# **IPSI Case Study Summary Sheet**

## **Basic Information**

Title of case study		n Program: A System for Biodiversity Conservation and Sustainable				
	Agriculture in Taiwan					
Submitting IPSI member organization(s)		Tse-Xin Organic Agriculture Foundation				
Other contributing organization(s)		-				
Author(s) and affiliation(s)		Tse-Xin Organic Agriculture Foundation				
Format of case study		Manuscript	Language	English		
Keywords	farmers, sustainable,	tainable, agriculture, biodiversity, conservation, system				
Date of submission						
Web link		www.toaf.org.tw (Chinese), www.toaf.org.tw/en (English)				

# Geographical Information

Country		Chi	Chinese Taipei			Location(s) G			Guantian District		
Longitude/latitude or Google Maps link					-						
Ecosystem(s)											
Forest		Grassland		Agricultural		Χ	In-land water		Χ	Coastal	
Dryland		Mountain		Urban/peri-urban			Other (Please specify)				

### Socioeconomic and environmental characteristics of the area

Guantian is a rural agricultural district in southern Taiwan well known for its Chinese water chestnut, which is cultivated for its edible tubers. Many resident and migratory birds, especially the rare pheasant-tailed jacana depend on flooded pastures, rice fields, lowland ponds, and marshes with floating aquatic vegetation for survival.

#### Description of human-nature interactions in the area

Farmers widely cultivate Chinese water chestnut and other edible aquatic plants in fields which support many resident and migratory birds, especially the rare pheasant-tailed jacana. However, the negative environmental effects of traditional farming have caused dramatic loss of natural habitats and ongoing decline of bird populations.

### Contents

Status	Ongoing	Period	2009-present
Rationale			

The negative environmental effects of traditional farming have caused dramatic loss of natural habitats and ongoing decline of bird populations. By 2009, habitat destruction and degradation, disturbance of breeding areas, and poisoning from pesticides threatened the survival of many native bird species, particularly jacanas.

## Objectives

Biodiversity conservation is a primary focus of the Green Conservation program, and this emphasis is reflected in the sustainability standards regarding environmental protection. In addition to promoting conservation through the standards, program facilitators provide training on biodiversity-related topics for farmers who are preparing for certification or have already achieved certification.

## Activities and/or practices employed

Educating farmers on sustainability; conducting ground-level studies of the pheasant-tailed jacana; holding meetings with local officials; promoting bird-friendly agricultural practices to help protect local birds that suffered drastic population decline.

Results

A study on jacana population in Guantian found the abundance of jacanas increased from 275 in 2009 to approximately 1,272 by 2016. Total land under certified crops multiplied, with 3 hectares of production area compared to nearly 40 hectares from 2011 to 2016. Farmers also grew from 7 to 25 during this period.

#### Lessons learned

Data reveal the significance of restored natural ecosystem for protecting rare species and providing habitats for a diverse array of plants and animals. Strategically focusing efforts on these species also helped conserve the many other species which share their habitats and or are vulnerable to the same threats.

### Key messages

Environmentally friendly farming increases the quantity and quality of natural habitats in agricultural landscapes, and helps sustain populations of native species. By training farmers to adopt sustainable practices, rural communities are able to conserve biodiveristy and promote ecosystem resilience.

Relationship to other IPSI activities

Funding

## Contributions to Global Agendas

The table below shows based on the self-evaluation by author(s).  $\bullet$  and  $\blacksquare$  indicates the "direct" or "indirect" contributions to the following global agendas respectively to which the work described in this case study contributes to.

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

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Strategic Goal A			Strategic Goal B							
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		<b>1</b>	<b>(3</b> )	5		7	8	5.0	10	
Strategic Goal C			Strategic Goal D							
Str	ategic Goa	ıl C	Str	ategic Goa	I D		Strategi	c Goal E		
Str	ategic Goa	I C	Str	ategic Goa	l D		Strategi	c Goal E		

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

