

IPSI Case Study Summary Sheet

Basic Information

Title of case study			
Iran: Agriculture Using Underground Irrigation Canals in Inland Dry and Semi-dry Zones			
Submitting IPSI member organization(s)			
United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)			
Other contributing organization(s) <i>(IPSI members and/or non-members)</i>			
Japan Wildlife Research Center (JWRC)			
Author(s) and affiliation(s)			
Japan Wildlife Research Center (JWRC); Kaoru Ichikawa (UNU-IAS), ed.			
Format of case study <i>(manuscript or audiovisual)</i>	Manuscript	Language	English
Keywords			
Drylands, water management, <i>qanat</i> , irrigation			
Date of submission <i>(or update, if this is an update of an existing case study)</i>		March 2012	
Web link <i>(of the case study or lead organization if available for more information)</i>	http://collections.unu.edu/eserv/UNU:5448/SEPL_in_Asia_report_2nd_Printing.web.pdf		

Geographical Information

Country <i>(where site(s) or activities described in the case study are located – can be multiple, or even “global”)</i>									
Iran									
Location(s) <i>(within the country or countries – leave blank if specific location(s) cannot be identified)</i>									
Longitude/latitude or Google Maps link <i>(if location is identified)</i>									
https://www.google.com/maps/@32.2148749,49.1924609,6z									
Ecosystem(s)									
Forest		Grassland		Agricultural	x	In-land water	x	Coastal	
Dryland	x	Mountain		Urban/peri-urban		Other <i>(Please specify)</i>			
Socioeconomic and environmental characteristics of the area									
<p>Dry and semi-dry zones account for about 75% of the country. Water brought by rivers that rise in the mountains flows toward the inland basin and disappears into vast stretches of alluvial or diluvial beds in the basin or into salt lakes located at the center of the basin. Qanat water is used for agriculture and drinking water and today it is even supplied to urban area.</p>									
Description of human-nature interactions in the area									
<p>In the dry zones in Iran, people have used qanats, the only source of water supply, to overcome the obstacle to development of water shortages for centuries. It has unique cultural, socioeconomic, and politic characteristics, and in this civilization the Iranians developed the wisdom to think how to coexist with the deserts by using irrigation water, performing agricultural work jointly, and taking other measures.</p>									

Contents

Status (<i>"ongoing" or "completed"</i>)	Completed	Period (<i>MM/YY to MM/YY</i>)	03/2012
Rationale (<i>why activities or policies described, or information shared in the case study are needed</i>)			
This study was commissioned to be included in the publication "Socio-ecological Production Landscapes in Asia".			
Objectives (<i>goals of activities or policies described, or of producing the case study</i>)			
This chapter provides an overview of the <i>qanat</i> water management and irrigation system in Iran.			
Activities and/or practices employed			
Literature review, field observation.			
Results			
The Iranians position <i>qanats</i> as something that connects people to nature, creates ecological awareness, and prompts people to take ecologically conscious actions. For this reason, activities aimed at connecting people to nature are carried out at mosques and other facilities in connection with the Islamic religion in which water plays an important role.			
Lessons learned (<i>factors in success or failure, challenges and opportunities</i>)			
In recent years, the proportion of <i>qanat</i> water to the total water supply has decreased. The reasons for this decrease in the number of <i>qanats</i> include urbanization and the introduction of modern pump wells.			
Key messages			
Today, however, <i>qanats</i> are attracting worldwide attention. Up to now, when the world was faced with water shortages due to population growth, it has found solutions in technological innovation. Some experts point out the need to take such measures as establishing laws to protect <i>qanats</i> and integrating <i>qanats</i> into modern irrigation systems in the future.			
Relationship to other IPSI activities (<i>if the case study is related to any other IPSI collaborative activities, case studies, etc.</i>)			
This case study originally appeared in the publication "Socio-ecological Production Landscapes in Asia". *This Summary Sheet was produced by UNU-IAS alone.			
Funding (<i>any relevant information about funding of activities or projects described in the case study</i>)			
This study was commissioned by UNU-IAS.			

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.

	■							
	■	■			■			