

Payments for Ecosystem Services: the case of traditional chestnut orchards and their recreational benefits in South Tyrol, Italy

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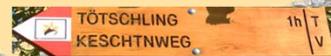
Background

Chestnut orchards (*Castanea sativa*, Mill.) in South Tyrol, Italy, have dramatically decreased in the last decade despite the incentives for the conservation of agricultural landscapes of the Province of Bolzano (*Abteilung Natur und Landschaft*, Autonome Provinz Bozen). One of the explanations for this reduction is the expansion of recent diseases (i.e. chestnut blight and Chinese gall wasp). Another, potentially economic, reason is the conversion of traditional chestnut orchards into more profitable land uses such as intensive fruit plantations or succession into unmanaged forests.

The use of PES could be particularly useful in enhancing the multifunctionality of chestnut growing, in particular a PES scheme could be implemented to use traditional chestnut orchard landscape in favour of recreational and didactic benefits.

The chestnut trail in numbers

60 km of pedestrian path from Varna/Vahrn to Bolzano/Bozen
First track (Velturmo-Klausen) opened in 2001
12 municipalities involved
21 chestnut retailers along the trail
72 refreshment stands ("Törggellelokale")



Kastanien sammeln verboten danke!



Ecosystem Services provided by chestnut orchards



Objectives

This study aims to design a mechanism able to translate the landscape and environmental non-market assets into financial incentives for land users to provide ecosystem services, also without direct government payments. In fact, the agro-environmental measures contained into Rural Development Programs are a diffused example of **government-financed PES**, but such schemes are less likely to be efficient than **user-financed PES program**, due to:

- the unavailability of first-hand information on services value,
- the impossibility to observe directly whether the service is being provided,
- the absence of direct incentive to ensure that the program is working efficiently.

The payment might be linked to the specific service provision (output-based), but, due to the impossibility to observe the level of supply, it is generally linked to input use (input-based). Stressing relationships between chestnut growing and cultural services as much as evaluating their benefits will lead to the pricing options for the mentioned services.

Transparency and proper communication

ES Buyers/Users

Theme trail users (local and tourists)?
Tourism operators?

Payment system

ES Providers

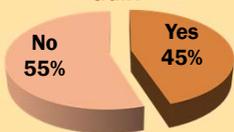
Chestnut-orchard owners only
Refreshment-stand owners only
Orchard and refreshment stand owners

Governance system: Associations, NGO and Public Institutions

Preliminary results

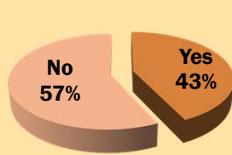
Local chestnut consumers

Have you ever visited a chestnut theme trail?



N = 270

Have you ever visited a chestnut fair?

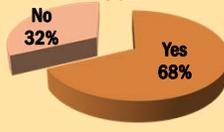


N = 270

Chestnut trail users

Tourists

Is it the first time that you visit the chestnut trail?



N = 28

Residents

Is it the first time that you visit the chestnut trail?



N = 26

Chestnut trail users

Reasons for choosing the chestnut trail instead of another scenic path?

- Experiencing the autumn
- Possibility of gastronomic stops along the path
- Recommended by tourism operators
- Possibility of purchasing local products along the path (mainly chestnuts and honey)

Methods

The intrinsic nature of a PES requires an attentive detection of cultural service sellers and buyers to assure the voluntariness of the transaction and the lasting provision of the good. To design a realistic incentive measure it is necessary to value the intangible benefits deriving from well-kept traditional landscape resources. The chosen method for an economic valuation will be a **stated-preference** model and will therefore assess the willingness-to-pay of ES users for the provision of cultural services deriving from traditional chestnut orchards.

First step:

Face-to-face survey conducted during spring 2011 in South Tyrol on a stratified sample of 300 chestnut consumers.

Second step:

Face-to-face survey conducted in fall 2011 in Feldthums/Velturmo on a stratified sample of 60 trail users.

Main literature review

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