

Feed the Future Innovation Lab for Integrated Pest Management Trip Report

Countries Visited: Niger and Nepal

Dates of Travel: July 19 to Aug. 4, 2019

Travelers' Names and Affiliations: Rangaswamy Muniappan, Director, IPM Innovation Lab.

Purpose of Trip: To participate in the training workshop on rearing and release of parasitoids for FAW in Niger and to attend the FAW workshop in Nepal.

Sites Visited: Niamey and Sadore in Niger and Kathmandu in Nepal.

Description of Activities/Observations:

July 19, 2019: Left Blacksburg in the morning and reached Casablanca via Chicago and Montreal on July 20th morning at 7.10 am.

July 20, 2019: Spent the whole day in Casablanca as the connecting flight was at 10.25 pm.

July 21, 2019: Reached Niamey at 2.00 am. At 10.00 am met with Dr. Malick Ba, Dr. Ibrahim Baoua, Mr. Laouali Amadaou, Mr. Laouali Karimoune, Mr. Lamine and Mr. Sani. Reviewed preparations for the training workshop on rearing and release of FAW parasitoids.

July 22, 2019: Traveled to ICRISAT station at Sadore and started the workshop at 9.00 am. There were 25 participants from 15 countries. The IPM IL supported nine participants from Asia (four from Nepal, one from Bangladesh, two from Cambodia, and two from Vietnam). Dr. Malick Ba, Dr. Ibrahim Baoua, Mr. Laouali Amadou, Mr. Laouali Karimoune and I gave an overview of FAW taxonomy, related species, biology, ecology, distribution, mode of spread, and different methods of control.

July 23, 2019: Participants received a hands-on experience of culturing *Corcyra*, FAW, and *Habrobracon*.

July 24, 2019: The same exercise was continued.

July 25, 2019: Participants practiced culturing of *Trichogramma* and *Telenomus* and preparation of cards with eggs for release.

July 26, 2019: Visited sorghum field for monitoring FAW infestation and release of parasitoids. Adjourned the workshop in the evening.

July 27, 2019: Prepared for the FAW workshop in Nepal the next week.

July 28, 2019: Left Niamey at 2.50 am and reached Kathmandu on July 29th morning at 6.25 am.

July 29, 2019: 8.30 am: Participated in the Fall Armyworm Preparedness and Management Workshop at the Hotel Himalaya. At 10.50 am, I presented an Overview of FAW and at 3.50 pm, I presented Biological Control of FAW.

July 30, 2019: Continued participation in the FAW workshop.

July 31, 2019: Continued participating in the workshop and chaired the working group on Private Sector Participation in the FAW Management. In the evening I arranged a skype call with Drs. John Bowman, George Norton, Luke Colavito and I.

August 1, 2019: I met with Mr. Harish Devekota of the KISAN project; and Dr. Prem Nidhi Sharma and Mr. Ajaya Bajracharya of NARC in the morning and in the afternoon, visited the USAID mission and met with Ms. Lynn Schneider, Mr. Navin Hada, Ms. Adriana Hayes, and Mr. Mark Driver. I discussed the Associate Award with Lynn and Navin. Lynn, Navin and I discussed FAW problem and plans for its management with Mark and Adriana.

August 2, 2019: In the morning I made a courtesy call to Dr. Yubak Dhoj G.C., Secretary of Agriculture and then visited Dr. Matima Joshi, Director General of Department of Food Technology and Quality Control to understand the department's capability in pesticide residue analysis.

In the afternoon, I visited Mr. Peter Craufurd, NSAF project and Dr. Prem Nidhi Sharma Mr. Ajaya Bajracharya and Ms. Binu Bhat at NARC. At NARC, I explained to how to go about rearing *Corcyra*, FAW, *Spodoptera litura*, *Trichogramma* and *Telenomus*.

In the evening I met with Mr. Luke Colavito, Mr. Komal Pradhan and Mr. Lalit Sah.

Mr. Lalit Sah made all appointments and accompanied me for all the meetings on August 1st and 2nd.

August 3, 2019: In the morning, I attended a workshop conducted by Dr. Pramod Jha on progress made in the Climate Change and biodiversity project. Several Tribhuvan University administrators, faculty of Botany Department and graduate students of the project participated in this workshop. Mr. Navin Hada, USAID Nepal attended part of the workshop. In the afternoon, I went to the airport for my return journey.

August 4, 2019: I reached Blacksburg at 6.00 pm.

List of Contacts Made:

No	Full Name	Organization	Contact address
			E-mail
1.	Dr. Yubak Dhoj G.C.	Secretary of Agriculture	
2.	Ms. Adriana Hayes	USAID Mission, Nepal	
3.	Mr. Mark Driver	USAID Mission, Nepal	
4.	Ms. Lynn Schneider	USAID Mission, Nepal	
5.	Mr. Navin Hada	USAID Mission, Nepal	
6.	Dr. Matina Joshi (Vaidya)	Director General, Department of Food Technology & Quality Control	Matima_joshi@yahoo.com
7.	Dr. Prem Nidhi Sharma	Chief, Entomology Division, NARC	
8.	Dr. Pramod Jha	Professor Emeritus, Botany Department, Tribhuvan University	
9.	Dr. Ram Prasad Khatiwada	Dear, Institute of Science and Technology, Tribhuvan University	ramktd@gmail.com
10.	Dr. Ram Kailash Pd Yadav	Head of the Department of Botany, Tribhuvan Univ.	Ramkpy2003@yahoo.com

11.	Harish Chandra Devkota	KISAN project	Harish.devk ota@ceapred.org.np
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