



CATALYST



EUROPEAN COMMISSION



SEVENTH FRAMEWORK  
PROGRAMME

Funded under THEME (ENV.2011.1.3.4-1)  
Capacity building in natural hazards risk reduction

CAPACITY DEVELOPMENT FOR NATURAL HAZARDS RISK REDUCTION AND ADAPTATION

# CATALYST Follow-Up Projects

Increasing Capacity for DRR/CCA at the Community and  
Subregional Levels

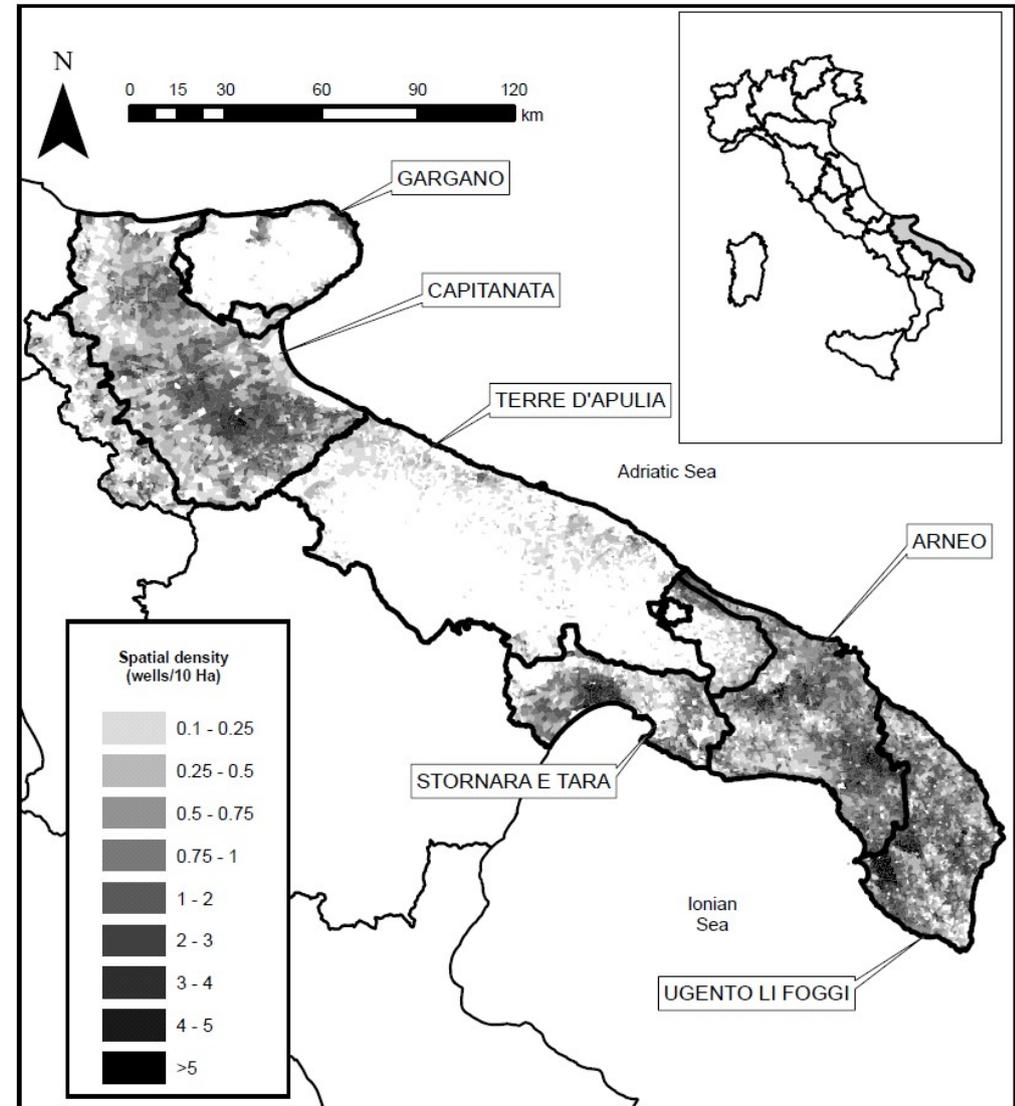
The Apulia local project

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# Some facts...

- The Apulia region has a Mediterranean climate with low precipitation, mild winters and warm, dry summers.
- Drought is a recurrent feature and it is going to increase both in frequency and intensity.
- It is mainly dominated by agriculture, with more than 70% of the total area occupied by cropland.
- There is not enough surface water to satisfy the demand entirely and for this reason significant amounts of water are withdrawn from groundwater by farmers.
- Irrigated agriculture is the unique user of groundwater in the Apulia region



# Drought management

- Lack of understanding of the complex web of drought impacts:
  - Neglecting the secondary drought effects
- Limited knowledge of the actual cause-effect chains affecting drought impacts
  - Oversimplification of cause-effect chains
  - Limited knowledge of system vulnerability to drought
- Drawbacks of drought monitoring
  - Anchored to the technical definition of drought
  - Information production/decision making process
- Communication barriers
  - Risk information does not reach the people at risk
  - Information is delivered not in time and it is not considered reliable
  - Strong barriers to information exchange.
- Stakeholders/decision makers mutual scepticism
  - Limited experiences in participatory drought management processes
  - Conflict between water users and decision makers

# Catalyst local project

**Full Title:** Analysis of desertification process in Apulia: causes and effects. Drought risk mitigation

**Project acronym:**

**Location:** Apulia Region, Italy

**CATALYST region:** EUM

**Case study:** Rural (regional)

**Hazard(s) managed in case study:** Drought

**International partners:** Geus, Alterra, UTwente

**Local partners:** CNR-IRSA, Polytechnic of Bari, Apulia regional basin authority, Civil Protection Agency.

**Duration:** 2014-2015

**Total budget:** 150.000 Euros

**(Potential) Funders:** Apulia regional basin authority (others)

# Catalyst local project

The knowledge developed within Catalyst network will be used to support the regional institutions to overcome the main barriers to drought risk management.

A knowledge sharing process will be carried out involving scientific partners, on one side, and local institution, on the other.

The project will act as an interface between these two communities, aiming to reduce the existing knowledge gaps.

# Catalyst local project

- Early warning system: the most innovative approaches to enhance the timeliness and reliability of drought forecasting will be discussed with the responsible of the regional monitoring information system. Uncertainty communication is also part of this activity.
- Drought monitoring: to evaluate the suitability of the current monitoring system to support drought management, and to identify potential improvements. The link between monitoring and decision process at different level, and the capability of the monitoring system to support the evaluation the policies' effectiveness will be particularly analysed.
- Drought indicators: river basin authority will be supported in the development of a system dynamic model capable to highlight the complex web of interactions among elements affected by drought, and to identify the main causes of the system vulnerability to drought.
- Multi-actors decision process: this activity aims to facilitate the sharing of knowledge concerning the different methods and tools to foster stakeholders involvement process in drought risk management.

# Catalyst knowledge

- How to use Catalyst knowledge:
  - Risk communication
  - Vulnerability assessment
  - System dynamic approach to risk management
  - Uncertainty analysis and communication
  - Stakeholders involvement in drought risk management
  - DRR measures and CCA in local context
  - Monitoring and evaluation of policy effectiveness