



Mediterra 2009



Rethinking rural development in the Mediterranean

An imperative for action





CIHEAM

The International **C**entre for **A**dvanced **M**editerranean **A**gronomic **S**tudies (CIHEAM) was founded in 1962.

It is an **intergovernmental organisation** comprising **thirteen member countries** from the Mediterranean Basin.

The CIHEAM is structured around a **Secretariat** based in Paris and four **Mediterranean Agronomic Institutes** (Bari, Chania, Montpellier and Zaragoza).

It has three central missions that are Interlinked:
training, research and cooperation

and three strategic fields of activity in the Mediterranean:
agriculture, food and sustainable rural development



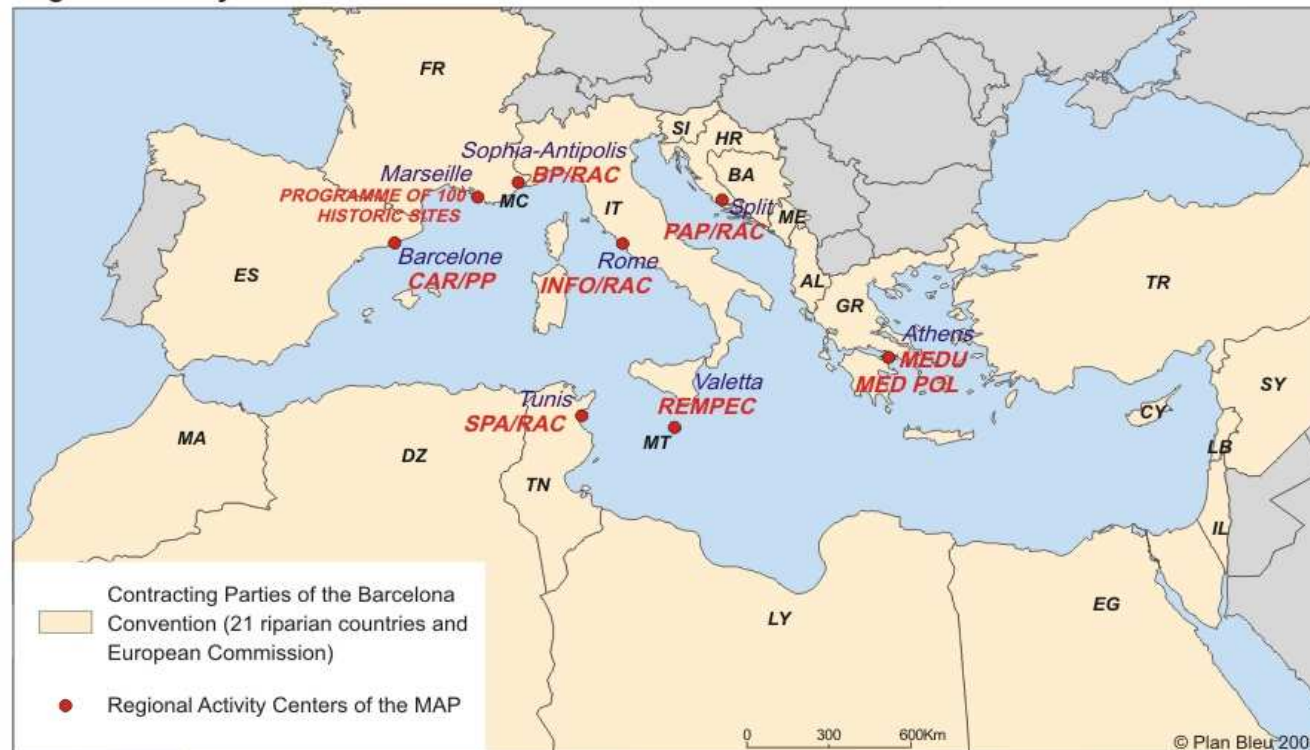
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Mediterranean determination



Blue Plan: a regional activity centre of the Mediterranean Action Plan

Regional activity centres of MAP



Created 30 years ago as a prospective analysis centre

- **Structured within the MAP, the first UNEP regional seas programme**

- **In the service of the 21 riparian countries parties to the Barcelona Convention**

A Mediterranean report in terms of both structure and distribution

- The CIHEAM Annual Report has been published since 1998; its official title has been **Mediterra** since the 2007 edition.

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- **CIHEAM – Blue Plan partnership**
- an operation launched in 2006 with a view to producing **Mediterra 2009**
- involving **a multi-disciplinary approach** and **transnational expertise**

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- **Mediterra is published in 5 languages** (*English, French, Spanish, Italian and Arabic*).

1. Reasons for rethinking Mediterranean rural worlds

- Complex realities
- Worrying trends
- The role of the hinterland in the future of the Mediterranean

2. Constraints for agricultural development in the Mediterranean

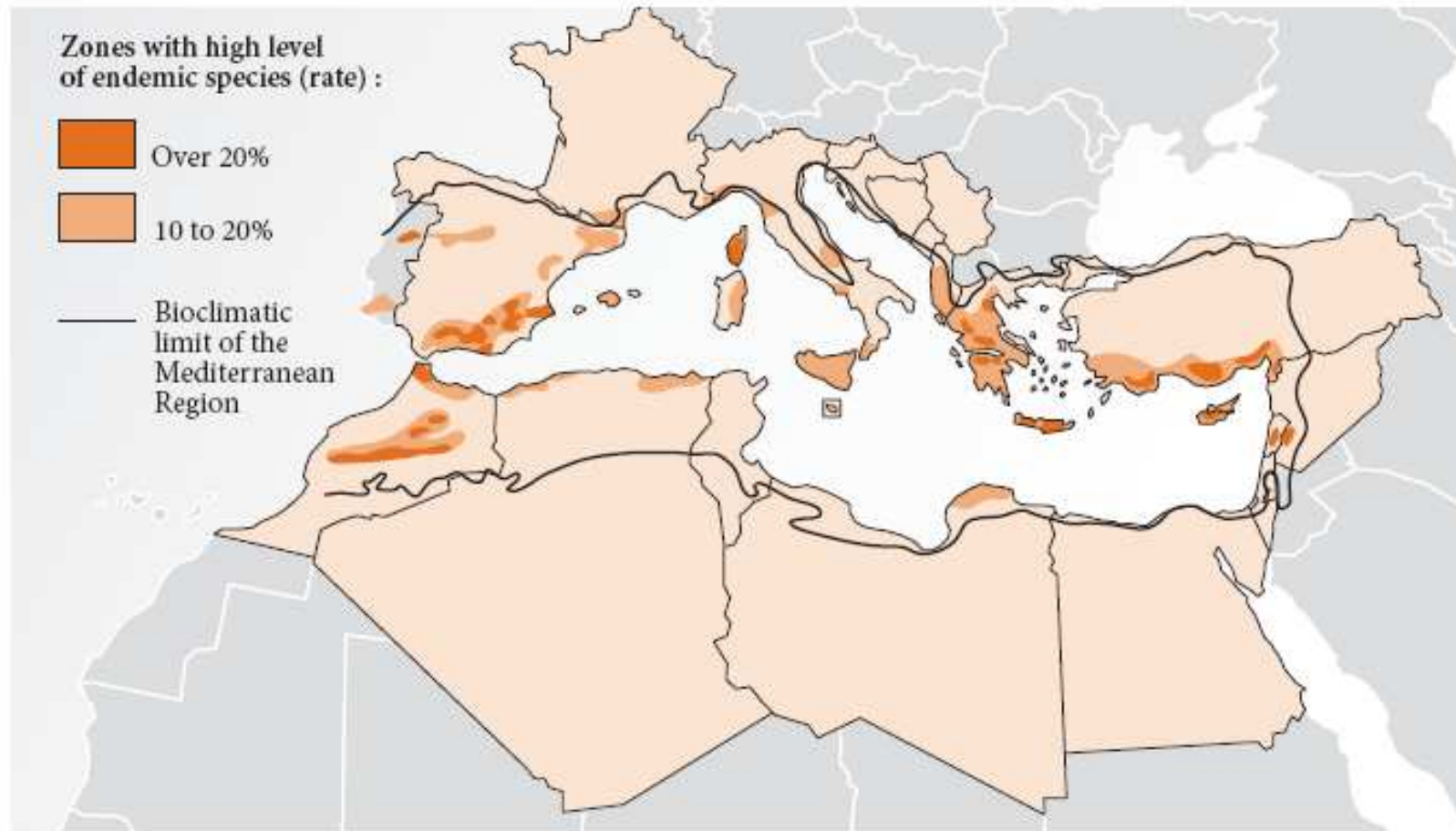
- Water: a precious but scarce resource
- Soil: vital but under threat
- A difficult, unstable climate

3. Ten challenges to be met for Mediterranean rurality and farming systems

4. Four strategic messages



Map 3 - The Mediterranean, sanctuary of world biodiversity, 2005



Source : Blue Plan from F. Médail and P. Quézel, "Hot-Spots Analysis for Conservation of Plants Biodiversity in the Mediterranean Basin", *Annals of the Missouri Botanical Garden*, 84 (1), 1997.

Complex realities

Chart 2 - Urban and rural population of the two shores of the Mediterranean, 1950-2045

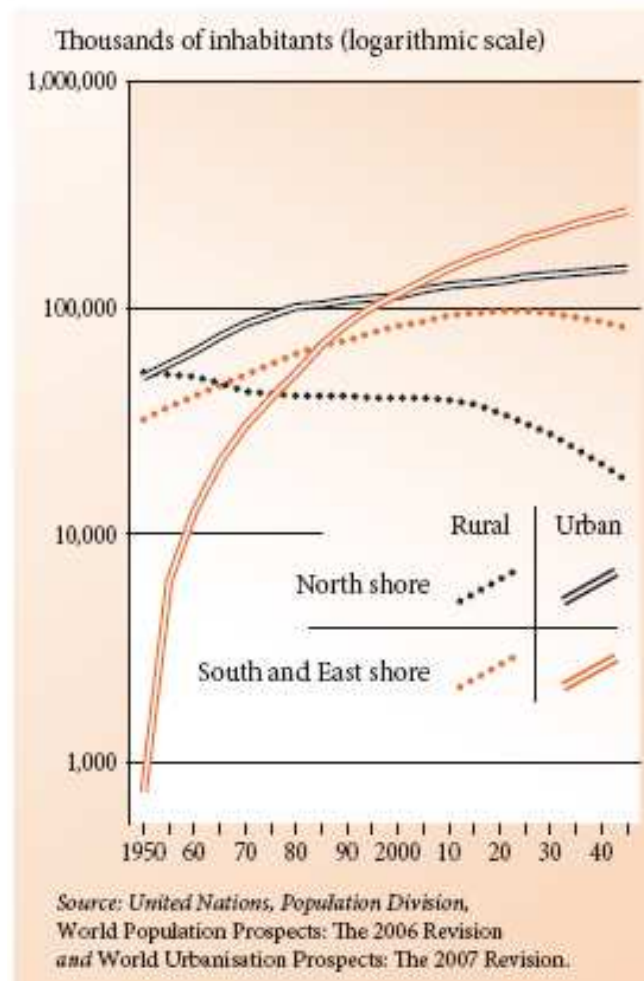
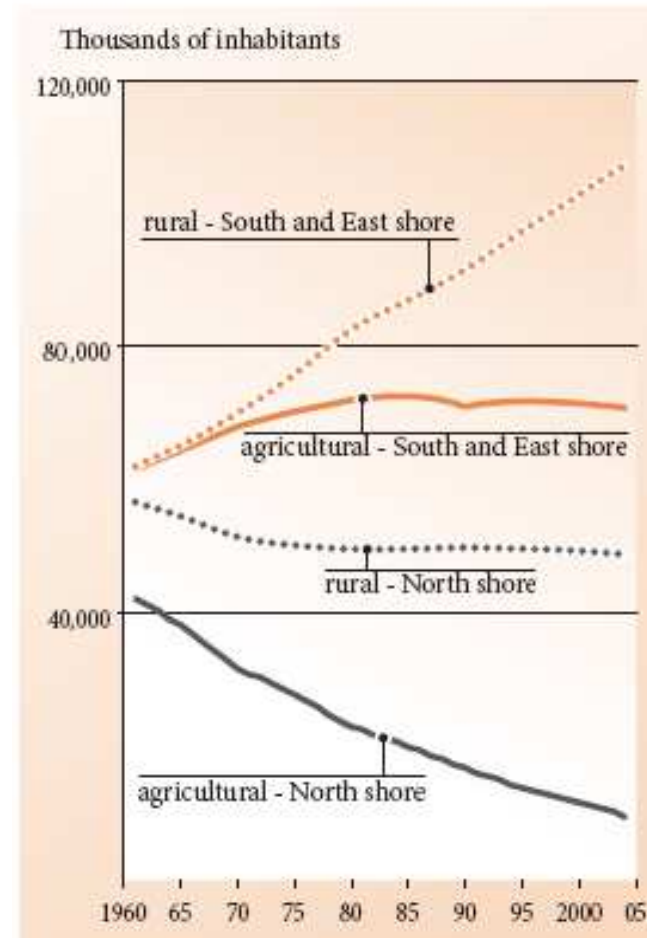


Chart 4 - Agricultural and rural population of the shores of the Mediterranean (excluding Balkans), 1960-2005



Complexity of rural worlds

Map 4 - The rural population
of the Mediterranean, 2005



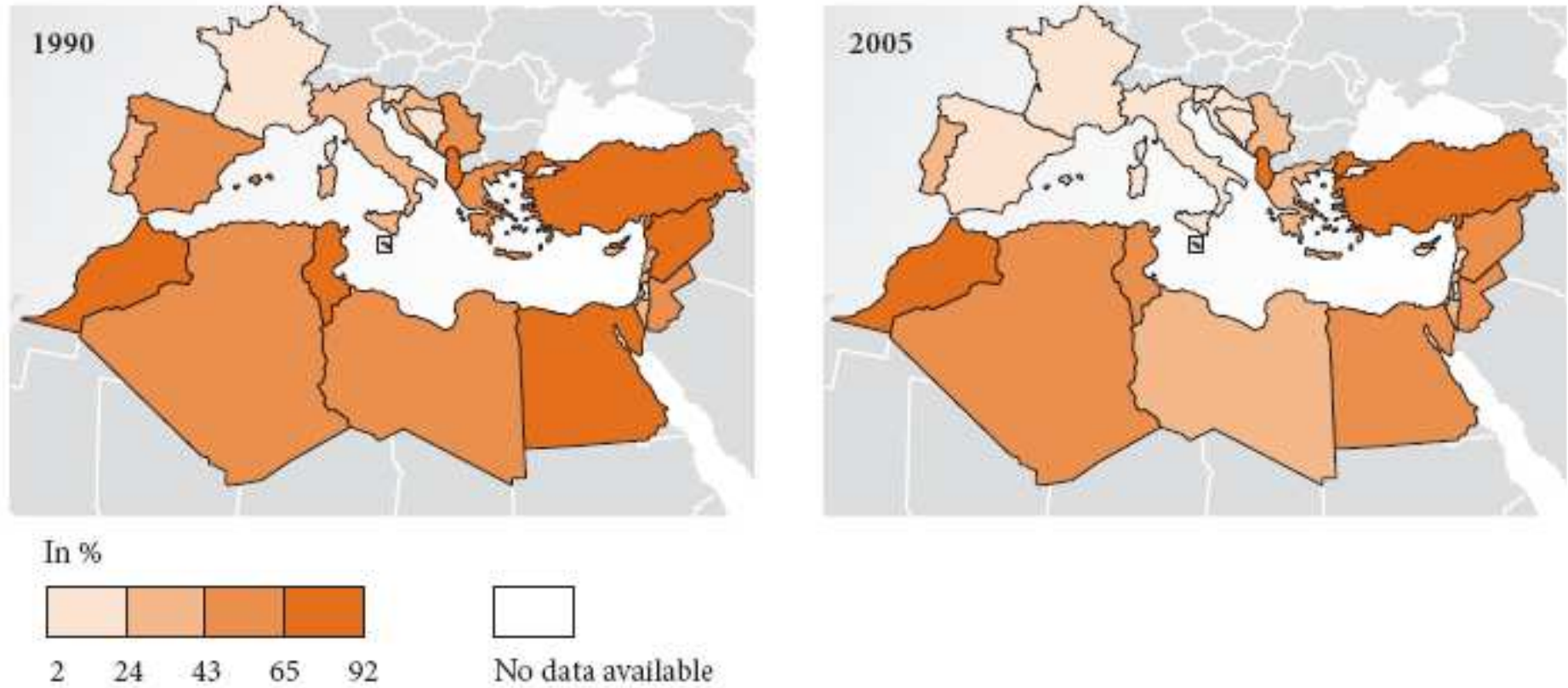
8 21 33 44 58 % of the total population

Source: Our calculations based on United Nations (World Population Prospects 2004, *medium hypothesis*).

✓ One-third of the Mediterranean population still lives in rural areas, .e., 150 million people.

Complexity of agricultural worlds

Map 1 - Ratio of the agricultural population to the rural population, 1990 and 2005



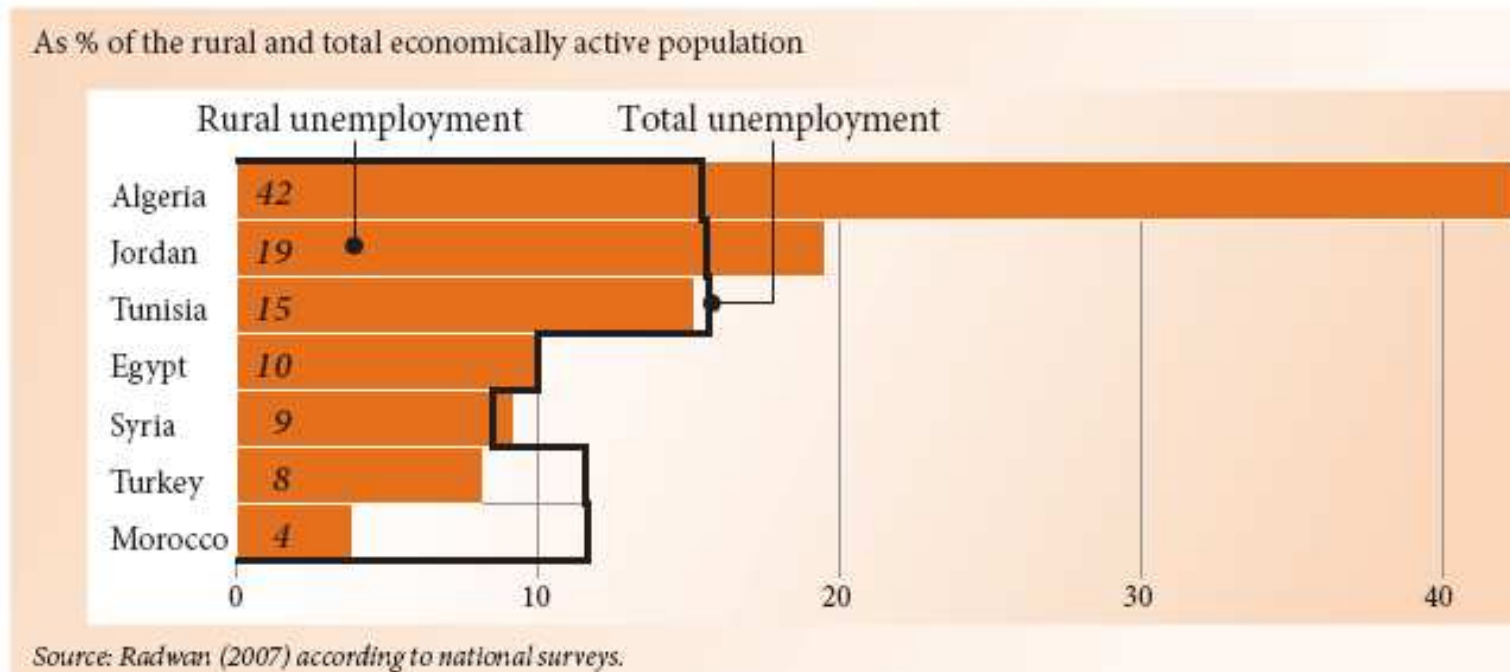
Source: Faostat.

Underdevelopment of the rural world

Persistence of pockets of poverty in rural areas (2006)

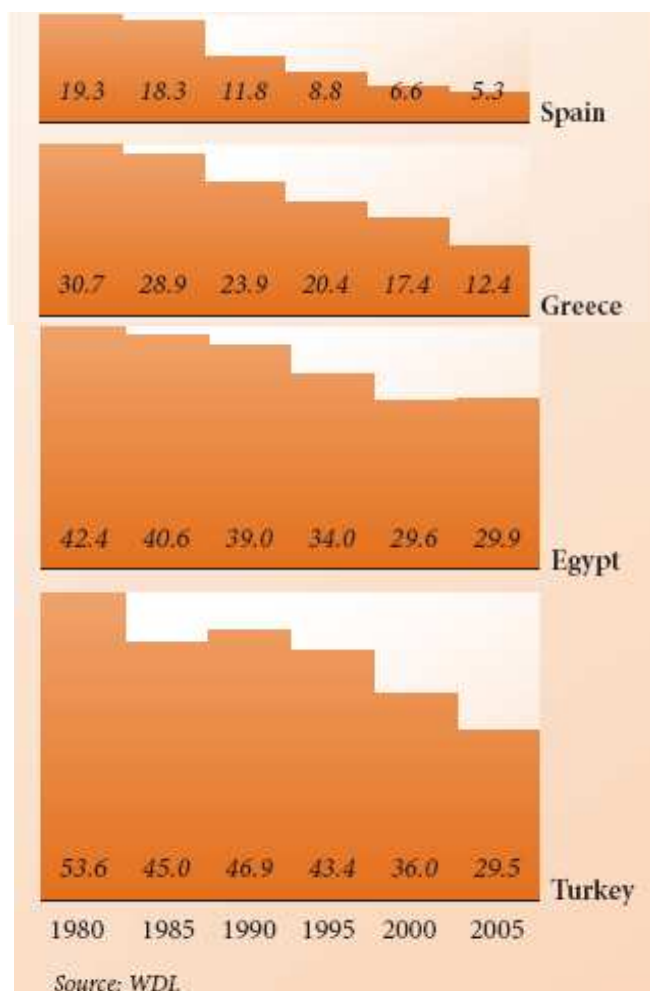
- **Tunisia: poverty affects 8 % of the rural population against 1.5 % in urban areas.**
- **Morocco: poverty affects 23 % of the rural population against 6 % in urban areas.**
- **Egypt: poverty affects 27% of the rural population against 11% in urban areas.**

Chart 4 - Rural and total unemployment rates in the Mediterranean



Vulnerability of agricultural workers

Chart 5 - Share of paid agricultural labour, 1980-2005



- ✓ An agricultural population engaged in multiple activities
- ✓ Heterogeneity of income levels
- ✓ Insecurity of agricultural workers: poorly paid farming
- ✓ Diversity of farm types and thus of farming professions
- ✓ Prevalence of the informal agricultural economy

Social and land concerns

Predominance of small farms and family work

Fragmentation of land ownership

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Literacy, education and health: three fields where rural women lag behind

It is primarily rural women that are affected by insecurity.



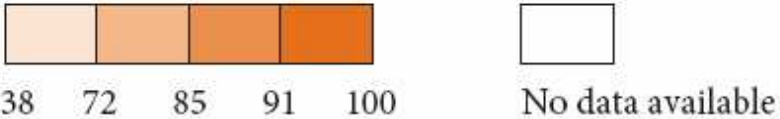
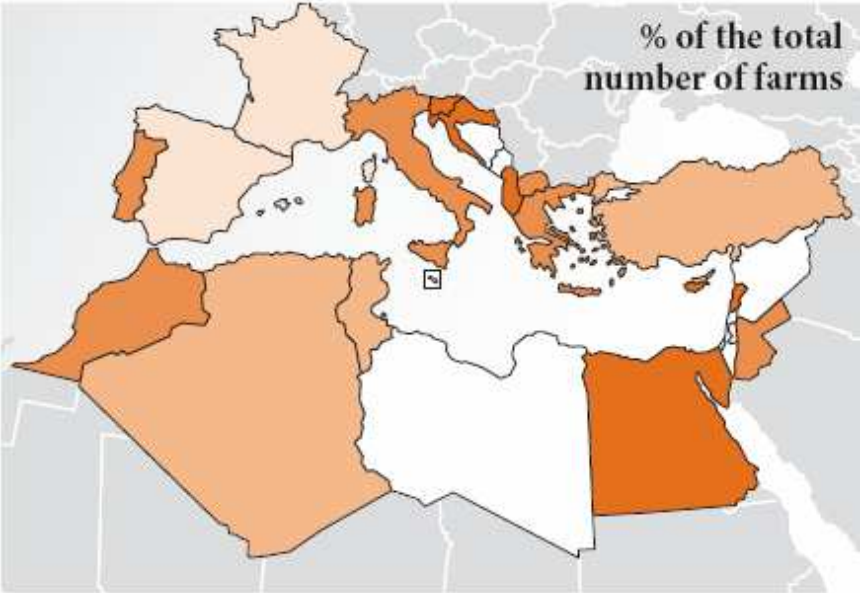
Egypt

83 % of rural women work in the agricultural sector.

Half of them are not paid.

Two-thirds of rural women are illiterate.

Map 4 - Percentage of farms with an acreage of less than 10 ha

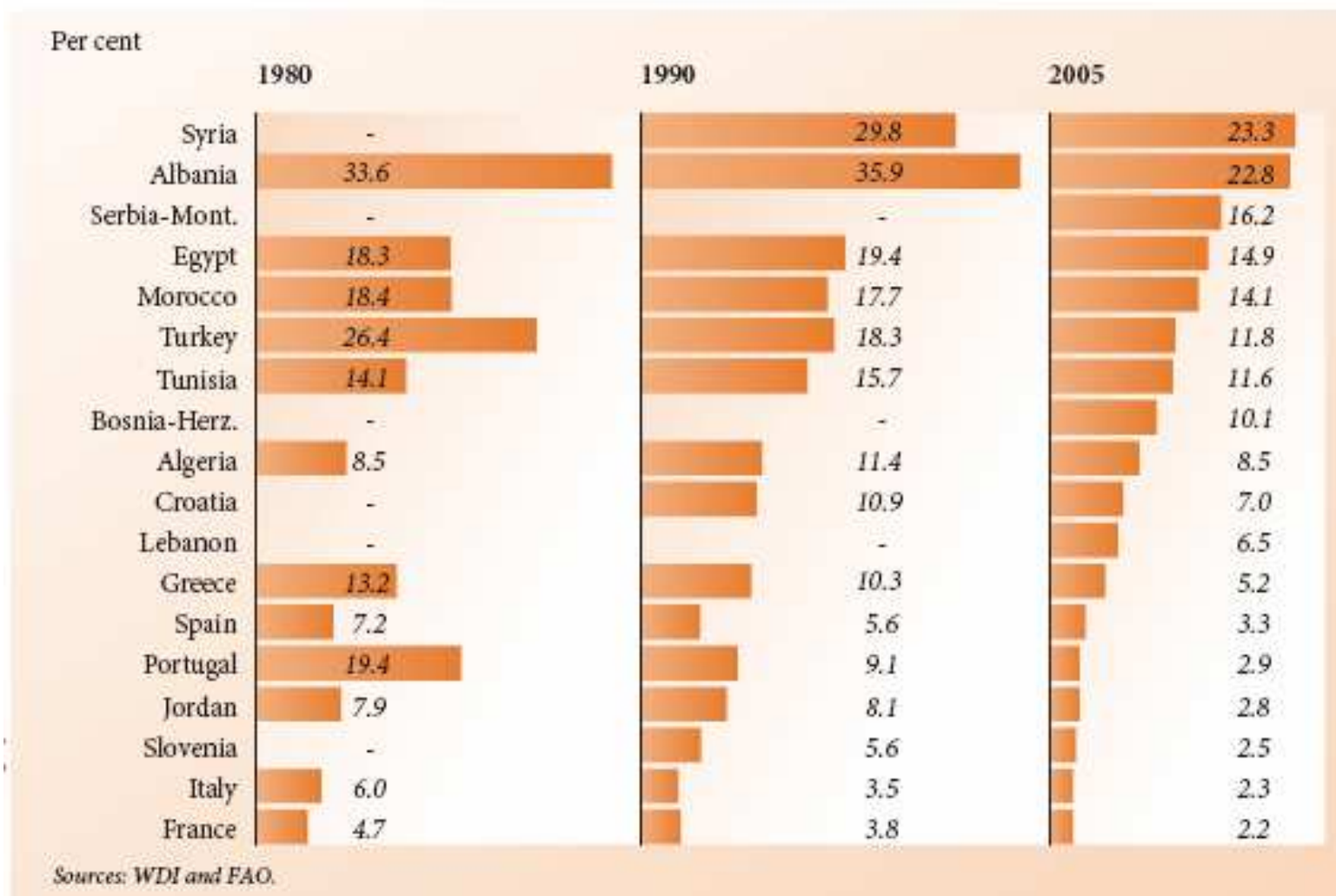


N.B.: Cyprus: farms with an acreage of less than 10.7 ha
 Egypt: farms with an acreage of less than 8.4 ha
 Albania: farms with an acreage of less than 3 ha

Sources: Faostat, FAO Statistics Division, 2008.

The significance of agriculture

Chart 3 - AGDP/GDP in the Mediterranean countries, 1980-2005



The role of the hinterland in the Mediterranean's future

1980s - 2000s: neglect of rural areas and agricultural activity

⇒ Political **marginalisation**, investment cutbacks, decrease in development aid

A gap emerges between urban coastal areas, which are drawn into the globalisation process, **and rural areas**, which are abandoned by the public authorities.

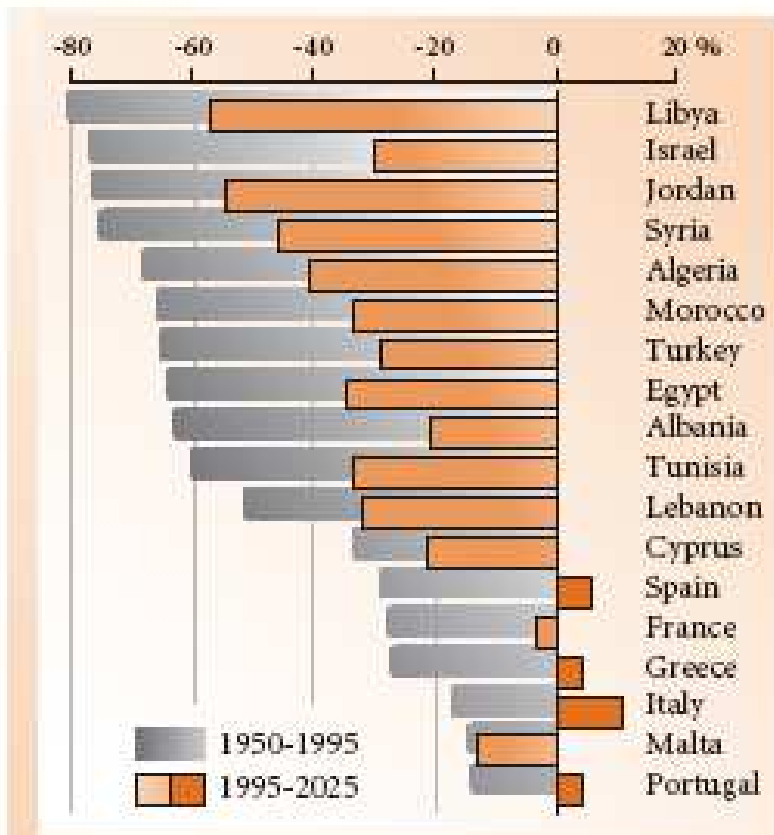
⇒ **Distortion of the links between urban and rural worlds**

Rural and agricultural development become a strategic issue (World Bank Report 2008 + food crisis).

⇒ **Agriculture returns to the forefront of the international arena.**

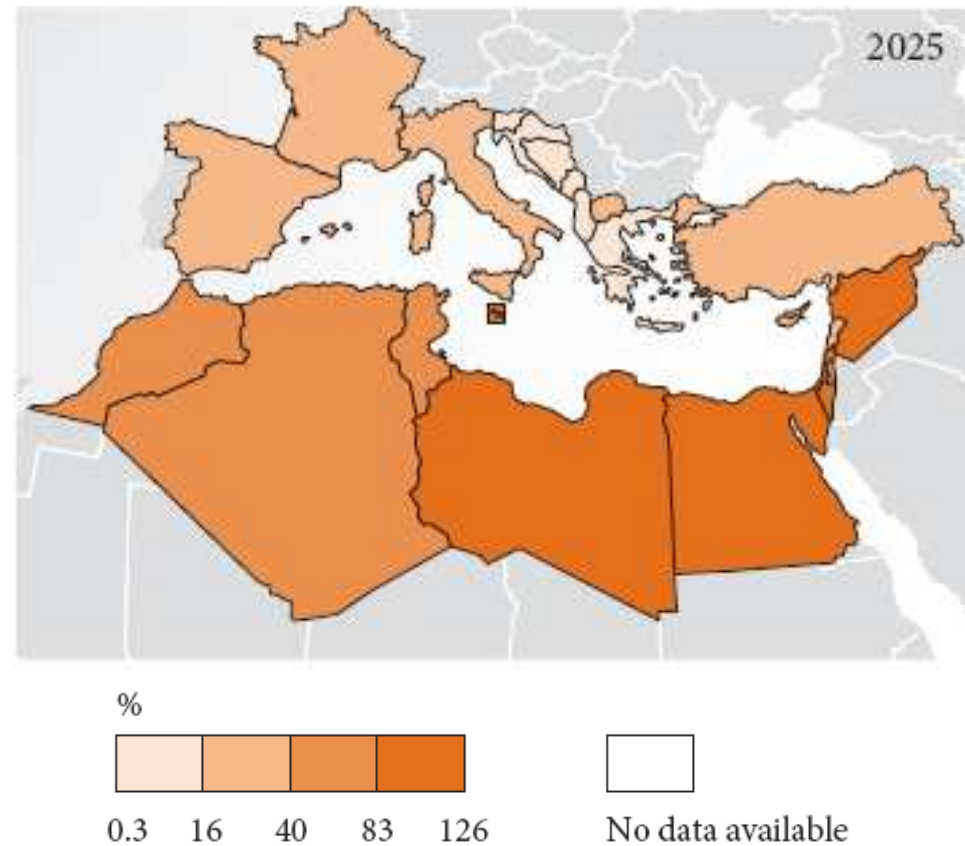
Rural worlds are an integral part of the Mediterranean's future

Chart 3 - Variation in per capita water resources, 1950-2025



Source: our calculations based on PAI data.

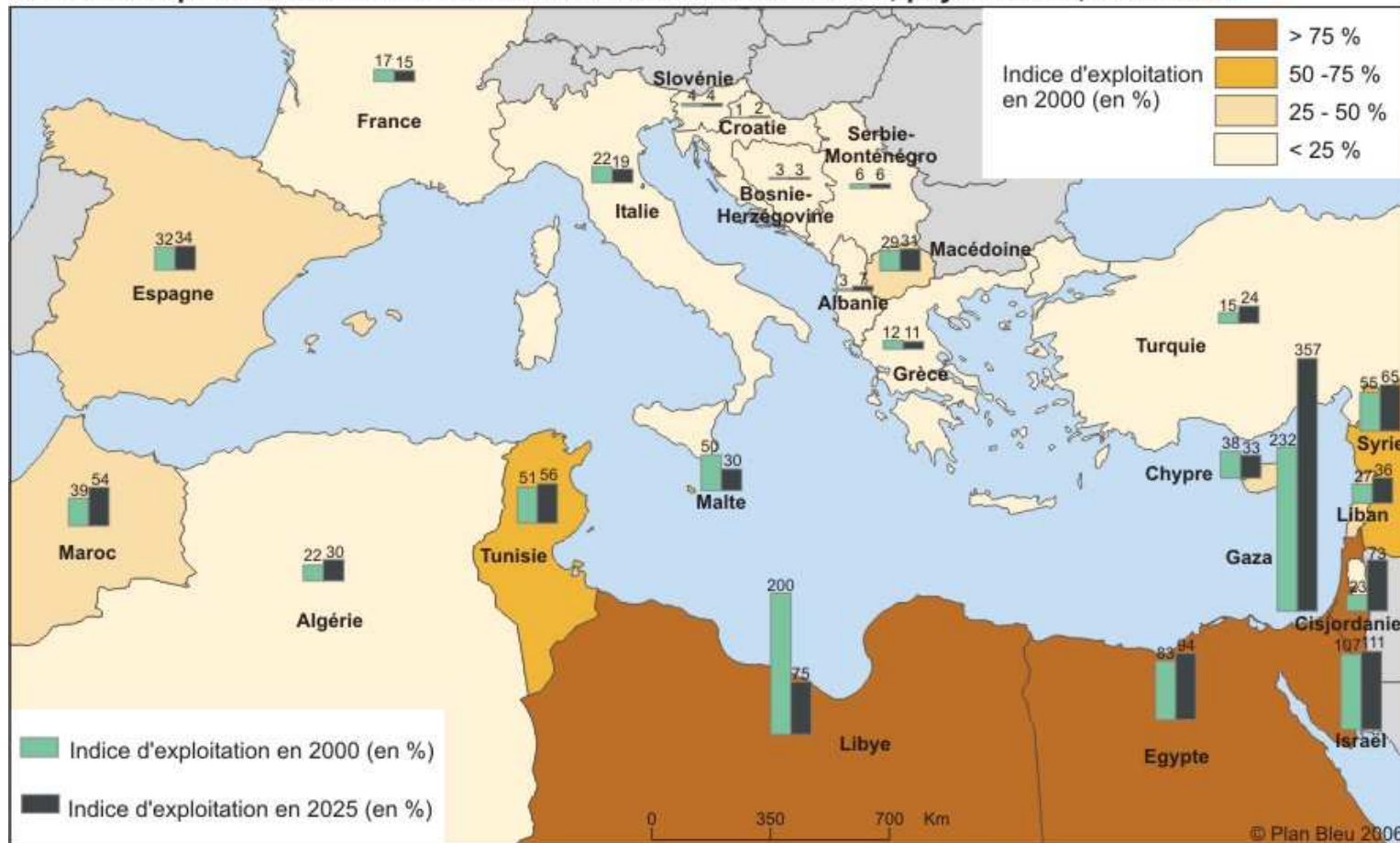
Map 3 - Renewable natural water resources exploitation index, 2025



Source: Blue Plan (2008).

Uneven distribution of water resources

Exploitation index of renewable natural resources 2000-2025:



Overall water allocation by country:

50 (Gaza) to 25 000 (Montenegro) m³/caput/year, France 3240 m³/caput/year

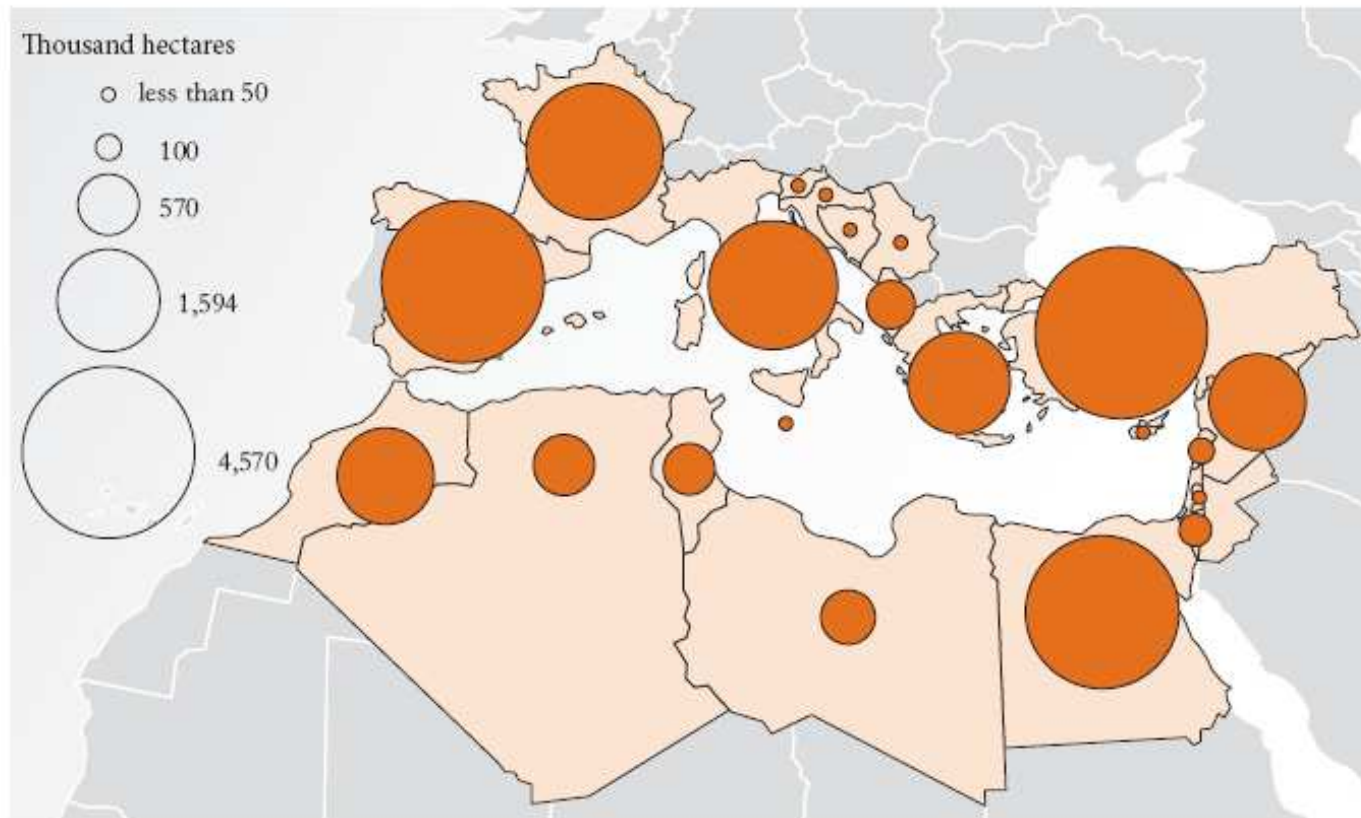
Mediterranean average: 2400 m³/caput/year

Water – a precious resource for irrigation

✓ Irrigation, the primary water consumer, rapidly expanding

✓ Irrigated agriculture: 45% of water demand in the North and 80% in the South and East

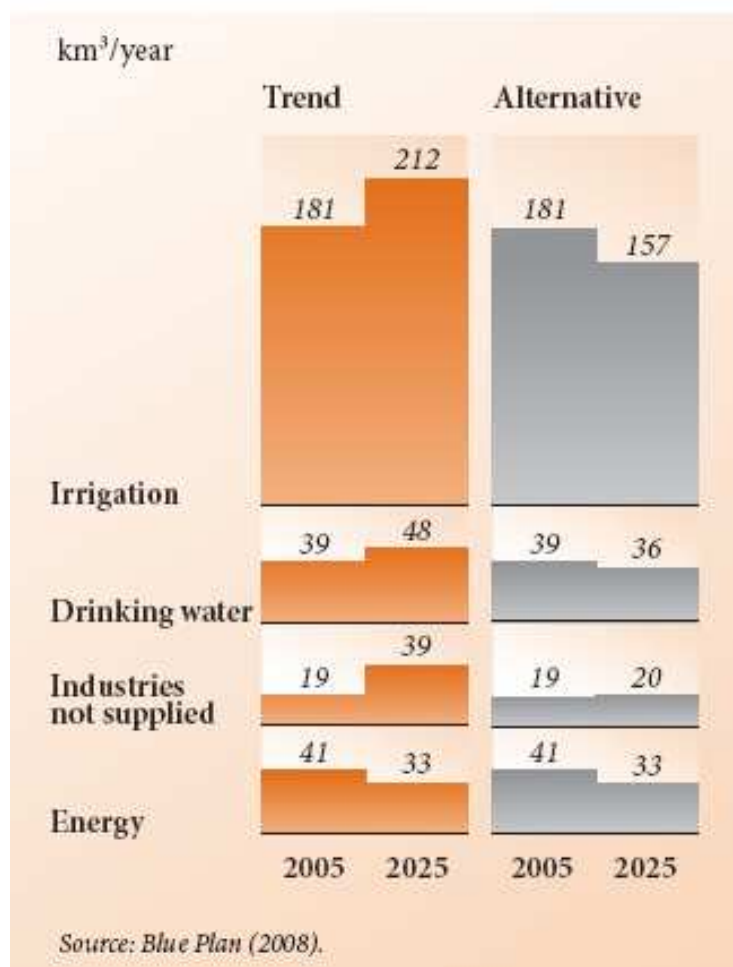
Map 1 - Irrigated area in the Mediterranean countries, 2005



Sources: FAO Aquastat, WDI, Blue Plan (2008).

Save this scarce water

Chart 3 - Water demand by sector of use in the Mediterranean region, trend and alternative scenarios



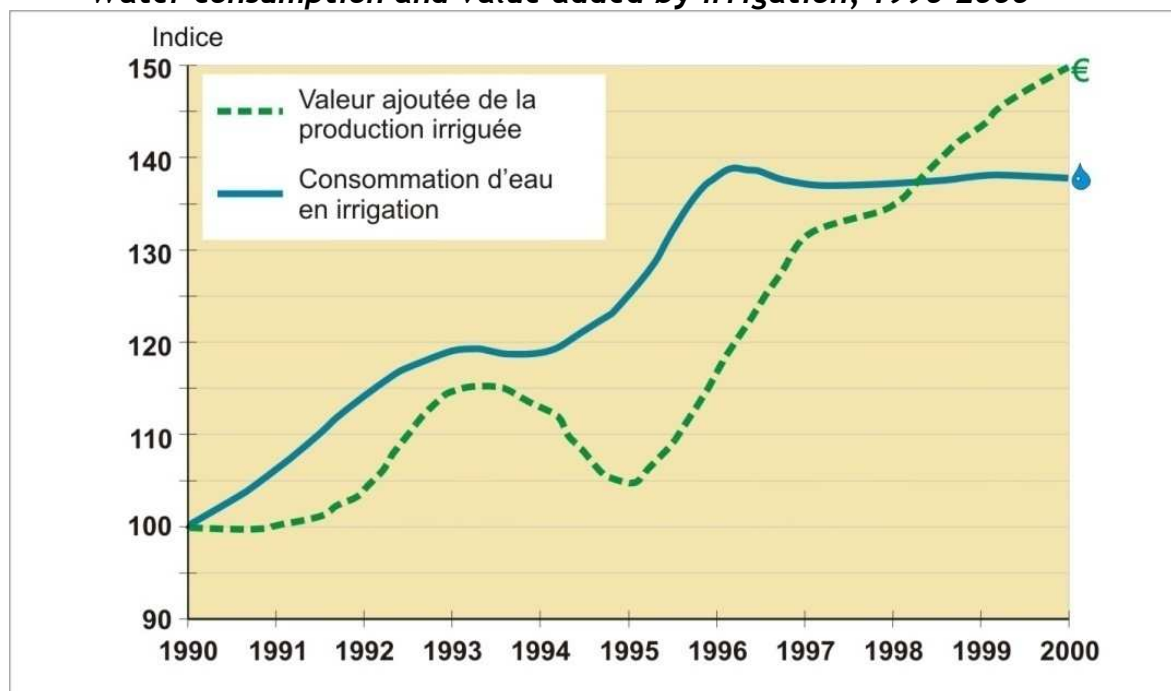
✓ **Trend in agricultural water demand incompatible with the trend in available resources and ecosystems**

✓ **Better management of agricultural water demand in order to save 25% of irrigation water demand by 2025**

✓ **Irrigated agriculture has the greatest water-saving potential for the overall water situation in the Mediterranean**

✓ **Two issues under debate: irrigation water pricing and reflection on virtual water to guide future agricultural policies**

Water consumption and value added by irrigation, 1990-2000



Source: Hamdane, Plan Bleu, 2002

- National Tunisian water-saving programme for irrigation (1995)
- PISEAU (2001): water savings, pricing, participatory approach
- 10th & 11th Plans (2007-2011): action to mobilise new water resources, modernise irrigated areas and improve resource management
- In the long term: measures to maintain and modernise infrastructures, manage water demand and promote unconventional resources

Worrying dynamics

Chart 3 - Arable land per inhabitant in the Mediterranean countries, 1961-2003

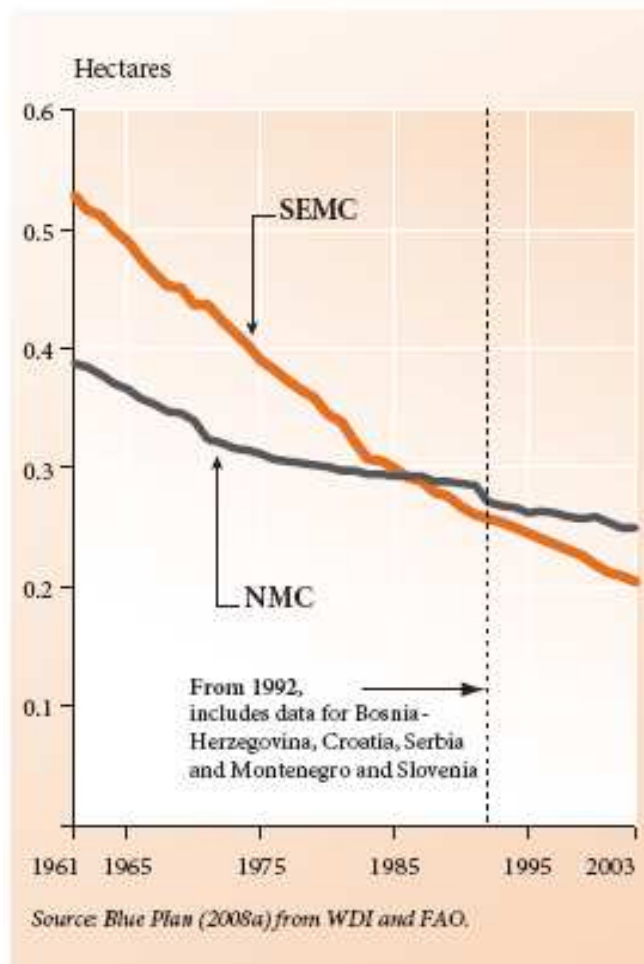
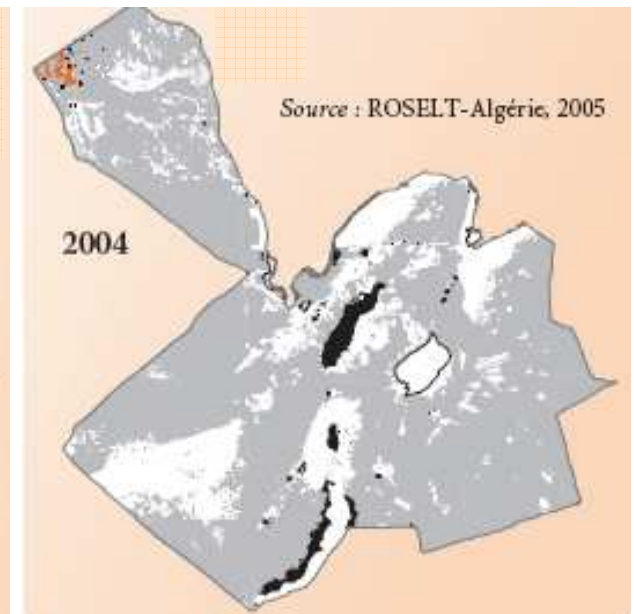
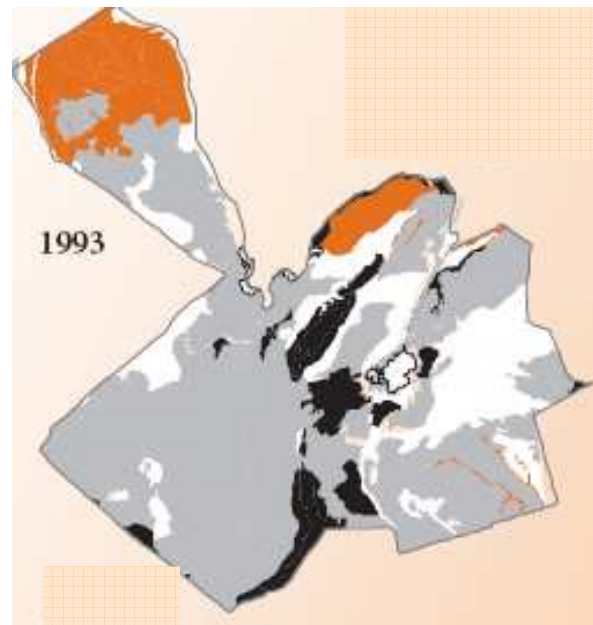
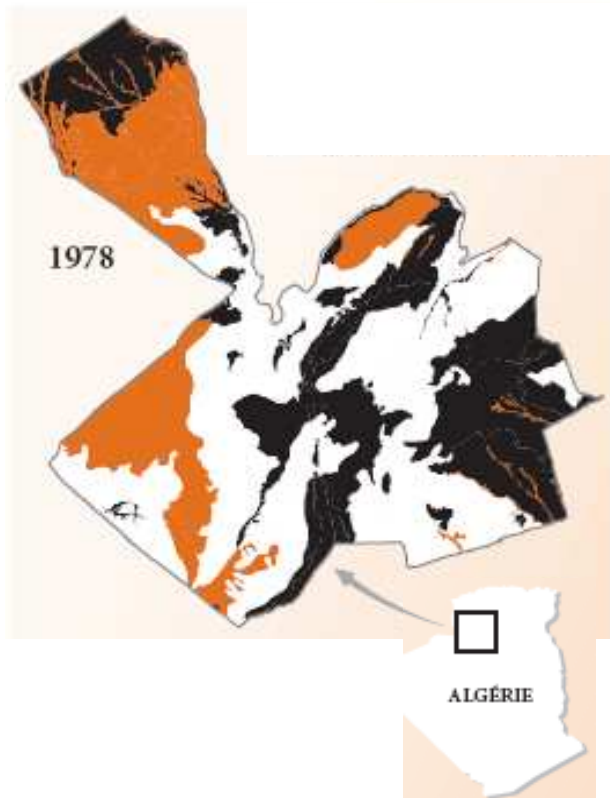
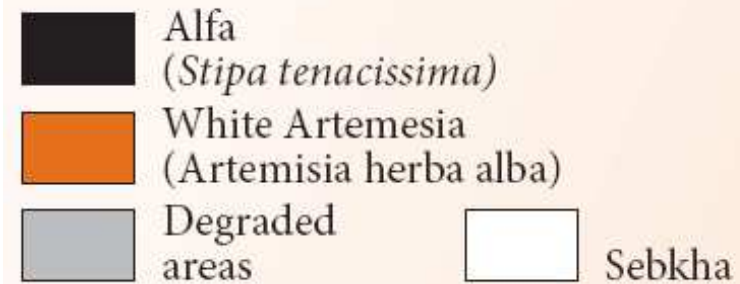


Chart 1 - Net loss of arable land, 1980-2005



Degraded soils

Map 1 - Trends in land use in the steppe observatory south-west of Oran, 1978-2004





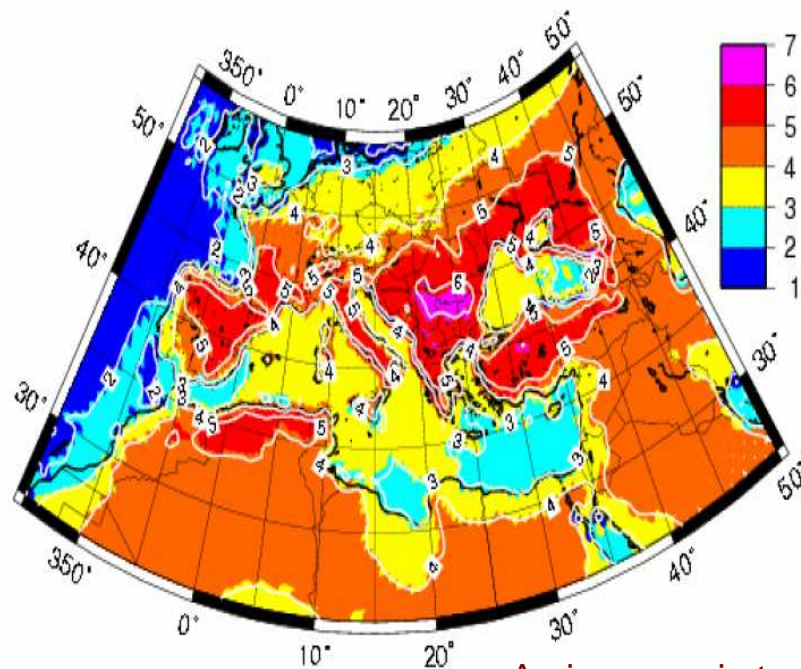
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Impacts of climate change

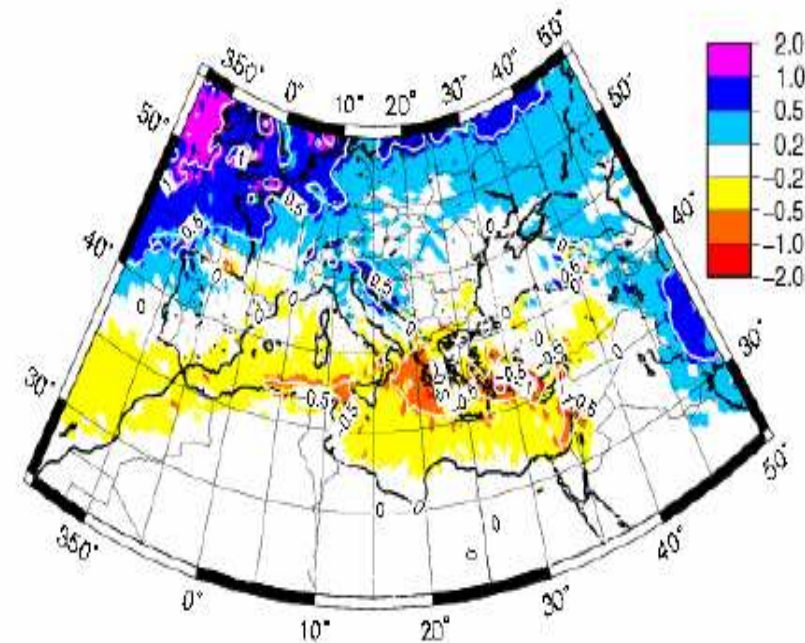


IPCC projections for the Mediterranean 1980-1999 vs 2080-2099,
scenario A1B

Surface air temperature (°C):
2070-2099 vs. 1961-1990
Summer



Seasonal precipitation (mm/d):
2070-2099 vs. 1961-1990
Winter



- An increase in temperature of 2.2 to 5.1°C
- A decrease in average rainfall of 4 to 27%
- An increase in extreme events (droughts, floods)

A difficult climate

Impacts of climate change

- **More frequent extreme climatic events**
- **Continuing desertification**
- **Intensification of water stress**
- **Development of zoonoses and emerging diseases**
- **Loss of biodiversity**
- **Economic costs**
- **New obstacles to development**
- **Risk of political tensions**

Adapting farming systems to climate change

- **Forecasts**
- **Measures to encourage actors to take responsibility**
- **Risk management**
- **Measures to promote solidarity amongst producers**
- **Resolute public policies and institutional measures**
- **Action to boost farm yields and technological advancement**
- **Regional cooperation**

Ten challenges to be met:

- 1. Preserving natural resources**
- 2. Revising water strategies**
- 3. Adapting agricultural systems to climate change**
- 4. Fighting desertification**
- 5. Developing local areas and their people**
- 6. Improving rural life**
- 7. Safeguarding collective land and rangelands**
- 8. Improving rural governance**
- 9. Diversifying rural activities**
- 10. Measuring agricultural and rural development (MSSD)**

Four strategic messages

1. Revision is imperative

for the sustainable and responsible development of farming systems and rural worlds.

2. Interaction is essential.

There can be no agricultural development without rural dynamism, just as there can no rural development without a vibrant agricultural sector.

3. A structural challenge -

that of devising new models of agricultural and rural development for the Mediterranean region

4. A political priority -

that of focusing on both food safety and food security to build the Euro-Mediterranean



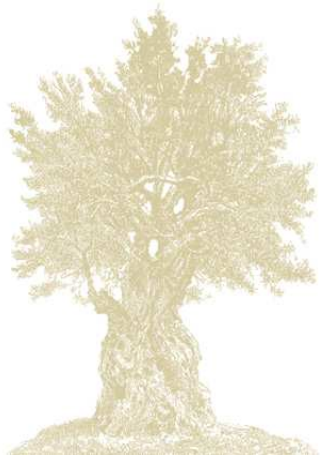
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