and food attractant traps were also set up, demonstration plots were established and technologies of pheromone trapping, biological control, and chemical control were demonstrated. More than 100 trainers and 2 000 farmers have been trained in Guangxi and

Yunnan provinces, he said. Recommendations include a FAW regional monitoring system for Asia as well as regular information sharing and better radar monitoring, especially about FAW and rice planthopper pests.

## 2.3. National Task Force, India

- was first reported in India in May 2018. Active implementation of IPM packages is underway; and from 2019 to 2023 (Kharif) a total of 45 850 farmers have been trained through FFS; 9 608 through 2-day HRD; 640 through 5-day HRD; 120 Master trainers were trained through 30-day SLTP. The FAMEWS app for monitoring and early warning was translated into eight regional languages; FAO, in collaboration with the Centre for Agriculture and Bioscience International (CABI), is conducting a study to assess yield loss due to FAW and changes in farmers' practice including socioeconomic impacts and the introduction of innovations in Karnataka State. Numerous other joint research projects are underway.
- [16] The way forward includes: raising awareness among farmers through regular survey, training programmes, FFS; implementing multidisciplinary and multi-institutional strategies including extensive awareness creation is essential for improving the income of smallholder maize farmers; and emphasizing pest surveillance and development of high yielding climate resilient hybrids with inbuilt resistance to insect pests. Improved crop nutrition, bio-control agents, agro-ecological approaches such as diversifying intercrops and trap crops should be integrated in mitigating the FAW damage as they are eco-friendly, target specific and improve resilience in a sustainable way.

## 2.4. National task force, Bangladesh

- [17] Mr Nirmal Kumar Dutta, Chief Scientific Officer and Head of Entomology Division, Bangladesh Agricultural Research Institute (BARI), said FAW was first reported in the Bangladesh in 2018 and is now reported in almost all maize growing areas of the country. Maize is one of the most important food grains planted in the country. Management measures for FAW include seed treatments, pheromone trapping, biopesticides, SfNPV, biological control agents, cultural management practices such as crop rotation and intercropping, and application of less toxic pesticides.
- [18] The way forward includes: raising awareness among farming communities; implementing multidisciplinary and multi-institutional strategies; emphasizing pest surveillance, development of high yielding, and climate-resilient hybrids with inbuilt resistance to insect pests; and improving crop nutrition, biocontrol agents, and agro-ecological approaches such as diversifying intercrops.

## 3. Report on Implementation of the Global Action for FAW Control in Asia-Pacific Region

[19] **Mr Yubak Dhoj GC**, Senior Agriculture Officer and Regional Coordinator for Asia Pacific (RAP) FAO, emphasized the importance of raising awareness concerning FAW, building capacity through the FAMEWS app, webinars and training sessions; offering policy support and technical guidance; integrated control methods through biological control, and agro-ecological approaches.

- [20] Regional IPM packages are being developed, with drafts under review, and monitoring systems in the region include a centralized surveillance system in China and Thailand; in other parts of the region, traditional monitoring approaches prevail, e.g., field scouting, light trapping, and bait trapping. However, there are few efforts made to relate monitoring data to meteorology, agronomy, insect biodiversity, etc., he said. Progress is being made in scouting protocols and training of plant protection personnel. However, capacity is lacking in surveillance, establishment of a centralized data portal, forecasting seasonal pest or evaluating bait traps. International support is expected in migration monitoring and forecasting; sustainable control (without, or less, chemical based), and NBS/agroecology.
- [21] Key obstacles to IPM adoption include: insufficient knowledge, policies, user preferences and (supposed) immature technologies; in several countries, farmers' management behavior is deemed to be faulty and pesticide over-use poses a major issue; all recognize a need for well-designed, comprehensive farmer education schemes.
- [22] In future, national, regional and global coordination must be emphasized, research and development conducted into biological control and biopesticides (e.g., mass-rearing); a systems or area-wide approach is necessary; resources for manpower and a budget to train farmers, and to finance local innovations is required along with professional surveillance systems, monitoring and early warning systems (e.g., digital displays). Alternatives to chemical-based control must be emphasized.
- [23] Major opportunities ahead include: conduct multi-country monitoring, assess FAW risk, build an Asia-wide interactive FAW infestation map; couple citizen-science (e.g., through FAMEWS) with digital (farmer-to-farmer) extension; concerted efforts that re-invigorate IPM and biological control across crops, pests and geographies; prioritize farmer agro-ecological training, fast-track registration of biologicals; and formally insert biopesticides in integrated resource management schemes.

## 4. Briefing from Key Stakeholders

## 4.1. Research on FAW IPM Technologies

[24] Ms Barbara Caoili, Director of the Philippines National Crop Protection Center, described research into FAW IPM technologies including FAW biology, analysis of genetic structure and morphological variations. Other research projects focused on PAMS approaches including effects of temperature and host plants, genetic structure and morphological variation analyses; pest monitoring, early warning systems and pheromone trap development; biological control, natural enemies and entomopathogens; insecticide management, including insecticide resistance management. Ultimately, significant information has been generated and shared with stakeholders and technologies for FAW management developed, she said.

## 4.2. Quarantine of FAW

Working Group on phytosanitary and quarantine measures, described quarantine practices, and related activities in response to FAW. A FAW continuity plan, trapping and surveillance, and a FAW portal were discussed as well as networks involving key research and plant protection

organizations. Prevention, preparedness, and response are key, and guidelines have been published in that regard, said Mr Dale. In addition, three webinars were held last year on prevention and phytosanitary measures, prevention and preparedness, and the FAW emergency response and communications.

#### 4.3. ASEAN Action Plan for FAW Control

- Ms Alison Watson, of the Association of Southeast Asian Nations (ASEAN) FAW Action Plan, presented the Plan, which is hosted by Commonwealth Scientific and Industrial Research Organisation (CSIRO), noting three goals to reduce FAW-induced crop losses and associated livelihood impacts; promote sustainable and cost-effective IPM practices; and drive coordinated and effective multistakeholder communications. Its six objectives are: supporting country-level capacity-building; consolidating the critical knowledge base; executing an ASEAN research development and technology implementation agenda; establishing a cost-effective ASEAN-wide pest intelligence system; promoting information transfer and adaptive learning; and mobilizing resources.
- [27] Ms Watson emphasized the role of women as IPM leaders, and described development of an ASEAN Bioprotection Research Center of Excellence with a professional design team running a six-month process to help develop a blueprint for such a center. Work is continuing to develop a pilot tool kit for farmers in Viet Nam, and establishment of a Southeast Asian Agricultural Drones and Data Academy to better understand existing data and where gaps exist.

## 5. Responses from Relevant Stakeholders

[28] Ms Nurmi Pangesti, an International Rice Research Institute (IRRI) representative from Cambodia, noted that in addition to FAW, more information is necessary with regard to managing other pests and diseases, including control practices such as biological control. Other questions related to efficacy data to reinforce the use of biopesticides. Ms Watson suggested FFS outputs would have value in this regard.

## 6. Breakout Group Discussions

## 6.1. Policy, IPM Package Demonstration and Validation, and Communication and Partnership

[29] The importance of FFS, biological control and sustainable funding were highlighted as well as studies on the environmental and socioeconomic impact of the IPM technologies to better influence policy-makers and gather funding support.

#### 6.2. Policy and Farmers

Links between farmers and government were identified as essential. Action plans should be crafted with identification of appropriate IPM programmes, registration of effective biopesticides, and other mechanisms to extend technologies to farmers and mobilise government support for FAW management. Biopesticides and BCAs such as NPV and other fungal BCAs that can be mass produced should be combined with policies for FAW control. However, limitations still exist including information scarcity, and insufficient financial support. Responses should include improvements to existing activities, intensification of information dissemination,

and expanded FFS. Key takeaways include a renewed emphasis on multisectoral approaches, involving national government agencies, non-governmental organizations, universities and research colleges, as well as the farmers themselves as agents of desirable policies. Good information dissemination, best practices in pest management, and established biosecurity and quarantine measures are among the ingredients of a successful policy for FAW management.

## 6.3. IPM Package Validation and Demonstration

Participants said that azadirachtin at 5-10 % level of infestation is effective; flowering of corn should not coincide with low temperatures to prevent sterility; 14-20 days is the most crucial period of infestation; pigeon pea as an intercrop reduces infestation; and field scouting is more crucial than pheromone trapping. Other suggestions included versions of push-pull technology, intercropping, host-plant resistance, viruses and endotoxins. As well, clustering system for pest management was suggested, and a warning made that thiamethoxam adds to toxicity and hence, is ineffective.

## 6.4. Communications and Partnership

[32] Communication is essential and should be reinforced. FFS could be used to a greater extent in information drives. Technical bulletins, farmer to farmer interaction, and face to face interactions where COVID-19 restrictions allow were regarded as ideal means to reinforce communications for better FAW management.

## 7. Closing Remarks

Mr Xia again commended the Philippines for its excellent demonstration activities, and highlighted the active participation of farmers in monitoring and management of FAW using different biological control agents as having a great impact. Four key strategies were observed during the demonstration trial: a specified IPM package, community-based monitoring, biologically based IPM, and FFS. The way forward requires validation and dissemination activities; countries must provide data and share their information on FAW; and a Global Action conference is being planned to include all pilot and demonstration countries and researchers, with the goal of promoting plant health.

## Appendix 1: Agenda

## FAO Regional Workshop on Fall Armyworm Control for Asia and the Pacific

Manila, the Philippines; 11-12 October 2022

	AGENDA ITEMS	DOCUMENT	PRESENTER	PROPOSED TIME
			DAY 1	
	11 October 2022, 5.00 – 18.00  Field Visit to Binalonan, Pangasinan - Coordinated by FAO Philippines			
			's training, adoption, and visions.	
•	Arrival of Guests to Zone			08.30-08.45
•	Walking into the Farmer's	,	dan, bindionan neid site	08.46-08.50
•	Free-flowing interaction v	_		08.51-10.45
•	Travel to Municipal Gymr		an	10.46-11.00
Ses	sion II: Viewing of exhibits			
•	BCA			11.01-11.05
•	FFS Output			11.06-11.10
•	Bantay-Peste			11.11-11.15
Ses	sion III: Program Proper			
1.	Singing of National Anthe	em	AVP	11.16-11.20
2.	Welcome & Opening Ren	narks	Hon. Ronald V. Guico IV (tbc)  Mayor of Binalonan	11.21-11.25
3.	Opening Remarks		Mr Jingyuan Xia Director, Plant Production and Protection Division, FAO	11.26-11.30
4.	Status of GA-FAW in the I	Philippines	Mr Gerald Glenn F. Panganiban (tbc) OIC Director, Bureau of Plant Industry- Department of Agriculture	11.31-11.40
5.	Message of Support		Hon. Ramon V. Guico III (tbc) Governor, Pangasinan	11.41-11.50
6.	Keynote Message		Ms Annie Q. Bares OIC-Regional Executive Director, DA-RFOI	11.51-11.55
7.	Folk Media Presentation		Corn IPM-PAMS Adopters	11.56-12.00
Lun	Lunch (12.05-13.05)			

Session IV: Poster presentational IPM Specialist, FAO For Bangladesh  Sri Lanka  Viet Nam  Indonesia  Solomon Islands  Fiji  Vanuatu  Samoa		utes each)	1.5 hours	
Closing remarks		Ms Tamara P. Duran Assistant FAO Representative (Programme), FAO Philippines	5 minutes	
Photo opportunity		(Frogramme), TAO Fillippines	5 minutes	
Travel from Pangasinan to Ma	nila /14 20 19 20	1		
Welcome dinner (19.00-20.30	•	''	4 hours	
weicome dinner (19.00-20.30	) at the notei	DAY 2		
	12 October 2022, 08.30 – 12.00  Session I: Opening - Moderated by Mr Yubak GC, Senior Agricultural Officer, FAO RAP			
1. Welcome Remarks				
Welcome Address from FAO Country Office		Ms Tamara Palis Duran Assistant FAO Representative (Programme) FAO Philippines	10 minutes	
2. Welcome Address the Department of Agriculture, Philippines		Mr Gerald Glenn Panganiban OIC- Director Bureau of Plant Industry Department of Agriculture, Philippines	10 minutes	
3. Opening Remarks from FAO NSP Division		Mr Jingyuan Xia, Director, FAO Plant Production and Protection Division (NSP)	10 minutes	
Group photo (15 minutes)  Session II: Plenary Reports - I  Officer for the Pacific Islands	Moderated by Mr	Hemant Nitturkar, Sub-regional Plant Produ	uction and Protection	
	on of Global Actio	on for FAW Control from Demonstration Co	ountries	
1.1 National Task Force, the	Presentation	Ms Herminigilda A. Gabertan		
Philippines	(PPT)	Asst. Director for Operations and Technical and Production Services Bureau of Plant Industry Department of Agriculture	10 minutes	
1.2 National Task Force, China	PPT	Recorded Presentation, National Focal Point, China	10 minutes	
1.3 National Task Force, India	PPT	Mr Nagaraju Devalapura Kalasaiah	10 Minutes	

		Deputy Director (Ento.)		
		Regional IPM Centre		
	5.0.7	NFP India		
3. Report on	PPT	Mr Yubak GC		
Implementation of		FAO RAP	40	
Global Action for FAW			10 minutes	
Control in Asia and the Pacific Region				
Coffee Break/Poster exhibitio	n from demo an	d pilot countries	20 minutes	
4. Briefing from Key Stakeho	lders	•		
4.4. Daniel and EAW IDA4	DDT	M. B. de e. Certif		
4.1 Research on FAW IPM	PPT	Ms Barbara Caoili	40	
technologies		Philippines National Crop Protection Center	10 minutes	
4.2 Quarantine on FAW	PPT	Recorded Presentation		
		Mr Chris Dale		
		Australian Department of Foreign	10 minutes	
		Affairs		
4.3 ASEAN Action Plan for	PPT	Ms Alison Watson	10 minutes	
FAW Control		ASEAN FAW Action Plan	10 illillutes	
5. Responses from		Attending stakeholders (IRRI)		
Relevant			30 minutes	
Representatives				
6. Questions & Answers		All participants	30 minutes	
Lunch 12.00 – 13.30				
12 October, 13.30-16.00			75 minutes	
Session III: Group Discussions	-		75 1111111111111	
Group One on Policy and		(facilitator) & FAO FP Solomon Islands		
farmers	(rapporteur)			
Group Two on IPM package	l	itator) & Mr Nirmal Kumar Dutta		
validation and	(rapporteur)			
demonstration	NED Calaras I	Leady (Carlling A. O. MacCarle, Dalabit Ladia		
,	up Three on NFP Solomon Islands (facilitator) & Mr Sujay Rakshit India			
Communication and	(rapporteur)			
partnership 15 minutes				
Coffee Break			15 minutes	
Session IV: Conclusion and Wi	r <b>ap Up</b> – Modera	ted by Mr Buyung Hadi, Agricultural Officer,	FAO NSP	
1. Reports from each group	Group rapporteur (10 minutes each)		30 minutes	
2. Plenary discussion	All participants	20 minutes		
3. Conclusion remarks	Mr Jingyuan Xia		10 minutes	

## **Appendix 2: List of Participants**

Giver	n name, surname	Role, Organization/Institution		
	Regional Meeting on implementation of the GA in Asia and the Pacific Attendees			
1.	Mr Gerald Glenn Panganiban	OIC Director Department of Agriculture, Bureau of Plant Industry, the Philippines		
2.	Ms Herminigilda Gabertan	Assistant Director, Department of Agriculture, Bureau of Plant Industry, the Philippines		
3.	Ms Michelle E. Javier	Executive Technical Assistant, Department of Agriculture, Bureau of Plant Industry, the Philippines		
4.	Mr Nhyll Angelo S. Acuna	Project Assistant III, Department of Agriculture, Bureau of Plant Industry the Philippines		
5.	Mr Peter M. Magdaraog	OIC-Chief, Crop Protection and Management Division, Department of Agriculture, Bureau of Plant Industry, the Philippines		
6.	Mr Mar De Guzman	Project Assistant II, Department of Agriculture, Bureau of Plant Industry, the Philippines		
7.	Mr John Paul D. Maminta	Agriculturist II, Department of Agriculture, Bureau of Plant Industry, the Philippines		
8.	Ms Marijoy C. Balilo	Project Assistant II, Department of Agriculture, Bureau of Plant Industry, the Philippines		
9.	Ms Aileen Carlos	Laboratory Technician II, Department of Agriculture, Bureau of Plant Industry, the Philippines		
10.	Ms Barbara L. Caoili	Director, National Crop Protection Center, the Philippines		
11.	Ms Shein Gomez	Supervising Research Specialist I Department of Agriculture, Bureau of Plant Industry		
12.	Ms Melissa P. Montecalvo	University Researcher, National Crop Protection Center		
13.	Ms Marcela M. Navasero	Scientist I, National Crop Protection Center		
14.	Mr Florante Gallevo	Chief, Corn Banner Program, DA Regional Field Office 1		
15.	Ms Marivic Begonia	Chief, Regional Crop Protection Center DA Regional Crop Protection Center 1		
16.	Mr Jose Tolentino Jr.	Senior Science Research Specialist, Regional Crop Protection Center, DA Regional Crop Protection Center 1		
17.	Ms Debbie Davalos	Farm Superintendent, DA Pangasinan Research and Experiment Center		
18.	Mr Aries Magat	Senior Science Research Specialist, DA Pangasinan Research and Experiment Center		
19.	Ms Roley Ann Pagal	Information Officer II, DA Regional Field Office 1		
20.	Mr Nurmi Pangesti	Scientist for - Entomology and Cambodia Country Representative, International Rice Research Institute		

21.	Mr Hoang Anh Tuan	Vice Head, Plant Protection Technical Division, Plant Protection Department Ministry of Agriculture and Rural Development, Viet Nam
22.	Mr D. K. Nagaraju	Deputy Director, RCIPMC, Plant Protection Department Bengaluru
23.	Mr Muhammad Takdir Mulyadi	Director of Food Crops Protection, Indonesia
24.	Mr Sam Armstrong	Director for Biosecurity, Department of Biosecurity, Vanuatu
25.	Mr Wijayatunga Anura	Director (Agri Technology) Ministry of Agriculture, Sri Lanka
26.	Mr Ramo Crispus Fanai	Deputy Director Ministry of Agriculture Livestock, Solomon Islands
27.	Mr Nirmal Kumar Dutta	Chief Scientific Officer & Head of Entomology Division, Bangladesh Agricultural Research Institute (BARI)
28.	Mr Sujay Rakshit	Director, ICAR Indian Institute of Maize Research, PAU Campus, Ludhiana, Punjab, India
29.	Ms Alison Watson	Fall Armyworm Action Plan Secretariat, ASEAN
30.	Mr Faalelei Patu	Senior Research Officer, Ministry of Agriculture and Fisheries, Crops Division, Samoa
31.	Mr Apenisa Sailo	Acting Principal Research Officer - Plant Protection Ministry of Agriculture, Fiji
	Food and Agricul	ture Organization of the United Nations (FAO)
32.	Food and Agricul  Mr Jingyuan Xia	
32. 33.		ture Organization of the United Nations (FAO)  Director, Plant Production and Protection Division (NSP), Executive
	Mr Jingyuan Xia	ture Organization of the United Nations (FAO)  Director, Plant Production and Protection Division (NSP), Executive Secretary of the FAW Secretariat, FAO
33.	Mr Jingyuan Xia Ms Tamara Palis Duran	ture Organization of the United Nations (FAO)  Director, Plant Production and Protection Division (NSP), Executive Secretary of the FAW Secretariat, FAO  Assistant FAO Representative (Programme) FAO Philippines
33. 34.	Mr Jingyuan Xia  Ms Tamara Palis Duran  Mr Adi Galokepoto Bennett	ture Organization of the United Nations (FAO)  Director, Plant Production and Protection Division (NSP), Executive Secretary of the FAW Secretariat, FAO  Assistant FAO Representative (Programme) FAO Philippines  Assistant FAO Representative (Programme) FAO Solomon Islands
33. 34. 35.	Mr Jingyuan Xia  Ms Tamara Palis Duran  Mr Adi Galokepoto Bennett  Mr Song Ha Nguyen	ture Organization of the United Nations (FAO)  Director, Plant Production and Protection Division (NSP), Executive Secretary of the FAW Secretariat, FAO  Assistant FAO Representative (Programme) FAO Philippines  Assistant FAO Representative (Programme) FAO Solomon Islands  Assistant FAO Representative (Programme) FAO Viet Nam  Agricultural Officer, FAW Secretariat,
33. 34. 35. 36.	Mr Jingyuan Xia  Ms Tamara Palis Duran  Mr Adi Galokepoto Bennett  Mr Song Ha Nguyen  Mr Buyung Hadi	ture Organization of the United Nations (FAO)  Director, Plant Production and Protection Division (NSP), Executive Secretary of the FAW Secretariat, FAO  Assistant FAO Representative (Programme) FAO Philippines  Assistant FAO Representative (Programme) FAO Solomon Islands  Assistant FAO Representative (Programme) FAO Viet Nam  Agricultural Officer, FAW Secretariat, Plant Production and Protection Division (NSP), FAO
33. 34. 35. 36.	Mr Jingyuan Xia  Ms Tamara Palis Duran  Mr Adi Galokepoto Bennett  Mr Song Ha Nguyen  Mr Buyung Hadi  Mr GC Yubak	ture Organization of the United Nations (FAO)  Director, Plant Production and Protection Division (NSP), Executive Secretary of the FAW Secretariat, FAO  Assistant FAO Representative (Programme) FAO Philippines  Assistant FAO Representative (Programme) FAO Solomon Islands  Assistant FAO Representative (Programme) FAO Viet Nam  Agricultural Officer, FAW Secretariat, Plant Production and Protection Division (NSP), FAO  Senior Agriculture Officer, FAO Asia-Pacific  Technical Adviser/Plant Production and Protection Officer for Pacific Islands Agricultural Officer, FAO Sub-regional Office for Asia
33. 34. 35. 36. 37.	Mr Jingyuan Xia  Ms Tamara Palis Duran  Mr Adi Galokepoto Bennett  Mr Song Ha Nguyen  Mr Buyung Hadi  Mr GC Yubak  Mr Hemant Nitturkar	ture Organization of the United Nations (FAO)  Director, Plant Production and Protection Division (NSP), Executive Secretary of the FAW Secretariat, FAO  Assistant FAO Representative (Programme) FAO Philippines  Assistant FAO Representative (Programme) FAO Solomon Islands  Assistant FAO Representative (Programme) FAO Viet Nam  Agricultural Officer, FAW Secretariat, Plant Production and Protection Division (NSP), FAO  Senior Agriculture Officer, FAO Asia-Pacific  Technical Adviser/Plant Production and Protection Officer for Pacific Islands Agricultural Officer, FAO Sub-regional Office for Asia and the Pacific
33. 34. 35. 36. 37. 38.	Mr Jingyuan Xia  Ms Tamara Palis Duran  Mr Adi Galokepoto Bennett  Mr Song Ha Nguyen  Mr Buyung Hadi  Mr GC Yubak  Mr Hemant Nitturkar  Mr Rajesh Dubey	ture Organization of the United Nations (FAO)  Director, Plant Production and Protection Division (NSP), Executive Secretary of the FAW Secretariat, FAO  Assistant FAO Representative (Programme) FAO Philippines  Assistant FAO Representative (Programme) FAO Solomon Islands  Assistant FAO Representative (Programme) FAO Viet Nam  Agricultural Officer, FAW Secretariat, Plant Production and Protection Division (NSP), FAO  Senior Agriculture Officer, FAO Asia-Pacific  Technical Adviser/Plant Production and Protection Officer for Pacific Islands Agricultural Officer, FAO Sub-regional Office for Asia and the Pacific  National Operations and Programme Officer, FAO India
33. 34. 35. 36. 37. 38.	Mr Jingyuan Xia  Ms Tamara Palis Duran  Mr Adi Galokepoto Bennett  Mr Song Ha Nguyen  Mr Buyung Hadi  Mr GC Yubak  Mr Hemant Nitturkar  Mr Rajesh Dubey  Ms Wilma Cuaterno	ture Organization of the United Nations (FAO)  Director, Plant Production and Protection Division (NSP), Executive Secretary of the FAW Secretariat, FAO  Assistant FAO Representative (Programme) FAO Philippines  Assistant FAO Representative (Programme) FAO Solomon Islands  Assistant FAO Representative (Programme) FAO Viet Nam  Agricultural Officer, FAW Secretariat, Plant Production and Protection Division (NSP), FAO  Senior Agriculture Officer, FAO Asia-Pacific  Technical Adviser/Plant Production and Protection Officer for Pacific Islands Agricultural Officer, FAO Sub-regional Office for Asia and the Pacific  National Operations and Programme Officer, FAO India  National IPM Specialist, FAO Philippines
33. 34. 35. 36. 37. 38. 39. 40. 41.	Mr Jingyuan Xia  Ms Tamara Palis Duran  Mr Adi Galokepoto Bennett  Mr Song Ha Nguyen  Mr Buyung Hadi  Mr GC Yubak  Mr Hemant Nitturkar  Mr Rajesh Dubey  Ms Wilma Cuaterno  Mr Philip Tuivavalagi	ture Organization of the United Nations (FAO)  Director, Plant Production and Protection Division (NSP), Executive Secretary of the FAW Secretariat, FAO  Assistant FAO Representative (Programme) FAO Philippines  Assistant FAO Representative (Programme) FAO Solomon Islands  Assistant FAO Representative (Programme) FAO Viet Nam  Agricultural Officer, FAW Secretariat, Plant Production and Protection Division (NSP), FAO  Senior Agriculture Officer, FAO Asia-Pacific  Technical Adviser/Plant Production and Protection Officer for Pacific Islands Agricultural Officer, FAO Sub-regional Office for Asia and the Pacific  National Operations and Programme Officer, FAO India  National IPM Specialist, FAO Philippines  Assistant FAO Representative (Programme), FAO Samoa

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45.	Ms Jasmine Magtibay	Programme Assistant, FAO the Philippines
46.	Mr Jeffrey Oliver	National Communications Specialist FAO Philippines
47.	Ms Angelee Fame Ramal	National Project Development and Management Associate FAO Philippines
48.	Mr Christian June Reyes	Project Assistant FAO Philippines
49.	Ms Ma Suzette Custodio	Office Assistant, FAO Philippines
50.	Ms Camille Anne Monforte	Operations Assistant FAO Philippines