Agro-Ecosystem Analysis (AESA)
What is AESA???

An approach, which can be gainfully employed by extension functionaries and farmers to analyse field situations with regard to pests, defenders, soil conditions, plant health, the influence of climatic factors and their interrelationship for growing healthy crop.
Why AESA is needed

Decision making skills

Identification

Analysis

Discussion

observation
AESA Methodology

1. Field Observations:
   - Plant health at different stages
   - Built-in compensation
   - Abilities of the plants
   - Pest and defender population dynamics
   - Rats
   - Weeds
   - Soil conditions
   - Climatic factors
   - Weather
   - Farmer past experience

Agroecosystem analysis chart
2. Drawing

3. Group discussion and Decision making

4. Strategy for decision making, based on natural enemy population.
5. Pest monitoring through pheromone /light traps: to monitor the initial pest build up.
   i. Pheromone Trap:
   ii. Light trap:
   iii. Sweep-nets-water pans
6. Economic threshold level (ETL):
• AESA by Extension Functionaries

• AESA by farmers: After a brief exposure during IPM demonstrations/ field trainings, farmers can practice AESA in their own field.
AESA implementation stages

1. Planning & Preparation
2. Definition of study area
3. Goal & Objective setting
4. Gathering & organizing secondary data
5. Agro-ecological zoning
6. Description of Agro-ecological zones
7. Fieldwork to gather additional data
8. Identify key issues & solutions for Agro-ecological zoning
9. Reporting & presentation of results
10. Use of AESA and AEZ outputs
AESA and Farmer Field School

• AESA is a season long training activity that takes place in the farmer field.
• It covers all the different developmental stages of the crop and their related management practices.
• Learner centered, participatory and relying on an experiential learning approach and
• Integral part of FFS.
AESA based IPM training for farmers

Participatory
- Active involvement of the farmers
- Farmers learn from other IPM
- Not classroom training
- Active involvement of the farmers
- Group meetings
- Throughout cropping season
- Guided by IPM facilitator
- Design studies to solve problems
- Learning by doing
- Farmers choose topics

Practical
- Active involvement of the farmers
- Group meetings
- Throughout cropping season
- Guided by IPM facilitator
- Design studies to solve problems
- Learning by doing
- Farmers choose topics

Regular meetings
- Active involvement of the farmers
- Group meetings
- Throughout cropping season
- Guided by IPM facilitator
- Design studies to solve problems
- Learning by doing
- Farmers choose topics

Learning through field experiments
- Active involvement of the farmers
- Group meetings
- Throughout cropping season
- Guided by IPM facilitator
- Design studies to solve problems
- Learning by doing
- Farmers choose topics

Problem oriented
- Active involvement of the farmers
- Group meetings
- Throughout cropping season
- Guided by IPM facilitator
- Design studies to solve problems
- Learning by doing
- Farmers choose topics

Learning about crop ecology
- Active involvement of the farmers
- Group meetings
- Throughout cropping season
- Guided by IPM facilitator
- Design studies to solve problems
- Learning by doing
- Farmers choose topics

Understanding role of beneficial insects
- Active involvement of the farmers
- Group meetings
- Throughout cropping season
- Guided by IPM facilitator
- Design studies to solve problems
- Learning by doing
- Farmers choose topics