Feed the Future: Innovation Lab for Integrated Pest Management Trip Report

Country Visited: ETHIOPIA

Dates of Travel: 15TH TO 20TH JULY 2017

Travelers' Names and Affiliations: Patrick Kigo IPM Field Assistant ICIPE (Kenya)

Geoffrey Muricho, Economist ICIPE

Josphat Korir, PhD Student University of Nairobi

Purpose of Trip: Annual Review meeting

Sites Visited: Hawassa Haile Resort where meeting was held

-Jara gelelcha village (PPT site)

-Lake Nangano

-Addis Ababa (Friendship hotel)

-Habesha restaurant.

Description of Activities/Observations:

Josphat Korir PhD student Nairobi University, Geoffrey Muricho Economics ICIPE and Patrick Kigo IPM field assistant ICIPE (Kenya) travelled together on 15th July 2017 and joined the team that had travelled earlier for faw army worm workshop on 16th July 2017 and travelled together from Addis to Hawassa Haile Resort for PPT meeting.

The first activity was participant introduction followed by welcoming remarks by Dr. Tadele Tafera ICIPE Ethiopia, Dr. Fayad Amer Associate director, IPM innovation lab, Dr. Sophia Kashenge Center director Dakawa Research center Tanzania.

The meeting was revolving around the activity reports done by the students, ICIPE and partner organizations under rice, maize and chickpea IPM project for east Africa platform. Dr. Tadele highlighted the main objectives of the IPM projects as listed below;

Objective 1: To develop and testing of IPM technology

2: To develop and deliver pragmatic pest diagnostic toolkit

3: To enhance IPM communication and education

4: To enhance capacity building and strengthening of policies.

Dr. Amer Fayad Associate director-integrated IPM lab-office of interaction research education and development Virginia Polytechnic Institute and state university also shared their major objectives one being to work on IPM innovation, dissemination, capacity building and gender equity among others.

Some of the observation made during the presentation was that adoption of IPM (PPT) might be slow in areas with no livestock and inadequate supply of desmodium and bracharia seeds. It was also observed that desmodium does well in areas where there is sufficient rainfall. The following questions also came up during the presentation;

Josephine Wetangula Msc student in Moi University was asked why she had selected five crops for her study and she said that those are the major crops in the country. The concern was that there are too many to carry out during the study and a need to scale them down. Gezahagen Gelenah PhD student on integrated management of chickpea diseases, Fusarium and Ascocchyta blight in Ethiopia was told not to concentrate more on temperatures because moisture would be more preferable. He was also asked the source of Trichodemer isolates and he said that they were already collected in Ambo University and each Isolates have only one species.

Josphat Korir PhD student university of Nairobi on economic of rice, maize and chickpea IPM in East Africa was asked whether they have indicators on willingness to pay by farmers regarding chickpea he said that the chickpea technology is not there but is being developed. He also asked how he asked the farmers the question of nematodes he said that the first question was on whether the farmers are aware of nematodes and whether they can identify. This question was raised because nematodes are difficult to identify on the early stages.

Nzami Elbariki-Principal Kibaha Institute asked how the impact of pushpull technology will be assessed because most of the chemicals used by the farmers also kills stem borer. He also asked whether the faw army worm affect all stages of maize, the answer was yes according to the literature however the pest is new and the conditions might be different from where this worm originated so we are going to learn from it. On the question on whether early planting will manage the faw army worm, Dr. Ferdu Azerefegn Hawassa University said that it might not be answer because the morphology of the plant leave damage may not be as serious as heart damage at the same time farmers might not be planting at the same time. Two PhD students in Tanzania were advised to carry out the study one on the low land and the other one on the high land and to consider the sources of Trichodemer.

Professor William Hutchinson-University of Minnesota on digital IPM: Developing pest diagnosis using mobile application, He was asked how it will cost to develop animation and the answer was around USD 4000-He however said digital solution will enhance farmers IPM adoption. After all was said and done, the participants went to visit the PPT demos in Jara gelelcha village. On arrival, the team visited the farm of Ngaiyo Nako one of the twenty

farmers in Sidama. They observed that the farmer have increased the size of PPT demo by 25 meters squared, when asked why, He said that he was motivated by the availability of fodder for livestock and health of maize plant as a result of enhanced soil fertility. When also asked how he's managing the land in terms of labour, he said the family children assist him. We also visited the farm of Eyasu Shurama, he have recently established his demo for the first time so he have not realized the benefit however he is optimistic that he will benefit from the technology in terms of livestock feeds and soil fertility as he have observed fro other farmers who had started earlier. In all field demos that we visited we observed the presence of Faw armyworm infestation.

GROUP PHOTO AT JARA GELELCHA VILAGE

MR. NGAIYO NAKO PPT DEMO

DEMONSTRATING ON HOW TO CUT BRACHARIA FORDDER

Training Activities Conducted:

Program type (workshop, seminar, field day, short course, etc.)	Date	Audience	Number of Participants		Training Provider (US university, host country institution, etc.)	Training Objective
			Men	Women		
Meeting/field visit	15th to 20th 2017	28	25	3	ICIPE	-To review the progress of activities. -To get comment for the future planning. -To share information amongst the participants.

Suggestions, Recommendations, and/or Follow-up Items:

Suggestions

Integrating livestock in Pushpull technology might increase the adoption.
Inter-cropping beans in Pushpull trials might motivate the farmers to adopt the technology.
Use of bio-control agents i.e. myco pesticides and botanicals might be the potential remedies to stem bore control.
Flexibility might be needed when establishing PPT demo.
Providing farmers with recognition certificate as an incentive might enhance adoption.
Establishment of PPT village in one location might be a good basis for scaling up.
PPT acceptability will depend on many things farmers with livestock, high stem borer and striger infestation might be quick in adoption.

Recommendations

- Use of mobile technology will help the youth to take more active role in agriculture.
- All pesticides have to be registered and approved by USAID the one's that are not approved are not allowed for use.
- List of all pesticides and botanicals in the country should be given to USAID if there is a need for approval.

Follow ups

- ✓ Identification of contact farmers.
- ✓ Inviting other service providers (extension officers) from other areas to share experiences.
- ✓ Training of the farmers on how to differentiate between army worm and stem borer.
- ✓ Awareness creation through media.
- ✓ Validating cultural methods by assessing the mode of action.
- ✓ Train farmers on better and effective ways of using chemicals.
- ✓ Develop photo bank.
- ✓ Establish contact data base.

List of Contacts Made:

Name	Title/Organization	Contact Info (address, phone, email)
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