



# **Agrarian terraced landscapes: from conservation to promotion**

## **Overview of recovery strategies**

**ALPTER meeting  
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# Outline

- 1. A value system for terraced areas**
- 2. Recovery strategies: overview of the possible tools, approaches and actions**
- 3. Feasibility , impacts, sustainability and priority of interventions**
- 4. Recovery techniques**



# A new value system for terraced areas

Any proposal of recovery for terraced areas should overcome the definition of terraces limited to their agricultural value or to their morphology. Project Alpter embrace **a complex and systemic definition of the terraced landscapes.**

Terraced areas are not anymore to have simply a productive role (even if this function maintain its high importance) but they become **a tool for management and control of the quality of territories, that respect the 'triangle of sustainability** (economical value, environmental and socio-cultural value).

These three values sums up in the terraced landscapes

**ECONOMIC-PRODUCTIVE VALUE**

**ENVIRONMENTAL VALUE**

**SOCIO-CULTURAL VALUE**

## 1 - PROPOSAL FOR A VALUE ASSESSMENT METHODOLOGY

<b>ENVIRONMENTAL VALUE</b> Defense against natural hazards Ecological value	HIGH	MEDIUM	LOW
<b>ECONOMIC-PRODUCTIVE VALUE</b> Commercial value of cultivations Tourist promotion Positive externalities	HIGH	MEDIUM	LOW
<b>SOCIO-CULTURAL VALUE</b> <b>Socio-anthropological value</b> Territorial rootedness Anthropological value <b>Cultural-landscape value</b> Historical and cultural value Structural and landscape peculiarity Aesthetic and symbolic value	HIGH	MEDIUM	LOW

## VALUE ASSESSMENT FRAMEWORK

# Recovery tools

Three different kinds of tools can be applied as regards the recovery of terraced landscapes:

- **legislative protection**, setting rules for terraces conservation, thus obliging landowners or local administrations to maintain and/or recovery terraced structures, in the name of a major, common interest;
- **provision of financial incentives or grants** by national and/or local governments, also aimed at stimulating the starting up of private initiatives by landowners. Indiscriminate financing *versus* highly differentiated and targeted aid measures;
- **approval of strategic planning instruments** an alternative method including active plans for conservation and/or recovery of specific terraced areas among their aims.

# Recovery approaches

Once defined the proper tool, four main strategic trends can then be identified:

- **agriculture - oriented recovery**, aimed at restoring agrarian functionality. While in some areas the former cultivations are restored, in other cases these are replaced by different kinds of growing;
- **tourism - oriented recovery**, aimed at developing tourist offer, e.g. through the creation of thematic trails or ecomuseums;
- **mixed approach**, aimed at integrating productivity by promoting both agrarian and tourist development;
- **soil protection - oriented recovery**, aimed at making safe abandoned terraced slopes affected by erosion processes and threatening urban settlements.



<b>EXAMPLES OF RECOVERY ACTIONS</b>	<b>COMPULSORY</b>	<b>DESIRABLE</b>	<b>ORIENTED</b>
<b>Cutting spontaneous tree and shrubby vegetation</b>	X		
<b>Making-safe and maintenance of terraces related structures (e.g. drystone retaining walls)</b>	X		
<b>Negotiating agreements with landowners</b>	X		
<b>Improving external accessibility (local viability network)</b>	X		
<b>Involving local communities and administrations</b>	X		
<b>Informing and raising public consciousness about the problems faced by terraced landscapes, with particular regard to resident population and potential consumers of tourist or agrarian products</b>		X	
<b>Restoring and improving internal accessibility (connections among terraces)</b>		X	
<b>Rural buildings restoration</b>			X
<b>Starting up agrarian production:</b> - high quality, niche products - terraces as pasturing land - gardening and horticulture			X
<b>Tourism development:</b> - creation of thematic trails - establishment of ecomuseums - organization of tourist structures for catering and accommodation - organization of environmental education activities			X
<b>Training courses for local craftsmen</b>			X
<b>Establishment of public-private partnerships</b>			X
<b>Improvement in legislative framework</b>			X
<b>Restoration or installation of water and electricity connections</b>			X
<b>Restoration and maintenance of water collection and irrigation system (water channeling and catchments network)</b>			X
<b>Introduction and development of mechanical equipment specifically conceived for terraced farmland</b>			X
<b>Promotion of a trademark associated to terraced landscapes</b>			X

# Sustainability and impacts

The **sustainability of recovery interventions** can be described in terms of social, environmental and economic factors. Its analysis must take into account the possible positive and/or negative impacts deriving from the implementation of interventions:

- **social impacts**: impacts on social capital, landscape perception, know-how maintenance, historical-cultural heritage;
- **environmental impacts**: impacts on slope stability, soil erosion, biodiversity;
- **economic impacts**: incomes from agricultural or tourist development, savings deriving from avoiding damages caused by natural hazards.



# Feasibility

After considering sustainability, through analysis of the operative factors of the works can be defined the feasibility of a specific intervention.

Three kinds of feasibility can be taken into account:

- **technical feasibility**, considering the availability of trained manpower, the slope morphology, external and internal accessibility and so on;
- **managerial feasibility**, considering the possibility to involve various stakeholders;
- **economic-budgetary feasibility**, considering the availability of public and private funds, the cost-benefit analysis including externalities and so on.

### 3 - FEASIBILITY, IMPACTS, SUSTAINABILITY AND **PRIORITY** OF INTERVENTIONS

In this table the feasibility of the works can be cross-matched with the value of the area, identifying a series of priorities. This table, discussed by all partners, can be a form of guideline resulting from the project.

<b>VALUE</b>	Soc/Env	6	8	7	9	7	8
	Environ.	5	7	6	8	6	7
	Econ/Env	7	9	8	10	8	9
	Econom.	5	7	6	8	6	7
	Soc/Econ	6	8	7	9	7	8
	Social	3	5	4	6	4	5
		Manag.	Tec/Man	Technical	Tec/Bud	Budget	Bud/Man
<b>FEASIBILITY</b>							



## 4 - RECOVERY TECHNIQUES

# Recovery techniques

- Terraced areas feature a complex system of mechanical interaction with the surrounding environment and they eventually become one with the territory that host them.
- Maintaining operational this 'territorial mechanism' must be a priority for whom intend to realize works in terraced areas. **Where the use of modern techniques is required to support a more efficient management of the area, they shall be applied. Still, the territorial balance remain the first requirement.** Otherwise, there is the risk of spoiling the new use of the area as well as the old one.
- Beside this, **another aspect to be considered is the perceptive and landscape one**, because a good integration in the existing environment is often a key factor for social and operative success.
- After these observation, **a list of structural elements can be draft that constitute terraced landscapes**, and the different techniques to realize them can be identified.

## 4 - RECOVERY TECHNIQUES

Structural elements	Technological approach		
	conservative	mixed	invasive
walling	drystone walling	stone with binding	coated concrete
terracing	manual terrain movement	small scraper or bucket	big earth-moving machines
irrigation system	restoration	integration	substitution
buildings and shelters	conservative restoration	renovation	substitution
infrastructure	pedestrian trails	monorail/cableway country road	asphalt road