Effective Cyclic Use of Natural Resources through Eri-Culture in Kampong Cham Province, Cambodia

ERECON - Institute of Environmental Rehabilitation and Conservation, Japan

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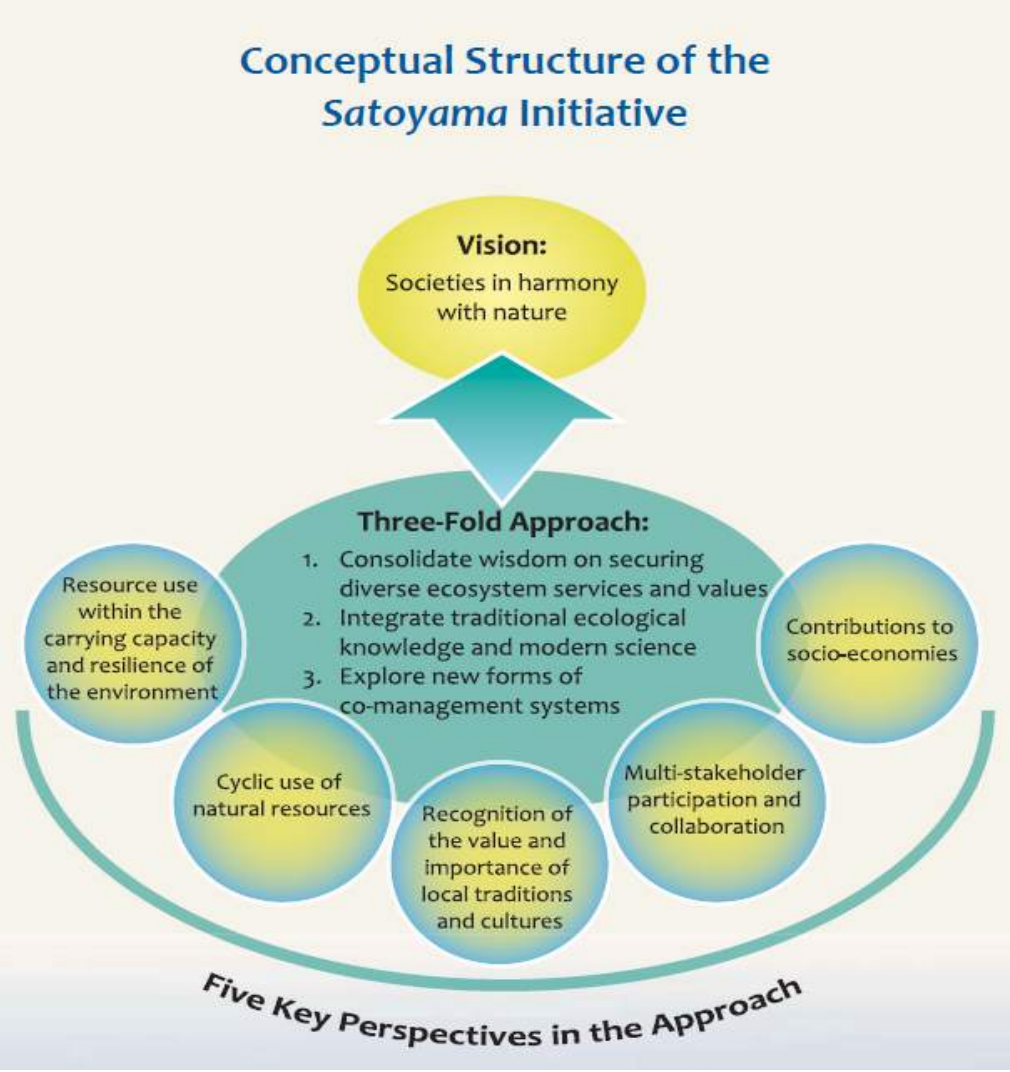
What is Satoyama Initiative?



Source: SATOYAMA Initiative

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#	Classification	Main category
1	Cluster	−capacity building −on−the−ground activities
2	Scale	−Local
3	Region	−Southeast Asia
5	Ecosystems	−Agricultural
6	Organization	−International NGO −Research institute
7	Socio−economic activity	−Agriculture −Environmental education
8	Research strategy	−Type of research: Quantitative −Method: Questionnaire survey −Numbers of research papers
9	Themes	−Securing livelihoods and enhancing wellbeing (e.g. poverty reduction, community empowerment, food security, sustainable livelihood)

Project sites

Target area：Prey Chhor district, Kampong Cham province

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Problems we see

Inappropriate chemical pesticide application

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Problems we see

Prohibited chemical pesticides are still on sale in the market

- Methyl parathion
- Methamidophos
- Methomyl etc…

Problems we see

Eutrophication occurs due to the outflow of phosphorus(P) and nitrogen(N) from farmland

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Objective of the project

To promote environmental awareness, especially in terms of the reduction of chemical pesticide application in local villages in Kampong Cham province, Cambodia

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What is eri-culture / eri silkworm ?

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



Differences between eri silkworm and mulberry silkworm

	Eri silkworm	Mulberry silkworm
Host plants	Castor, cassava, papaya	mulberry
Color and characteristics	Ecru (natural color) Nano tube structure	White or yellow
Number of hacth	around 6 times per year	1 or 2 times per year

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Extension activities

- 1st workshop: October, 2010

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Extension activities

2nd workshop: November, 2010

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Extension activities

3rd workshop: December, 2010

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Evaluation on the effects of eri-culture on promoting environmental awareness by questionnaire survey (March and October 2011)

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?

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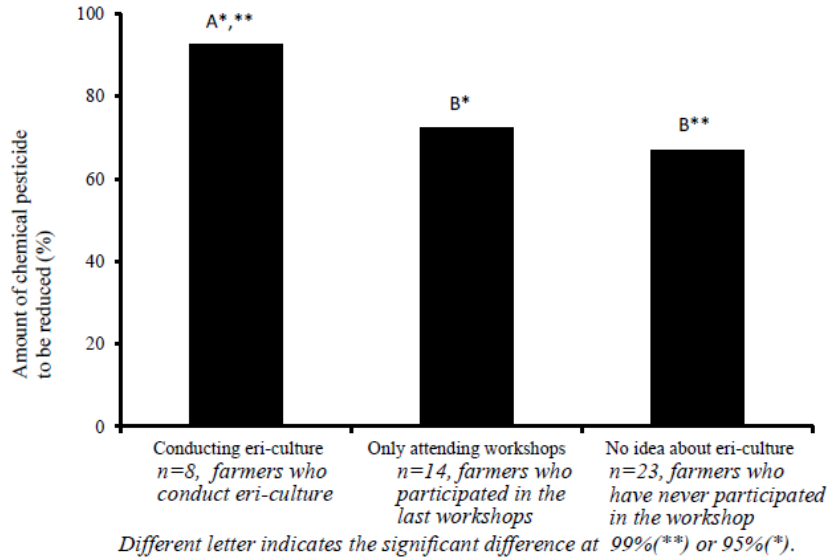
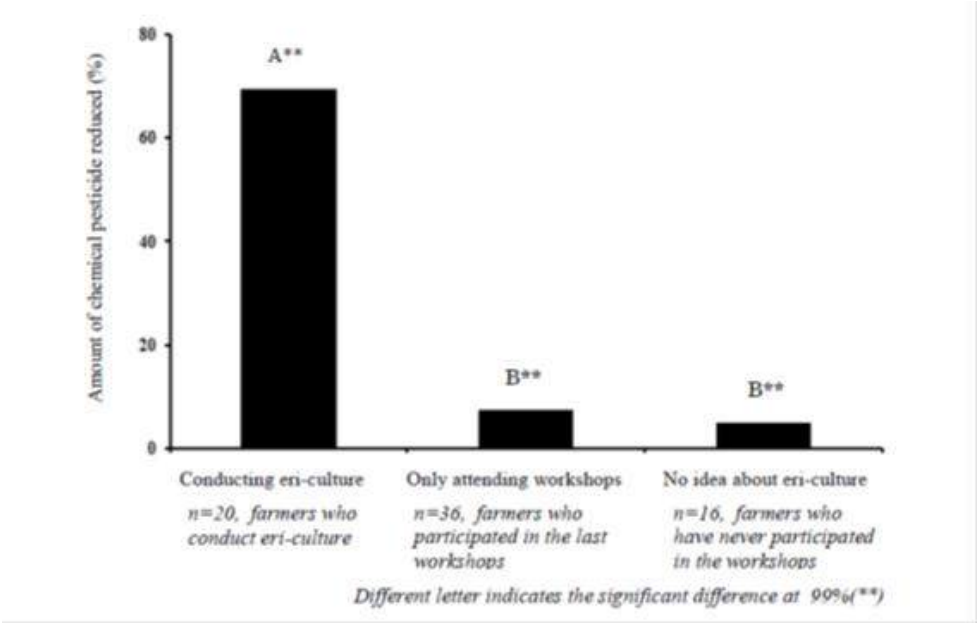
Expected and actual amounts of chemical pesticide reduction between eri-culture farmers and others



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



Difference in actual percentage of chemical pesticide reduced between eri silk-raising farmers and others

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What we can do through eri-culture

Natural resource utilization and management

Income generation

Resilience of environment

Eri-culture

Sustainable livelihood

Recognition of the value of traditional culture

Community empowerment

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Conclusion

Eri-culture may be one of solutions to the problems in agriculture and helps in conserving natural resources as well as reducing poverty by creating job opportunity in the village

However

Sustainable farming practices may be indispensable to minimize the insect damage

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Thank you very much for your attention

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