

# IPSI Case Study Summary Sheet

## Basic Information

Title of case study			
The contribution of chestnut orchard recovery projects for effective area-based conservation: Two cases in Asturias (North-West Spain)			
Submitting IPSI member organization(s)			
ECOAGRASOC. Higher Polytechnic School. University of Santiago de Compostela			
Other contributing organization(s) <i>(IPSI members and/or non-members)</i>			
GIS-Forest Research Group, Universidad de Oviedo; Department of Geography, Swansea University			
Author(s) and affiliation(s)			
Díaz-Varela, Emilio R., University of Santiago de Compostela; Álvarez-Álvarez, Pedro, Universidad de Oviedo; Roces-Díaz, José V., Universidad de Oviedo/Swansea University; Rodríguez-Morales, Beatriz., University of Santiago de Compostela			
Format of case study <i>(manuscript or audiovisual)</i>	Manuscript	Language	English
Keywords			
Area-based conservation; chestnut orchards; Social-Ecological Production Landscapes and Seascapes (SEPLS); rural development			
Date of submission <i>(or update, if this is an update of an existing case study)</i>		30 October 2018	
Web link <i>(of the case study or lead organization if available for more information)</i>			

## Geographical Information

Country <i>(where site(s) or activities described in the case study are located – can be multiple, or even “global”)</i>									
Spain									
Location(s) <i>(within the country or countries – leave blank if specific location(s) cannot be identified)</i>									
Caranga Baxu (Proaza)/ Villamorei (Sobrescobio), Asturias									
Longitude/latitude or Google Maps link <i>(if location is identified)</i>									
<a href="https://www.google.com/maps/@43.2190056,-6.0379222,10z">https://www.google.com/maps/@43.2190056,-6.0379222,10z</a>									
Ecosystem(s)									
Forest	x	Grassland		Agricultural	x	In-land water		Coastal	
Dryland		Mountain		Urban/peri-urban		Other (Please specify)			
Socioeconomic and environmental characteristics of the area									
Sweet chestnut forests cover an extension of more than 2.5 million hectares in Europe. Their distribution includes the Mediterranean, Atlantic, Central and Eastern areas. Specifically, this Case Study shows an example of an Atlantic chestnut orchard, cultivated traditionally as an important part of the socio-ecological landscape.									
Description of human-nature interactions in the area									
Normally cultivated and managed by neighbouring communities and/or individual private owners, they provide a number of goods and services. A major one is the provision of food. But other services are also relevant, such as the production of high quality timber for construction, wood for heating and traditional tools, agro-forestry grazing areas, litter for manure or mulching and honey production.									

## Contents

Status <i>(“ongoing” or “completed”)</i>	Completed	Period <i>(MM/YY to MM/YY)</i>	
Rationale <i>(why activities or policies described, or information shared in the case study are needed)</i>			
Chestnut orchards have suffered a process of abandonment and degradation since the middle of the 20th century, due to changes in socio-economic activities in rural areas. In many cases, the chestnut orchards show a noticeable abandonment process, so the conservation efforts involved actions directed to recover the			

functionality of the systems.
<b>Objectives</b> ( <i>goals of activities or policies described, or of producing the case study</i> )
The project was promoted by the regional administration, and its aim was to preserve in situ endangered native cultivars selected by local growers, and to protect the associated landscape, ethnographic and cultural values.
<b>Activities and/or practices employed</b>
Traditional knowledge was combined with modern techniques for operations like reclamation of trees (selection, pruning, grafting, shaping); conservation and maintenance of the orchard (shrub clearing, removal of ill trees); and the reconstruction of traditional stone structures (corros) used for chestnut fruit storage. In addition, efforts were made in the dissemination of knowledge regarding the project among the communities.
<b>Results</b>
A total of 3.3 ha of chestnut orchards were recovered. The total number of trees treated was 200 in Caranga Baxu and 130 in Villamorei. While the main objectives of the project were recovery of the orchards, the preservation of genetic material, and the improvement of landscape quality and heritage features, an early ex-post assessment of the effect of the activities on productivity was made. Results are indicative of improvements made by project actions, and are consistent with studies in similar geographical sites.
<b>Lessons learned</b> ( <i>factors in success or failure, challenges and opportunities</i> )
The recovery of chestnut orchards integrating traditional knowledge and modern technologies may be one of the possible strategies for secondary conservation of biodiversity from the perspective of OECMs, using SEPLS as a reference area, and benefitting from potential synergies with other non-conservation policies and actions like those related to rural planning and development.
<b>Key messages</b>
Chestnut orchards provide a number of environmental functions, genetic resources, and economic and socio-cultural benefits. Framing all these contributions as ecosystem services allows for linking ecosystems with human welfare, ecological value, biodiversity, and the acknowledgement of the important role of these systems in rural development and the preservation of traditional landscapes and culture.
<b>Relationship to other IPSI activities</b> ( <i>if the case study is related to any other IPSI collaborative activities, case studies, etc.</i> )
This case study originally appeared in the Satoyama Initiative Thematic Review v. 4.
<b>Funding</b> ( <i>any relevant information about funding of activities or projects described in the case study</i> )
The project was promoted by the regional administration (Principado de Asturias).

## 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.

	■						■	
<b>1</b> NO POVERTY 	<b>2</b> ZERO HUNGER 	<b>3</b> GOOD HEALTH AND WELL-BEING 	<b>4</b> QUALITY EDUCATION 	<b>5</b> GENDER EQUALITY 	<b>6</b> CLEAN WATER AND SANITATION 	<b>7</b> AFFORDABLE AND CLEAN ENERGY 	<b>8</b> DECENT WORK AND ECONOMIC GROWTH 	<b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE 
	■	●			●			
<b>10</b> REDUCED INEQUALITIES 	<b>11</b> SUSTAINABLE CITIES AND COMMUNITIES 	<b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION 	<b>13</b> CLIMATE ACTION 	<b>14</b> LIFE BELOW WATER 	<b>15</b> LIFE ON LAND 	<b>16</b> PEACE, JUSTICE AND STRONG INSTITUTIONS 	<b>17</b> PARTNERSHIPS FOR THE GOALS 	