## **IPSI Case Study Summary Sheet**

### **Basic Information**

Title of case study							
Sri Lanka: Tank Irrigation Farming in Dry Zones							
Submitting IPSI member organ	nization(s)						
United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)							
Other contributing organization	on(s) (IPSI members and/or non-me	mbers)					
Japan Wildlife Research Center (J	IWRC)						
Author(s) and affiliation(s)	Author(s) and affiliation(s)						
Japan Wildlife Research Center (JWRC); Kaoru Ichikawa (UNU-IAS), ed.							
Format of case study (manuscript or audiovisual)	Manuscript	Language	English				
Keywords							
Water management, irrigation, drylands							
Date of submission (or update, ij case study)	f this is an update of an existing	March 2012					
Web link (of the case study or lead organization if available for more information)	http://collections.unu.edu/ese	rv/UNU:5448/SEPL_in_Asia_re	port_2nd_Printing.web.pdf				

# Geographical Information

Country (where site(s) or activities described in the case study are located – can be multiple, or even "global")									
Sri Lanka	Sri Lanka								
Location(s) (within the country or countries – leave blank if specific location(s) cannot be identified)									
Longitude	Longitude/latitude or Google Maps link (if location is identified)								
https://w	https://www.google.co.jp/maps/@7.8561993,79.5850319,8z?hl=en								
Ecosystem(s)									
Forest		Grassland		Agricultural	Х	In-land water	Х	Coastal	
Dryland	Χ	Mountain		Urban/peri-urban		Other (Please specify)			
Socioeconomic and environmental characteristics of the area									

Dry zones account for approximately 70% of the country. The Sri Lankan economy has been supported mainly by agriculture, forestry, and fisheries, however, in line with economic growth, the manufacturing, wholesale and retailing industries have expanded and clothing has become one of the largest export items nowadays in Sri Lanka. Approximately 40% or more of Sri Lanka's annual rice production comes from the dry zones.

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

In order for people to live on land in the dry zones, it is indispensable to secure water resources and use them efficiently. Thus tank irrigation systems have been developed throughout the dry zones since ancient times and are still used extensively. In addition to rice growing using irrigation farming, some farmers are engaged in a form of swidden agriculture. Furthermore, many farmers cultivate a wide range of fruits and crops and raise cattle.

#### Contents

Status ("ongoing" or "completed")	Completed	Period (MM/YY to MM/YY)	03/2012
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Rationale (why activities or policies described, or information shared in the case study are needed)

This study was commissioned to be included in the publication "Socio-ecological Production Landscapes in Asia".

Objectives (goals of activities or policies described, or of producing the case study)

This chapter provides an overview of tank irrigation and agriculture in the area.

Activities and/or practices employed

Literature review, field observation.

#### Results

It is believed that the irrigation systems in Sri Lanka were built from the fifth century B.C. The ancient small-tank irrigation systems in Sri Lanka were built by local residents and have been managed by them over the years. Not all tanks are used even today, and many of them have already been abandoned and have ceased to fulfill their functions.

Lessons learned (factors in success or failure, challenges and opportunities)

In addition to their direct use, tanks provide the functions of maintaining a cool and comfortable microclimate, groundwater recharging, soil conservation and such. In addition, besides contributing to sustaining agricultural biodiversity, the tanks constitute part of the most varied wetland ecosystem in the country. Since the productivity of irrigation in fragmented and limited areas of land is relatively low and thus the income of the farmers has declined, fewer farmers intend to invest in the management of minor irrigation systems.

#### Key messages

The government has established laws and systems for participatory management and has been implementing these initiatives on a project basis, but in the future, it will need to continue taking such measures as government financial support for farmers organizations, on-site implementation of the related policies, the granting of economic incentives to encourage participation by the local residents, and the establishment of cooperation between the government and farmers.

Relationship to other IPSI activities (if the case study is related to any other IPSI collaborative activities, case studies, etc.)

This case study originally appeared in the publication "Socio-ecological Production Landscapes in Asia". \*This Summary Sheet was produced by UNU-IAS alone.

Funding (any relevant information about funding of activities or projects described in the case study)

This study was commissioned by UNU-IAS.

# Contributions to Global Agendas

## CBD Aichi Biodiversity Targets (<a href="https://www.cbd.int/sp/targets/">https://www.cbd.int/sp/targets/</a>)

The table below shows based on the self-evaluation by author(s).  $\bullet$  and  $\blacksquare$  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					
•									
		3		<b>1</b> 5	16	7	34	5	9
Strategic Goal C Str									
Str	ategic Goa	ıl C	Str	ategic Goa	l D		Strategi	c Goal E	
Str	ategic Goa	ıl C	Str	ategic Goa	l D		Strategi	c Goal E	

### UN Sustainable Development Goals (SDGs) (<a href="https://sustainabledevelopment.un.org/sdgs">https://sustainabledevelopment.un.org/sdgs</a>)

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

1 NO POVERTY	2 zero Hunger	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, PINOVATION AND INFRASTRUCTURE
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10 REDUCED INEQUALITIES	11 SUSTAINABLE CITES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE	14 LIFE BELOW WATER	15 UFE ON LAND	16 PEACE JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS	