

**The First Asia Parks Congress**  
**Working Group 4**  
**Collaborative Management of Protected Areas**

**COLLABORATIVE PLANNING  
AND MANAGEMENT FOR  
IUCN CATEGORY V-  
PROTECTED LANDSCAPES  
IN TAIWAN**

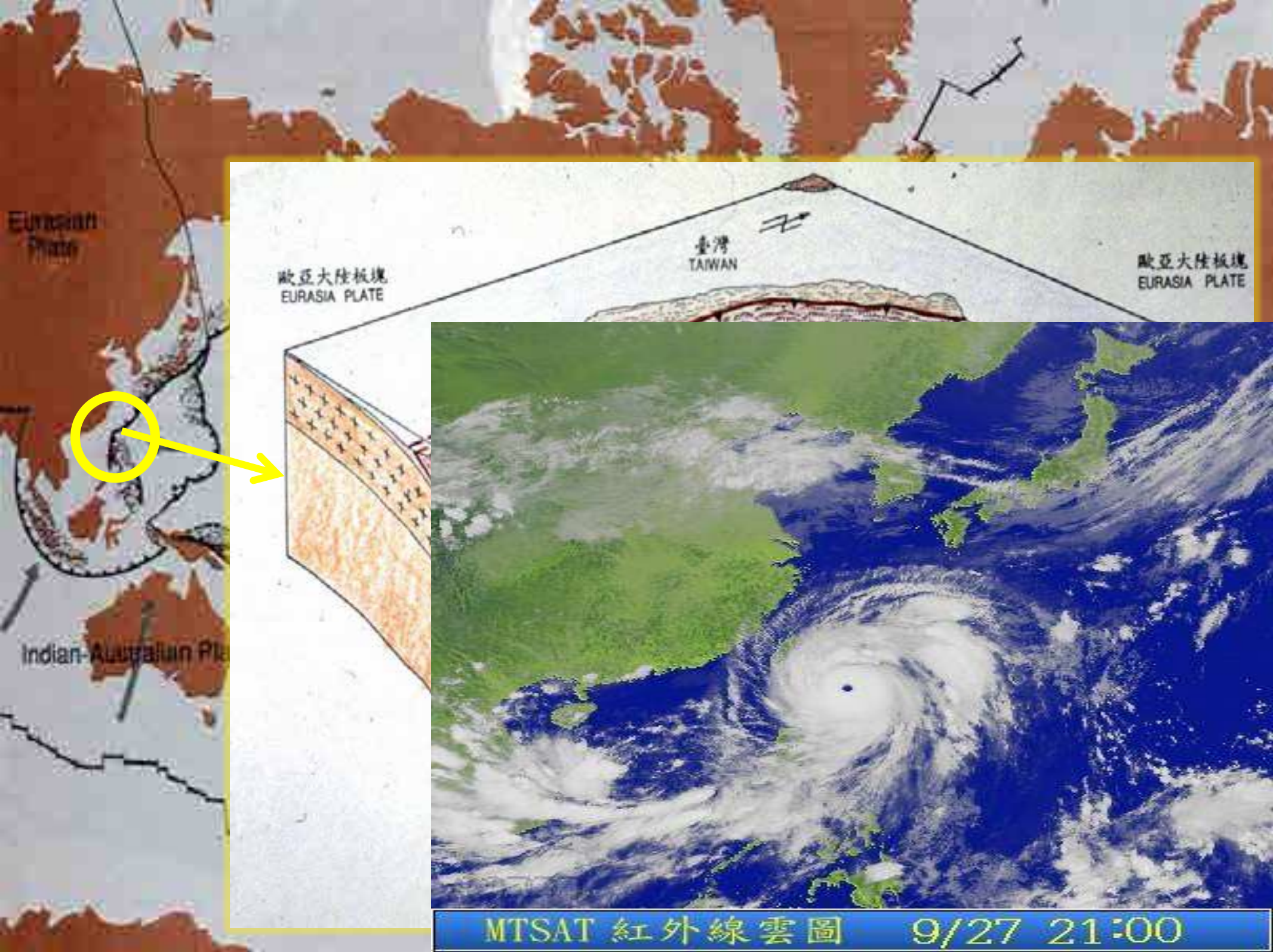
2013.11.14

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# Outline

- Background
  - ▣ National system and governance types of protected areas of Taiwan
  - ▣ Need for a more collaborative governance and a landscape approach
- Think Globally
  - ▣ IUCN protected area category V
  - ▣ UNESCO World Heritage Cultural Landscape
  - ▣ CBD Satoyama Initiative
- Act Locally
  - ▣ A case study of participatory designation and management planning of a rice paddy Cultural Landscape (IUCN category V), Fun-nan village, Hualien, Taiwan



Eurasian Plate

歐亞大陸板塊  
EURASIA PLATE

臺灣  
TAIWAN

歐亞大陸板塊  
EURASIA PLATE

Indian-Australian Plate

MTSAT 紅外線雲圖

9/27 21:00



# National system of PAs in Taiwan

- Taiwan has set aside nearly **90** protected areas that cover about **20%** of its total land area.



# Institutional arrangements of protected areas in Taiwan

Authority	Ministry of Interior	Council of Agriculture (Forestry Bureau)			
Name	National Parks + National Nature Parks	Nature Reserves	Wildlife Refuges	Major Wildlife Habitats	Natural Forest Reserves
Law	National Park Law	Cultral Heritage Preservation Law	Wildlife Conservation Law		Forestry Law
Number	8+1	21	18	35	6
IUCN Category	II	I / III I~VI	IV	IV	III/IV
Governance types	Central Government Managed	Central/Local Government Managed	Local Government Managed	Central Government Managed	Central Government Managed
Area (ha) About 20% (+11%)	Total: 715,782 Land: 312,677 8.7%; Sea: 403,105 11%	64,653 1.8%	25,827 0.7%	324,669 9%	21,171 0.6%

**Government Managed**

# Challenges of protected areas in Taiwan

- **Area:** 36,000 sq km; **Population:** 23 million; **Population density:** 640 p per sq km
- **Conflicts** between Nature conservation and economic development
- **Designation of protected areas** can be a 'natural solution' to protect sensitive areas
- The **dominant governance** of PAs in Taiwan is 'top-down'
- Therefore, the expansion of PAs in the future is limited because **local people do not welcome !**

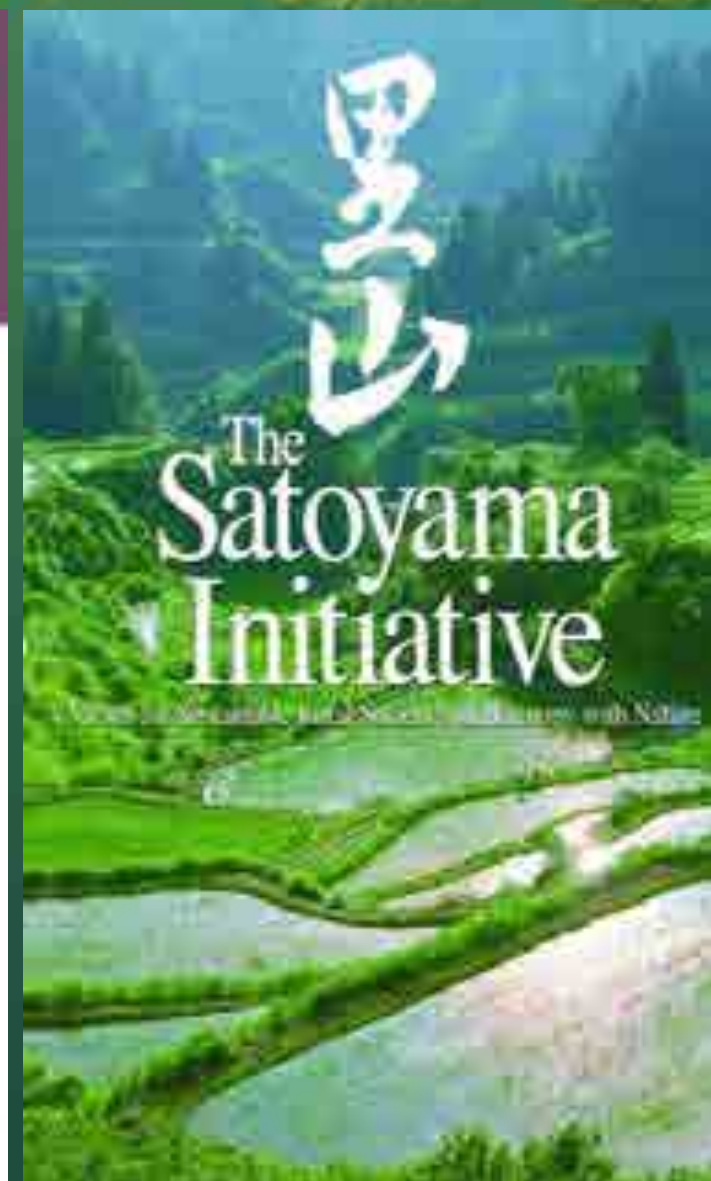


**Need for  
a Collaborative Governance and  
a Landscape Approach**





# Key International Instruments of Landscape Approaches

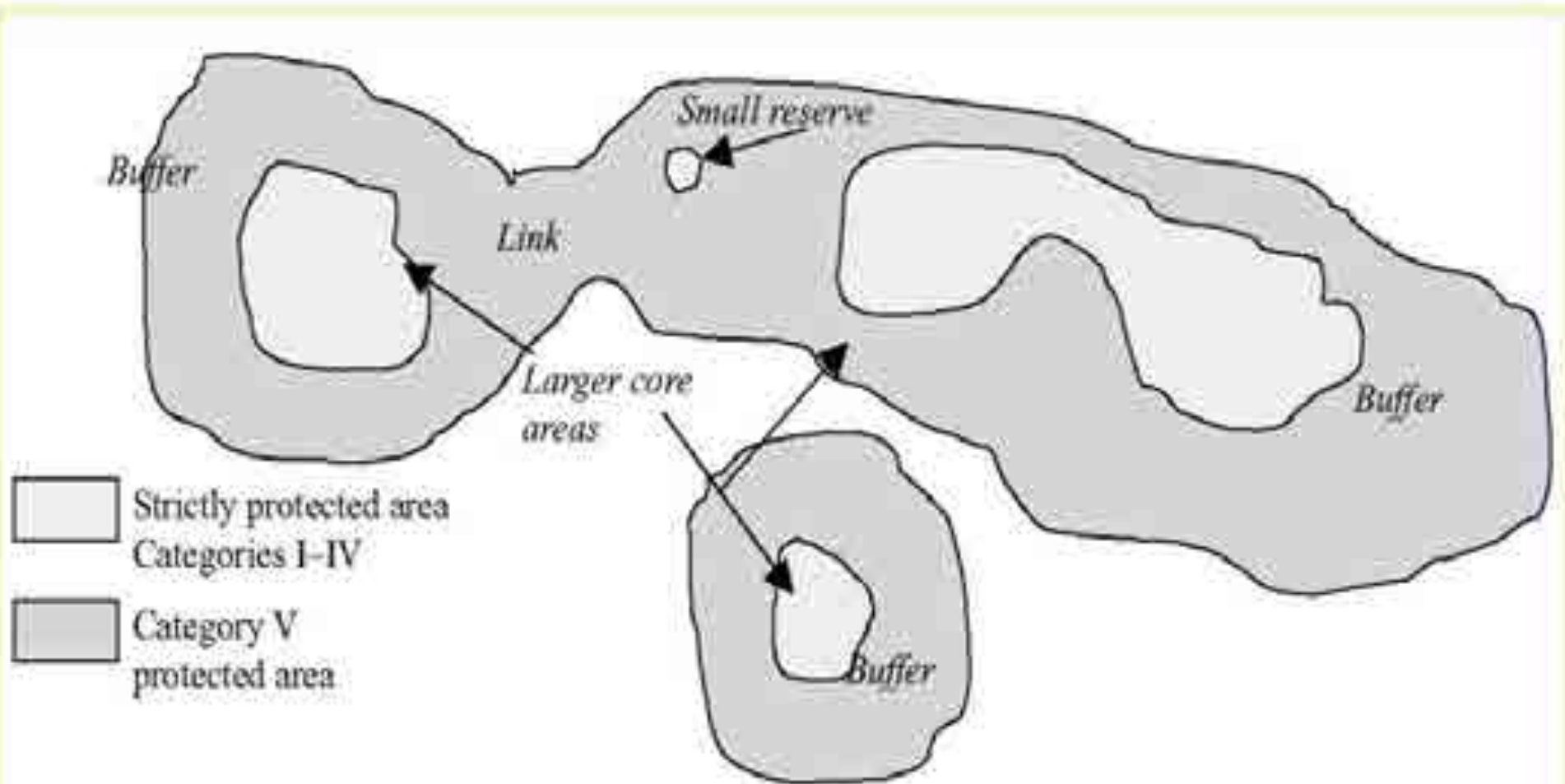




# IUCN Category V- protected landscapes/seascapes

- protect areas where the **interaction of people and nature over time** has produced an area of distinct character with significant **ecological, biological, cultural and scenic value** and where safeguarding the **integrity of this interaction** is vital to protecting and sustaining the area and its associated values

# Buffer and linkage functions of a Category V PA (Phillips, 2002)



# UNESCO World Heritage Cultural Landscapes

- **Definition:** The term "cultural landscape" embraces **a diversity of manifestations of the interaction between humankind and its natural environment**...Protection of cultural landscapes can contribute to modern techniques of **sustainable land-use** and can maintain or enhance **natural values** in the landscape.



# International partnership for the Satoyama Initiative (IPSI)

A new message from CBD COP10, Nagoya, Oct 2010



## Biodiversity and Livelihoods

-The *Satoyama* Initiative Concept in Practice-



## Satoyama-Satoumi Ecosystems and Human Well-Being

Socio-ecological Production Landscapes of Japan

Summary for Decision Makers



CBD COP10, Oct 2010



# Biodiversity and ma Inits

Shirayama  
Sensory Learning

Shirayama Forest

Shirayama Forest  
Sensory Learning  
Their first visit (The Shirayama Forest) Organized for in Hiroshima City Field  
and learned from them. (Hiroshima City)

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# Socio-ecological Production Landscapes

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- has been applied to describe the target areas of the Satoyama Initiative
- dynamic mosaics of various rural environments, such as rice paddies, arable fields and orchards, irrigation ponds and ditches, and the villages of local farmers





# Traditional Coppice Management

Management includes cutting of undergrowth in summer and collecting of fallen leaves for compost in winter. The trees are felled on a 10 to 30 year cycle, but new shoots soon grow from the stump. In recent years, the demand for wood fuel has dropped, and many coppices have been abandoned. When this happens the woodland reverts to dense thicket, leading to loss of forest-floor wildflowers and other species that depend on the traditional open habitat. To conserve biodiversity, the balance between human activity and the world through proper management.



**Many species of waterbird feed and forage in and around the rice paddies**



2000 years. Seasonal landscapes are high people. In addition, rice from spring through summer are filled again in winter huge wetlands which various wildlife.



The Satoyama Landscape creates habitats that various species of plant and animal have learned to take advantage of, allowing a rich biodiversity to coexist in harmony with agricultural production. Rice paddies play an internationally important role in biodiversity conservation, serving as stopover wetland habitat for migratory shorebirds such as Golden Plover.

1 Swan and ducks 2 Golden Plover and Ruddy Turnstone 3 Black-spotted Pond Frog 4 Oriental Stork and Grey Heron



## ***Irrigation Ponds and Ditches***

Water is the necessary component in wet rice farming. Cold spring water is collected and warmed in small ponds before being sent on to the paddies through a complicated network of canals and ditches. These ponds and ditches also serve as habitats for aquatic plants and insects, such as dragonflies and damselflies. Frogs and salamanders, as well as small fish like medaka ricefish, breed in the water.



(UNU-IAS, 2010)

## ***Pastures and Grasslands***

Secondary grasslands include pastures for livestock, and fields of silver grass or dwarf bamboo that have been managed for making thatch, fencing and various utensils. Grassland management, which involves annual cutting and burn-off, creates habitats for various species of wildflower, insect, bird and small mammal. Autumn landscapes featuring fields of ripe silver grass shining in the sun form one of the classic motifs of the Satoyama Landscape.





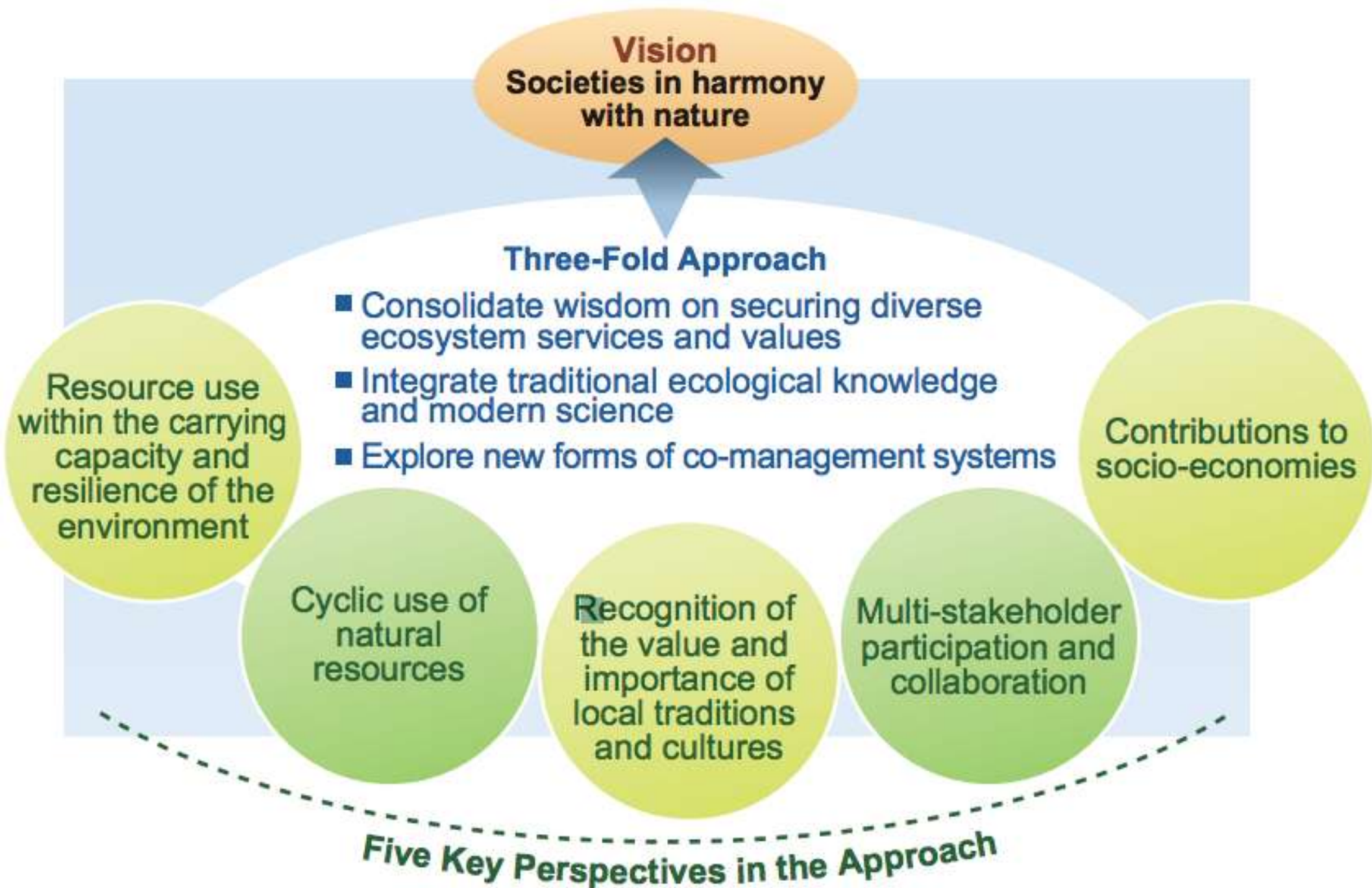


図4 聖山の概念と特徴

(UNU-IAS, 2010)

- ㉔ 薪炭林, ㉕ 人工林, ㉖ アカマツ林, ㉗ 屋敷林, ㉘ 竹林, ㉙ 草畑, ㉚ 水田, ㉛ 畑, ㉜ 水路・川, ㉝ ため池, ㉞ 集落, ㉟ 家畜 (ウシ, ニワトリ), ㊱ キノコなどの山菜, ㊲ 草原の火入れ, ㊳ 水路の保全, ㊴ 雑木林・竹林の手入れ, ㊵ 人工林の手入れ, ㊶ 落ち葉かき・堆肥づくり, ㊷ 炭焼き, ㊸ シイタケ栽培, ㊹ 神社, ㊺ オオタカ, ㊻ サンショウウオ, ㊼ カワセミ, ㊽ 鷹 - 林彦, ㊾ ハイカー

# Three-fold approach to Satoyama Initiative

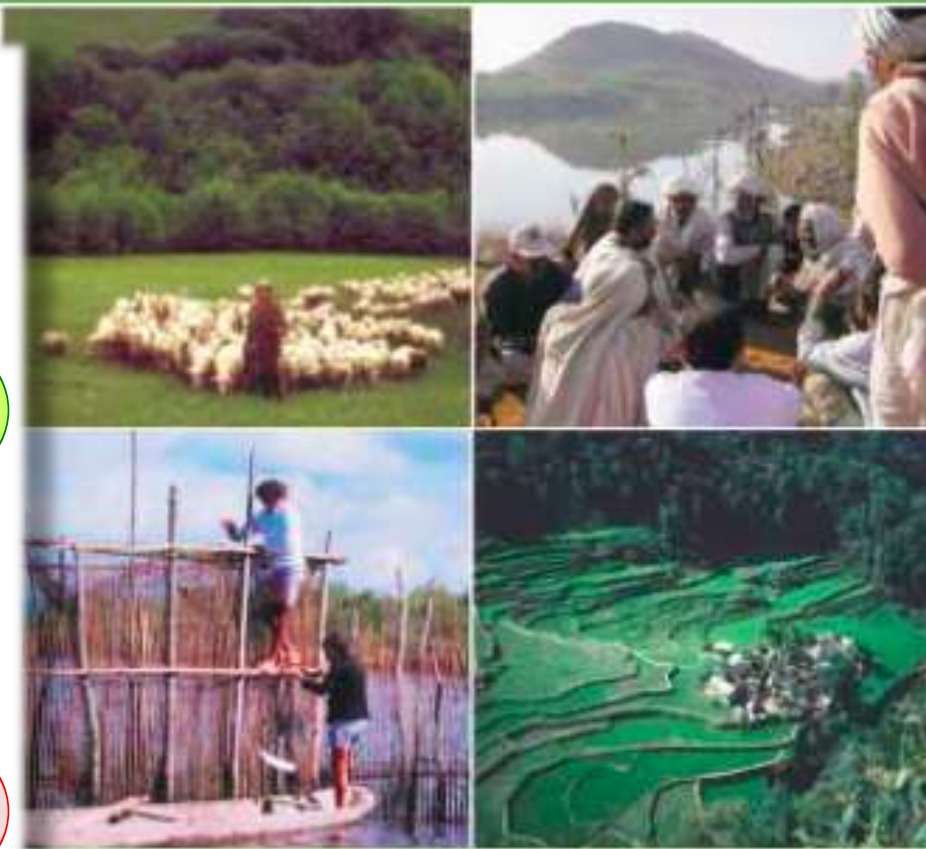
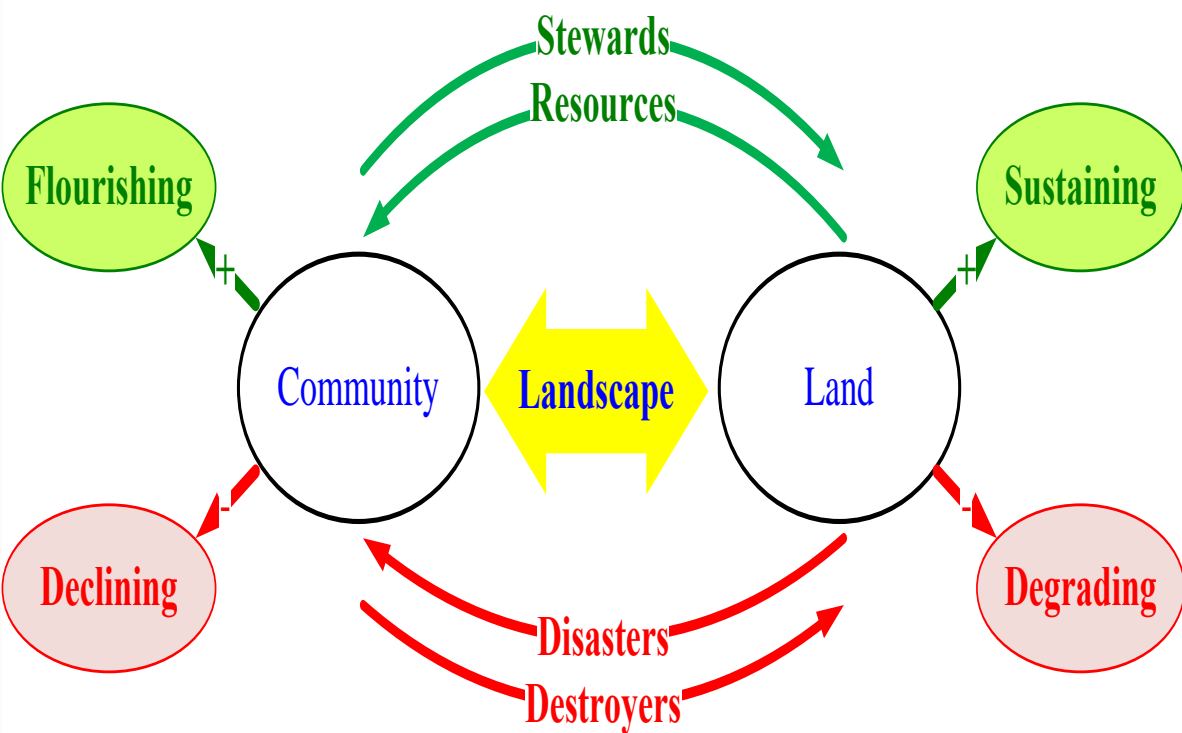




# The Protected Landscape Approach

## Linking Nature, Culture and Community

Edited by  
Jessica Brown, Nora Mitchell and Michael Beresford





# Case Study



A case study of participatory designation and management planning of a rice paddy Cultural Landscape (IUCN category V), Fun-nan village, Hualien, Taiwan



# Cultural Heritage Preservation Law, Taiwan (amended in 2005)

- Monuments, Historical Buildings and Settlements
- Historical Sites
- **Cultural Landscapes** → **Local people ↔ land**
- Traditional Arts
- Folk Customs and Related Cultural Artifacts
- Antiquities
- **Natural Landscapes**

# Research Purpose and the Flowchart

## Action Research Goal

To facilitate a collaborative planning process to help stakeholders to designate a Rice Paddy Cultural Landscape and formulate its Management Plan

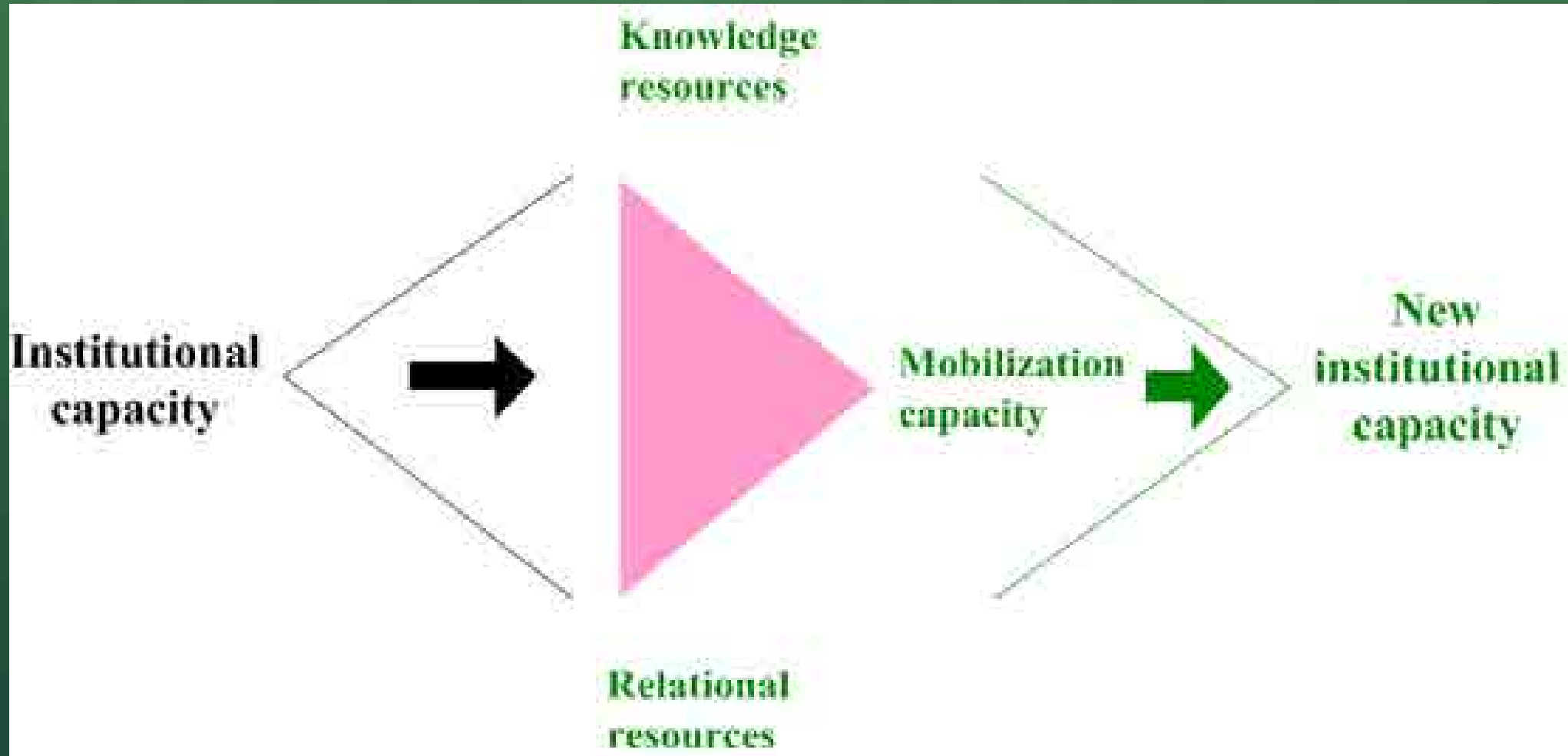


## Outcome

Designation of the first satoyama-like Cultural Landscape in Taiwan, and formulation of a Mid-term Management Plan of the Cultural Landscape



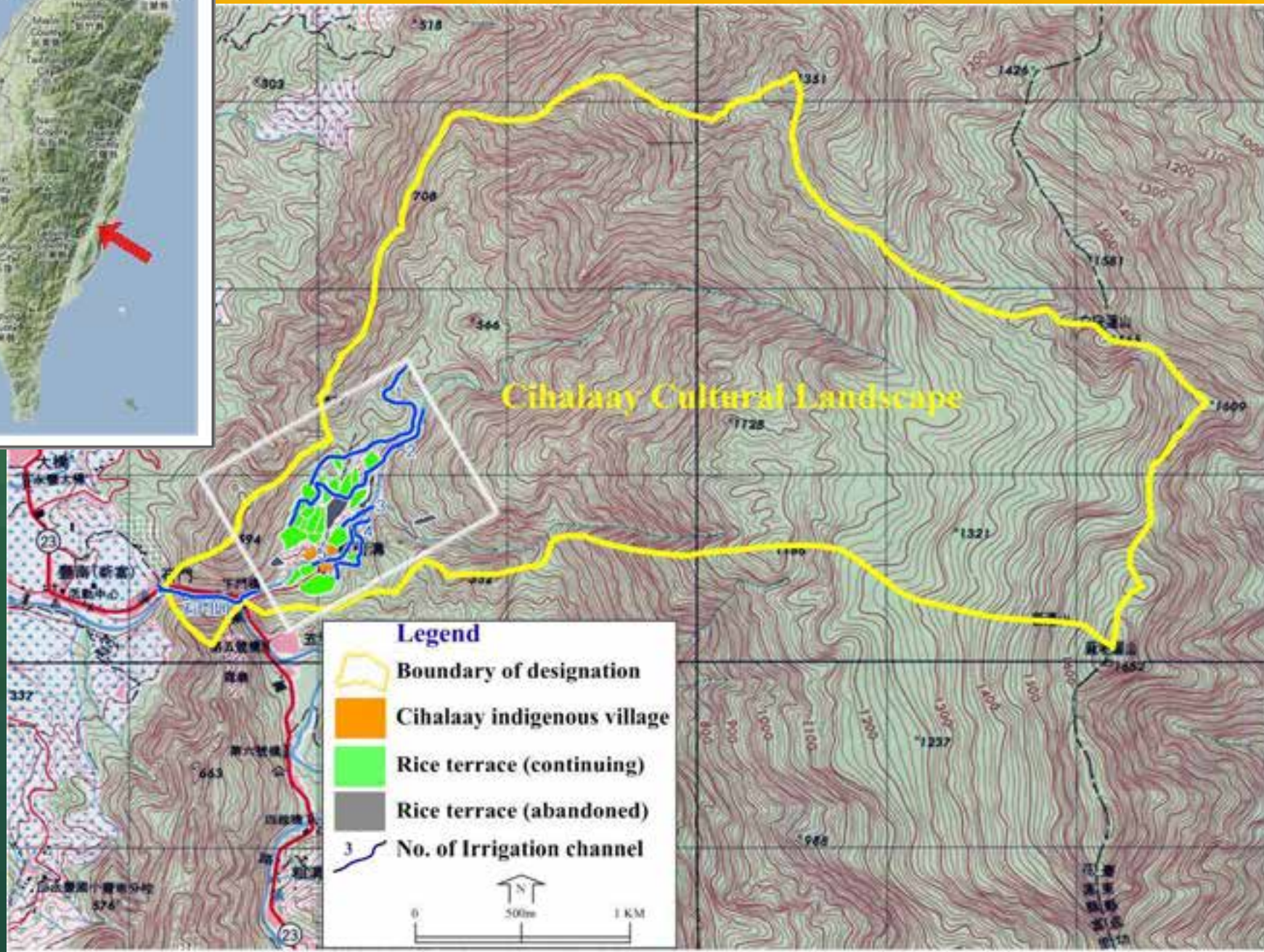
# Theory of Collaborative Planning (Healey, 1997)



## Location of case study area

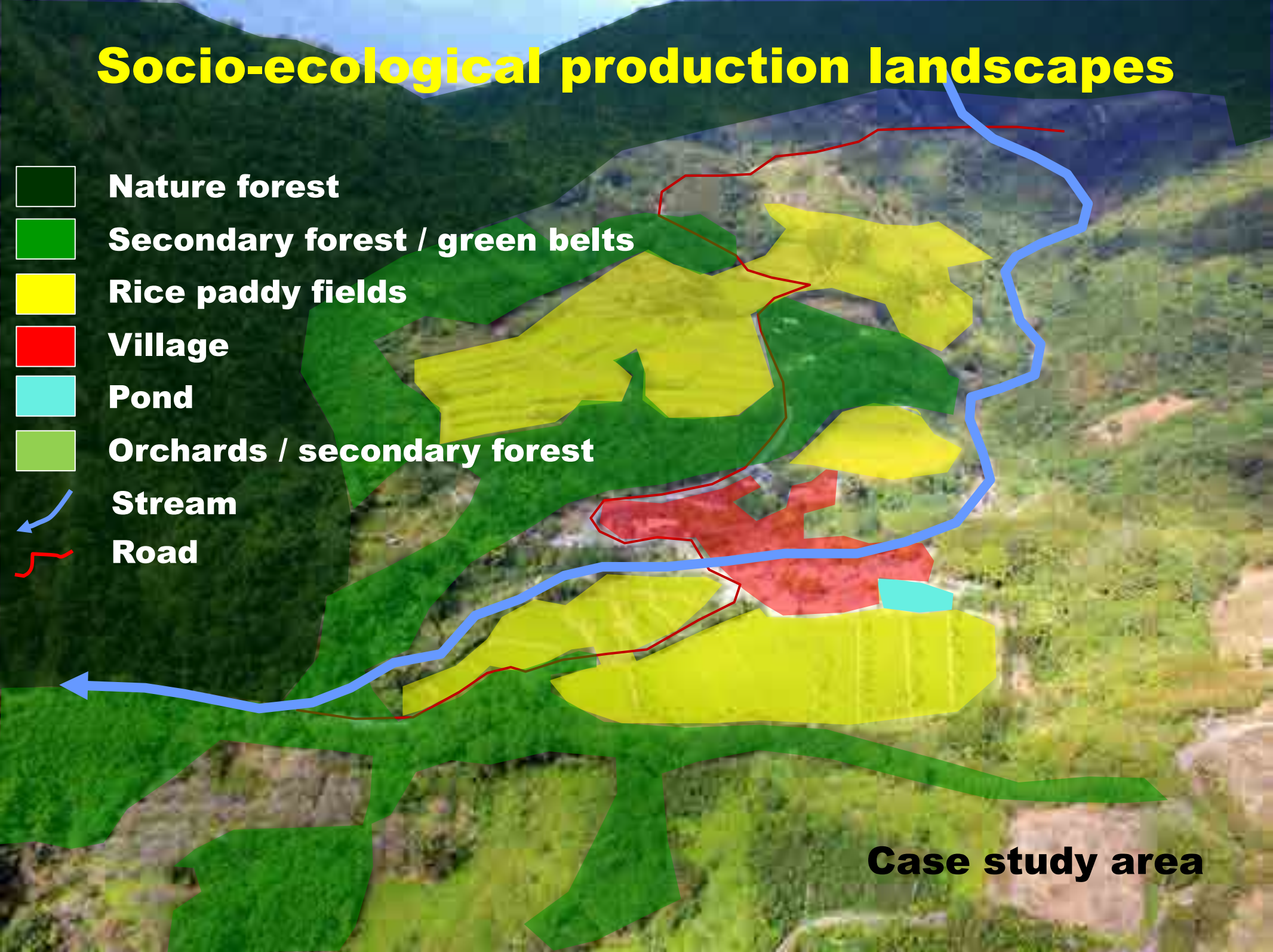


## Location map of the Case Study Area





# Socio-ecological production landscapes



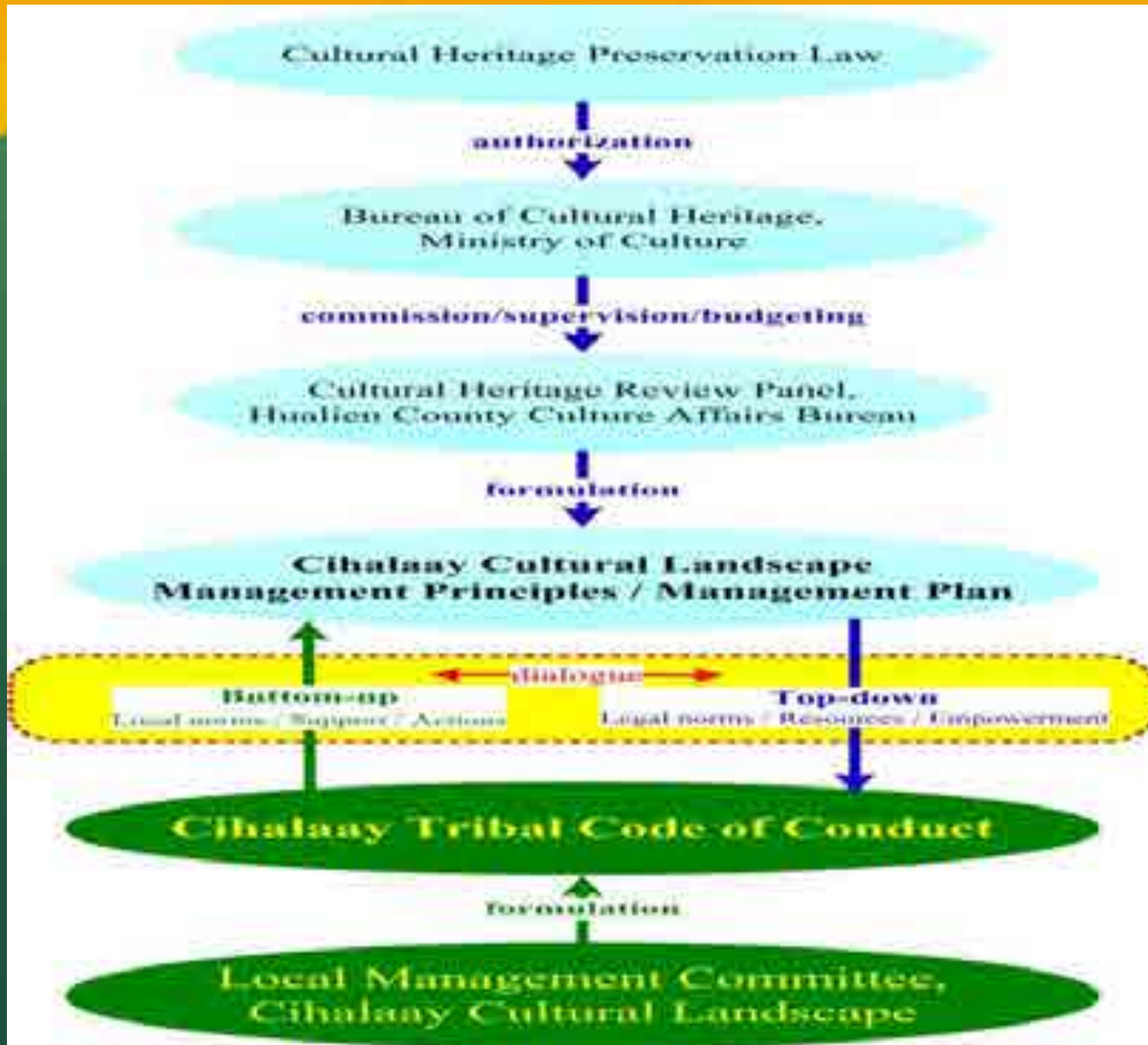
**Case study area**

## Challenge- 1: lack of a feasible framework and institutional arrangements for application

- Most designated cultural landscapes are about historical architecture preservation. None employs an integrated landscape and community-based approach to benefiting both local people and their living landscapes.



# Outcome 1-1: building up a mutually beneficial linkage between local community and local authority



# Outcome 1-2: incorporating the Satoyama Initiative three-fold approach into of the Cihalaay Cultural Landscape Management Plan agreed by stakeholders





## Challenge 2:

### to design and exercise of a collaborative planning

- To sustain a satoyama-like landscape in an aging and declining rural area, **a collaborative governance** needs to be fostered to empower the local community while involving all stakeholders in the planning process.
- In Taiwan there is a **lack of community-based case studies on the Satoyama Initiative** to be learned from.

# Outcome 2-1: Dialogue between expert knowledge and local knowledge to increase knowledge resources





## Outcome 2-2:

# Stakeholder Partnership Platform to increase relational resources among stakeholders



## Outcome 2-3:

# Steps of the Participatory Planning Process (based on IUCN CEC, 1999)





# Step 1: Preparation

- May - Jul 2011
  - Investigation of cultural landscape resources
  - PPGIS + interviews + field survey

# PPGIS methods

No.	Length (m)	Irrigation area (ha)
<b>Shih-Men</b>	<b>600</b>	<b>15.3</b>
1	1,207	3.6
2	1,217	5.7
3	216	0.9
4	551	1.6
5	351	1.1
Total	4,141	28.1

Investigation of  
Irrigation ditches



豐南部落活動中心  
豐南部落活動中心











# Steps 2&3: Discussion & Consensus-building

- Jul 2011- Jan 2012
  - To reach **consensus on the designation** of a cultural landscape
  - Recruiting **Four Community Forums**

- **What** is a cultural landscape ?

- **What for** ?

**1<sup>st</sup> & 2<sup>nd</sup> forums**

- **Where** is the boundary ?

- Any **legal restrictions** ? Any **benefits** ?

- **Who** are the stewards ?

- **How** to manage it ?

**3<sup>th</sup> & 4<sup>th</sup> forums**

# **1<sup>st</sup> Community Forum, 2011.7.5**

## **- For local leaders**

- 15 local people: village and tribal leaders, villagers
- 1 officer from Local Authority of cultural landscape preservation
- 4 research team members



**10:00-12:00 am**  
**In Community Center**





図4 里山の概念と特徴

㉓ 薪炭林, ㉔ 人工林, ㉕ アカマツ林, ㉖ 屋敷林, ㉗ 竹林, ㉘ 草地, ㉙ 水田, ㉚ 畑, ㉛ 水路・川, ㉜ ため池, ㉝ 集落, ㉞ 家畜(ウシ, ニワトリ), ㉟ キノコなどの山菜, ㊱ 草原の火入れ, ㊲ 水路の保全, ㊳ 雑木林・竹林の手入れ, ㊴ 人工林の手入れ, ㊵ 落ち葉かき・堆肥づくり, ㊶ 炭焼き, ㊷ シイタケ栽培, ㊸ 神社, ㊹ オオタカ, ㊺ サンショウウオ, ㊻ カワセミ, ㊼ 農家・林家, ㊽ ハイカー

# Opinions of local people in 1<sup>st</sup> forum

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- **Not harmful and sounds good, but...**
- **“Who will be in charge?”**
  - ✓ **Local people?**
  - ✓ **The government?**





# Local tribal meeting

2011.7.11



# **2nd Community Forum, 2011.7.25**

## **- For local villagers**

- 30 local people: village and tribal leaders, villagers
- 2 officers from Local Authority of cultural landscape preservation
- 8 research team members



**15:00-17:00 pm**  
**In local village**



# Local leaders chair the meeting



**A Management Board for the cultural landscape was established 2011.10.17**





# **Tribal Codes of conduct for cultural landscape by the Management Board, 2011.10.31**

- **Goals**
- **Organization**
- **Land management**
- **Life and culture**
- **Rice paddy management**
- **Irrigation ditches management**
- **Forest and stream management**



# 3th Community Forum, 2011.11.14

- For local villagers ← dialogue → local authorities

- 28 local people: village and tribal leaders, villagers
- 12 officers from various Local Authorities
- 7 research team members





# 4th Community Forum, 2012.1.10

- For local villagers ← dialogue → local authorities

- 31 local people: village and tribal leaders, primary school principal, villagers
- 8 officers from various Local Authorities
- 7 research team members



# Legally Proved by the Cultural Heritage Review Committee of the local authority, 2012.3.27







- Nature forest
- Secondary forest / green belts
- Rice paddy fields
- Village
- Pond
- Orchards / secondary forest
- Stream
- Road

**A new type of IUCN protected landscape was born!**

# Step 4: Action planning 2012.4~2013.4

## Key questions discussed in 5<sup>th</sup>-7<sup>th</sup> community forums

### • local villagers dialogue various local authorities

- Relation between Cihalaay Tribal Code of Conduct and the Cihalaay Cultural Landscape Management Principles
- Content of **New tasks** to be completed in the Cihalaay Cultural Landscape Management Plan **5<sup>th</sup> & 6<sup>th</sup> forums**
- Decision of the **Core Areas** of the Cihalaay Cultural Landscape
- A 5-year mid-term Cihalaay Cultural Landscape Management Plan **7<sup>th</sup> forum**



# 5th Community Forum, 2012.4.23

- For local villagers ← dialogue → research team

- 14 local people: village and tribal leaders, villagers
- 6 research team members



# 6th Community Forum, 2012.9.17

- For local villagers ← dialogue → local authority

- 8 local people: village and tribal leaders, villagers
- 2 officers from Local Authority of cultural landscape preservation
- 7 research team members





# 7th Community Forum, 2013.3.26

## - For local villagers ← dialogue → local authority

- 30 local people: village and tribal leaders, villagers
- 10 officers from various local authorities
- 8 research team members















# The mid-term Cihalaay Cultural Landscape Action Plans

## Time table

吉哈拉艾文化景觀管理委員會 + 下列主要夥伴機關(構)

行動策略 strategies	工作項目 Tasks	短中長程歷程			吉哈拉艾文化景觀管理委員會 + 下列主要夥伴機關(構)									
		短程 (1-3年)	中程 (4-6年)	長程 (7-10年)	花蓮縣 文化局	林務局 花蓮林 務管理 處	水土保持 局 花蓮分 局	花蓮區 農業改 良場	花蓮縣 原住民 行政處	卓蘭 鄉公所	農田水 利會 富里工 作站	東華 大學	玉豐 國小	
A. 在自然回復力的限度 內循環使用自然資源	A-1 農地生物多樣性調查監測	*	*	*										
	A-2 地地及野溪潛在災害調查監測	*	*	*										
	A-3 溪河指標魚類及水質調查監測	*	*	*										
	A-4 農畜糞源回收及生活污水生態處理		*	*										
	A-5 生態與文化旅遊遊客載量管制	*	*	*	+	+	+							
	A-6 原住民生態與文化旅遊探訪森林遺跡管理		*	*		+			+					
B. 推動山園地-引進項 境友善農業技術-補植 梯田水利文化景觀	B-1 時區灌溉	*		*										
	B-2 山林巡徑監測	*	*	*										
	B-3 有機成生態友善農耕推廣	*	*	*										
	B-4 溪河與梯田灌溉作示範	*	*	*										
	B-5 補植和示範日常維護	*	*	*	+									
	B-6 補植和示範維護立法維護	*	*	*	+									
C. 建立和聯繫以吉哈拉 艾文化景觀管理委員 會為主體的權益關係 人溝通與合作平台	C-1 吉哈拉艾文化景觀管理委員會運作	*	*	*	+									
	C-2 夥伴機關平台運作	*	*	*	+	+	+	+	+	+	+	+	+	+
D. 發掘和發揚阿美族傳 統知識和土地利用智 慧	D-1 原住民族傳統農耕生態知識調查	*	*	*	+	+		+	+			+	+	
	D-2 社區本位環境教育教材編製	*	*	*	+	+	+					+	+	
	D-3 社區農耕青少年解說員培訓	*	*	*	+	+	+					+	+	
	D-4 四維分校農產體驗區規劃與經營	*	*	*				+	+			+	+	
	D-5 四維分校環境教育發展場所認證		*	*				+				+	+	
E. 促進部落生活品質和 經濟收入成長	E-1 有機成生態友善農產品行銷	*	*	*										
	E-2 生態與文化旅遊經營	*	*	*	+	+	+	+				+		
	E-3 部落家園及道路景觀改善	*	*	*	+		+							
	E-4 部落特色景點暨公共區域營造	*	*	*	+		+							

## Stakeholders

# Next step: implementation and monitoring

To be continued....






Thank you for listening



Within definition, there are six management categories for protected areas (IUCN, 1994)

- 
- Most**
- **Ia Strict Nature Reserve**
    - ✓ science
  - **Ib Wilderness Area**
    - ✓ wilderness protection
  - **II National Park**
    - ✓ ecosystem protection and recreation
  - **III Natural Monument or Feature**
    - ✓ conservation of specific natural features
  - **IV Habitat/species management area**
    - ✓ habitat and species management
  - **V Protected Landscape/Seascape**
    - ✓ landscape/seascape protection and recreation
  - **VI Protected area with sustainable use of natural resources**
    - ✓ sustainable use of natural resources
- Least**