Farmer Field School

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Why was Farmer Field School (FFS) introduced?

• The FAO South and South-East Asian Rice IPM Project from 1982 to 1997 to bring IPM to rice farmers during massive pesticide subsidies encouraged over-spraying, the occurrence of the release of a secondary pest, the rice brown plant hopper, caused widespread production losses across Asia.

• This project focused on removing subsidies for the un-needed rice pesticides as well as promoting farmer education on a large scale by FFS.
What is FFS

• group-based learning process to promote Integrated Pest Management (IPM), reduce use of pesticides and improve sustainability of crop yields

• Designed to address; lack of knowledge among farmers relating to agroecology, particularly relationship between insect pests and beneficial insects

• all activities are based on learning-by-doing, participatory, hands-on work (builds on adult learning theory and practice)

• Each activity has a procedure for action, observation, analysis and decision-making.

• (Participatory, practical, regular meeting, problem oriented)
Objective of FFS

- Knowledge/Skill development
- Capacity for decision making
- Empowerment
- Independent
- Leadership
- Team spirit
Principles of FFS

• Grow a healthy crop
• Conserve natural enemies
• Conduct regular field observations
• Farmers understand ecology and become experts in own fields
• safe for health and environment
Facilitator

- must be good and empowering person
- farming and technical skills
- observe the field situation together with farmers to see what they may not have seen before, such as tiny predators or changes in soil, and encourage to ask questions, discussion rather than lecturing
- get materials and organize for the field
- responsible for monitoring and evaluation
Materials need for FFS

- Paper, pencil, crayon, traps, sweep nets, hand lens
- Illustrated identification guides
Fund resource for FFS

• FFSs need such sort of financing to support the group learning activities.
• expensive or low-cost, depending on who implements them and how they are conducted.
• Foods (breakfasts, lunch) and prizes
• Farmers – transportation, expenses for exercise books, pens, pencils, etc..
Staff involved in FFS

- Staff, plant protection, Region/State
- Staff, seed, District/Township
- Staff, Land use, District/Township
- Staff, plant protection, District/Township
- Staff, extension, Township
- Staff, front?
- Others; Staff of Health and Livestock
How does PPD-DOA conduct FFS?
Conducting FFS

Site selection (priority)

• Pests or diseases problems
• Township officer – good organizer, active
• Where never has been conducted FFS
Conducting FFS (Cont.)

- last for a full cropping season (one monsoon paddy season or pulses, 4 month)
- Rice - twice/month (8 sessions/season)
- Vegetables - twice/month (5 sessions/season)
- Participants as preference –must have education (at least 8th standard), above 20 year-old, at least 3 years field experience, active or key farmer, or keen to learn
- Maximum 30 participant/FFS
- Participants from different village of one village tract
- 5 participants from different village/group & total 6 groups
- Pre- & post-test
Conducting FFS (Cont.)

• 2 days/session; Day 1 – lecturing, Day 2 – field survey & collection pests & plants parts with symptoms and group discussion/presentation/test
• Take home work (drawing, interview)
• Provide breakfast & lunch on day 1
• Provide breakfast on day 2
Lecturing/discussion

- Pests, diseases, rodent, weeds, pesticides, risks of pesticides, safe use of pesticides, natural enemies, post-harvest, IPM-based protection & control
- ETL, Scouting
- Life cycle in plastic container
- Solving soil, health, seed problems by respective technicians to improve seed quality, seed selection, varietal selection, fertilizer application and water management
- Cropping patterns, cropping system
- Growing fish, raising chicken, ducks
- Animal health
Typical FFS

• Field observations
• Drawing
• Agro-ecosystem analysis (AESA)
• Presentation (of AESA)
• Discussion (of AESA findings)
• Crop management decision (from AESA analysis)
• Group dynamics/Games
• Special/Interesting topics or observations
Field observation

- IPM FFS consists of three activities: agro-ecosystem observation, analysis, and presentation of results
- Collect field data such as the number of tillers per hill, the varieties of insects pests, natural enemies and their populations and samples of insects and diseases, weeds, others (e.g. weather, soil) affecting growth

Other data collected:
- Parameters determining yields (e.g. flowers, young/mature fruits)
  Compare yields, inputs/costs (labour/agrochemicals), other benefits
- The facilitator is present throughout the observation to help participants in their observations
Field observation (Cont.)

The drawings include:

- a) pests and natural enemies observed in the fields
- b) size and stage of growth, along with other important growth features such as the number of stems/tillers, the colour of the plant and any visible damage
- c) important features of the environment (the water level in the field, sunlight, shade trees, weeds, and inputs).
Analyzing & decision making

Analyse crop ecosystem elements (using ecosystem drawings), present/discuss, make management decisions on group’s consensus

- All members of the small groups are involved in the creation of the drawing and data analysis, discuss and analyze the data they have collected
- Based on their analysis they determine a set of management decisions to be carried out in the field
Presentation & discussion

- One member (group leader) of each small group presents findings and decisions, followed by open questions and discussion.
Evaluation

• Marking system (Attendance, field observation, weekly test, learning, diagnostics, oral final test)
• Award – 1st, 2nd, 3rd and consolation prize
• Certification for completion of FFS
## Marking system

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Strength 😊

- Improve knowledge on pests & diseases occurred at every plant stage
- Boost self-confidence
- Apart from agriculture, gaining knowledge of livestock, health
- Improving social activities and exchange economics
- Knowledge disseminate to others (farmer to farmer extension)
- Hands-on education, improve farmer expertise in the management of site-specific agro-ecosystems
- FFS play an important role as it does not rely on highly trained external advisors but on farmers own discovery and reflection
- Pesticides saving, improvement of public health
- Yield increase by adopting practices learnt from FFS; use of improved varieties, better water management, enhanced plant nutrition
Weakness 😞

• Participant can not attend all sessions while FFS coincides with their field works (harvest, transplant, draining, etc..)
• Education limit, participant must be farmers
• FFS is not the best instrument for achieving quick and wide application of standardized recommendations, season-long education training
• Often FFS is specified as costly, particularly under the current situation of structural adjustment and declining agricultural (national) budgets.
• management and supervisory levels have a participatory mindset, take time to be facilitator
Opportunity

• Alternative to FFS? Due to poverty, short-term needs is a priority
• Interested persons
• Financial support (NGOs, iNGOs)
• Facilitators
• Power/Decision maker
Limitation

- Difficult to organize farmers as participants who could attend all sessions
- Funds
Field survey
Lunch
Drawing symptoms
Collection & identification of weeds
FFS activities
Test for diagnostics
Certification
Certificate for FFS
Poems
Board stand for posters, poems, articles
Dance at closing ceremony of FFS
Dance at closing ceremony of FFS
## Farmer Field School

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Thank you!