

IPSI Case Study Summary Sheet

Please fill out the sheet below to summarize your case study, but maintain the summary to 2 pages only. Texts in gray explain the description of each box and please delete these when you fill out.

Basic Information

Title of case study <i>(should be concise and within approximately XX words)</i>			
Indicator species for agrobiodiversity in rice paddy fields: Research and its application in eastern rural Taiwan			
Submitting IPSI member organization(s)			
Hualien District Agricultural Research and Extension Station (HDARES), Council of Agriculture, Taiwan			
Other contributing organization(s) <i>(IPSI members and/or non-members)</i>			
None			
Author(s), affiliation(s) and profile(s) <i>(please include a profile of around 50 words for each author and contact information)</i>			
1) Dr. Mei-Ling Fan: Deputy Director of HDARES who led a pioneering study on developing agro-biodiversity indicators in paddy fields in Taiwan.			
2) Chih-Ying Yu: Assistant researcher of HDARES, her research is to developing innovative techniques that create native wild flower turfs to attract natural enemies thus reduce the incidence of pests and diseases.			
3) Lily Lin: Assistant researcher of HDARES, her research to developing innovative techniques on habitat manipulation for conserving natural enemies against agricultural pests, as well as to promoting integrated pest management in organic way.			
Format of case study <i>(text, video, etc)</i>	Text	Language	English
Keywords <i>(3-5 key concepts included in the case study)</i>			
Organic cultivation, Paddy field, Agro-biodiversity indicator species, Stakeholder participation, Habitat manipulation			
Date of submission <i>(or update, if this is an update of an existing case study)</i>	11 October 2016		
Web link <i>(if available)</i>	http://www.hdares.gov.tw/eng/show_index.php		

Case Study Site

Country		Location							
Chinese Taipei		Fu-li Township, Hualien County, Eastern Taiwan							
Longitude/latitude or Google Maps link		https://goo.gl/osivd1							
Ecosystem category <i>(please put an "✓" next to all appropriate)</i>									
Forest		Grassland		Agricultural	✓	In-land water	✓	Coastal	
Other (please specify):									
Brief description of ecological characteristics <i>(including uniqueness or importance of fauna/flora)</i>									
Paddy Field which can be considered as the largest artificial wetland of freshwater habitats									
Brief description of socioeconomic characteristics									
Rice production is the major economy of this county									
Brief description of human interactions with nature <i>(land-use management, natural resource use, etc.)</i>									
Fu-li Township in Hualien County has a long organic cultivation history and the highest organic ratio in Taiwan									

Activity Summary

Status of Activity <i>(planned, ongoing, completed, etc)</i>	Completed	Project period <i>(MM/YY to MM/YY)</i>	2011-2015
Rationale <i>(why the case study activities are needed)</i>			
Environmental friendly farming is drawing a great attention in nation-wide for agro-biodiversity management and consumer's health, but economic sustainability is a great concern			
Objectives			
To mainstream biodiversity into rice production sectors in both practice and policy level			
Activities <i>(brief summary of methods, tools, approaches used and stakeholders engaged)</i>			

1. Arthropod's species identification between organic farming and conventional farming in paddy fields 2. Incorporation of invertebrate indicators into the official certification which encourage farmers environmentally friendly farming and consumers' supports
Results (brief summary)
1. Three arthropod's species were identified to be used as agro-biodiversity indicators 2. Added above indicator species into the Green Conservation Label scheme to extend application scale
Lessons learned (factors in success or failure, challenges and opportunities)
Paddy fields under organic farming have 1.3 times of the richness compared with fields under conventional farming and have potential to resist different kinds of pest damage in the future. The elaboration of certification scheme enables to invite more stakeholders to engage for the future collaborative activities.
Key Messages
Cooperation with multi-stakeholders such as farmers, foundation association, marketing company, and government is a key to maintain both biodiversity and farmer's income
Relationship to other IPSI activities (please describe if the case study is related to any other IPSI activities such as collaborative activities and other case studies)
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Funding (any relevant information about funding of the case study activities)
The financial resource for conducting this project was from Council of Agriculture, Taiwan

Relevance to Global Agendas

CBD Aichi Biodiversity Targets (<https://www.cbd.int/sp/targets/>)

Please tick in which Aichi Biodiversity Target that this case study activity contributes to. Multiple answers allowed.

Direct: 1 Indirect:2

Strategic Goal A				Strategic Goal B					
2	2	1	1			1	1		
Strategic Goal C			Strategic Goal D			Strategic Goal E			
		2	2				2	1	

UN Sustainable Development Goals (<https://sustainabledevelopment.un.org/sdgs>)

Please tick in which SDGs that this case study activity contributes to. Multiple answers allowed.

Direct: 1 Indirect: 2

	2	2			2		2	
		1			1			