



I contratti di Gestione Territoriale (Territorial Management Contract -TMC):

uno strumento per ridurre e migliorare la gestione sostenibile della risorsa suolo e la multifunzionalità in agricoltura



A. Ciani, A. Boggia, L. Paolotti, L. Rocchi

Dipartimento di Scienze Agrarie, Alimentari ed Ambientali,  
Università di Perugia

[adriano.ciani@unipg.it](mailto:adriano.ciani@unipg.it) [antonio.boggia@unipg.it](mailto:antonio.boggia@unipg.it) [luisa.paolotti@gmail.com](mailto:luisa.paolotti@gmail.com)  
[lucia.rocchi@gmail.com](mailto:lucia.rocchi@gmail.com)

# Introduzione

## Territorio, Frane & Eventi estremi

- Incremento degli eventi estremi
- 2011: nei soli USA danni per 380 miliardi di \$
- Espanzione delle aree a rischio smottamento/ frana → 30.000 kmq per lo più suolo forestale ed agricolo (ISPRA, 2013)

# Introduzione

## La situazione in Italia

- Frane ed innondazioni sono una reale emergenza nazionale**

(“Terra e sviluppo, decalogo della terra 2010 - Rapporto sullo stato del territorio italiano”, Consiglio nazionale dei Geologi).

- Frequenza degli eventi tragici accaduti negli ultimi 60 anni.**

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.

- Progressivo incremento del rischio idrogeologico, connesso allo sviluppo antropico in aree non stabili.**

- Approccio “Privato” al governo del territorio: ISOLATO, SINGOLARI.**

# Introduzione

## Connessione con il settore agricolo

- I pagamenti all'agricoltura destinati a diminuire sempre più → riduzione del numero di agricoltori e di conseguenza in difesa del territorio.
- **Pratiche agricole idonee possono favorire un mantenimento del buono stato del territorio.**
- Il Pilastro della PAC: presenti incentivi di correzione di pratiche agricole scorrette o di riduzione degli impatti ambientali, ma non si può affermare sia presente un approccio di pianificazione globale.

# Obiettivi

Proporre uno strumento di gestione del territorio  
che **coinvolga attivamente gli agricoltori** -  
Soluzione ***EX-ANTE***

Domande a cui si cerca di rispondere:

- Quali meccanismi e quali metodi adottare per azioni di tipo precauzionale?
- Quali sono i meccanismi di gestione e controllo?

→ **Proposta: I Contratti Territoriali di Gestione (TMCs)**

# TMCs: cosa sono

## *L'IDEA DEI TMCs*

**Contratti tra le istituzioni locali e gli agricoltori al fine di regolamentare tutte le necessarie azioni per la salvaguardia del territorio e la protezione dell'ambiente.**

- 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: cosa sono

## *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: esperienze

- **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

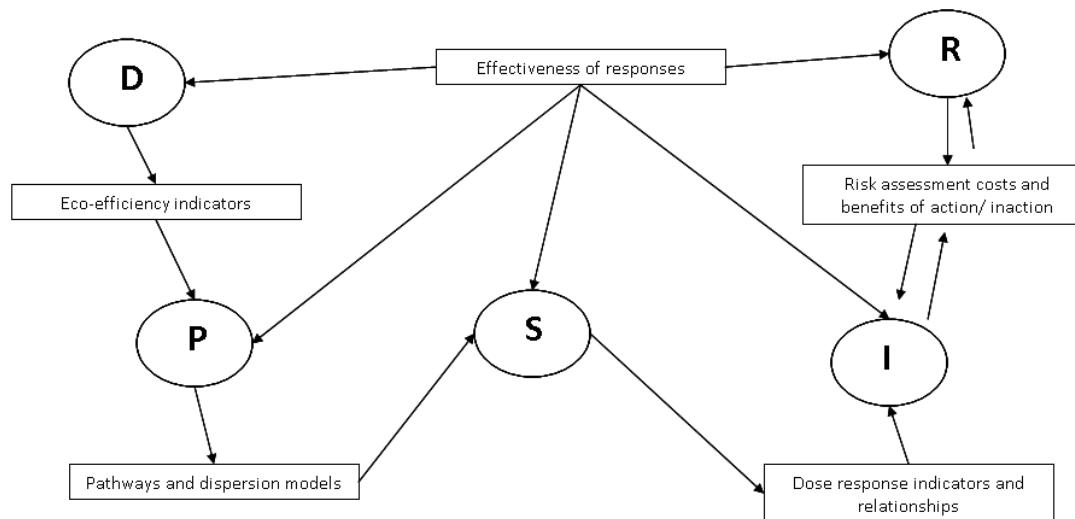
# TMCs: il modello

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: il modello

## 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: il modello

## 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: il modello

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: una prima applicazione

### 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

## 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: una prima applicazione

### 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: una prima applicazione

(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).

# Considerazioni conclusive

- 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

Grazie per l'attenzione!