

European Commission - EuropeAid Co-operation Office
Euro-Mediterranean Regional Programme For Local Water Management

Mediterranean Drought Preparedness and Mitigation Planning (MEDROPLAN)



MEDA Water



2nd MEDA Water Regional Event

Marrakech (Morocco), 28-30 April 2008



Mediterranean Drought Preparedness and Mitigation Planning (MEDROPLAN)

Europe Aid Cooperation Office, MEDA WATER Programme
Contract number: ME8/AIDCO/2001/0515/59770 - P 027

Objectives

IMPROVE CAPACITY TO PREVENT AND MITIGATE IMPACTS OF DROUGHT IN THE MEDITERRANEAN AREA

1 Develop Guidelines for Drought Preparedness Plans

2 Set up a Drought Preparedness Network for the Mediterranean countries

Partners

-  University of Cyprus  National Technical University of Athens, Greece
-  University of Catania, Italy
-  Institut Agronomique et Vétérinaire Hasan II, Morocco
-  Confederación Hidrográfica del Tajo; Canal de Isabel II; Fundación Ecología y Desarrollo; Universidad Politécnica de Madrid, Spain
-  Direction Générale des Barrages et des Grands Travaux Hydrauliques, Ministère de l'Agriculture, Tunisia

Coordination

Dunixi Gabiña, Mediterranean Agronomic Institute of Zaragoza, Spain - iamz@iamz.ciheam.org
Ana Iglesias, Universidad Politécnica de Madrid, Spain - ana.iglesias@upm.es
<http://www.iamz.ciheam.org/medroplan>



Thanks to all collaborators!



University of Cyprus



National Technical

University of Athens, Greece



University of Catania,

Italy



Institut Agronomique et Vétérinaire Hasan II,

Morocco



Confederación Hidrográfica del Tajo; Canal

de Isabel II; Fundación Ecología y Desarrollo; Mediterranean

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Madrid, Spain



Direction Générale des Barrages et des

Grands Travaux Hydrauliques, Ministère de l'Agriculture,

Tunisia

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MEDROPLAN Partner countries



MEDROPLAN Guidelines

General overview. A. López-Francos

Methodological component

Drought characterisation. A. Cancelliere

Risk analysis in water supply systems. A. Cancelliere

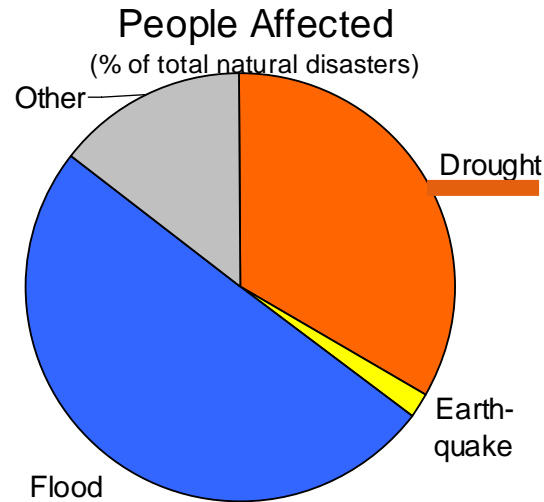
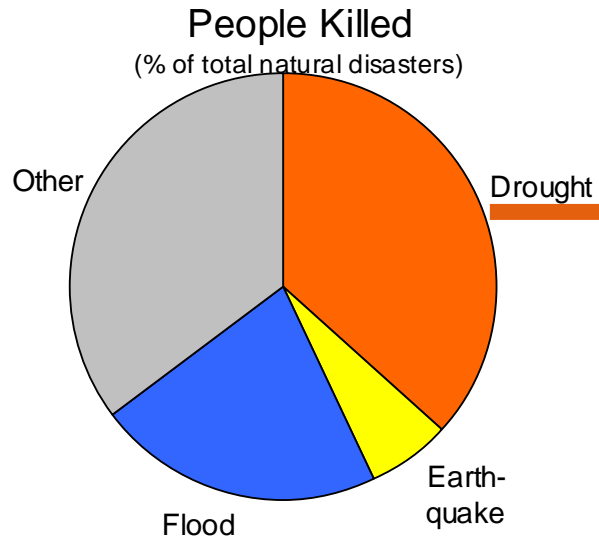
Operational component.

General presentation. L. Garrote

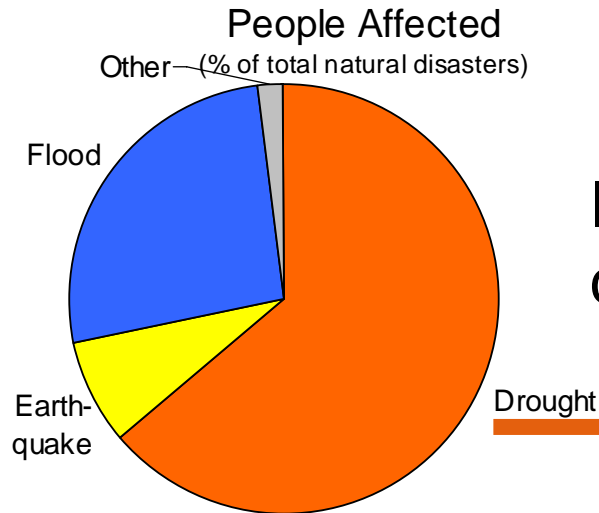
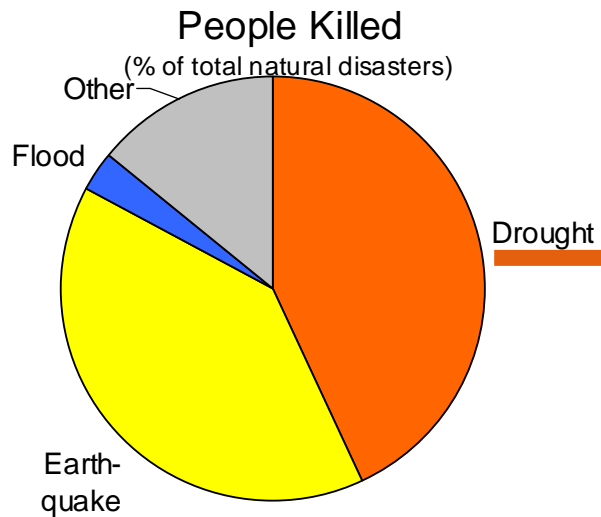
Reservoir management. L. Garrote

Urban water supply system. L. Garrote

Natural disasters (1996-2006)




In the world



In Mediterranean countries

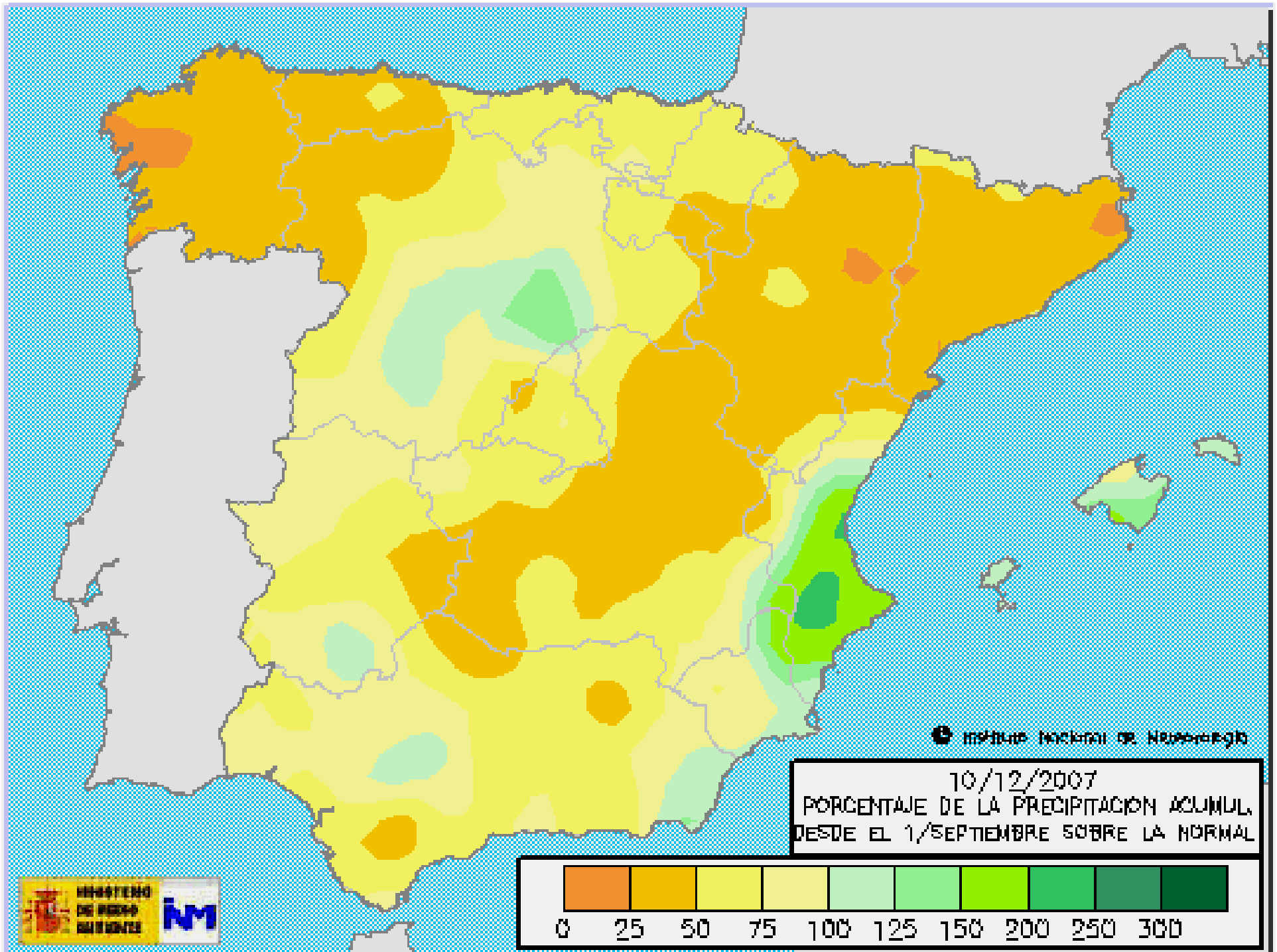


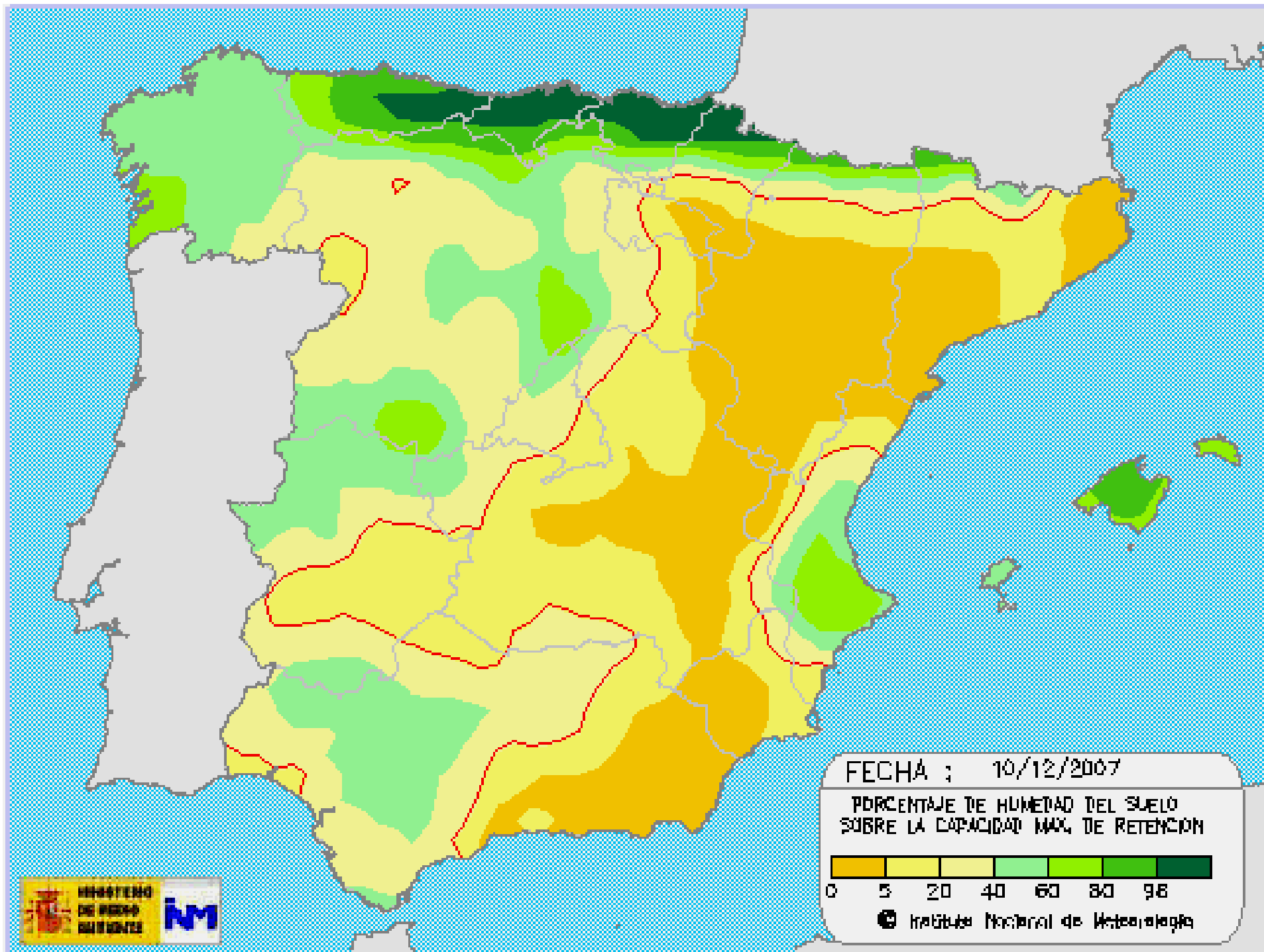


The impact of drought depends on the social vulnerability ...

- 800 million people suffer malnutrition
- 1,3 billion people live without safe drinking water; 2 billion without sanitation

JUN 18 2006





Guidelines for drought management

What are the Guidelines?

- The Guidelines are a “manual” that provide an **effective and systematic approach to develop drought management plans** based on the existing scientific and technical knowledge and **adapted** to the socio-economic, political and environmental conditions.
- The Guidelines have been based on successful experiences in coping with drought risk in many regions. Most of the successful experiences emphasize **risk-based management** as a critical approach to mitigate the impacts associated with drought in societies with different **vulnerabilities**.
- The proposed approach can be applied in the Mediterranean region but also in other regions of the world suffering from drought.

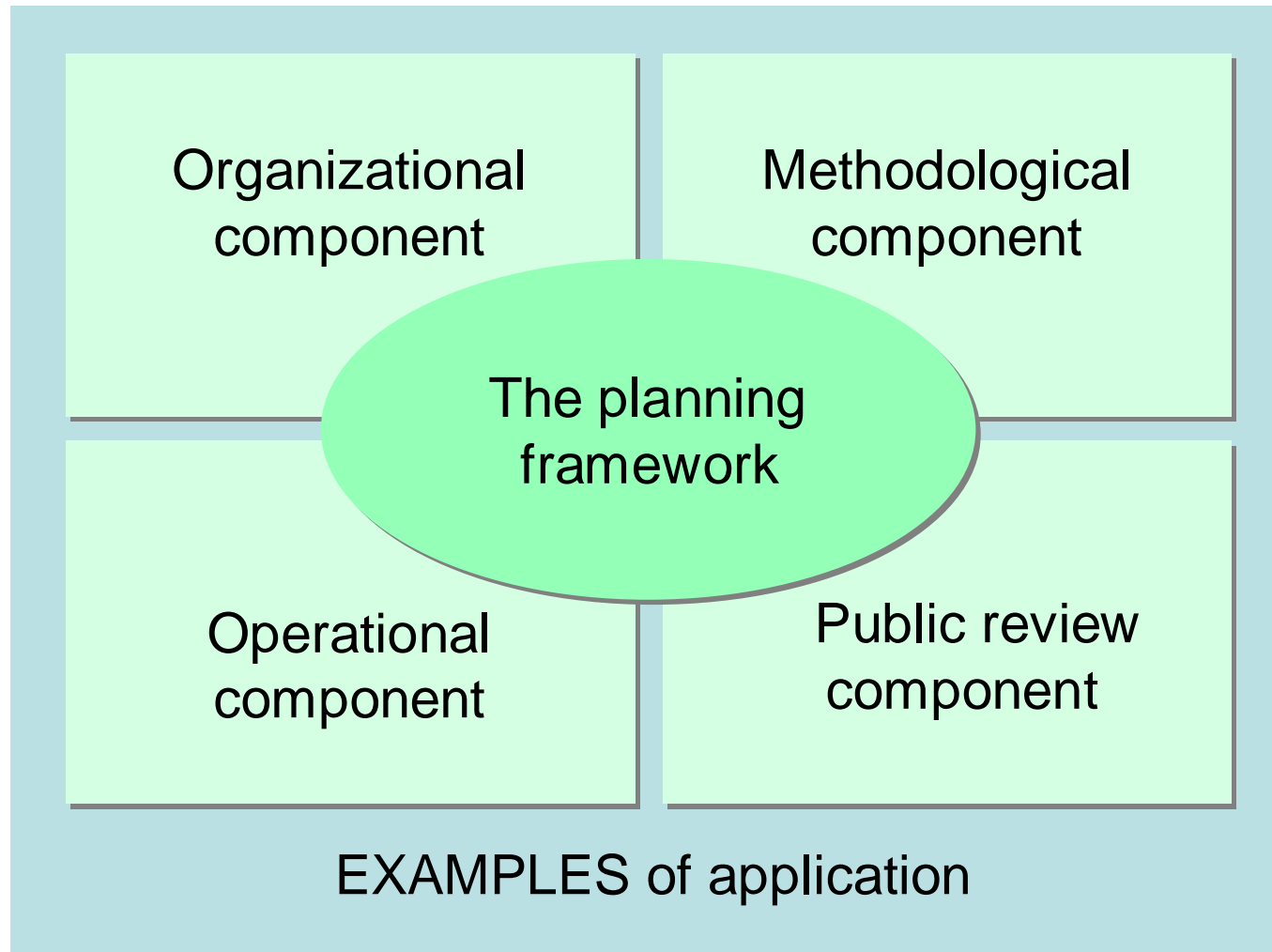
Objectives of the Guidelines

- Moving from a **reactive to a proactive approach** to fighting drought (**preparedness**)
- Placing emphasis on the **institutional and legal framework** and on **stakeholder participation**
- Introducing a **wide range of methodologies to cope with drought.**
- Reaching the broadest audience of **decision makers and stakeholders**, technical and non-technical
- Introducing the **framework of drought management** and **describing the needed elements of drought management plans**
- Providing **scientific and detailed methodology** for drought analysis and management (Technical Annex)

Structure of the Guidelines

1. The **Drought Management Guidelines**, which are a summary of all the components developed within the framework of the project.
Published in 6 languages (Arabic, English, French, Greek, Italian and Spanish)
2. **Examples of drought management experiences** in the 6 countries participating in the MEDROPLAN consortium
3. The **Technical Annex** to the Drought Management Guidelines, which is published in English as a special issue of the CIHEAM journal “Options Méditerranéennes”. The Technical Annex contains a deeper development of the issues dealt with in Drought Management.
4. The **MEDROPLAN website** that contains all the information contained in the documents mentioned previously and also provides a tutorial that guides the user in developing a drought management plan (CD version)

Components of the Guidelines



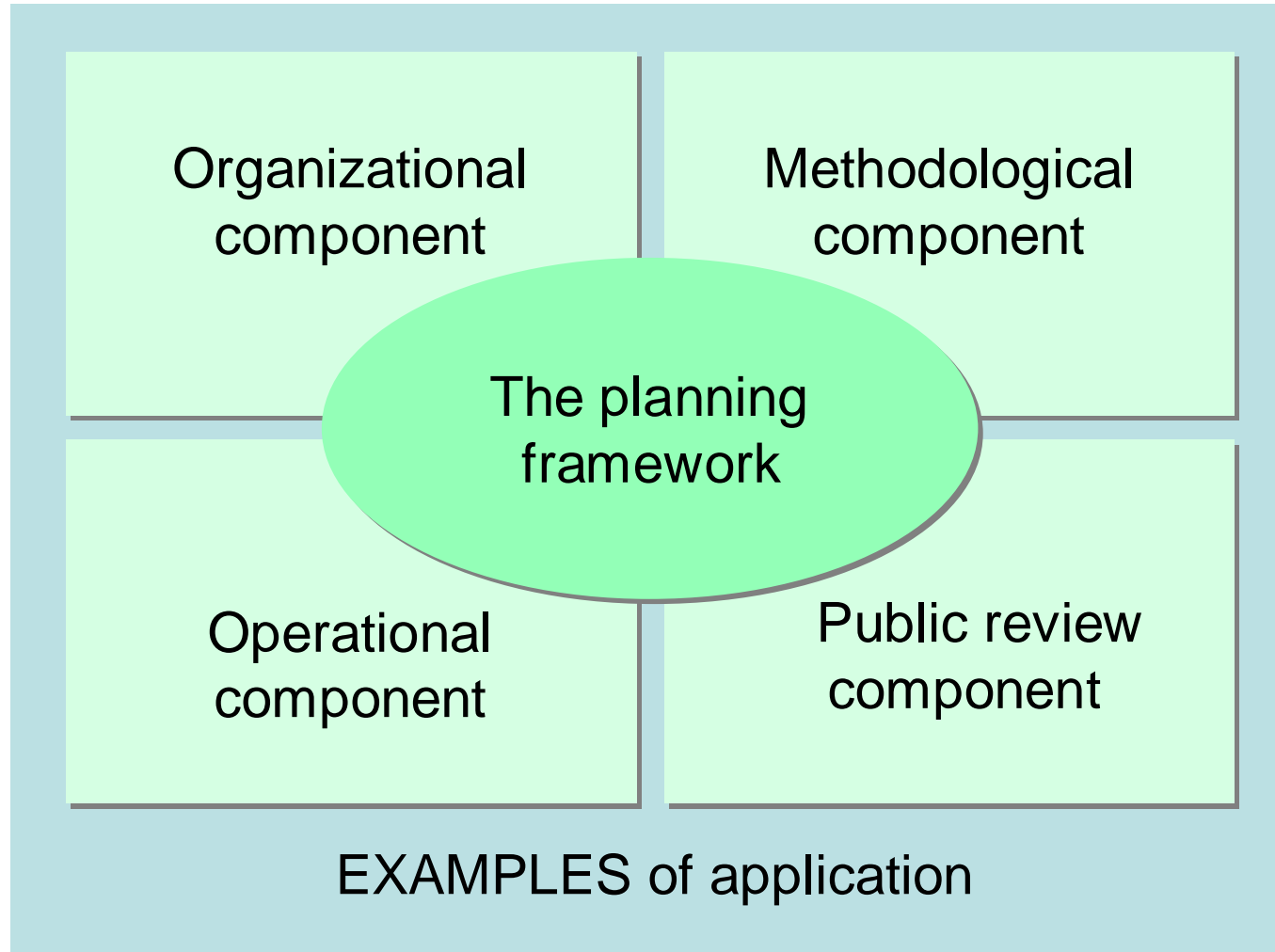
The planning framework

- 1. Defines the local, regional and national purpose for developing drought planning**
 - Drought plan addresses the full range of possible risks or focuses on a few. This determines the choice of methodologies for developing the plan
- 2. Defines concepts and a common language**
 - To increase the quality and acceptance of drought management plans
 - To increase acceptance of or trust in the science that is the basis of the planning
 - To provide essential information and insights about drought preparedness

The organizational component

- The management of drought in a defined area requires integrative approaches and integrated management, based not only on the natural features, but also on **socio-economic conditions of the area**
- Understanding the national **institutional regime** is a key factor for establishing effective, coordinated and integrated **drought management plans** that incorporate monitoring, public participation, and contingency planning
- The organizational component provides a **common methodology for analyzing the organizations and institutions** relevant to water scarcity and drought management.

Components of the Guidelines

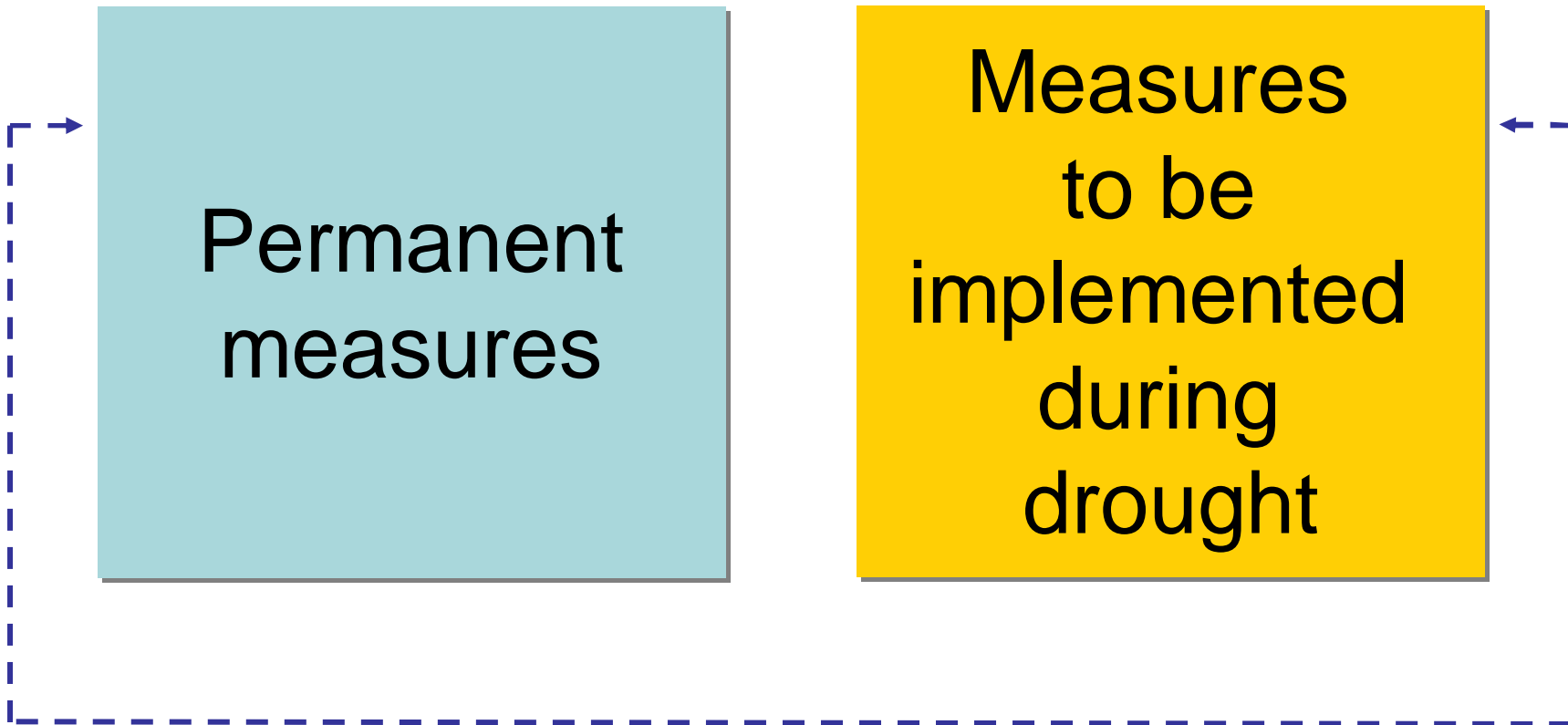


Methodological component

- Defines the **technical approach** to link drought and management actions
- This includes:
 - Drought characterisation
 - Risk and vulnerability analysis (diagnostic)
 - Data, models, and tools

Operational component

Defines strategies to adopt drought management actions



METHODOLOGICAL COMPONENT

Objective: define methods to assist in permanent drought planning and planning during a drought event and select the thresholds for management actions

Characteristics: Objectivity and simplicity in the presentation of the results

Drought characterisation and monitoring

Methods of analysis:
A combination of indicators and indices to characterize: meteorological, agricultural, hydrological and social drought

Evaluation of drought risk

Methods of analysis:
1. Qualitative evaluation of potential risk (consultation with stakeholders)
2. Quantitative evaluation of probabilities of occurrence or damage

Evaluation of vulnerability to drought

Methods of analysis:
A combination of indicators and indices to define the characteristics of a system that makes it susceptible to suffer losses from drought

OPERATIONAL COMPONENT

Objective: define the operational measures of permanent drought planning and measures during a drought event (responding to drought)

Public review component

- Verify the **adaptation of the designed plan to real evolving conditions**
 - Changes in social and environmental conditions
 - Risk analysis and management development
- **Periodical revision** of the plan is needed

“NEMEDCA” Drought Network

The Network on Drought Management for the Near East, Mediterranean and Central Asia

- Overall objective of the Network is enhanced technical co-operation among concerned national, regional and international organizations in the Region, particularly the exchange of information and experience among the member countries
- FAO-CIHEAM-ICARDA
- North Africa, Red Sea and Nile Valley, West Asia, Arabian Peninsula, Central Asia, Mediterranean Europe

Next dissemination activities of Medroplan

11 June 2008: Mini-Workshop on application of the Drought Management Guidelines to the Mediterranean Area

12-14 June 2008: International Conference on Drought Management

ZARAGOZA (SPAIN)



THANK YOU

www.iamz.ciheam.org/medroplan

