

## IPSI Case Study Summary Sheet

### Basic Information

Title of case study <i>(should be concise and within approximately 25 words)</i>			
Conserving the giant water bug ( <i>Lethocerus indicus</i> ) by eco-friendly farming			
Submitting IPSI member organization(s)			
Observer Ecological Consultant Company			
Other contributing organization(s) <i>(IPSI members and/or non-members)</i>			
Author(s) and affiliation(s)			
Wang, Zheng-An and Chen, Po-Hao, Observer Ecological Consultant			
Format of case study <i>(manuscript or audiovisual)</i>	Manuscript	Language	English
Keywords <i>(3-5 key concepts included in the case study)</i>			
Giant water bug, <i>Lethocerus indicus</i> , eco-friendly farming			
Date of submission <i>(or update, if this is an update of an existing case study)</i>	23 May 2018		
Web link <i>(of the case study or lead organization if available for more information)</i>	<a href="http://www.observer.com.tw/">http://www.observer.com.tw/</a>		

### Geographical Information

Country <i>(where site(s) or activities described in the case study are located – can be multiple, or even “global”)</i>									
Taiwan (Chinese Taipei)									
Location(s) <i>(within the country or countries – leave blank if specific location(s) cannot be identified)</i>									
Miaoli County									
Longitude/latitude or Google Maps link <i>(if location is identified)</i>									
<a href="https://www.google.com/maps/@24.5186238,120.7247178,13z">https://www.google.com/maps/@24.5186238,120.7247178,13z</a>									
Ecosystem(s) <i>(please place an “x” in all appropriate boxes)</i>									
Forest	x	Grassland		Agricultural	x	In-land water	x	Coastal	
Dryland		Mountain		Urban/peri-urban		Other <i>(Please specify)</i>			
Socioeconomic and environmental characteristics of the area <i>(within 50 words)</i>									
The geographic climate zone is central-western, with wet summers and dry winters. The Hakka people terraced fields and created ponds to cultivate rice in the valleys. They also harvested crops such as lemongrass in hillside fields.									
Description of human-nature interactions in the area <i>(land-use, traditional resource management practices etc. – within 50 words)</i>									
Over the past decade, most of the paddy fields in the area were abandoned, due to shortage of irrigation water supplies and manpower in the steep hills. Only a few terraced fields are still cultivated, while hillside fields have gradually returned to acacia forests or mixed forests of bamboo and broad-leaved trees.									

## Contents

Status ( <i>"ongoing" or "completed"</i> )	Ongoing	Period ( <i>MM/YY to MM/YY</i> )	05/2012 -
Rationale ( <i>why activities or policies described, or information shared in the case study are needed – within 50 words</i> )			
The giant water bug ( <i>Lethocerus indicus</i> ) is a species native to Taiwan, which is facing extinction owing to environmental change. We found the insect and eggs in a pond next to a paddy field in Tongxiao Township, Miaoli County.			
Objectives ( <i>goals of activities or policies described, or of producing the case study – within 50 words</i> )			
To conserve this rare water bug, we encouraged the farmers to apply eco-friendly farming methods by contract farming and community support.			
Activities and/or practices employed ( <i>within 50 words</i> )			
Many practices are being conducted to achieve sustainable development and the Satoyama Initiative in local agricultural production, such as monitoring the leopard cat and the small Indian civet, improving pond quality as a habitat for the giant water bug, and recovering rare plants along footpaths between paddy fields.			
Results ( <i>within 50 words</i> )			
Through inherited traditional farming wisdom and the introduction of modern techniques, the TianBei Rice Project stabilized the quality and yield of the local products, and ensured the income of the farmers. We also monitored the biodiversity in the field, and successfully practiced conservation projects.			
Lessons learned ( <i>factors in success or failure, challenges and opportunities – within 40 words</i> )			
We could use eco-friendly farming methods to secure ecosystem services. By connecting farmers in the countryside with customers in the urban areas, we strived to build a win-win situation system. We ensured farmer's income by providing contract farming fees that depended on the farm area, rather than its productivity.			
Key messages ( <i>within 40 words</i> )			
We hope that TianBei Rice could be an example for the Satoyama Initiative in Tongxiao, to carry out transformation of nature resource management in the area.			
Relationship to other IPSI activities ( <i>if the case study is related to any other IPSI collaborative activities, case studies, etc.</i> )			
Funding ( <i>any relevant information about funding of activities or projects described in the case study</i> )			

## Contributions to Global Agendas

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

The table below shows based on the self-evaluation by author(s). ● and ■ indicates the “direct” or “indirect” contributions to the CBD’s Aichi Biodiversity Targets respectively to which the work described in this case study contributes to.

Strategic Goal A				Strategic Goal B					
●	■	■				●	●		
Strategic Goal C			Strategic Goal D			Strategic Goal E			
■	●						■	●	

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

The table below shows based on the self-evaluation by author(s). ● and ■ indicates the “direct” or “indirect” contributions to the SDGs respectively to which the work described in this case study contributes to.

	■							
		■			●			