WORKSHOP REPORT

by
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IRRI-ADB Planthopper Project

23 February 2011

SUMMARY

Thirty-six (36) People's Committee official, Vietnamese plant protection experts, journalists, and two professional graphics artist from 8 Mekong Delta provinces -- An Giang, Hau Giang, Soc Trang, Vinh Long, Can Tho, Dong Thap, Kien Giang, and Tien Giang -- participated in a workshop in Long Xuyen City to develop a strategy and prototype materials to communicate ecological engineering (EE) to rice farmers in An Giang province. Mr. Huynh The Nang, vice chairman of the People's Committee, opened the message design workshop. He expressed full support to the initiative as the practices are in line with provincial objectives to achieve sustainability and announced that he is developing a 10 year program (2011-2020) to implement ecological engineering which he named "Ruong Lua Bo Hoa" or rice fields with flower bunds. Ecological engineering approaches strive to restore biodiversity and ecosystem services and at the same time reduce insecticide use which destroys biodiversity. He noted, "Farmers working together to deal with pest pressures will contribute to sustainable development". Dr. K.L. Heong presented an overview of the concepts in biodiversity and ecosystem services and their roles in reducing vulnerability to pest invasions while Dr. Escalada spoke about the framework for designing a communication strategy and design of successful communication campaigns.

Several prototype materials were developed for pretesting before reproduction. This included three posters, a leaflet, radio dramas recorded for broadcast over the An Giang and Vinh Long radio stations.

Background

The ADB-IRRI Rice Planthopper Project focuses on developing sustainable ways to reduce the vulnerability of rice production to pre harvest losses due planthopper outbreaks. Relying on resistant varieties is insufficient and many pesticides tend to favor planthoppers, which are secondary pests that develop well when ecosystem services are compromised. The project has been promoting the ecological engineering concept and developing techniques that will restore biodiversity and ecosystem services.

Since then, the project has carried out a series of capacity building activities and conducted baseline surveys on farmers' knowledge, attitude, and practices (KAP) to document impacts on farmers and policy adoption of new ecological ideas. These research results need to be taken further and used as basis for identifying knowledge, attitude and practice gaps and planning a communication strategy to fill these gaps.

While a communication strategy workshop was held in Bangkok on March 25-26, 2010 with participants from China, Thailand and Vietnam, an in-country workshop is needed to enable the research and extension staff in the ecological-engineering sites to plan a location-specific campaign to design the campaign strategy, develop sample messages, prototype media, and an implementation plan to reach thousands of farmers and policy makers with simplified ecological information.

Workshop objectives

1. To identify intervention opportunities and develop motivational mechanisms to help farmers reduce insecticide use and enhance ecosystem services through ecological engineering.
2. To select an appropriate extension media mix and develop prototype motivational materials for pretesting.
3. To develop a monitoring program of the effects of the interventions on farmers' insecticide use, and ecosystem services indicators
4. To develop an implementation plan and form the implementation committee.

Expected outputs

1. Intervention opportunities to reduce insecticide use and adopt ecological engineering principles identified.
2. Motivational and extension materials and mechanisms to reach a large audience developed.
3. Instrument to monitor farmers' insecticide use, adoption of ecological engineering principles, profitability, beliefs and practices.
4. A workplan for the next 6 months.
5. Implementation committee developed.

Resource persons

Dr. K.L. Heong	Project Principal Investigator, IRRI-ADB Planthopper Project
Dr. Monina Escalada	University Professor, Visayas State University, Philippines
Dr. Ho Van Chien	Director, Southern Regional Plant Protection Center, Long Dinh, Tien Giang, Vietnam

Participants

1. Huỳnh Thế Năng	Vice Chair, People's Committee, An Giang province
2. Nguyễn Văn Phương	Director, Department of Science and Technology, An Giang
3. Đoàn Ngọc Phả	Department of Agriculture and Rural Development, An Giang
4. Nguyễn Hữu Huân	Plant Protection Department, Ho Chi Minh City
5. Lê Hữu Hải	Director, District Agriculture and Rural Development, Cai Lay
6. Lã Lã Phạm Lân	Chief, Plant Protection Section, Institute of Agricultural Science, Ho Chi Minh City
7. Nguyễn Văn Huỳnh	Professor, Can Tho University
8. Nguyễn Hữu An	Director, Sub-Plant Protection Department, An Giang
9. Võ Thanh Tân	Sub-Plant Protection Department, An Giang
10. Bùi Văn Khai	Sub-Plant Protection Department, An Giang
11. Cao Vĩnh Thông	Sub-Plant Protection Department, An Giang
12. Nguyễn Văn Toàn	Sub-Plant Protection Department, An Giang
13. Huỳnh Hiệp Thành	Extension Center, An Giang
14. Đỗ Thái Hồng Trang	An Giang newspaper

15. Đỗ Thị Thanh Thuỷ	District Agriculture and Rural Development, Thoại Sơn
16. Ký Thị Sương	Sub-Plant Protection Department, Hậu Giang
17. Huỳnh Thanh Bình	Director, Sub-Plant Protection Department, Sóc Trăng
18. Trần Hòang Nhật	Chief, Sub-Plant Protection Department, Sóc Trăng
19. Võ Văn Quốc	Director, Sub-Plant Protection Department, Vĩnh Long
20. Thái Thành Triều	Chief, Sub-Plant Protection Department, Vĩnh Long
21. Trần Kim Thúy	Sub-Plant Protection Department, Cần Thơ
22. Nguyễn Thị Mỹ Sơn	Vice Director, Sub-Plant Protection Department, Cần Thơ
23. Trần Hòang Long	Sub-Plant Protection Department, Cần Thơ
24. Nguyễn Thị Ngọc Ánh	Chief, Sub-Plant Protection Department, Đồng Tháp
25. Trần Thanh Tâm	Technician, Sub-Plant Protection Department, Đồng Tháp
26. Võ Thị Hồng Thủy	Vice Director, Sub-Plant Protection Department, Kiên Giang
27. Lê Văn Đá	Technician, Sub-Plant Protection Department, Kiên Giang
28. Khưu Thế Nhã	Sub-Plant Protection Department, Kiên Giang
29. Nguyễn Ngọc Thăng	An Giang Radio
30. Hồ Đăng Long	Plant Protection Station, Chau Phu
31. Dương Ánh Đông	Plant Protection Station,Tinh Bien
32. Nguyễn Minh Bửu	Plant Protection Station, An Phú
33. Tôn Hồng Tân	Plant Protection Station, Tân Châu
34. Nguyễn Văn Hiệp	Plant Protection Station, Châu Thành
35. Châu Hoàng Linh	Graphics artist
36. Bùi Quang Vinh	Graphics artist

Workshop Outputs

Key outputs of the workshop included simplified ecological engineering (EE) messages, prototype extension materials, a brand name, and a dissemination plan to motivate farmers to adopt EE practices, as follows:

Brand name and slogan

The workshop debated on the project brand name and slogan and decided on these:

Công NghỆ Sinh Thái (Ecological engineering)
Ruong Lua Bo Hoa (Rice fields with flower bunds)

The 3 benefits to be communicated to motivate action are:

1. “Flowers in rice environments will bring in bees and parasitoids to protect your rice from invading hoppers”
2. “Insecticide reductions”
3. “Increase profits”

Ecological engineering practices to be disseminated

1. Populate all bunds and non rice areas with vegetation that provide resources to natural enemies

2. Increase densities of yellow and/or white nectar rich flowers
3. Observe bee populations
4. Do not spray your crop with insecticides unnecessarily
5. Completely avoid any insecticide use in the first 40 days.

Campaign plan

1. Pretest prototypes and mass produce these campaign materials:
   - 3 posters
   - Simplified leaflet
   - Radio drama
   - TV documentary
2. Aim to launch EE campaign on 29 March 2011 in Long Xuyen City

Prototype posters

Poster 1

Poster 2

Poster 3

Leaflet

A 3-column leaflet was also developed covering these topics:

- What is ecological engineering
- Benefits of ecological engineering
- Principles of ecological engineering

TV spot announcement

- Time: 2 minutes
- Address: Please contact Sub-PPDs to get further information
- It will be run on pest forcast program
- Message:

+ Growing flower plants on the rice bunds – Nursing natural enemies to help farmers.
(rice bunds have flower plants, attract natural enemies, regulate pest population, reduce insecticide cost, clean and beautiful environment, more beneficial (cause and effect chain))
+ Address: An Giang Sub-PPD

Eighteen original ideas:

1. Growing flower plants on the rice bunds – Nursing natural enemies to help farmers.
2. Growing flower plants on the rice bunds – Nursing natural enemies to help our farmers.

3. Growing flower plants on the rice bunds – Nursing natural enemies to help us become rich.
4. Interplanting flowers to help us become rich. Ecological engineering techniques "IRRI".
5. Growing flower plants on rice bunds will create a green and improve the environment for farmers and our next generations
6. Let's grow flower plants on rice bunds to reduce insecticide use on the rice fields.
7. Beautiful flowers on rice bunds with bumper crop, a friendly and clean environment will help farmers feel healthy
8. "Our rice fields have both flowers and butterflies, all households are well-off and our hometown is rich and nice" – Let's apply eco en to get benefits for us
9. Ecological engineering produce money.
10. Apply ecological engineering techniques to attract natural enemies, reduce insecticide use and get more profit
11. Let's apply ecological engineering techniques – get more money
12. Ecological engineering techniques integrated in "5R1M" to attract beneficial insects which help farmers reduce insecticide use and get more profits.
13. For sustainable development and environment protection, let's apply ecological engineering techniques for rice production.
14. For sustainable development, let's apply ecological engineering practices for rice production.
15. Growing flower plants help farmers reduce production cost, protect the environment and human health and improve rice quality.
16. Doing farmers should grow flower plants, aromatic flavour and beautiful colors reduce insecticide use.
17. Growing flower plants bring 3 profits.
18. Farmers should apply ecological engineering techniques.

Competition for "eco en" establishment:

- Key participants:
- Observation and evaluation (twice/crop)
- Prize: First, second, third
- Indicators for evaluation:

1. Farm scale.
2. Area for growing flower plants: how long it is (m)
3. Follow the "eco en" principles or not?
4. Varieties of flower plants (the more flower plants grown, the better it has)
5. Environmental factors: overall assessment about landscape, rice crop …
6. Do survey on insecticide use.
7. Rice yield

Radio story

Story 1

Radio broadcast in commune
Time: 10 minutes
At the beginning of month.
Title:

- Aromatic scent of flowers
- Poetic rice field
- Natural beauty of rice field
- Story of rice and flowers
- “RICE FIELD FLOWER BUND”
- Story of flowers on the rice field
- Flower path around the rice field
- Story of the rice field
- Our rice field with abundance of flowers
- Flowers grow in rice field
- Mr Rice fall in love with Ms Flower
- Stoty of rice and flower
- Flower grows on top of the rice field
- Story of flowers on the rice field Chuyện lúa hoa
- Wild flowers on the rice field
- Story of green rice field
- Story of ecological rice field
- The aromatic scent of the coountryside
- The aromatic scent of green rice field
- Flowers are in the rice field
- Story of green, clean and beauty
- Flowers in the rice field, clean rice crop
- Story of farmers
- Flower and Rice
- The aromatic scent of flowers in the rice field

Radio drama

Title: "RICE FIELD, FLOWER BUND"
Name of actors:
Conservative farmers: Mr 5 Nổ
Active farmer: Mr 4 Đúng.
Wife of conservative farmer (Mrs 5 Nổ)
Technical staff (Mr Phong)

/setting
SCENE 1: AT MR 5 NỔ'S HOUSE

Mrs 5 nổ: Oh dear!!, Get up …., mò mò mò (local name of BPHs which has another meaning …..), it is now at the top of rice plant.

Mr 5 Nổ: (Tired and mumble) why do you like mò mò mò all the time?

Vợ 5 nổ: Oh no, I am talking about BPHs in our rice field. You are always drunk, let's go to the field and take a look.

SCENE 2: AT THE FIELD SITE OF MR 5 Nổ

Mr 5 Nổ: Oh my god! I just bought good insecticide and sprayed yesterday. Why is it still alive. Let me go back to the shop and get more insecticides.

Mr 4 Đúng: What are you guys arguing so early in the morning?

Mrs 5 Nổ: Anh Tư, take a look. I cannot understand how my husband (Mr 5 Nổ) sprayed insecticides yet the BPHs are still alive.

Mr 4 Đúng: 5 Nổ! At the early crop stage, I advised you to apply eco en practices but you did not follow me and now you can see the negative result in your field.

Mr 5 Nổ: Don't worry! Getting insecticide is not an issue. The issue is whether or not we have enough money, we can buy insecticides any time. You have not seen so many ads on TV, have you? Why we need to grow flower plants? And I just sprayed insecticides yesterday, it is still has effect on BPHs. (Although using insecticides, BPHs are still alive. Why we should follow "growing flower plants"?)

Mrs 5 Nổ (screaming): You (husband) shut up! Every crop we always sprayed but pests are still there. Ah! Anh Tư? Why we need to grow flower plants in the rice bunds. You mention it all the time but I still do not understand at all!

Mr Tư Đúng: You guys follow me to see rice field with flower plants. Here we have technical staff (Phong), if you do not understand, let Phong explain more about that – really scientific.

SCENE 3: AT THE ECO EN FIELD OF MR 4 ĐÚNG

Mrs 5 Nổ: Look! In the field has rice and the bund has flowers. It is really beautiful! How can you apply it in the rice field?

Mr 4 Đúng: I apply eco en practices for the rice field.

Mr 5 Nổ: It is so strange! I just heard about eco-tourism but nobody mentioned ecological engineering. Eco-tourism is popular but BPHs and other pests are still around here. Be careful! It may bring pests or diseases!

Mr 4 Đúng: Because you do not understand and join the training course. You always drink a lot and just talk nonsense. Here we have Phong - technical staff, let me ask him to explain more for you. Phong! Come here please. Please explain eco en practices to Mr and Mrs 5 Nổ. What is the ecological engineering?

Phong: Hello uncle 5! It is a little bit long, you can imagine ecological engineering is integration of "3 gains 3 reductions", synchronized sowing time and "escape strategy" and growing flower plants at 7 or 10 days before crop establishment to attract beneficial insects, reduce BPHs and other insect pests. If you plant flowers on bunds, you need not use insecticide, you can save a lot of production cost, increase profits, and protect the environment and human health. We will invite you to the review meeting so that you can clearly understand this approach , especially its positive effects.

Mrs 5 Nổ: It is great! Please remember to let me know when it will be!

Mr 4 Đúng: See! You guys always close the door, just spray and spray, mò and mò. It will help you die soon!

Mr 5 Nổ: Ok, I understand now, do not joke more! From now on, I will try "not to talk more" and follow you … laughing ha …ha….ha!

Video CD and TV script

Ecological engineering practices

- Growing flower plants to reduce insect pest damage in rice production.
    1. Introduction: Two key pests: BPH and leaffolder

- Farmers use a lot of insecticides
- Apply IPM using "eco en" techniques to reduce pest damage

2. Growing flower plants on rice bunds to attract hymenopterans to regulate pest population.

3. Positive effects of growing flower plants on attracting natural enemies:
   3.1. Before sowing: interview technical staff to explain benefits of this program to farmers. At 20 DAS: video clips with subtitle about leaffolder situation
   3.2. Panicle initiation (40DAS): effect on reducing leaffolders and BPHs forecast. At Heading (70-80DAS): evaluate BPHs situation of eco en model
   3.3. Field day at harvest to assess the effect of this model on attracting natural enemies to regulate pests to protect rice yield while minimizing insecticide use.

   Introduce the promoting effects of eco en field to other farmers to scale up this program.

Note: many technical staffs may be interviewed but only one farmer will be used for this video clip

Planning activities and timeline: SUMMER AUTUMN 2011 CROP

An Giang, Vietnam

Tasks	2011											
	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12
Crop/season			X									
Pretest			X									
Farmer survey			X									
Lauching				X								
Nursery				X								
Growing flower plants on rice bunds				X								
Rice sowing					X							
Sampling												
- Seedling					X							
- Tillering					X							
- Panicle initiation					X							
- Flowering & ripening						X						
Field day							X					
Post survey									X			

Budget

2. VCD : 360 million
2-3 million dong/minute x 20 mimutes + actor = 260 million
10.000 disc x 10.000 dong = 100 million
3. TV: (80-90 million)

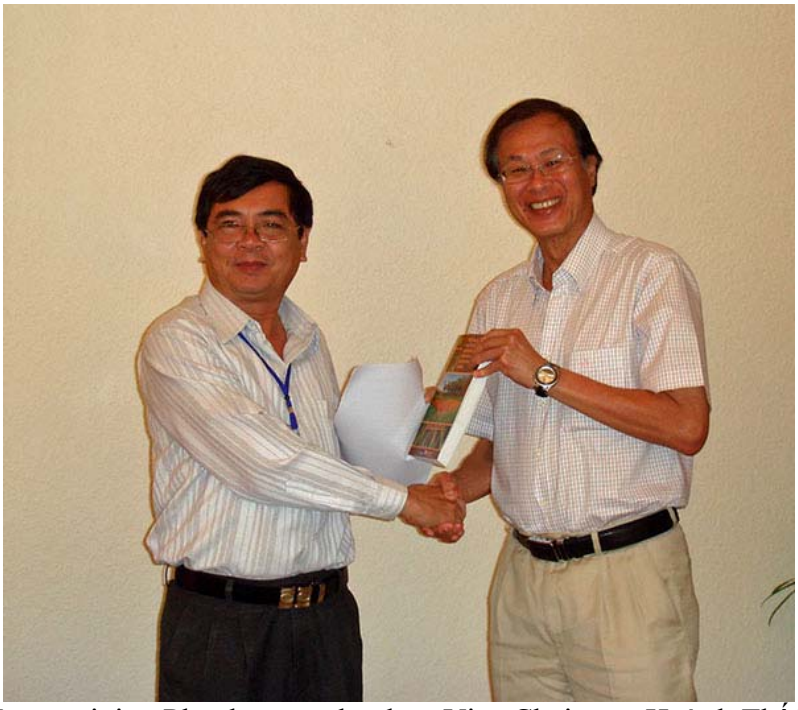
Proposed work plan for scaling up activities

Gantt Chart: Ecological Engineering campaign workplan											
An Giang, Vietnam											
Activities	2011										
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Strategy planning & message design	X										
Develop prototype materials	X										
Pretest prototype materials	X										
Finalize prototype materials	X										
Mass produce materials		X									
Conduct pre-campaign farmer survey		X	X								
Select demo sites		X									
Campaign launching		X									
Campaign implementation		X									
- Distribute/broadcast materials			X	X							
- Conduct training, farmers' meetings			X	X							
Management monitoring survey					X						
Farmer field days						X					
Collect data on production trends							X				
FGDs to develop post-campaign survey								X			
Conduct post-campaign survey									X	X	
Collate & analyze post-campaign data										X	
Review meeting - reporting											X
Launching day (du kien): Thu 3, 29.3.2011											

Workshop activities

Workshop participants and resource persons

Mr Huỳnh Thế Năng, Vice chairman of An Giang's Peoples' Committee, opening the workshop in Long Xuyen, An Giang



KL Heong giving Planthoppers book to Vice Chairman Huỳnh Thế Năng

KL Heong introducing biodiversity & ecological engineering concepts

Prof. Nguyễn Văn Huỳnh translating KL Heong's presentation


Participants developing prototype materials

Participants developing prototype materials

Participants developing prototype materials

Participants developing prototype materials

Workshop program

16 February 2011 (Wed) – Day 1		
0800 - 0830	Registration	
0830 - 0845	Welcome remarks	Huỳnh Thế Năng Vice Chairman People's Committee of An Giang
0845 - 0915	Introduction	K.L. Heong
0915 - 0930	Workshop/training objectives and expected outcomes	M. Escalada
0930 - 1000	Group photo and coffee break	
1000 - 1030	Ecological engineering in Tien Giang: Progress and expansion to new locations	Ho Van Chien
1030 - 1100	Implementation of ecological engineering in An Giang Results last season	Nguyen Huu An
1100 - 1200	Communication strategy planning overview	M. Escalada
1200 - 1230	Brainstorming: Selecting the campaign media for An Giang	Participants
1200 – 1330	Lunch	
1330 - 1500	Prototype media development: writing the script & storyboard for campaign and developing prototype materials -- continued	Participants
1500 - 1530	Tea break	
1800	Dinner	
17 February 2011 (Thu) – Day 2		
0800 – 0830	Plenary session: Reporting group update	M. Escalada/Participants
0830 – 1200	Prototype media development: writing the script & storyboard for campaign media and developing prototypes - continued	Participants with artists
1200 – 1330	Lunch	
1330 – 1430	Group report on prototype extension and media campaign materials developed	Participants
1430 - 1500	Campaign implementation plan development	K.L.Heong
1500 - 1530	Coffee break	

1530 – 1630	Group work: Developing the campaign implementation plan	Participants
1630 – 1700	Presentation of implementation plan	Participants
1700 - 1730	Closing	
1800	Dinner	