

TERRITORIO: CHE FARE?

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GPST– Gruppo per la Gestione e Promozione Sostenibile del Territorio
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The territorial management contract (TMC):
a practical tool to reduce the risk in land
resources management and to improve
the multi-functionality of agriculture

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Introduction

Hydro geological risk

- 2011: Damage for 380 BILIONS of US
- Increase in extreme events and disasters
- Expansion of areas with hydro geological problems

Introduction

Situation in Italy

- **Landslides and floods are a real national emergency**

(Last Report on the state of Italian territory - National Council of Geologists, 2010)

- **Tragic events have occurred during the last 60 years**

Polesine, 1951, 1966; Firenze, 1966; Genova, 1970; Ancona, 1982; Val di Fiemme, 1985; Valtellina, 1987; Piemonte, 1994; Versilia, 1996; Sarno, 1998; Soverato, 2000; North-West of Italy, 2000; Valbruna, 2003; Varenna, Nocera inferiore, 2005; Cassano delle Murge, 2005; Ischia, 2006; Vibo Valentia, 2006; Messina, 2009; Laces, 2010.

- **Progressive increase of hydro geological risk: connected to the anthropic development of territory in not stable areas**

- **“Private” govern of territory: ISOLATED, SINGLE**

Introduction

Connection with agricultural sector

- Payments designated to decrease → reduction in the number of farms and thereby in the ***defence of territory***
- **Proper agricultural practices may hold back hydro geological problems**
- II CAP Pillar: incentives to correct some harmful practices or to reduce their impacts on the environment, **but not global planning approach**

Objective and intents

To propose an instrument to **involve farmers in territory management** - ***EX-ANTE SOLUTION***, before disasters happens

Some questions to be answered:

- Which mechanisms and the methods for a precautionary action?
- Which mechanisms for managing and controlling?

→ **First Proposal: Territorial Management Contract (TMC)**

TMCs: what they are

THE IDEA OF TMCs

Contract between farmers and local institutions regulating all the necessary **actions for the safeguard and the environmental protection of territory.**

→ drainage, cleaning of ditches, construction of dykes, soil consolidation, setting of trees rows

→ both on their own property and surfaces surrounding them

→ respect of technical parameters

→ **PAYMENTS to the farmers for surface and/or risk**

TMCs: what they are

FUNCTIONS OF TMC

- to prevent environmental problems, avoid permanent and temporary damages
- to enforce the social role of agriculture in the territory
- greater functionality to the role of the agricultural sector
- improvement of cash flow business of farmers
- use and dissemination of ICT for monitoring and control activities.

CHARACTERISTICS OF TMC

- STRICTLY LOCALIZED – *ad hoc* contracts
- Different types of preservation activities

TMCs: experiences

- **FRANCE - Contrats d'Aménagement du Territoire**

Contracting agreements between the State and territorial communities

→ Active participation for *sustainable development projects*

Example: Toulon Bay Contract

- **FRANCE - Land Management Contract**

1999 French Law of Agricultural Orientation: payment for non-marketable products of their activities

- **ITALY – Paper of Forests**

Document supporting a *sustainable model for development and management of forests*. Principles and engagements for a good management of Forests of Lombardy

→ Participation of local communities in territorial development and predisposition of common actions

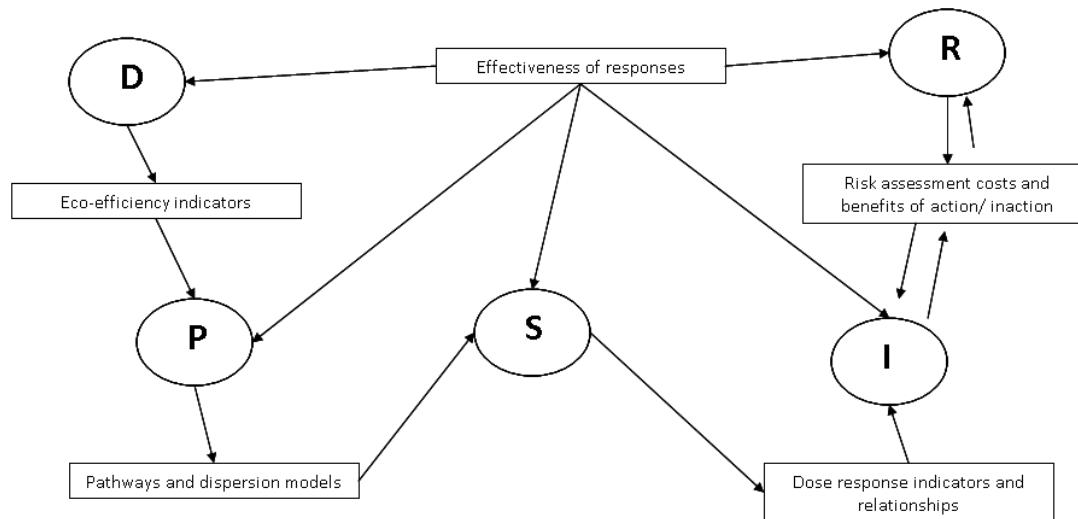
TMCs: a model

1. Definition of the portion of territory, within applying the contract
Identification of different areas → setting of different contracts
2. Environmental Assessment of the portion of territory
Definition of environmental problems, critic points, environmental risks
(e.g. damages caused by potential landslides or mudslides, risk of floods, exc)
3. Definition of general and specific objectives

TMCs: a model

4. Setting of indicators, for the current situation and for monitoring changes

to monitor the current situation and the on-going changes linked to the application of the contracts; for quantifying objectives



The DPSIR scheme - Drivers-Pressures-States-Impacts-Responses

Gabrielsen and Bosch, 2003; EEA, 2011

TMCs: a model

Setting of indicators

*The collection of indicators is to be regarded as a **process rather than a product**, and the collection is expected to be accompanied by **reviews of the indicators and their usefulness**, and **procedures to institutionalize the collection and use of indicators as a part of national and local policy development and evaluation***

Urban Indicators Programme of the United Nations Centre for Human Settlements (UNCHS)

TMCs: a model

5. Definition of the actions to implement within the contracts, to reach the objectives.

Possible methods: Contingent Evaluation, Choice Experiments

- elicitation of willingness to pay or accept
- preference of farmers/population about types of prevention actions

6. Definition of the payment for the farmers implementing the actions.

7. Control and monitoring

TMCs: first application

THE PARK OF TRASIMENO

- Umbria Region (Central Italy), from 1995
- 12,994 ha (lake and surroundings)
- Relevant for history; important agricultural activities
- Important wetland
- Two Natura 2000 sites

Instruments for management:

socio-economic plan

management plan: nature conservation actions

- **possibility to include specific measures for contiguous areas**
- the majority of the measures included involve farmers

TMCs: first application

THE PARK OF TRASIMENO

Selection of **CONTIGUOUS AREAS**

(= *located in the surroundings, adjacent*)

- ***They constitute the connective tissue ensuring the functional continuity of protected territories*** (Borchi, 1996).
- Functional relation to the park, contributing to maintain and preserve its resources → **particular environmental measures can be established**

→ → → **suitable to specific Territorial Management Contracts**

TMCs: first application

CONTIGUOUS AREAS (Ciabattoni and Rocchi, 2010)

Choice experiments → Measures for increasing farmers participation in park management, to be implemented jointly about:

1. Conversion of agriculture areas and their naturalization,
2. Improvement of biodiversity,
3. Valorization of landscape
4. Reduction of lixiviation problems (vulnerable nitrate zone)

Willingness to accept of farmers → Premium of 160 euros/ha

TMCs: first application

(Ciabattoni and Rocchi, 2010)

Measures included to receive the premium:

- Conversion to pasture of agriculture areas, with natural essence.
- Introduction of hedges
- Reduction of 5% of nitrogen in comparison to the VNZ limits

Supposing participation to TMCs of farmers who participated in the past to the II axis measures of RDP, **we cover roughly the 30% of the contiguous areas surface**

(elaboration: RICA 2009 dataset).

Concluding remarks

- Necessary more active role of agriculture in management of territory
 - to justify payments to farmers
 - to go towards a real **ex-ante environmental protection**
- Safeguard of territory: prerequisite for sustainable development
- Involvement of citizens and farmers towards the achievement of this objective is an important step to carry out.
→TMCs: possible solution for these requirements
- Necessary analysis, case studies (hydro geological risk of farmers activities) and ultimate definition of the model

Thank you!