

Sustainable Rural Development in Greater Phnom Penh:

Promoting Eri-Culture in Cambodia

SLIDES PRESENTATION



Sustainable Rural Development in Greater Phnom Penh: Promoting Eri-Culture in Cambodia

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- ## Background of case



Background of case

Inappropriate chemical pesticide application



Background of case

Prohibited chemical pesticides are still on sale in the market in Greater Phnom Penh

- Methyl parathion
- Methamidophos
- Methomyl etc...



Learning Objectives

The learning objectives from this case are:

To evaluate the participatory level of local farmers to the program on promoting eri-culture in local villages in Kampong Cham province, and

To assess the sustainability dimensions based on the effects of eri-culture on promoting environmental awareness in terms of the reduction of chemical pesticide application

Case issues for discussion

What is eri-culture /
eri silkworm (*Samia Cynthia ricini*)?

- Wild silkworm and its origin is India
- Host plants are leaves of castor (*Ricinus communis*) and cassava (*Manihot esculenta*)
- Conduct in Thailand, Vietnam, China, Philippines, Ethiopia and Cambodia
- Nano-tube structure (Akai & Nagashima, 2001)
- Sensitive to chemical substances**

Case issues for discussion

What is eri-culture /

eri silkworm (*Samia Cynthia ricini*)?



Case issues for discussion

1st workshop in October, 2010



Case issues for discussion

2nd workshop in November, 2010



Case issues for discussion

3rd workshop: December, 2010



Case issues for discussion

Focused on the local farmers' awareness in terms of the reduction of chemical pesticide application

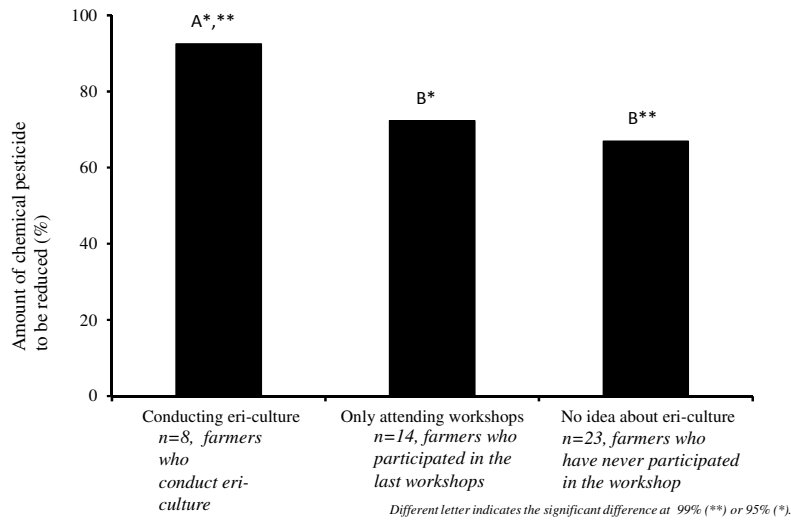
Q: Whether have you already initiated eri-culture or not?

Q: How much do you want to reduce chemical pesticide compared to conventional way?

Q: How much did you enhance communication compared to before starting eri-culture?

Q: How much do you expect that eri-culture contributes to income generation per year?

Case issues for discussion



Difference in expected percentage of chemical pesticide to be reduced between rearers and others

Case issues for discussion



Introduction of Eri-culture (Oct. 2010)



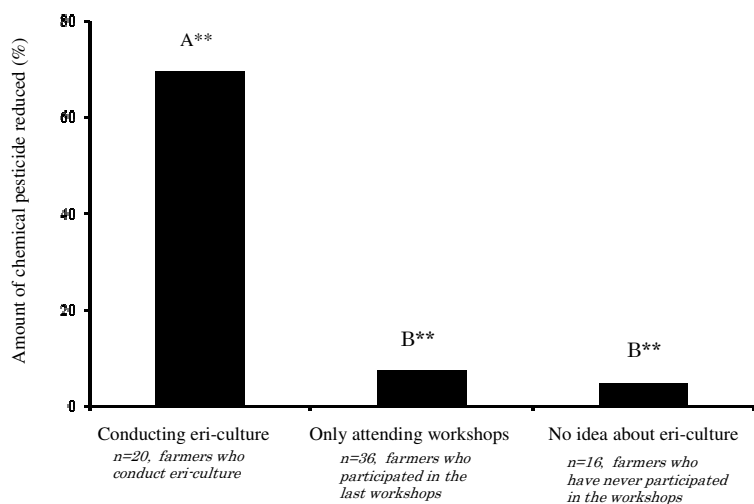
Various workshops and trainings

Rearers' awareness on reduction of chemical pesticide was higher (March, 2011)



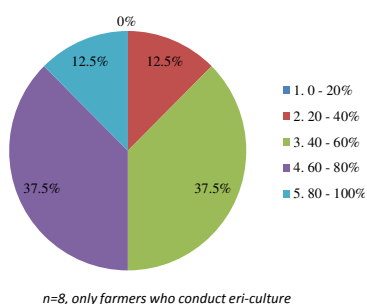
How much did rearers succeed to reduce chemical pesticide? (Oct. 2011)

Case issues for discussion



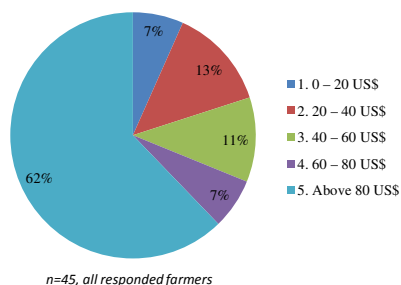
Different letter indicates the significant difference at 99% (**)
Difference in actual percentage of chemical pesticide to be reduced between rearers and others

Case issues for discussion



n=8, only farmers who conduct eri-culture

Increase of communication
comparing to before starting
eri-culture



n=45, all responded farmers

Expected income generation
through eri-culture per year

Each discussion question and analyses

Participatory Level Assessment:

Based on Appendix A,
the typology of participation,
the degree of participation of local farmers to
the program as well as motivational factors or
barriers can be described in the sheet

Each discussion question and analyses

Typology	Characteristics of Each Type
1. <i>Passive participation</i>	People participate by being told what is going to happen or has already happened. It is a unilateral announcement by an administration or project management without any listening to people's responses. The information being shared belongs only to external professionals.
2. <i>Participation in information giving</i>	People participate by answering questions posed by extractive researches using questionnaire surveys or similar approaches. People do not have the opportunity to influence proceedings, as the findings of the research are neither shared nor checked for accuracy.
3. <i>Participation by consultation</i>	People participate by being consulted, and external agents listen to views. These external agents define both problems and solutions and may modify these in the light of people's responses. Such a consultative process does not concede any share in decision making, and professionals are under no obligation to take on board people's views.
4. <i>Participation for material incentives</i>	People participate by providing resources, for example labor, in return for food, cash, or other material incentives. Much on-farm research falls in this category, as farmers provide the fields but are not involved in the experimentation or the process of learning. It is very common to see this called participation, yet people have no stake in prolonging activities when the incentives end.
5. <i>Functional participation</i>	People participate by forming groups to meet predetermined objectives related to the project, which can involve the development or promotion of externally initiated social organization. Such involvement does not tend to be at early stages of project cycles or planning, but rather after major decisions have been made. These instructions tend to be dependent on external initiators and facilitators, but may become self-dependent.
6. <i>Interactive participation</i>	People participate in joint analysis, which leads to action plans and the formation of new local institutions or the strengthening of existing ones. It tends to involve interdisciplinary methodologies that seek multiple perspectives and make use of systemic and structured learning processes. These groups take control over local decisions, and so people have a stake in maintaining structures or practices.
7. <i>Self-mobilization</i>	People participate by taking initiative independent of external institution to change systems. They develop contacts with external institutions for resources and technical advice they need, but retain control over how resources are used. Such self-initiated mobilization and collective action may or may not challenge existing inequitable distribution of wealth and power.

Each discussion question and analyses

Level of participation	Issues of participation	Motivational factors	Barriers

Each discussion question and analyses

Sustainability Assessment:

Based on following 3 dimensions;

- economic performance**
- environmental performance**
- social performance**

the level of contribution to each sustainability dimension can be summarized in the sheet

Each discussion question and analyses

Sustainability Assessment:

Level of contribution to each sustainability dimension is as follows;

1. Very low
2. Low
3. Medium
4. High
5. Very High

In addition, please describe the specific sustainability issue and evidence or reason in the sheet

Each discussion question and analyses

Sustainability Dimension	Specific Sustainability Issue	Level	Evidence or Reason
Economic Performance			
Environmental Performance			
Social Performance			

Case reflection based on teaching notes

Correct answer is not one.

There are various answers.

The important point is **not to seek correct answer**, but **to discuss/debate well the differences** in answers.

Case reflection based on teaching notes

Evaluating the level of participation should be based on the Appendix A.

The important point is how to figure out the characteristics of each type in the participation level.

There would be different results among evaluators.

In case **the point** how to make out the characteristics of each participation level **fit with the decision**, we may say it is correct.

Case reflection based on teaching notes

Sample of answer (Participatory Level Assessment)

Level of participation	Issues of participation	Motivational factors	Barriers
Level 1	Passive participation at the first workshop	There was only two farmers participated in. They were just requested to attend by the village leader. It can be judged the motivation was low.	It was a unilateral announcement without any listening to local responses.

Case reflection based on teaching notes

Level 6	Interactive participation at the third workshop	More farmers were motivated through the workshops including demonstration on eri-culture. Also, they showed their strong and positive passion to start eri-culture. Local farmers participated in eri-culture with forming local network to enhance eri-culture with systemic learning processes based on the local communication.	-
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Case reflection based on teaching notes

Sustainability Assessment based on 3 dimensions;

- economic performance
- environmental performance
- social performance

has **various ways of answering**.

We had better **welcome various results**.

Case reflection based on teaching notes

Sample of answer (Sustainable Assessment)

Sustainability Dimension	Specific Sustainability Issue	Level	Evidence or Reason
Economic Performance	Income generation through eri-culture in the village	2. Low	Local farmers expected they would earn some additional income through eri-culture, but the results did not appear yet.
Environmental Performance	Deeper perception on the harm of chemical pesticide	4. High	Through eri-culture, local farmers recognized the harm of chemical pesticide. And then, they succeeded to reduce the amounts of pesticide applied.

Case reflection based on teaching notes

Social Performance	Increase in communication in the village through eri-culture	4. High	It was very difficult to promote communication in a village. As many villagers were afraid to have close relationship with neighbors due to the experiences during 1975 to 1979 of the Pol Pot regime. In a village, former soldiers of Pol Pot Government and killed person's family or scarified villagers are still co-existing. So, eri-culture was effective to increase communication in a village. It is expected to lead the community development.
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Level of contribution to each sustainability dimension;

1.Very low, 2.Low, 3.Medium, 4.High, 5.Very High

Case reflection based on teaching notes

In the process of evaluation, different answers might appear.

The important **is to accept and understand different views in the evaluation.**

Discussion is important focusing on why the different answers have happened.



**Thank you for
taking this Learning Case!**

Let's try another case!