



CIHEAM

Agri.Med

**Agriculture, fishery, food and
sustainable rural development
in the Mediterranean region**



Annual report
2005

Centre International de Hautes Etudes Agronomiques Méditerranéennes

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Centre International de Hautes Etudes Agronomiques Méditerranéennes

CIHEAM

Centre International de Hautes Etudes Agronomiques Méditerranéennes
International Centre for Advanced Mediterranean Agronomic Studies

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Foreword

This year the CIHEAM is publishing its seventh annual report entitled “*Agri.Med: Agriculture, fishery, food and sustainable rural development in the Mediterranean region*”. Part I of the present 2005 edition analyses sustainable rural development in the Mediterranean region. Ms. Tahani ABDELHAKIM & Mr. Omar BESSAOUD (CIHEAM-IAM Montpellier, France), Mr. Jean-Paul CHASSANY (INRA Montpellier, France), Mr. Mohamed NAWAR (University of Cairo, Faculty of Agriculture, Egypt) have prepared this part.

Part II is devoted to the sector and country analyses of agriculture, food and fishery in the CIHEAM member countries. It is a synthesis of the country reports provided by a cooperative network of correspondents. Mr. Slimane BEDRANI (INA Alger, Algeria), Mr. Giulio MALORGIO (Università di Bologna, Italy), Mr. Gérard MICLET (ENSAM Montpellier, France), Mr. Pere OLIVER (Instituto Español de Oceanografía, Palma de Mallorca, Spain) & Mr. Ramon FRANQUESA (Facultad de Ciencias Economicas, Universidad de Barcelona, Spain) have prepared this synthesis. Our network of correspondents is composed of Mr. Mahmoud Mansour ABDELFAH (Egypt), Mr. Najib AKESBI (Morocco), Mr. Slimane BEDRANI (Algeria), Mr. Victor DORDIO (Portugal), Mr. Victor D. MARTINEZ GOMEZ (Spain), Mr. Mouïin HAMZÉ and Ms. Abir Abul KHOUDOUD (Lebanon), Mr. Mohamed-Salah BACHTA (Tunisia), Mr. Giulio MALORGIO and Ms. Simona MAINI (Italy), Mr. Gérard MICLET (France), Mr. Konstantinos GALANOPOULOS (Greece), Mr. Halis AKDER (Turkey).

Part III discusses consumption and food security in the Mediterranean region. It has been prepared by Ms. Martine PADILLA (CIHEAM-IAM Montpellier, France), Ms. Zahra S. AHMED (Associate Professor, National Research Centre NRC, Food Technology & Nutrition Division, Cairo, Egypt), Ms. Habiba WASSEF (AFICS Egypt), with cooperation of Nabila LAYAIDA & Bénédicte OBERTI (CIHEAM-IAM Montpellier, France).

Part IV presents the main indicators of agricultural and agro-food development in the Mediterranean countries which are members of the CIHEAM. This part has been prepared by Mr. Mahmoud ALLAYA (Mediterranean Agronomic Institute, Montpellier, France).

The CIHEAM annual report has been drawn up under the supervision of the CIHEAM Secretary General, Mr. Bertrand HERVIEU. The editorial team of the 2005 edition, coordinated by Mr. Mahmoud ALLAYA, was composed of Ms. Tahani ABDELHAKIM (CIHEAM-IAM Montpellier, France), Mr. Slimane BEDRANI (National Institute of Agronomy, Algiers, Algeria), Mr. Omar BESSAOUD (CIHEAM-IAM Montpellier, France), Mr. Roberto CAPONE (CIHEAM General Secretariat, Paris, France), Mr. Giulio MALORGIO (University of Bologna, Italy), Mr. Gérard MICLET (National College of Agronomic Studies, Montpellier, France), Mr. Pere OLIVER (Instituto Español de Oceanografía, Palma de Mallorca, Spain) and Ms. Martine PADILLA (CIHEAM-IAM Montpellier, France).

The translation from French into English has been carried out by Ms. Carolyn G. LOANE and the translation from English into French by Ms. Thérèse ZAREMBA-MARTIN; Mr. Mahmoud ALLAYA has been responsible for editing the final version, and Ms. Isabelle DEBABI has been in charge of compilation. The translation from English to Arabic and the edition have been supervised by Mr. Mohamed NAWAR (Cairo University, Faculty of Agriculture, Egypt).

Both the full 2005 report and the country reports will be published in electronic format. Please refer to the CIHEAM websites for further information :

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ACRONYMS AND INITIALS

AAs	Association Agreements
AAU	Agricultural Area in Use
AEM	Agro-Environmental Measures
AFI	Agro-Food Industries
AFTA	Arab Free Trade Area Agreement
AGDP	Agricultural Gross Domestic Product
ALF	Agricultural Labour Force
AUEAs	Agricultural Water User Associations
BSE	Bovine Spongiform Encephalopathy
CAD	Sustainable Farming Contracts (France)
CAM	Crédit Agricole du Maroc (Agricultural Bank of Morocco)
CANH	Compensatory Allowance for Natural Handicaps
CAP	Common Agricultural Policy
CC.AA	Autonomous Communities (Spain)
CES	Project for water and soil conservation
CFP	Common Fisheries Policy
CGDR	General Commissariat for Regional Development
CIPs	Community Initiative Programmes
CMOs	Common Market Organization
CNABRL	Compagnie Nationale d'Aménagement du Bas Rhône-Languedoc
CNASEA	National Centre for Farm Structure Management
CNCA	Caisse Nationale de Crédit Agricole (Moroccan national agricultural loan fund)
CNTS	National Centre of Spatial Technologies
COFI	FAO Fisheries Committee
CPI	Consumer Price Index
CRDA	Regional Commission for Agricultural Development
CREDOC	Centre de recherche pour l'étude et l'observation des conditions de vie économique et sociale (France)
CSA	Agricultural Service Cooperatives
CTEs	Regional Farming Contracts (France)
DATAR	Area Management and Regional Action Delegation
DDA	Department Directorate for Agriculture
DES	Dietary Energy Supply
DGF	Directorate General for Forestland
DJA	Young farmers' grant
EAC	Collective farms
EAGGF	European Agricultural Guidance and Guarantee Fund
EAI	Individual farms
EM/SM	Eastern/Southern Mediterranean countries
ENNVN	Enquête sur le Niveau de Vie des Ménages
ERDF	European Regional Development Fund
EU	European Union
FAO	United Nations Food and Agriculture Organization
FAPRI	Food and Agriculture Policy Research Institute

FEPEX	Fruit and vegetable producers and exporters
FFN	National Forestry Fund
FIAS	Food Intake Analysis System
FIDA	Fonds International de Développement Agricole
FIVIMS	Food Insecurity and Vulnerability Information and Mapping System
FNRA	National Fund for the Agrarian Revolution
FNRDA	National Fund for the Regulation and Development of Agriculture
FQI	Food Quality Indicator
FSE	Fonds Social Européen
GAP	Gross Agricultural Product
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GFCM	General Fisheries Commission for the Mediterranean
GIC	Grouperments d'Intérêts Collectifs
GNP	Gross National Product
GPI	General consumer price index
GRT	Gross Registered Tonnage
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
GVA	Gross Value Added
HACCP	Hazard Analysis of Critical Control Points
HCDS	High Commission for the Development of the Steppe
HDI	Human Development Indicator
IAWG	Inter-Agency Working Group
IBRD	Banque Internationale de Reconstruction et de Développement
ICAMAS/	International Centre for Advanced Mediterranean Agronomic Studies
CIHEAM	
ICARDA	International Centre for Agricultural Research in Dry Areas
ICCAT	International Commission for the Conservation of Atlantic Tunas
IDAL	Investment Development Authority of Lebanon
IDP	Integrated Development Programmes
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
INRA	National Institute for Agronomy Research, France
ITQs	Individual Transferable Quotas
IUU	Unreported and Unregulated Fisheries
LAGs	Local Action Groups
LAIA	Latin American Integration Association
LRDPs	Local rural development projects
MADR	Ministry of Agriculture and Rural Development
MAGPs	Multi-annual Guidance Programmes
MARA	Ministère de l'Agriculture et de la Réforme Agraire
MEDA	Mediterranean European Development Action
MENA	Middle East and North Africa, Afrique du Nord et Moyen-Orient
MET	Ministry for Economic Affairs and Trade
MOA	Ministry of Agriculture
MRE	Ministry of Water Resources
M-USFTA	Morocco-US Free Trade Agreement
NAFTA	North American Free Trade Agreement
NGOs	Non-governmental organisations
NM	North Mediterranean countries
NPF	Tarif douanier, accord Maroc/Etats-Unis

NRDP	National Rural Development Plan
OECD	Organisation for Economic Cooperation and Development
PANE	National Action Plan for the Environment
PANLCD	National Plan of Action to Combat Desertification
PBDAC	Principal Bank for Development and Agricultural Credit
PDRI	Integrated rural development schemes
PHAE	Agro-environmental grassland payment
PMPOA	Programme for Agricultural Pollution Control
PMSEE	Premium for Maintaining Extensive Livestock-Farming Systems (France)
PNDA	National Agricultural Development Programme
PNDAR	National Agricultural and Rural Development Programme
PNE	Plan National de l'Emploi
PNER	National Rural Electrification Scheme
PNR	National Reafforestation Plan
POs	Producers' organisations
PPDR	Decentralised Rural Development Project
PRSE	Programme for Supporting Economic Recovery
QUIZA/US	Qualifying Industrial Zones with the US
RDP	Rural Development Policy
RDR	Rural Development Regulation
RFOs	Regional Fisheries Organisations
RGa	Recensement Général de l'Agriculture
SAP	Structural Adjustment Programme
SME	Small and Medium Enterprises
SODEA	State enterprises (Morocco)
SOGETA	State enterprises (Morocco)
SPD	Single Programming Document
TACs	Total Allowable Catches
UMA	Union du Maghreb Arabe
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNESCO	United Nations Programme for Cooperation
UNFPA	United Nations Population Fund
UNICEF	United Nations Programme for Childhood
USAID	United States Aid for International Development
USDA	United States Department of Agriculture
USEN	Nutritional Surveillance and Epidemiology Unit of the French Ministry of Health
WB	World Bank
WFCM	Western Food Consumption Model
WHO	World Health Organization
WTO	World Trade Organization

Preface

2005, the Year of the Mediterranean – such was the declared intention of the European Ministers of Foreign Affairs at the Council meeting in The Hague in December 2004. The Europe of the 25 is thus preparing to celebrate the 10th anniversary of the signing of the Barcelona Declaration and is turning resolutely towards its southern shores.

All are aware of the significance of the question of agriculture and food in the construction of a Euro-Mediterranean that can hold its own against the major continental groups in the world: for, although the food security of the populations has improved on the whole in quantitative terms, this has been at the cost of more internal disparities and greater dependence as regards supplies.

- When the food self-sufficiency rate of the countries bordering on the Mediterranean is measured it is observed that the rate achieved by France in the period from 1970 to 2000 rose from 90% to 132%, whereas in the Maghreb countries it dropped from 116% to 23%.
- The diversification of economies and the deterioration in terms of trade were contributing factors in the appreciable decrease in the volume of agricultural trade over the same period; that trade accounted for 24% of the exports of the southern and eastern Mediterranean countries in 1970, whereas by the year 2000 it accounted for only 2.3%.
- And finally, the third factor in this vast subject is the fact that cereals alone account for some 20% of the agro-food imports of the southern and eastern countries, and half of these imports come from non-Mediterranean agricultural powers.

Observing, analysing, understanding and disseminating information are central to the missions of the CIHEAM and are also the ambition of the present 7th edition of the annual report. The CIHEAM aims to make the knowledge that has been acquired on the agro-food situation and its trends in the countries in the Mediterranean region available to as wide a public as possible – students, journalists, entrepreneurs and political leaders.

We have structured our report in four major parts.

- ✓ Part 1 endeavours to present the planning and implementation of rural development policy in the countries bordering on the Mediterranean. This section obviously deals with the question of the sustainability of new modes of development as well as the difficult problem of establishing a balance between rural areas in the interior and urban coastal zones, leading to the elaboration of new modes of governance.
- ✓ Part 2 presents the situation in the various agricultural sectors, agro-food industries and fishery sectors, and the changes that are taking place in public, agricultural and agro-food policies complete this sectoral picture.
- ✓ In Part 3 we examine and analyse the radical changes observed in food consumption and the consequences they are having for the food security of Mediterranean populations.
- ✓ And finally, Part 4 presents the annual series of agro-food development indicators.

I wish to thank our research and teaching colleagues in the institutions of the CIHEAM member countries for collaborating on the production of this report, which, thanks to their efforts, can pride itself on being the fruit of Mediterranean cooperation.

I am particularly grateful to Mahmoud ALLAYA from the IAM in Montpellier for taking on the task of coordinating this 2005 edition, which will be published in French and English – and also in Arabic thanks to the diligence of our colleague Mohamed Nawar, professor at the Faculty of Agriculture in Cairo and Chairman of the Scientific Advisory Committee of the CIHEAM.

Bertrand HERVIEU
CIHEAM Secretary General

PART I

Sustainable rural development in the Mediterranean

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General introduction and preliminary remarks

1. *Until the end of the 1950s, rural territory in the European Mediterranean region was largely synonymous with the countryside and the agricultural world.* That agricultural world was characterised in general by inter-acquaintance and geographical and social immobility, and country districts were perceived as the realm of archaisms and/or the cradle of national identity, the peasantry being qualified as the class which co-founded that identity. In the course of this period of history, which can be termed the "*agricultural rural period*", the contrast between the rural and the urban world served as a theoretical frame of reference and a basis for analysis in approaches to the rural world.

In the decades that followed, the rural societies of the European Mediterranean region were marked by radical social and economic changes, *the most spectacular social change and the one fraught with the weightiest consequences was beyond all doubt the massive silent migration of the peasantry to the cities*¹. Although in the developed parts of Western Europe (and in France in particular) this revolution of rural society was influenced by agricultural progress and the power of attraction of the city and continued, accelerated or accentuated a historical movement which had been under way since the beginning of the Industrial Revolution. But in most Mediterranean countries – including those in the European region (Italy, Spain, Portugal and Greece) –, the changes were sudden and drastic. Those years of massive rural depopulation and urbanisation of rural areas were a contributing factor in the radical change of status of the rural world.

This historical period, in which a process of effacement (or loss of influence) of the peasant class was observed, was followed by another period which was to mark what certain authors call the "rural renaissance" (Kayser; 1990)² – the emergence of a rural world which had relaxed its ties with the agricultural sphere. The transformation of the living conditions of society as a whole – but also the transport revolution – promoted geographical and social mobility, severing the links that had been maintained between the living environment and the place of work and inciting urban social actors to develop new residential strategies. The decrease in the population of major urban centres and the migration of both populations and

¹ In the period from 1940 to 1950, peasants and farmers continued to form a massive proportion of the working population, even in industrialised countries, with the exception of the United Kingdom (plus Belgium, where the agricultural population accounted for less than 20% of the labour force). Until the middle of the 20th century, one-third of the French population was concentrated in rural France, and in countries such as Spain, Portugal or Greece four-fifths of the inhabitants were still rurals. The peasantry decreased by half between 1960 and 1980 in several countries of the European Union, such as France, while in Greece, Portugal or Spain the agricultural sector still accounted for over one-third of the labour force. Cf. Chapter 10 of the work by Eric Hobsbawm « The age of extremes: the short 20th century 1914-1991 », Vantage Books Inc., New York, 1994).

² Kayser, B (1990), « La renaissance rurale », Colin, 316 p. and Lévy, J (1994), Oser le désert, Revue des sciences sociales, Special edition, February-March).

economic activities to rural areas accentuated the dissociation of the 'rural' and the 'agricultural' (Hervieu, Viard; 2001)³. The rural sphere became less and less agricultural, and the management of rural territory was taken more and more out of the hands of rural populations (natural amenities tending increasingly to be transformed into collective goods), and interest in things rural was increasingly revived through environmental questions and issues of cultural heritage. In other words, a process took place in which the emphasis of the issues at stake shifted to the conservation of the living environment and to new functions of the rural world (production of tangible assets, creation of recreational and cultural activities, establishment of new residential areas, etc.). This end of the rural environment as experienced or inherited to date went hand in hand with the loss of political power and an identity crisis of "traditional ruralism".

2. In the countries of the southern or eastern Mediterranean, the pace of this historical movement and the nature of the changes and of the on-going rural development processes have been different. Despite rural-urban migration, which for the first time in the history of their societies has shifted population distribution towards urban centres – except in the case of Egypt or Albania –and despite the progress observed in the diversification of economic activities with varying trends of long-term establishment in rural areas of social groups that are better educated, better trained and anxious to preserve natural or cultural resources, the agricultural sector is continuing to structure economic life and the organisation of society in rural zones. Although the acceleration in the rural depopulation movement has been unprecedented, the frontiers between the rural and the urban world have been preserved in this part of the Mediterranean, and the gaps in human or economic development have remained or in some cases have actually widened further.

3. *The concept of ruralism thus cannot be given the same theoretical or analytical status in all of the countries under review.* There is a difference between country districts in France, country districts in Andalusia, rural areas in the Maghreb or Turkey, or rural villages in the Nile Valley in Egypt. Whereas peasant France has been replaced by a middle-class rural France similar to its urban counterpart, rural Turkey in the various regions of Anatolia still has the features of traditional peasant society, and the rural world in Morocco is still synonymous with the agrarian society which predominates there.

Whereas in the countries of the southern and eastern Mediterranean, the agricultural sector monopolises the bulk of activities in rural areas, in the northern Mediterranean countries these areas are now identified by economic activities other than agriculture and rural actors and social groups other than farmers. These shifting boundaries between the urban and rural world have been assimilated to a large extent by national statistical systems, which have selected criteria and

³ Hervieu, B et Viard, J (2001), *L'archipel paysan*, Ed. de l'Aube.

elaborated definitions for each of the periods of history and each territory ⁴. This method calls for a certain amount of caution with regard to general and/or universal definitions of the term 'rural' (often defined in terms of population density) and thus suggests that the definitions of ruralism used in national statistical systems can be regarded as references to a historical context and a specific stage of development of rural society.

4. Developments in the various Mediterranean countries are of course influenced by the globalisation processes that have been underway for several decades. In the North, the construction of the European Union and the impact of globalisation, and in the South, national development projects, regional cooperation initiatives and specific ways and means of becoming integrated into the world economy determine the various trends depending on each individual State's past experience. Can the main development trends in the Mediterranean rural world be identified on this basis? The main theme of the present report will be how to delineate and analyse these trends and how to evaluate them.

The following section will discuss the question of sustainable rural development in the Mediterranean region under four headings covering the processes which are observed as playing a major role in the structuring of the Mediterranean rural world, a separate chapter being devoted to each of these aspects:

- Chapter 1 : Population trends, economy and social proportions
- Chapter 2 : Agricultural and rural policies
- Chapter 3 : Sustainable development policies
- Chapter 4 : Systems of governance in the rural world

⁴ Cf. the definitions of the OECD, which, with a view to making cross-country comparisons of rural conditions, identifies rural areas as "communities with a population density of less than 150", whereas in the European Union EUROSTAT bases its criteria on the degree of urbanisation. Geographers generally equate rural areas with types of territory situated outside urban areas. Recent population trends, combined with changes in the functions devolving upon the agricultural sector, have blurred the distinction between the rural and the urban world. They have also been a contributing factor in the new definitions of the 'rural'. In 1962, the INSEE (National Institute of Statistics and Economic Research, France) devised a new statistical indicator for evaluating socio-spatial changes: 'Zones de Peuplement Industriel ou Urbain' (ZPIU) (industrial or urban settlements zones). In 1990, 96% of the population was urban and only 2 million inhabitants out of a total of 56 million were classed as rural. In 1966, the INSEE and the INRA (National Institute of Agronomic Research) produced new indicators for identifying rural areas (mobility and number of jobs), whereby a rural area is defined by demographic and economic criteria without reference to agricultural activities.

- An urban hub is defined in terms of available jobs, 5000 being the criterion.
- The periurban fringe is defined as an area where at least 40% of workers commute to a central urban area every day (and includes polarised and multi-pole periurban fringes). The urban hub and the periurban fringe form a predominantly urban area. The remainder forms the predominantly rural area, encompassing all small centres and towns/villages with less than 5000 jobs. The rural world accounts for 25% of the population (compared to the former 4%) (cf. Schmitt, B. (éd.), Perrier Cornet, P. (éd.), Blanc, L.M. (coll.), Hilla, M. (coll.), « Les campagnes et leur villes », Paris, INSEE (Contours et Caractères), 203p.)

Attention will nevertheless be drawn to the diversity of the ecological and socio-economic situations in the Mediterranean world. Given the history and also the geographical features of each of the States concerned, we consider it appropriate to make a distinction between three aggregates: the southern Mediterranean comprising the countries of the Maghreb and Egypt, the eastern Mediterranean (Turkey, Lebanon), and the countries on the northern shores (Portugal, Spain, France, Italy, Greece and Albania). The latter country, which is in the throes of political and socio-economic change, is situated at the level where the countries of the North meet those in more southerly or easterly zones. This grouping will be adhered to as far as possible throughout the presentation.

1 Population trends, economy and social proportions: the major changes

The rural zones in the Mediterranean region are affected by ruptures in both economic and demographic terms.

Although major population changes are taking place in both the northern and the southern Mediterranean, the trends in the two regions are divergent. In the South, after two decades of population explosion (1960s and 1970s), a transition is now clearly underway in both regions, albeit at different paces; in the northern countries, after a period of rural-urban migration, which resulted in a demographic vacuum and an marked process of ageing populations, the reverse trend is now underway and rural zones are again being populated: the most significant changes are that urban populations are now attracted by the countryside and that this is promoting changes in the social structure of rural areas, which are now also being allocated new functions.

The second rupture concerning the rural economy is connected with the modernisation of techniques and structures and with institutional developments, which in turn are influencing the evolution of social proportions in each country.

1.1 – Population trends

1.1.1 - In the South :from explosion to population transition

In the **Maghreb** (Algeria, Tunisia, Morocco), the population grew by 240% in the period from 1965 to 2002, increasing from 29.8 million inhabitants in 1965 to the current figure of 71.2 million (2002). After the marked population growth in the 1960-1980 period, a process of population transition has now begun in these countries. The average population growth rate in the region remained relatively high during the 1965-2002 period, exceeding an annual average of 2% (cf. Table 1).

Table 1.1 – Total population (TP), urban population (UP) and rural population (RP), 1965-2002

Country	TP in 1965	TP in 2002	Growth rate*	UP/TP		RP/TP		Growth rate RP 65-02
				1965	2002	1965	2002	
	million		%	%		%		%
Algeria	11.9	31.3	2.6	38	58	62	42	1.53
Tunisia	4.6	9.8	2.0	40	67	60	33	0.39
Morocco	13.3	30.1	2.2	32	57	68	43	0.97

* Average annual growth rate

Source: Medagri 2004, Montpellier (France).

Examination of the national data reveals considerable differences between the three countries. It must be pointed out, for instance, that the population growth rate in Morocco and Algeria oscillated around 2% at the end of the 1990s and that a downward trend has been observed since 2000. In Tunisia, the population growth rate dropped below the 1.5% threshold in the past few years, and projections show that this decrease is likely to continue (approximately 1.3% in 2005, 1.1% in 2015 and 0.9% in 2030). The evolution over the past 50 years was marked by accelerated growth in the 1950-1970 period. The population growth then slowed down at the beginning of the 1980s, a trend that was linked to the marked downswing in total fertility rate. In all of the Maghreb countries, the drop in population growth rate is to be explained by various factors including the tendency to marry at a later age and the decrease in the female fertility rate (which dropped by over half in the period from 1980 to 2002)⁵, the progress registered in schooling for girls and in the number of women in dependent employment, and family planning policies.

The rural population still accounts for a significant proportion of the total population; it accounted for over 50% of the population of the region as a whole in the mid-1960s, whereas the figure in 2002 was 41.2% (over 42% in Morocco and Algeria and 33% in Tunisia). According to the latest censuses, over half of the rural population is under 20 years of age (51.5% of the total rural population in Algeria, for example), a figure which indicates the demographic vitality typical of rural zones in this region. Despite rural depopulation, the population trend in the rural zones in the Maghreb countries is dynamic and the populations are steadily growing. In other words, the population growth rates in rural areas in these countries are still boosted by the rate of natural increase (1.5%/year in Algeria, 0.97%/year in Morocco and 0.39%/year in Tunisia over the 1965-2002 period).

⁵ The fertility rate in Algeria, for instance, dropped from 6.7 births/woman in 1980 to 2.8 in 2002. The rate dropped from 5.4 births/woman to 2.8 in Morocco in the same period and from 2.5 to 2.1 in Tunisia (World Bank, World development indicators – 2004).

Here again there are several differences between the three Maghreb countries. In **Tunisia**, the urban population has grown more rapidly than in the neighbouring countries, increasing from 38% in 1956 to 49% in 1975 and 61% in 1994, and according to official estimates it will have grown to 75% by 2010. In **Algeria**, the rural population was estimated at over 13 million people in 2004⁶. The various censuses confirm this permanent downward trend in the ratio of the rural population to the total population: 68.6% in 1966, 60% in 1977, 50.3% in 1987, 41.7% in 1998, and the estimate for 2004 is 39.2%. The FAO projections for 2010 show that this decrease will slow down and that rural Algeria should still account for a little over one-third of the population. In **Morocco**, the rural/urban ratio was not reversed until the beginning of the 1990s. In 1990, the total population of Morocco was actually estimated at 29 million, and the rural population at 13.4 million (i.e. 46.2% of the total population). The UNFPA (United Nations Population Fund) estimates that there will be a total population of 39 million by 2025, approximately 14 million of whom will be living in rural areas, i.e. a ratio of some 35% rural inhabitants and 65% urban inhabitants.

These general figures show in fact that the rural areas in the Maghreb will continue to be populated and will retain a certain degree of demographic vitality. Although rural-urban migration has not reduced the population in absolute figures, it has not affected all of the rural areas of the Maghreb to the same extent. The intensification of depopulation of the north-west of Tunisia to coastal regions has been less pronounced in the past few years than has been the depopulation of the less favoured mountainous regions in the south-west.

In Algeria, 29 wilayas have a rurality rate of over 40%⁷. In Morocco, the rural/urban ratio also differs widely from one region to another. The depopulation rate is high, for example, in the mountainous areas of the Atlas and in the pre-Saharan zones, whereas it is levelling off in the Rif mountain chain.

It must be pointed out that, although migration flows are continuing, they are less unbalanced. The populations are continuing to drift towards the coastal zones and to gather around certain urban hubs, which are extremely attractive both industrially and commercially, but they are also contributing to the growth of small towns and large rural villages in zones in the interior (in the Algerian steppe, for example, or in the south of Tunisia). Steppeland/small-town bi-polar production

⁶ The population living in rural or semi-rural towns and villages amounts to almost 6.5 million people; the remainder is made up of scattered or isolated populations living in rural areas. Population and housing census, 1998.

⁷ Adrar, Bouira, Mostaganem and Tizi Ouzou are predominantly rural wilayas, with rates of 75.9%, 71%, 65% and 64.2% respectively. The wilayas with the lowest rurality rate, on the other hand, are Tindouf (7.7 %), Ghardaia (8 %), Algiers (9.3 %), Oran (12.2 %) and Constantine (12.9 %). With regard to the geographic location of rural communes in the major natural regions, one-third of them are situated in the High Plateaus region, and 17% of these are in the Eastern High Plateaus; more than half (55%) are in the north of the country, and 25% these are in the North-Central region and 17% in the North-West region. And lastly, 13% of rural communes are situated in the south of the country.

systems are beginning to emerge, which reveal new strategies on the part of agro-pastoralists, who are well aware of the importance of having a foothold in town, where the future of the steppelands is determined – for this is where the markets are held and transactions take place, where one finds craftsmen and repair facilities, schools, dispensaries and technical services. This trend is a sign of closer relations between rural and urban populations, which help these zones in the interior to open up and contribute to the development of economic activities and trade between these small towns and the surrounding countryside⁸. In Algeria, 4.8 million people were involved in rural-urban migration in the period from 1977 to 1998⁹, but the various national plans, special development programmes and industrial projects implemented in the 1970s and early 1980s were accompanied with administrative reforms (new division of the territory increasing the number of wilayas from 15 in 1966 to 31 in 1974 and finally 48 in 1985), which promoted more even distribution of progress in rural areas (opening up of these areas, rural electrification, education, health, employment). This State intervention thus promoted the establishment of a large number of small and medium-sized rural settlements in the interior of the country and helped them to become urbanised centres with commercial networks and administrative services as well as socio-cultural and/or industrial facilities. However, this process of resorbing territorial and socio-economic inequalities was not sustained for any length of time.

New residential patterns are beginning to emerge and people are gradually beginning to return to their villages after living in urban centres for many years. These new patterns where emigrants are going back to their villages can be explained by the social crisis (unemployment and de-industrialisation) and the cost of access to building land.

In the **Middle East**, the population statistics show differences in trends between Egypt and Turkey on the one hand and Lebanon on the other. The first difference is in the type of data available: relatively extensive statistics are available in Egypt and Turkey as a result of the regular population censuses, whereas population statistics are sporadic in Lebanon and often based on estimates, since there are no recent figures to rely on.

The second difference concerns population growth: since the second half of the 20th century, the population has increased by 350% in Egypt and Turkey (from 20.95 million in 1950 to 69.7 million in 2002 in Turkey, and from 18.97 million in 1947 to 66.7 million in 2002 in Egypt), and it has increased by 150% in Lebanon (from 2.7 million in 1970 to 3.6 million in 2001).

Population growth rates vary in all three countries:

⁸ Cf. World Bank report "From vision to action".

⁹ A trend which accelerated in the 1990s in connection with the security conditions prevailing in rural areas in Algeria.

- In Turkey, there has been a steady decline in population growth, the rate dropping from 2.3% in the late 1970s to 1.4% in 2001.
- In Egypt, there is a slight downward trend in the growth rate, which dropped from 2.34% in 1950 to 1.92% in the mid-1970s, rose again in the late 1980s (to 2.2%) and then dropped again to 1.99% in 2003.
- In Lebanon, the growth rate was negative in the late 1970s (-0.7%) due to the internal conflicts; it subsequently rose by 1.9% at the end of the 1980s and then levelled off again around 1.7% at the end of the 1990s.

**Table 1.2 - Evolution of total population (Egypt, Lebanon, Turkey)
(1000)**

Year	Egypt	Lebanon	Turkey
1950	-	-	20 947
1960	27 754	-	26 058
1970	-	-	35 605
1980	36 626	2 673	44 668
1995	57 510	3 009	61 900
2000	63 976	3 289	67 844
2001	65 336	3 556	67 632
2002	66 668	-	69 700

Sources: FAO, Food and agriculture indicators (www.fao.org/ES/ESS/compendium_2002/pdf/ess-Tur.pdf) ; Turkey ALMANAC 2003 (www.byegm.gov.tr) ; Central Agency for Public Mobilization and Statistics ; Statistical Year Book 2003.

The population data show a clear urbanisation trend in all three countries, but the pace differs from one country to another. The sharpest decrease in rural population has been in Lebanon, dropping from 58.5% of the total population in 1960 to only 10% in 2001. The proportion of rural inhabitants has also decreased in Turkey, but to a lesser extent than in Lebanon: dropping from 75% of the total population in 1950 to 34.2% in 2002. The decrease has been the least marked in Egypt, where the rural population dropped from 66.5% of the total population in 1947 to 57.6% in 2002.

Table 1.3 - Urban and rural population (Egypt, Lebanon, Turkey) in %

Year		Egypt	Lebanon	Turkey
1960	rural	61.8	58.5	68.1
	urban	38.2	41.5	31.9
1975	rural	59.3	40.0	58.2
	urban	40.7	60.0	41.8
1991	rural	56.8	16.0	41.0
	urban	43.2	84.0	59.0
2000	rural	57.2	10.0	35.1
	urban	42.5	80.0	64.9
2002	rural	57.6	10.0	34.2
	urban	42.4	90.0	65.8

Sources: FAO, Food and agriculture indicators (www.fao.org/ES/ESS/compendium_2002/pdf/ess-Tur.pdf) ; Turkey ALMANAC,2003 (www.byegm.gov.tr) ; Central Agency for Public mobilization and statistics ; Statistical Year Book 2003.

Whereas there is a very marked urbanisation trend in Turkey and Lebanon, after a period of rural depopulation in Egypt people are now tending to migrate from urban to rural areas. This spontaneous trend, which is due to the bottlenecks in urban zones and all of the problems they entail (housing scarcity, saturation of infrastructures, etc.), is being boosted by the government's policy of encouraging the creation of new rural residential zones on the new land that is being developed in order to cope with population growth and the high population density in the Nile Delta and Valley.

Box 1.1 - Rural population trends in the Mediterranean region

The Mediterranean region had a rural population of 189 million in 2002, most of whom were concentrated on the southern shores (57%). There is a marked contrast between the northern and southern Mediterranean as regards rural population development. In the period from 1965 to 2002, the rural population increased from 57.4 million to 107.3 million (an increase of 1.9%) in SM countries; whereas in the North it dropped slightly (81.7 million in 2002 as against 82.5 million 1965). The annual rural population growth rate in the same period was 0.14% for the countries in the North and 1.72% for the South.

The steady growth in the rural population of the southern Mediterranean countries is taking place in a demographic context of relatively marked rural depopulation processes. In the last quarter of the 20th century (1965-2002), the proportion of rural population in the total population dropped in the SM countries from 61% to 42% (i.e. a decrease of 19%). Whereas the decrease was insignificant in a country such as Egypt (-2%), where the rural/urban population ratio remained practically unchanged, it was relatively marked in the Maghreb countries (particularly in Tunisia and Algeria). With regard to the decline in rural population in the northern Mediterranean countries over the same period (1965-2002), this trend is an older historical phenomenon and has been less significant, being observed essentially in Spain (-17%), Portugal (-42%) and Greece (-12%). There has been a very sharp decrease in the proportion of rural population in countries such as Turkey (where it dropped from 66% in 1965 to 32% in 2002) or Lebanon (-41% in the same period). Modernisation policies (Turkey), policies to diversify activities (Spain, Portugal) or factors connected with a particularly bloody civil war have contributed to the acceleration of the urbanisation process in these countries.

1.1.2 - In the Northern Mediterranean: from rural depopulation to “rural renaissance”

In the northern Mediterranean countries, rural depopulation began at the end of the 19th century, accelerated after the Second World War and then stopped fairly rapidly. This movement has been concurrent with population growth, which increased after the war and then slowed down again to varying degrees; it now even seems that the trend will inevitably be reversed unless action is taken to change the current patterns in the individual countries. The highest growth rate is recorded in France (4.2 per 1000), even excluding immigration figures. The reverse trend is observed in Italy and Greece, on the other hand, which have slightly negative natural rates, and Portugal and Spain are only maintaining a moderate population growth rate as the result of immigration. These changes are concurrent with an ageing population trend, which is only attenuated by immigration. This ageing of the population may be more marked in agricultural areas, but the reverse trend of rejuvenation is also observed and is to be attributed to agricultural support policies and policies to help young farmers set up their businesses. The result is fairly general agricultural decline, although the degree varies from one region to another, the poorest regions not always being the worst affected by this phenomenon in the rural world.

In addition to rural depopulation, the urban population is growing considerably in all countries, including Portugal (24% of the total population in 1950, 67% in 2002), with growth rates converging at a level of 60% to 78%. The agricultural population has followed this trend and the figures have now stabilised at fairly low values (3% in France, 4.8% in Italy in 2002, whereas the level for Greece and Portugal remain at 14%). The working farm population in the 4 EU Mediterranean countries taken as a whole decreased from 20 million in 1950 to 4 million in 2000, i.e. a decrease of 80% in 50 years, while the share of farmers in the total working population dropped from 45.5% in 1950 to 8.2% in 2000. When one bears in mind, moreover, that the GAP has increased considerably, the convergence and stabilisation of agricultural population rates and working farm population rates expressed as a very low percentage of the total population point to improvement of productivity in the agricultural sector: in the northern Mediterranean countries, an agricultural worker fed four times as many inhabitants in 2002 as was the case in 1950.

**Table 1.4 – Urban population (UP) and rural population (RP),
(in million inhabitants)**

	Urban population UP		Rural population (RP)		UP/Total %		RP/Total %	
	1965	2002	1965	2002	1965	2002	1965	2002
World	1 184 468	2 991 423	2 450 701	3 233 565	36	48	64	52
Medit.	139 743	333 969	139 845	189 033	50	64	50	36
Northern Medit.	102 772	184 828	82 456	81 743	55	69	45	31
Southern Medit.	36 971	149 141	57 389	107 290	39	58	61	42
Spain	19 644	31 991	12 412	8 987	61	78	39	22
France	32 737	45 298	16 020	14 552	67	76	33	24
Greece	4 064	6 643	4 487	4 326	48	61	52	39
Italy	32 228	38 633	19 884	18 850	62	67	38	33
Portugal	2 152	6 742	6 846	3 306	24	67	76	33
EU Med. Subtotal	90 825	129 307	59 649	50 021	60	72	40	28
Albania	582	1 371	1 286	1 770	31	44	69	56

Source: MEDAGRI (CIHEAM).

In the more developed countries such as France or Spain, the rural population drain has stopped since the 1980s/1990s, and the level of occupation of these rural areas has risen. This is due in some cases to the fact that non-farmer residents are setting up firms in these areas or, as is more often the case, are going to work in the towns or cities, or to the fact that the cities are close at hand (in the rural urban fringe) or that the new inhabitants are spread over the hinterland as a whole. It is also connected with a more explicit liking for nature, contrary to how it was perceived in 1950 (INRA [National Institute for Agronomy Research, France], *Sciences sociales*, 2003). However, in the case of France, the natural rate in rural zones is negative

and the overall rate is only positive due to an inflow of older people who retire there or of North Europeans in search of the sun.

Albania is slightly less affected by these factors, conserving its more rural and agricultural characteristics, which are liable to continue for several years to come, although reconversion to a market economy and free enterprise can entail changes in lifestyle to a style comparable to those in northern European countries. The fact that land structures are still very egalitarian, the weight of the recent past, which has left its mark on people's minds, and the extent to which the country is equipped with collective – albeit poorly maintained – agricultural infrastructures are all factors which support this hypothesis. However, this situation will probably be merely transitory.

1.2 - The agricultural and rural economy

The characteristics of the rural economy and economic trends vary from one region to another. The economic patterns that emerge in the rural zones of the countries in the North are diversification and improvement of the economic fabric; in the South and East, agriculture remains the sector that structures economic activities.

1.2.1 – The economic changes in the northern countries: diversification of activities

The considerable long-term expansion of the agricultural sector, which has been more pronounced in some countries than in others (France being the leader), must not conceal the recent trend towards the development of multipolar activities in rural zones and stabilisation or even a slight decrease in GAP (Gross Agricultural Product) in recent years, which has been concurrent with a slight overall decrease in GDP. This phenomenon is very noticeable in France; it was observed in Italy for some time due to the zoning pattern and the fact that small and medium-sized agro-food enterprises are dispersed, particularly in the rural urban fringes in the north – patterns that are typical of the country.

The process of “re-ruralisation” of areas which were previously the monopoly of farmers remaining in the countryside is concomitant with the economic reallocation of rural land entailed in the residential phenomena underlined above (arrival of retirees, Europeans moving to Mediterranean zones, Tuscany, the south of France and the French Riviera and, to a lesser extent, Thessaly, significance of the Greek diaspora in settlement patterns in the countryside and mountains, renewed interest in rural areas on the part of city dwellers in Spain, etc.) and is helping to boost activities, particularly in the construction, transport and services sectors, and thus to diversify local economies.

The geographic concentration of facilities and the attraction they have reflect land management organised in settlement areas. In France (INRA, Sciences sociales, no.1-2/03, Dec. 2003), there are 1916 areas of this nature, 1745 of which are structured around small towns with less than 30 000 inhabitants. This process is very marked in the Mediterranean regions (Languedoc-Roussillon and Provence-Alps-Riviera), where there is an influx of Northern Europeans. The increasing number of jobs in community services is becoming a major component of contemporary rural economies; the services provided (education, health, social action) play a crucial role, since they attract other private services to the community, resulting in employment nuclei and a development dynamic. The location of enterprises and industrial activities in the rural urban fringe and in rural areas influenced by that fringe also has the effect of attracting other activities; this is to be explained by decentralisation effects and the establishment of more or less informal forms of cooperation between local actors. (we thus find illustrations of the Marshall District theory and the application of reasoning based on the decentralised economy and innovation). The creation of industrial jobs in remote rural areas can also be explained by the fact that enterprises will benefit from a desirable specific workforce, i.e. stable, honest and hard-working labour, even if the level of skills is not always up to the mark. This phenomenon has also been observed in **Italy** for quite some time (the emergence of Marshall Districts and the role of the vicinity services facilitating innovation and helping to strengthen the local economic fabric have often been cited as examples). In the case of **Spain**, second homes and domestic tourism are the major factors in the revival of rural areas, particularly in the mountains, where city dwellers go in order to avoid the summer heat and also in search of their roots, with which they have often lost touch.

1.2.2 - Agriculture in the southern and eastern Mediterranean countries: a substantial contribution in GDP formation and employment

Despite the fact that local economies are diversifying, the agricultural sector still plays a major role in the creation of national wealth and rural incomes in the Maghreb countries, Turkey, Albania and Egypt. It is also one of the principal sources of employment.

The share of GAP in the national economies is 7 times greater on average in the Maghreb countries than in those of the European Union.

Table 1.5 - Share of agriculture in the economy (GAP/GDP) in % (1997-2002)

Country	1997	1998	1999	2000	2001	2002
Algeria	10.30	12.10	11.45	8.77	9.81	10.20
Morocco	15.40	17.21	15.23	13.53	15.78	-
Tunisia	13.20	12.50	12.85	12.28	11.64	10.43

Source: Médagri 2004.

Although economic activities in Algeria are still polarised around the hydrocarbon sector (almost 40% of GDP), agriculture contributed an annual average of 12.5 % of GDP in the period from 1989 to 2000, thus coming a close second to that sector and ranking equal with the building and civil engineering industry (building and civil engineering including works in the oil industry: 12.5%). During the above period it contributed over 52.5% of the gross value added (GVA) of productive activities (excluding the hydrocarbon, oil construction, building and civil engineering sectors, transport and communication, commercial activities and the services).

In Morocco, agriculture contributes 16% of GDP on average, but with considerable variations (12% to 24%) due to climate fluctuations from one year to the next.

There is no agro-industrial sector in the rural world; input supply services, processing industries and commercial enterprises are concentrated in the major cities¹⁰. The country's growth rate curve is virtually parallel to that of agricultural production, as is illustrated in the following table.

Table 1.6 - Growth rate of GDP and agriculture (1980-2001)

Country	GDP Growth rate (in %/year)		Agriculture, value added, annual growth rate (%)	
	1980-1990	1990-2001	1980-1990	1990-2001
Algeria	2.7	2.0	4.1	3.7
Morocco	4.2	2.5	6.7	-0.6
Tunisia	3.3	4.7	2.8	2.4

Source: World Bank (World development indicators).

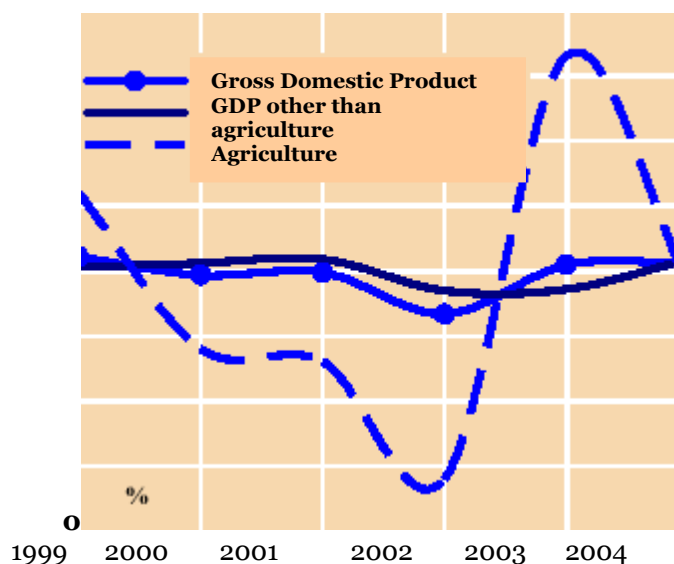
Morocco achieved a GDP growth rate of 6.5% in 1998, for example, a year when substantial growth in agricultural production was also recorded. In 1999, a year of drought and poor harvests, GDP growth dropped to less than 1%. In Tunisia, the agricultural sector's contribution is below 20%-+----. GDP growth also depends on achieving growth in agriculture. GDP performance in the course of 2003 (5.5% on

¹⁰ 80% of the national agro-industrial sector is concentrated in the metropolis of Casablanca alone.

average) was thus due to an increase in the value added by agriculture the same year (+21.6%)¹¹.

The graph on the evolution of GDP over the 1999-2004 period also gives a fairly clear picture of the correlation between GDP and GAP performance.

Table 1.7 - Evolution of Gross Domestic Product (%) in Tunisia



Source : "Budget d'Investissement 2004".

The share of the working farm population in the labour force – below 5% in most EU countries – is over 20% in the Maghreb countries: 23.85% in Algeria, 23.9% in Tunisia and 35% in Morocco, as is illustrated in the following table:

¹¹ Cf. Document on the Republic of Tunisia: "Budget d'investissement 2004". An increase in agricultural production was achieved in 2003 due to the improvement in weather conditions after 4 consecutive years of drought (1999 to 2002).

**Table 1.8 - Working farm population (WFP)
and total labour force (TLF) in 2002**

Country	WFP/TLF in %
Algeria	23.8
Morocco	34.6
Tunisia	23.9

Source: Medagri 2004, Montpellier (France).

In **Tunisia**, the agricultural sector is the main source of employment in the rural world, accounting for 43% of employment in rural and semi-rural areas (1977), a rate which is higher than that of the building and civil engineering industry (31.5%) and that of the "services and other activities" sector (25.1%)¹².

In **Algeria**, the agricultural population, which is being employed more and more in other services or processing activities, is nevertheless still in the majority within rural zones. Agriculture actually employs almost 25% of the total labour force, and the rural labour force is employed in more or less equal numbers in the primary and tertiary sectors, accounting for 39.5% and 39% of the total number of workers employed¹³. The fact that farm families are engaging in several activities means that 15.9% of farm households earn off-farm income from activities in other sectors. This statement does not include work in the informal sector, which in certain cases can constitute a more substantial source of income.

The Gross Agricultural Product in **Turkey** accounted for approximately 12.2% of the Gross Domestic Product in 2003¹⁴, whereas in Lebanon it amounted to 7.4% the same year.

It is also observed in Turkey that the annual GDP growth rate in the period from 1990 to 2000 was 3.7%, whereas the annual GAP growth rate was 1.4% for the same period. We have the opposite situation in Lebanon in that the annual GAP growth rate is higher than the GDP growth rate (8.8% as against 6%). The situation in Egypt is midway between that of the other two countries: the share of agriculture in GDP was 16% in 2000 (as against 26% in the 1970s). The annual GAP growth rate is close to the GDP rate – around 3.3% in 2000-2001.

Agriculture is still the primary employment sector in Turkey, despite a decrease in the proportion of the working farm population, which dropped from 61% of the total labour force in 1979-1981 to 33% in 2003, i.e. approx. 7 million agricultural

¹² Cf. National area management strategy, 1997.

¹³ Report entitled "La stratégie de développement rural durable. Perspective décennale" published by the Ministry of Agriculture and Rural Development, December 2003).

¹⁴ EU: Regular report on Turkey's progress towards accession, 2004 (page 95).

workers¹⁵, 43.2% of whom are women (compared to 39.1% in 2000)¹⁶. In Egypt, the proportion of the working farm population has remained stable since the beginning of the 1990s: around 28.5%, i.e. 5.01 million workers, 5.8% of whom are women¹⁷. The latter percentage would seem to be particularly underestimated, due no doubt to the fact that female domestic labour is not taken into account in statistics.

The sharpest decrease in agricultural employment is observed in **Lebanon**, where the working farm population dropped from 14% of the total labour force to only 3% in 2000.

Women workers are in the majority in the agricultural sector in all three countries:

- In Egypt, 35.3% of working women are employed in agriculture as against 28.5% of men.
- In Lebanon, 9.9% of working women are employed in agriculture as against 28.5% of men.
- And in Turkey the percentages are particularly high, 72.2% of working women being employed in agriculture as against 33.8% of men.

Economic statistics in the rural zones (Egypt, Lebanon and Turkey) focus virtually exclusively on agricultural activities. This perhaps reflects a statistical "tradition", which continues to ignore the development of other economic activities in rural areas, but it can also reflect the real economic significance of agriculture in these areas.

Albania is also going through a period of marked economic change, since land has been redistributed on an egalitarian basis, for example, although there is no possibility or immediate intention to sell it off. The setup has thus changed from 550 agricultural cooperatives to 500,000 family farms with an average acreage of 1.1 ha, which makes it difficult for agricultural investments to be profitable. The revival of the agricultural production tool through the existing small family farms, which are gearing their activities more and more to the market, is the most salient factor, albeit one of the major difficulties to be overcome. It is observed, however, that this phase of adaptation to the free market economy is resulting in an initial decrease in overall production in agriculture and most of the other economic sectors followed by a revival in certain sectors in response to efficient demand. At the same time new development institutions are being established; in particular, State services are being reorganised and civil society organisations are being set up (such as associations of irrigation operators or producers' organisations). We would also draw attention to the provisional role played by NGOs in these developments. Policy-makers are encountering various difficulties, including in particular the need to take over and develop all water control infrastructures in particular, the absence

¹⁵ EU: Regular report on Turkey's progress towards accession, 2004 (page 95).

¹⁶ According to the DİE, the Turkish State Institute of Statistics.

¹⁷ CAPMAS (Egyptian Central Agency For Public Mobilization And Statistics) – 2002.

of bank loans, the absence of commercial organisations, deficient technical advisory services in the agricultural sector, an inadequate research system, inefficient extension and information services, etc. (Republic of Albania, Ministry of Agriculture, Annual report 2003). Algeria is thus a case where an economy is being restructured on a new basis but where human resources can be developed since the level of training seems to be reasonable. People's motivation for a more liberal economic and social framework can be an additional asset for the emergence of innovative capacities.

1.2.3 - Agricultural potential and agrarian structures

The low productivity of the agricultural sector is to be explained by natural handicaps and agrarian structures.

The natural handicap of SM countries:

The production potential of the Algerian agricultural sector, which is situated essentially in zones with an arid or semi-arid climate, is confronted with the fact that less than 3% of AAU is reserved for irrigated land with high production intensity and that the per capita share of AAU is steadily declining: from 0.75 ha in 1962 to 0.25 ha at the present time due mainly to population growth and the loss of farmland due to erosion and soil degradation, which it is difficult to offset through costly development with delayed effects.

**Table 1.9 - Cultivated land, irrigated land and production inputs
2001**

Country	Arable land and perennial crops (10 ⁶ ha)	Acreage under crop per 10 ³ head of pop. (ha)	Acreage under crop per agric. worker (ha)	Irrigated land / cultiva- ted land (%)	Cultivated land / tractor (ha/tract.)	Fertili- sers / cultivated land (kg/ha)
Algeria	8.2	268	3.2	6.7	88	13
Morocco	9.7	329	2.3	13.8	225	37
Tunisia	4.9	510	5.2	7.8	140	22
Egypt	3.3	48	0.4	100.0	37	392
Lebanon	0.3	88	7.0	33.2	38	174
Turkey	26.3	380	1.8	17.1	28	63

Source: Medagri (2004).

This agro-climatic handicap is the reason for the wide variations in agricultural production and the low yields in crop and animal farming. The 1990s (92, 93, 95) were marked by wide variations in cereal production from one year to the next in Morocco and, more recently, the output in 2000 was even under 30 million quintals

compared to the 100 million quintals achieved in good years. This country has a production potential based on an area of 47 million ha, distributed as follows:

- Over 8 million ha of agricultural area in use (AAU), 600 000 ha of which are irrigated: the most productive part of the AAU (1 to 1.4 million ha) is concentrated in the coastal and in-shore plains and is constantly deteriorating due to intensive crop-farming and urban pressure (housing, industrialisation).
- Over 32 million ha of grassland ranges.
- 7 million ha of forest canopy and esparto grasslands.

Table 1.10 – Area of agro-climatic zones in Morocco

Farmland	Rainfall (mm)	Area (1000 ha)	% of AAU
Favourable	over 400	2 610	30
Intermediate	300 to 400	2 088	24
Unfavourable East	200 to 300	1 044	12
Unfavourable South	200 to 300	1 044	12
Mountains	400 to 1000	1 305	15
Pre-Saharan and Oasis	under 200	609	7

Source: Ministry of Agriculture and Rural Development (Morocco).

Agrarian structures where small farmers and low productivity predominate:

The performance achieved by the agricultural sector over the last 30 years in the Maghreb, but also in Egypt or Turkey, is undeniable. The irrigated acreage has increased in every country. Fruit and vegetable, fodder crop, meat and milk output has doubled or even tripled¹⁸. The increases in cereal and legume output have been more modest. Industrial crop production (sugar beet) has increased in Morocco; in Tunisia, olive oil, citrus and milk production has not only met the country's needs but has also produced surpluses for export. In Algeria, the value added by agriculture has increased by 3% to 5% in the last few years.

The marked progress registered everywhere over several years in vegetable crop output has been achieved through farm irrigation schemes and water economisation (drip irrigation). This progress has been achieved primarily by medium-sized or large market-integrated farms, which are generally more privileged in terms of access to land – which is often more fertile – and to water, credit, production inputs and State aid. What is more, they have benefited tremendously from the price support policy and advantageous taxation scheme for agriculture. These farms predominate in the producer representation bodies. They have modernised by using productivity factors (fertilisers, phytosanitary products, improved or high-yield

¹⁸ Tunisia has achieved an agricultural growth rate of 4.5% over the last 10 years. In less than 30 years cereal and milk output has doubled, meat output has increased by 250%, and horticultural crop output by over 300%.

seed), equipment (tractors, harvesting machinery, processing equipment, water pumps, sophisticated irrigation equipment, etc.), and are in a position to cope with trade liberalisation¹⁹.

However, small farms predominate in these regions. According to the 1996 General Agricultural Census, of almost 1.5 million farms in Morocco only 28 000 are large farms (over 50 ha of rain-fed agriculture, over 20 ha of irrigated agriculture), i.e. 1.9% of farmers holding 21.5% of total AAU and 31% of irrigated AAU. There are 600 000 micro farms of limited economic viability (less than 3 ha of rain-fed agriculture and 1 ha of irrigated agriculture); they account for 41.4% of the entire agricultural sector but hold only 8.5% of total AAU and 5% of irrigated AAU. The 820 000 other farms are small (most of them have less than 10 ha) or medium-sized; they hold 70% of total AAU and 64% of irrigated AAU. Almost 1.5 million farms were registered in 1996-1997, with an average of 5.8 ha per farm. Two-thirds of private operators, and thus of farm families, have holdings of less than 5 ha.

In Tunisia, the 1996 census showed that 53% of farms were holdings of less than 5 ha, and holdings of less than 10 ha represented almost 3/4 (73%) of the total number of farms in the country. The data obtained in the last General Agricultural Census carried out in Algeria (1999) showed that holdings of less than 10 ha predominate (over 70% of the total number of farms registered).

And in Egypt, according to the 1997 census small farms of less than 3 feddans (less than 3.114 acres) predominate in the farm landscape (42% of farms and 26.3% of land). They typically encounter difficulties in access to credit for small farmers, costly production factors (tractors, fertilisers, pesticides), and an extremely low level of public or private investments.

Small farmers, who lack means and training, are in fact excluded from the producer representation bodies and from the benefit of the agricultural policies that are being implemented. They have been unable to modernise and are liable to be hard-hit by the opening of national borders without compensation. The weakest of them are forced to adopt survival or self-subsistence strategies and have virtually no access to the market.

In Greece, over 3/4 (77%) of holdings of less than 5 ha use more than one-third (35%) of AAU, and the average size of holdings is 4.6 ha. They are situated mainly in the mountainous areas and on the islands, and their share in Greece's agricultural exports is negligible. In Spain, the average size of farms is increasing (21.3 ha at the present time), and the result is a high degree of land concentration, since over 70% of farms with an acreage of up to 5 ha control only 8% of AAU.

¹⁹ Cf. CIHEAM-IAM-IRESA-INAT (2003), "Le soutien aux produits agricoles et aux filières agro-alimentaires. Etudes de cas : Maroc, Tunisie", 202 p.

In Turkey, average farm acreage is 5.4 ha (1991). Over 2/3 (67.04%) of holdings have less than 5 ha and cover almost 1/4 (22.12%) of the agricultural area in use. According to the same source, holdings of over 50 ha account for only 0.94% of the total number of farms and 17.13% of AAU. One of the main handicaps of Turkish agriculture is the fragmentation of holdings. In 1980, less than 10% of holdings were continuous farms, whereas approximately 64% were divided into 4 or more parcels. The 1991 census showed an increase in the number of continuous farms (up to 15%) and an increase in the number of holdings divided into 4 or more parcels (up to 57%), but the rate of fragmentation is always high when measured against OECD standards (OECD, 1993). This farm fragmentation is seriously thwarting the objectives of farm modernisation and productivity enhancement.

1.3 - Social proportions: rural/urban dualism in the South

1.3.1 - Rural areas in the South characterised by underemployment and poverty

There are marked disparities between the urban and the rural world. Basic infrastructures are inadequate, and levels of food consumption are much lower.

The implementation of structural adjustment programmes during the 1980s had particularly adverse effects on the living conditions of rural populations. The period from 1980 to 1990 was marked by a spectacular rise in unemployment (20.7% in Algeria and 23% in Morocco) and poverty (cf. table below).

Table 1.11 – Population living below the rural and urban poverty lines (in %)

	Year	% rural	Year	% rural	% urban	Year	% rural	% urban
Algeria	1988	16.6	1995	30.3	14.7	1998	16.6	7.3
Morocco	-	-	1990/91	18.0	-	1998/99	27.2	12.0
Tunisia	1985	29.2	1990	13.1	3.5	1995	13.9	3.6

Source: World Bank, World development indicators, 2004.

In view of the definitions often given by national statistics systems, unemployment rates in rural areas do not give a true reflection of the labour market within those areas²⁰. In rural areas in the Maghreb, where small farms and/or small craft workshops are the predominant economic structures, workers are generally underemployed. In addition to underemployment, the labour market in these areas is also characterised by job insecurity, low wages and low worker skills (and often the absence of vocational training systems through which the latter could be

²⁰ Workers who have worked for a few days in the year are generally registered in the “employed persons” category.

enhanced), poor working conditions and the absence of regulations and codes governing industrial relations (accident insurances, pensions, social protection).

Two-thirds of the poor populations of **Morocco** and **Algeria** live in rural areas. According to the Moroccan agricultural census conducted in 1996, a population of approximately 5.7 million people, i.e. 43% of the rural population, have very low incomes. Over 2/3 of this poor population live on micro farms, which are “economically unviable” (less than 3 ha of rain-fed agriculture, less than 1 ha of irrigated land), and 1/3 do not live on a farm. Surveys on the standard of living of households show that 70% of the poor live in rural zones and 30% of the rural population spends less than 3000 Dh (some €300) a year, which corresponds approximately to the absolute poverty threshold defined by international organisations. These populations, whose situation is vulnerable and precarious, often survive by engaging in several activities (temporary hired labour in agriculture, on building sites, or sometimes in towns and cities, where they work for a member of the family) or by means of private transfers sent by their families in the city or abroad.

The survey on poverty in Algeria carried out by the IBRD in 1997 showed that poor communes are generally situated in rural grassland areas, mountainous areas or foothills. They are small, have limited resources of their own, and have the lowest percentages of children in full-time education and the highest levels of adult illiteracy. The survey also showed that 25% of the rural poor farm modest non-irrigated areas and that rural households draw their incomes from various activities (agricultural production, crafts, small-scale shop-keeping in the informal sector, etc.).

According to World Bank statistics, **Tunisia** has considerably reduced the poverty rate in rural areas, which dropped from 29.5% in 1985 to 13.9% in 1995; and according to official sources (report on the 10th development plan) the rate dropped to under 5% in 2000 and thereafter.

Box 1.2 - Employment and poverty in the rural world in Morocco

The rural world represents almost half of the Moroccan population. It is still an enclave area (60% of rural villages are still enclaves), underequipped as regards basic infrastructures (56% of the villages have no access to care, 30% of households have no electricity, 44% have no drinking water, and almost 70% lack basic sanitation) and socio—educational facilities (67% of the population is illiterate, 46% of school-age children - but only 23% of girls - are enrolled in full-time education). There are still major inequalities with regard to access to equipment in rural zones: The wealthiest 10% of the rural population live in douars where the level of equipment with tarred roads and public transport is twice as high than the level recorded in the douars inhabited by the poorest 10%. The ratio is 5:1 for electricity and 7:1 for running water.

The agricultural sector accounts for 80% of rural employment and almost 40% of employment at the national level.

The statistics show that the bulk of the underemployed working farm population is in the agricultural sector (69.6%). The level of underemployment is high, farms using only 60% of the available labour force on average. Two-thirds of the poor live on micro farms, which are “economically unviable” (less than 3 ha of rain-fed agriculture, less than 1 hectare of irrigated land), and 1/3 do not live on a farm. Underemployment is still relatively high in the 15-24 age group (25.1%) and in the 25-44 age group (26.6%). The labour force participation rate of the population over 15 years of age is 62.9% in the case of the rural poor²¹. It must be underlined that in rural areas almost 9 out of 10 workers are underskilled.

Large segments of the rural population are doomed to poverty due to inequalities in access to resources and training. Inactivity, underemployment, illiteracy and poverty are closely interlinked. The more disadvantaged people are the more unlikely they are to be inactive. Most poor and underemployed households (71.5%) are headed by women, 39.8% of whom have no spouses.

Sources: Omar Benida (2002) « Le monde rural et les perspectives de l'emploi », Directorate for Education, Research and Development, Ministry of Agriculture and Rural Development, Rabat, Morocco; Khalid Soudi (2001) « Pauvreté et vulnérabilité sur le marché du travail : quelques dimensions de la fragilité de la position des pauvres », the initial results of the 1998/99 national survey on the standard of living of households, Directorate for Statistics, Living Standards Observatory, Ministry of Economic Forecasts and Planning, Rabat, Morocco, 2000.

The official unemployment rate in **Egypt** was 7.4% in 2000, but estimates come closer to 11% of the population. It is higher in rural zones, where it is compounded by problems of underemployment and job insecurity, particularly in the case of young people.

As regards **Lebanon**, estimates of the unemployment rate range from 8.6% to 18% of the working population, and in Turkey the unemployment rate is 8.3%.

²¹ The poverty threshold is estimated at 3 037 Dh/capita/year in rural areas.

The World Bank estimates that in Egypt there were 10.7 million people living below the national poverty line (40 Egyptian pounds) in 1999-2000, i.e. 16.7% of the population, and that 250 000 people were living on less than 1 dollar a day. This poverty is affecting rural regions more than urban regions, but it must be underlined that there are major disparities between regions: whereas the growth rate in metropolitan areas was very high in the last 10 years, there was practically no growth at all in Upper Egypt²². Most of the poor (5.8 million of a total of 10.7 million) live in rural areas and in Upper Egypt; 45% of the poor are illiterate. They work in agriculture, mines or the building industry, and they are more affected by unemployment on average. As regards poverty, gender differences are less significant but are more marked within the rural areas. The urban and metropolitan governorates are generally better off than Lower Egypt²³ and Upper Egypt, which is the poorest region²⁴. Again according to World Bank estimates on poverty²⁵ in the MENA (Middle East and North Africa) region, the per capita index measuring the percentage of the population living below the poverty line was 9.2% in urban zones in Egypt and 22.1% in rural zones in 1999-2000. The poverty index (which measures the difference between the consumption level of the poor and the poverty threshold), was 1.7% in urban zones and 3.9% in rural zones the same year, which clearly indicates that there are more poor people in rural zones and that they have a lower standard of living.

Only a limited number of estimates are available for **Lebanon**. They would indicate that the population living below the poverty line amounted to 28% of the total population in 1999. The estimate concerning the rural population is less recent, dating from 1994; it is found in the UNDP report entitled "A profile of sustainable human development in Lebanon", which classes families in three income brackets: low, middle and high income. 86% of farm families were classed in the low income bracket.

The data on **Turkey** are fairly old, dating back to 1997; they were published in the 1996 Human Development Report on Turkey (UNDP), according to which, 14.2% of the Turkish population was classed as "poor", and the poverty rate was 2.4 times higher in rural areas, particularly the Mediterranean regions and East and South-East Anatolia. But the most recent estimates – according to the same report – seem to indicate that the poverty rate has decreased.

It can be stated in conclusion that there is less poverty in urban zones than in rural areas, where it affects a higher percentage of the population and is also more acute.

²² Region situated south of Cairo and extending to the border with Sudan, characterised by the predominance of rural zones but also the existence of major urban centres.

²³ Region of the Nile Delta.

²⁴ African Economic Outlook, AfDB/OECD, 2003.

²⁵ Source: <http://www.lnweb18.worldbank.org/mna/mena.nsf/>

In the European countries in the northern Mediterranean the type of poverty that is still prevalent in the rural areas in the South was eradicated after the Second World War. However, disparities in economic development between the regions has given rise to forms of exclusion which expose certain categories of rural households to poverty risks (cf. table below).

Table 1.12 - Rate of poverty risk*

	1997	1999	2001
EU 15	9	9	9
Spain	11	11	10
France	9	9	9
Greece	14	13	14
Italy	11	11	13
Portugal	15	14	15

* Proportion of people whose income is below the poverty risk threshold throughout the year plus the 2 previous years (threshold fixed at 60% of median equivalised national income after welfare payments).

Source: EUROSTAT.

It would seem difficult to interpret these data on such a short period where no distinction is made between rural and urban areas. We can at most point out that the very low incomes in certain isolated rural areas and a high average age are sources of risk and exposure to economic insecurity. The risk level is the same in Greece, Italy and Portugal (13% to 15%), and is slightly lower in Spain and France (10%).

1.3.2 - Human development indicators and access to collective community facilities

The development gap between the rural and the urban world in the rural areas in southern Mediterranean countries is particularly evident when one examines the situation with regard to literacy training and access to community facilities.

Illiteracy is an obstacle to rural development in these regions, and rural women, who play a major role in economic activities, is the category worst affected by underdevelopment and social inequality.

The Maghreb countries are lagging far behind with adult literacy training programmes, particularly for women. It is stated in the UNDP Human Development Report (2004) that the adult literacy rate in 2002 was 50.7% in Morocco, 73.2% in Tunisia and 68.9% in Algeria. Furthermore, the literacy rate for women is much lower than the rate for men in most countries. There is a difference between male

and female literacy rates of 19 points in Algeria and 20 points in Tunisia²⁶ and 25 points in Morocco, and social resistance to literacy training for women in the region can be regarded as an obstacle to economic development, given that underemployment, illiteracy and poverty are so closely interlinked.

Table 1.13 - Adult illiteracy in the Maghreb (2002)

Country	Literacy amongst adult women
Algeria	59,6
Morocco	38,3
Tunisia	63,1

Source: UNDP 2004 - Human Development Report.

The disparities between the sexes are compounded by disparities between settlement areas. Rural areas are lagging far behind urban zones. In Algeria, the lowest percentages of children in full-time education (65%) are recorded in the rural areas where the population is scattered (45% of the total rural population); this is well below the national average (-16.1 points). The highest illiteracy rates are also to be found in these areas (51.5% compared to 34.9% in rural agglomerations).

Although in **Morocco** the average illiteracy rate amongst persons over 15 years of age is 49%, this is still well below the 60% recorded in rural areas. Almost 80% of farm managers are illiterate, and $\frac{3}{4}$ of the illiterate have only primary school or Koran school education. And as to rural women, the adult literacy rate is mediocre, since almost 7 out of 10 women are illiterate. Notable progress has been made in full-time school education since the "national education charter", which makes the period from 2000 to 2009 the decade of education and training, was adopted, but the situation in rural areas is improving only very slowly. Only 48% of rural girls are registered in full-time education and, what is more, the vast majority soon drop out of school²⁷. In addition to the illiteracy problem mentioned above, there are many other problems which seriously affect rural women: the supply of drinking water and firewood, which is the women's responsibility in 9 cases out of 10, and the lack of health centres, which means that only 20% of childbirths take place in a supervised environment and that the after-effects of pregnancy and childbirth are a serious public health problem.

²⁶ The report on the 10th Development Plan in Tunisia (2002-2006) acknowledges the differences between regions and between men and women and states that *"the action planned in the national adult literacy training scheme will focus on illiterate women and on the regions where illiteracy rates are still high"*.

²⁷ Metge, J. (2003), "Développement rural et formation au Maroc". Eléments d'analyse et de réflexion. VIIèmes journées d'étude sur l'ingénierie des dispositifs de formation à l'international. Paris, 16/17 January 2003.

When one considers the role played by rural women in economic activities, it must be pointed out that their social status is a serious obstacle to progress in rural societies in these regions.

The figures published by the World Bank in the "Rural Development Indicators Handbook" (March 2000) on well-being in rural areas show that significant progress has been achieved in the **Middle East** in general. This progress has been made mainly in the school education field, although the percentage of girls registered in full-time education is still lower than that of boys.

It would seem in fact that the real handicap is access to education, particularly for women in Egypt, where the illiteracy rate is still very high. According to the "Egypt human development report" published in 2003, the widest gap between rural and urban areas is in the education field.

Rural areas suffer from a shortage of collective infrastructures and can thus only cover the needs of their populations very sporadically.

The situation differs from one country to another, Morocco being the country where the rural world is lagging seriously behind in terms of economic and social infrastructures and where indicators are extremely low.

Table 1.14 - Percentage of the rural population with access to community facilities (2000)

Country	Access to drinking water	Access to electricity	Access to care
Algeria	82	98.0	81
Morocco	56	71.4	44
Tunisia	58	94.6	62

Source: World Bank, World development indicators (2004).

However, although the ratios show that, statistically, rural areas are "well serviced" with basic facilities, as is the case in Algeria or Tunisia, they provide no information on accessibility or on how the infrastructures actually work or on the exact role they play in the development of these areas.

The UNDP Algeria Human Development Report (2000) refers, for example, to the difficulties encountered by scattered populations in rural areas in access to care; there are 5 419 525 people living in these areas, i.e. 45% of the rural population in Algeria; patients living in these rural zones have to travel an average of 16 km to get to first aid health centres, and home confinements are still prevalent in these areas, often without any assistance whatsoever.

The survey on household living standards (ENNVN)²⁸ conducted in Morocco in 1998/1999 showed that 50% of rural children of 7 years of age travel 1 to 5 km to school, generally on foot (98.7%). In 8 out of 10 cases this is one of the reasons why children drop out of school, and in 15.2% of cases it is the reason why children are not sent to school at all. School facilities are often underused because of the lack of assistance or because they are situated in enclaves (over 2000 classes registered in 1997). The same phenomenon is observed in Algeria, where a child of primary school age living in a sparsely populated rural area travels an average of 1.1 kilometres to get to school and many classrooms are not used because there are no teachers or proper facilities (heating in winter in mountainous areas)²⁹.

Rural/urban duality is particularly marked in the **countries of the Middle East**, especially in the education field and as regards access to collective infrastructures apart from drinking water.

The 2003 human development indicators for Turkey do not differentiate between rural and urban areas. The following points can be noted, however:

- The poverty rate is 12.4%;
- the illiteracy rate of the population over 15 years of age is 14.5%;
- the illiteracy rate in the population over 15 years of age is higher for men, however, than it is for women (93.7% and 77.2% respectively).

According to the "Egypt Human Development Report" published in 2003, there are still disparities between rural and urban areas: the disparity index is 84.2 for access to drinking water and 78.5 for access to sanitation systems.

Table 1.15 - Indicators of rural well-being

Indicators	Egypt			Lebanon			Turkey		
	1980	1990	1998	1980	1990	1998	1980	1990	1998
% rural population with access to:									
drinking water	61		84.2	85		100			
sanitation systems			78.2	18		100		90	

Sources: World Bank, Rural Development Indicators Handbook, March 2000. UNDP : Egypt Human Development Report, 2003.

Further to the data set out in the above table, it should be noted that according to the World Bank indicators for 2001, 86% of the rural population in Turkey had access to drinking water and 96% of the rural population in Egypt.

²⁸ "Enquête sur le niveau de vie des ménages", Ministry of Economic Forecasts and the Plan, Rabat, Morocco.

²⁹ "Stratégie de développement rural durable" (Sustainable rural development strategy), report published by the Ministry of Agriculture and Rural Development, Algiers, 2004. All of the following figures have been drawn from that report unless otherwise stated.

There has also been an appreciable improvement in infrastructures and communications in all 3 countries, although to varying extents.

A great deal still remains to be done in the road construction field in Turkey and in the telecommunications field in Egypt.

Attention must be drawn, however, to inequalities in the distribution of these communications, which occur at two levels:

- At the regional level: certain rural areas can be better equipped with communications than others.
- At the social level: some social groups have access to these communications, others have limited access, whereas others have no access whatever.

This problem of inequality in the territorial distribution of means and in access to those means for certain social groups is of crucial importance, for it contributes to the perpetuation and aggravation of poverty.

Table 1.16 - Accessibility and communications in rural zones

Indicator	Egypt			Lebanon			Turkey		
	1980	1990	1998	1980	1990	1998	1980	1990	1998
% of paved roads		72	78		95	95			28
Telephone lines (per 1000 persons)	10	30	60	113	118	194	26	121	254
Radios (per 1000 persons)	137	319	324	749	884	906	112	159	180
Per capita consumption of electrical energy	380	697	803	789	369	1930	439	801	1275
Daily newspapers (per 1000 persons)	42	46	40	97	88	107	56	71	111

Sources: World Bank, Rural Development Indicators Handbook, March 2000. UNDP : Egypt Human Development Report, 2003.

The Egypt Human Development Report for 2003³⁰ stresses the disparities between urban and rural zones and within the rural zones themselves. HDI measurements were in fact carried out at governorate level throughout the country (there are 27 governorates – 4 urban and 23 rural governorates counting towns and urban centres), in all districts, and in the towns or urban centres, producing the following results:

³⁰ Egypt Human Development Report, 2003.

- In the urban governorates, which have an average HDI, the vast majority of neighbourhoods have an average HDI and some have a high HDI. There are also several neighbourhoods in these governorates with a low HDI.
- The rural governorates situated in the delta in the north of Egypt also have an average HDI but with more marked disparities with regard to the towns/cities which are the capitals of these governorates.
- The rural governorates situated in the valley in the south of Egypt (which account for half of the rural population in the country) have an HDI lower than all of the other governorates. The towns and districts with the lowest HDIs are all situated in these governorates.
- The unemployment rate is higher in these towns than in the rural areas.
- Whereas the literacy rate is 65.6% at the national level, it ranges from 70% to 92% on average in the urban governorates, with peaks of 96.2% in certain Cairo neighbourhoods. The literacy rate is much lower on the other hand in rural areas outside urban centres, ranging from 67% to 29%.
- There is a strong correlation between the literacy rate and the level of HDI (when the literacy rate is low the HDI level is also invariably low).
- The rate of women's participation in employment is 25% at the national level with a very wide gap between the level recorded in cities in urban governorates, where the rate is 33.2%, and the situation in the rural governorates in the south of the country, where it is sometimes 1.8%. However, it must be borne in mind that the female employment rate is higher in the informal sector, for which no measurements or estimates have been made.
- After analysing the other indicators concerning labour, health and the status of women, the report concludes that there are definitely wide gaps, and indeed ruptures, between the urban populations in the north of the country and the population in the south, due primarily to the rupture between the urban and the rural environment.

Disparities in food consumption:

The data on the food situation in rural areas for the years from 2000 onwards are fragmentary. The UNDP Human Development Report (2000) states, for example, that malnutrition in Algeria is higher in rural areas (7.8% of the rural population) than in urban zones (4.8%), and that the regions in the south of the country are much more disadvantaged, with a rate of 15.2% of the population affected by this phenomenon. The food policies implemented in the three Maghreb countries have nevertheless contributed to a large extent towards eradicating famine and reducing situations of malnutrition in the various North African countries³¹. The most recent surveys on household consumption (1988-89 in Algeria, 1990 in Tunisia and 1995 in Morocco) showed that the consumption level of all population groups had

³¹ "Les politiques alimentaires en Afrique du Nord" (1995), Padilla, M. et al, eds., Karthala, Paris, 431 p. See also "Alimentation et nourritures autour de la Méditerranée", Padilla, M. and Oberti, B., eds., Karthala, Paris, 264 p.

improved since independence. It must be pointed out, however, that the food intake of rural populations is less diversified and that their diet is more "vegetarian" than that of their urban counterparts. Consumption of durum wheat (semolina and couscous), pasta and sugar, which provide "cheap" calories, is still very high. Rural populations consume less fresh milk, red meat, fish, fresh fruit and vegetables than urban populations³².

Dry years have been more frequent in the Maghreb in the last few years (1 year out of 2 on average in the 1990s). The climatic risk has drastically affected living conditions in the rural world and has aggravated the food insecurity situation of the poorest rural populations in these regions due to the deterioration of self-sufficiency in staple commodities (cereals and legumes).

In Morocco, rain-fed acreage, which is particularly sensitive to climatic hazards, accounts for 86% of AAU (7.5 million ha); it is used by small traditional farms, where extensive farming systems (crop and animal production) predominate, and it is these rain-fed zones which supply 75% of the country's cereal output and 70% of its legume output. According to certain estimates, farm households produce 20% of the cereals they consume, and this self-supply has no doubt been particularly affected by these agricultural crises³³.

In the countries of the Middle East, food supply in rural areas has improved (in terms of calories). This does not mean, however, that all rural population groups are able to consume that quantity of theoretically available calories, and there are undoubtedly wide disparities in food consumption between regions and social groups.

**Table 1.17 - Food consumption: available calories
(per capita per day)**

Indicators	Egypt			Lebanon			Turkey		
	1980	1990	1998	1980	1990	1998	1980	1990	1998
available calories per capita per day	2920	3150	3280	2720	3240	3260	3290	3550	3560

Sources: World Bank, Rural Development Indicators Handbook, March 2000. UNDP : Egypt Human Development Report, 2003.

³² Cf. Jaouadi, T. (2000) "Evolution du comportement alimentaire du tunisien", pp 225-250. See also "Alimentation et nourritures autour de la Méditerranée", Padilla, M. and Oberti, B., eds. Karthala, Paris, 264 p. Paris. 264 p. See also "Les politiques alimentaires en Afrique du Nord", (1995), Padilla, M. et al, eds., Karthala, Paris, 431 p.

³³ ENVMA, 1996, Ministry of Economic Affairs, Forecasts and Planning, Morocco.

1.3.3 - Changes in social structures and rural areas

Social changes in the rural areas in the North:

Although country districts became relatively depopulated during the "30 glorious years" (the 30-year boom period after World War II), considerable efforts were made at the same time to equip rural areas so that living conditions and the living environment changed in those zones, at least in France and Italy, and some years later in Greece in Spain; similar changes are now taking place Portugal. The first attempts at integrated development in the difficult upland zones, for example, all aimed to improve living conditions and thus basic facilities. Homogenisation of the level of equipment with facilities (water supply, tarred roads, electricity, telephone and television, central heating) and, to a certain extent, of lifestyle are the common lot of both rural and urban populations. The level of farmer training is rising as the result of the arrival of the 'neo-rurals' (both farmers and non-farmers), the modernisation of agriculture, and the fact that this new rural population is becoming integrated into a complex socio-political system. Farming is no longer conceivable without sound training for farmers so that they can decipher the economic policies that are being implemented to support them and obtain access to the many and varied aids that are available. One of the pre-requisites is to be able to adapt to a bureaucracy that is apparently necessary but complex, to say the least. The new rural entrepreneurs, whether farmers engaging in several economic activities or non-farmers, thus constitute new human capital, which is of a good standard and generally innovative in approach. We shall see later in this report how rural and regional development policies provide means of raising this standard even further and encouraging innovation.

On the other hand, the arrival of older residents and retirees and the fact that most of the young native population is moving to urban centres, which provide more skilled jobs, is contributing both to the ageing of the rural population and to the depletion of the young skilled population. Unskilled workers and workers with a lower level of training are the only ones who remain in the areas. Taken as a whole, although the overall result is positive (and this is the case in virtually all of the rural areas in the northern Mediterranean), these population movements are inducing the creation of service activities (accounting for 50% of non-agricultural jobs in rural areas and the rural urban fringe in France) (INRA, Sciences sociales, 1-2/2003).

State intervention and the market are changing rural societies in the southern and eastern Mediterranean:

There are two major changes taking place in these regions: *State intervention in rural village affairs and market-driven tapping of resources* These two factors are closely linked and have been the principal determinants in the changes observed. Although rural communities as bodies that are capable of managing collective territory have been slowly declining as the result of State intervention, it in fact only

seems to have been possible to maintain these entities when they have succeeded in engaging in a commercial production system. State intervention has played a major role in the launching of the crop extension processes that are currently underway. The former tribal units have formed small enterprises and have thus changed the methods of managing agricultural and pasture resources. In isolated regions – “remote rural areas” –, however, the “tribal factor” is still a major feature of society which cannot be ignored. Nowadays it is pointless to ask a small farmer from an irrigated area which group he belongs to unless one wants to claim ownership of the land he is irrigating or an official right to use it. The situation is very different in the grassland and mountain pastoral regions, where group affiliation still commands the right of access to pastureland or watering rights, the right to build a shelter or to cultivate a parcel of land. Animal farmers in most of these countries use a specific pastoral area, which can be called their “territory”, and which is composed of rangelands that have collective and public status³⁴. Nor has the fact that land has been taken over by the State in these regions changed the habits of users, who continue to regard these forest ranges as their own territory. These rangelands are grazed and are allocated to assignees: in the Maghreb, the ranging right on this land is based on affiliation to an ethnic group, which is not necessarily taken into account in moderate administrative apportionment systems³⁵.

Social forms of production and transformation of production systems:

As has already been stressed, social forms of production are to be found in small family farms. Large-scale extensive farms have developed throughout rural zones, and State agricultural policies have favoured these entrepreneurial and commercial farming systems in the last few years.

In a number of countries, the creation of close links between rural and urban zones has led to the need for greater differentiation in describing forms of agriculture, which are often categorised too simplistically in agriculture in difficulty on the one hand and prosperous towns and cities on the other. In many regions there is marked interaction between rural areas and (small) urban centres. Studies that have been carried out in rural areas reveal a complex typology. The main differences underline the contrast between farms characterised by a capitalist management approach and generally belonging to absentee landowners who employ seasonal workers and more traditional farms, which have diversified activities and are based on family labour. Government policies are to a large extent responsible for this dualistic model. The law on the privatisation of land or the promotion of the private sector in the context of operations to develop collective land through transfer has been implemented in the various regions of the Maghreb where modern technologies have made it possible to tap ancient sources of underground water and

³⁴ It must be pointed out that in North African countries rangelands account for between 40% and 70% of agricultural land.

³⁵ Lahmar, M (1994), *Du mouton à l'olivier : essai sur les mutations de la vie rurale maghrébine*, Cérès, Horizon Maghrébin, Tunis, 273 p.

thus practise irrigated agriculture. One of the major effects of allocating land to individuals is the tendency of domestic units to develop into small enterprises based on a combination of crop and animal farming, the land thereby serving to produce fodder for the animals that are sold on the market.

The main change that is observed is the extension of crop-growing in a context where the available land is limited. Over the years, the desire to purchase land has grown, since people are anxious to buy up rangeland into order to sow it with cereals or to co-plant it. Land policies have of course tried to direct the movement but have not always managed to control it. Sowing and planting offences have increased in the most difficult zones (Moroccan, Algerian and Tunisian grasslands, etc.) wherever the status quo persists on collective land. The same strategies are pursued everywhere : the land is developed by building on it, digging a well, or ploughing it ("vitalising" is the term used in the sharia) and thus appropriating the soil or the water. It is thus the most difficult regions which are the worst affected, since there is little possibility of extending the land available per capita at the national level. According to the FAO, there is little prospect of increasing the operating area by 2010. For whereas that area amounted to 0.26 ha/capita on average in the period from 1988 to 1990, it is estimated that this acreage will have dropped to 0.16 ha/capita by 2010 as the result of population pressure.

The transformation of livestock farming systems and land utilisation patterns has taken on new forms in the last few decades:

In less than 3 decades, far-reaching changes have come about in the animal husbandry systems in these regions with regard to the following three aspects:

- *Regression of customary systems of organisation and development of social inequalities* On collective rangelands, the system of organisation is inequalitarian, since each individual grazes as many animals as he can and uses every possible means (transported water tanks, camps at higher altitudes, annexing of rangelands) to try to obtain a maximum of resources. A class of powerful individuals is thus emerging from these communities whose interests are geared to the outside world and who regard customary rules as merely an obstacle to expanding those interests.
- *Regression of mobility and boundary changes in the division of pastoral land* The nature of animal farmer movements has changed; semi-nomadic farmers, whose numbers are undoubtedly dwindling, are becoming motorised. Although livestock mobility has regressed, the nature of these movements is being reorganised at the same time and is adapting to the new division of land. *Except in mountainous areas, where there are few roads or tracks, a different model of land use is emerging as the result of motorisation* : animal farming is being concentrated in the hands of big stockbreeders and veritable ranches are being set up, wage-earning shepherds are being engaged, all resources are being systematically tapped, water and animal feed are being transported, and a grass market is emerging which concerns the entire national territory.

- *Towards greater integration into regional and national markets*

Things are thus moving towards a new type of pastoral animal husbandry, which is being organised on a semi-nomadic basis – migratory or settled – and is at the same time geared closely to the market for input supplies and animal sales. This process is backed up with an active network of souks and regional markets on the fringe of the grasslands or in the foothills, benefiting the wholesale and semi-wholesale trade in particular, so that these regions are opening up further to national trade.

2 *Agricultural and rural policies – the new paradigms*

Rural development policies are the result of the specific historical development of rural societies. The implementation of national agricultural policies has been crucial in the designing of rural development policies. Whereas in the northern Mediterranean countries these rural development policies, which are to a large extent the product of the modernisation of agriculture, aim to achieve social cohesion, regional revival and area management, in the southern Mediterranean countries these policies focus mainly on improving living conditions and combating poverty. However, the sustainable management of natural resources and the involvement of local actors in measures to develop local resources are today strategies which converge in all approaches to rural development, irrespective of the country under review.

2.1 - The historical bases of the designing of rural development policies

As population trends and socio-economic factors in the northern Mediterranean regions have gradually changed, the conception of rural development has also evolved and new considerations have been taken into account. Although questions of equity and efficacy are present in the implementation of agricultural and regional policies, in the interests of optimal social conditions they lead to the idea of social cohesion and, as the case may be, of catching up where certain regions are lagging behind. This is an essential point, particularly when it comes to integrating new countries into the EU, but it is also a crucial issue when one observes that entire regions seem to be caught up in a process of marginalisation resulting in depopulation, impoverishment and desertification: this is often the case in the mountainous regions and hill countries of Mediterranean Europe. Measures to compensate the natural handicaps of less favoured regions and to help backward regions to catch up and convert form the basis of regional, and especially rural, policies. Considerations of competitiveness are also cited in a broader context of inter-regional competition and globalisation to justify development policies.

The model of agricultural development that is achieved by intensifying production and specialising production in order to keep abreast with population growth tends to waste regions' rare resources (waste of water and soil, mismanagement of spontaneous vegetation due to less pressure on certain low-productivity areas or, conversely, overcultivation, as is the case in Albania, etc). The fact that sustainability has become a concern and, more generally, that environmental considerations are becoming an international issue in view of accelerating globalisation processes is a second factor influencing development models and their respective policies. The management and equipment of rural areas depend directly on this concern for sustainability, as does the organisation of development actors. More generally, the governance of rural development will change. Farmers

and their professional organisations, who claimed to be the most suitably placed to manage rural areas, are losing part of their pre-eminence on rural territories to newcomers.

Rural development is related on the one hand to the place and dynamism of the agricultural sector in the rural world and thus to the actual agricultural policies pursued and, on the other hand, to the specific policies that are implemented with a view to rural development and to the multisectoral development of a region. These policies are of course influenced by the evolution of societies' expectations concerning food and the utilisation and management of natural resources and land. Rural areas thus came to be regarded as a medium for various economic activities (a resource for production purposes) and as a living and leisure environment (residential and recreational area). later they were regarded as a medium for natural and cultural trends themselves (natural environment in the heritage sense of the term); they deserve heightened vigilance, particularly if we want to pass on to posterity a heritage comparable to the legacy of our predecessors.

2.2 - Stages in the development of agricultural and rural policies in European Mediterranean countries

In the North, rural development policies are closely linked to developments in the Common Agricultural Policy (CAP) and in regional policy.

Agricultural development policy as a policy for rural development (1960-1992):

The Stresa Conference (in 1960) marked the beginning of a process where the agricultural sectors in the European Community embarked on a course of modernisation geared to productivity in a context of strong internal price support. This common agricultural policy which aimed to supply the Community with agro-foodstuffs succeeded far beyond expectations as far as the objective of increasing the volume of agricultural output was concerned; from the 1970s onwards the surpluses produced had to be sold on external markets or destroyed. So the success was thus also accompanied by adverse effects. It was achieved at high budgetary cost mainly because of the price support for agricultural commodities (the CAP budget amounted to almost half of the Community budget...). The CAP also brought considerable geographic disparities by marginalising certain regions (mountainous areas, for instance, dry intermediate zones in the Mediterranean regions, etc.) The technical model proposed was unable, for example, to halt the degradation of environments where there was marked agricultural decline: the resulting spread of scrub vegetation followed by spontaneous forestation created vast single-block expanses, particularly in the Mediterranean region, for which the risk of forest fires became extremely serious. This led the Commission to envisage various corrective measures from 1988 onwards.

Attempts were thus made to control the increasing production of staple commodities (milk, cereals, etc.) by acting on the subsidies for those commodities and then, more specifically, by reducing the official prices or by introducing production rights or production quotas (for milk, for example), or by encouraging set-aside or afforestation.

The actual issues of rural development were addressed by specific policies, but no particular means were implemented. Mountain policy, for example, which was established in 1975 and was based on precise zoning, increased the amount of classical aids and introduced the concept of compensation for natural handicaps. Farmers in such regions were paid a mountain farmers' allowance, which then became the Compensatory Allowance for Natural Handicaps (CANH) and was financed by the European Agricultural Guidance and Guarantee Fund (EAGGF). The amount of that payment, which was highly contested by the farming profession in France, at least initially, was subsequently adjusted and regularly increased. It thus actually constituted an anticipation of the system of direct income aids for all farmers, which was subsequently introduced within the framework of Agenda 2000 and the ensuing reforms.

Rural policy as an integral part of regional policies (1992-1999):

The 1992 CAP reform, known as the "**MacSharry reform**", continued to aim to contain CAP-related budgetary expenditure, to break with the intensive-production approach, and to make farmers more competitive so that the export of surpluses would be less costly and less difficult and to protect the environment. The Brundtland Report began to have effects on institutional policy-makers and the concept of the multifunctionality of agriculture gradually emerged: tentatively shifting the CAP to rural development considerations, if not explicitly at least in terms of protecting natural resources and, consequently, biodiversity and landscapes, in particular through an agro-environmental component and, to a lesser extent, a rural development component. In concrete terms, the CAP reform proposed to reduce price support and to compensate the loss of income by means of direct aids based on production factors (land in the case of cereals and oil protein crops, and livestock in the case of beef and veal). Milk quotas were maintained and aids for converting dairy herds to suckler herds were considered favourable for land use.

At the same time, since initiatives experimenting with "Article 19" – designed to encourage farmers to adapt practices for the sustainable management of natural resources – launched in various Mediterranean regions (Languedoc-Roussillon and Provence-Alps-French Riviera, for example) in the period from 1985 to 1992 had produced favourable results, the EU extended the support system to all regions by means of agro-environmental measures (AEM). These measures, which were integrated as of 1992-94, were generally planned in the context of local agro-environmental measures, introducing regional considerations into the CAP to some extent as well as an attempt to resolve the predominant inherent environmental

problems. At the same time, farmers were legitimated as producers of environmental amenities (efforts to combat nitrate pollution of groundwater, extensive management of heathlands and prevention of fire risks, landscape management, etc.).

A further corrective measure was gradually introduced, not as a CAP measure but in the context of regional policies. It consisted of various trials launched as an experiment at either the local or the regional level, the aim being to facilitate the reintegration of certain less favoured rural areas into the general process. Integrated development programmes (IDP and IRDP) were financed by the Guidance Section of the EAGGF as of 1986 (in Lozère, the Scottish Islands and the Belgian Ardennes) on an experimental basis within the framework of national policies supported by the Commission, which saw these schemes as a means of streamlining its future regional and rural development policy. A Rural Area Development Programme was proposed in the period from 1988 to 1999 on a more formal basis (RADP 1989-1993), followed by the Rural Development Policy (RDP 1994-1999) within the scope of Objective 2 of regional policy and of Objective 5b, the agricultural component of regional structural policies.

During the latter period (1988-1999), rural development policy was mainly integrated into regional policy, whose purpose was to reduce inter-regional development disparities, and it was thus also regarded primarily as a policy for social cohesion. It was to become the EU policy second in importance to the CAP. Both the structural fund reform which was carried out when European socio-structural policy was redefined as of 1988 (creation of the European Regional Development Fund, ERDF, action to strengthen the European Social Fund, ESF, which was reactivated when the Mediterranean countries – Spain, Greece and Portugal – entered the Union), and the measures to maintain and strengthen the Guidance Section of the EAGGF – the most important point for our purposes – aimed to redistribute funds amongst the member states with a view to achieving the priorities that had been set as regards modernising the weakest rural areas. The Mediterranean countries benefited from these structural funds to the full and to a greater extent than most of the other countries³⁶. In addition to the measures related to what was known as the social cohesion component of regional policy, the structural funds also provided a means of financing Community Initiative Programmes (CIPs) and innovative actions, which were also veritable experiments. The **Leader** programmes are an example of this, concerning zones comprising one or several medium-sized towns and rural areas, the aim being to help local actors, particularly rural actors, to devise and implement integrated development strategies on an experimental basis as pilot projects organised around a unifying theme (such as the Glassworkers' Path in Languedoc-Roussillon). The Mediterranean regions made extensive use of this tool to streamline their rural

³⁶ Other funds concerned the financing of action to promote the fisheries sector (Financial Instrument for Fisheries Guidance - FIFG) and a Cohesion Fund for financing transport infrastructures for the benefit of Spain, Greece, Portugal and Ireland.

development strategies and initiate bottom-up approaches based on local action groups (**LAGs**). These groups were intended to be or to become innovatory and to be in a position to implement a multisectoral approach going well beyond the agricultural sector alone but nonetheless consistent with the priorities of the Commission. France, Spain and Portugal have used this procedure to a large extent to facilitate a sort of social learning procedure for the benefit of local actors and policy-makers. These programmes were structured in a **network** at the national and transnational level with a view to facilitating the exchange of information on experience gained. And lastly, provision was made for the decentralised management of funding in order to facilitate the implementation of development measures.

EU rural policy gradually becomes autonomous and more specific within the framework of the CAP (as of 2000):

The **Cork Conference** (7-9/11/1996) had laid the groundwork for what might become a true rural development policy in its own right independent of other regional policies. It was decided that rural development should rank as an EU priority for combating rural depopulation and the poverty that persisted in certain regions; it should be based on an integrated approach which was multidisciplinary in design and multisectoral in application (integrated regional approach) and through which local natural and human resources could be developed more efficiently as part of a sustainable development perspective. The imperative of subsidiarity was underlined as was that of simplifying procedures and implementing one single programme with one single funding system. It was not until 2000, on the basis of the initial results of the Leader programmes, that these proposals were – tentatively – integrated into rural policies. The States were anxious to plan transitions which their institutions and producers' organisations could cope with.

With regard to the common agricultural policy proper, **Agenda 2000**, which was the product of the Berlin European Council in 1999, was the continuation of the previous measures but also comprised a more explicit rural development consideration. Provision was made for a further price reduction and compensation of loss of income through aids based on the production factors of land and livestock. The milk quota system was retained until 2005-2006. The three structural funds were retained, accounting for 36% of the budget of the Union (i.e. €141 billion for the period from 1994 to 1999 –whereas they had amounted to only €64 billion in the 1989-1993 period– and increasing to €195 billion for 2000-2006).

With regard to objectives, the emphasis was laid more on seeking *competitiveness in regions* whose potential was considered to be underutilised. Three priority objectives were set:

- Objective 1, geared to development and structural adjustment in regions whose development is lagging behind (GDP less than 75% of the Community average);
- Objective 2, geared to supporting economic and social conversion of regions in structural difficulty at the industrial, rural and urban level and in the fisheries sector;
- Objective 3, concerning human resources development and the European employment strategy.

As of January 2003, all of the measures for promoting development in the rural world which were part of regional policy (objectives 5a and 5b in the 1994-1999 schedule) were combined with the CAP accompanying measures taken in 1992 to form one single regulation, the Rural Development Regulation (RDR). These provisions are part of Agenda 2000 and are scheduled over the 2000-2006 period. The corresponding measures proposed form what is known as the 2nd pillar of the CAP.

The RDR comprises 22 measures. Three measures fall within the scope of PAC accompanying measures (early retirement for farmers, family workers and agricultural wage earners, and the premium for the successor). Five measures aim to boost farms (establishment of young farmers and investments, training, etc). Support for less favoured regions including mountainous regions or regions with agro-environmental constraints takes the concrete form of payment of the Compensatory Allowance for Natural Handicaps (CANH) to farmers. The agro-environmental measures (AEM) have been retained with the requirement for farmers to commit themselves for at least 5 years. These two measures have received the highest appropriations, i.e. €3.5 billion of a total of € 6.7 billion for the 2000-2006 period. A further measure is the afforestation of farmland. On the other hand, 13 measures included in Article 33 of the RDR relate to rural development proper (essential services, diversification of agricultural and non-agricultural activities, refurbishment of villages, tourism, prevention of natural disasters, etc.), with an appropriation of approximately €750 million, which is a very small sum.

This RDR thus contains a whole range of extended and co-ordinated measures which previously came under agricultural policy and regional development policy. Some of these measures support rural development indirectly, essentially encouraging the agricultural population to stay on the land and thus promoting land use, while others concern rural and local development more directly. Each country is thus free to adopt or reject any of these measures with the exception of agro-environmental measures, which are mandatory. Those that are selected are built into a Regional or National Rural Development Plan, accompanied with a Single Programming Document (SPD), to be approved subsequently by the Commission. The aids that are granted are co-financed by the Guarantee Section of the EAGGF up to a maximum of 50%, with very few exceptions, and the Member State concerned, and the regions can also be involved.

The 2003 reform of the CAP (Luxembourg compromise, June 2003, followed by the Salzburg Conference in November 2003) went farther by doing away with the link between direct aids and farmers' production choices. The concept of the decoupling of direct aids from income support emerged, going hand-in-hand with the extension of the scope and financing of rural development. It was to some extent related to the WTO (World Trade Organization) negotiations and the criticisms made by countries exporting agricultural commodities to the effect that the EU was overprotecting its agricultural commodities and distorting international trade. The justification of this policy was still very explicitly the *intention to maintain a certain degree of land use* on the grounds that farmers and foresters contribute to the sustainable management of the environment. This new reform pursues two objectives:

- To simplify eligibility criteria by introducing more flexibility for the States and regions and to apply the principle of subsidiarity, the Commission thereby reserving the right to make the approval of NERDs conditional on the extent to which they comply with the principles that had been laid down.
- To define support for rural areas more specifically.

The result is three main lines of policy: action to enhance the competitiveness of the agricultural and forestry sectors by creating the conditions for that competitiveness at the local level, to establish sustainable management of the environment by farmers and foresters, the principal managers, by encouraging them to produce the public goods which citizen-consumers expect (cf. section on natural resources and sustainable development below), to place agriculture and forestry in a broader context, the rural context, and to link the agricultural sector more effectively to the other sectors at the local level.

The philosophy of Agenda 2000 has thus been conserved, but the reform goes even further by bringing certain provisions into effect which the Member States had tried to attenuate by postponing schedules. The measures adopted included the following:

- **real decoupling** of aids with the introduction of a single payment per farm calculated on a historical basis;
- **aid conditionality** requiring recipients to comply with good environmental practices but also with statutory standards concerning animal health and animal welfare and also as far as occupational safety is concerned (i.e. a total of 18 European directives), provision having been made for very stringent controls;
- **aid modulation**, which results in the reduction of aids from a threshold of €500 of aid per farm per year (with the exception of farms in less favoured regions) and allocation of the amounts thus economised to the rural development actions included in the second pillar of the CAP (-3% in 2004, -4% in 2005 and -5% in 2006 and beyond); 80% of the amounts that are recovered must revert to the Member State concerned.

In addition to this policy, the structural funds are continuing to finance Community Initiative Programmes (CIPs) and innovative actions. One of the 4 programmes³⁷ is the Leader programme, which, as has been mentioned, has been operating since 1991. It is still a real full-scale experiment of a form of development that is designed to be decentralised, multisectoral and devised and implemented with the participation of local actors and to develop local endogenous natural and cultural resources as far as possible. The aim is to support innovative pilot initiatives. Three generations of Leader programmes have provided the basis for testing the advantage of the so-called "bottom-up" approach: the local actors express their expectations on the basis of an assessment of the local situation that is conducted jointly and liaise in order to select the strategic actions corresponding to the needs that have been identified. Funding is then sought and negotiated on that basis. This policy now serves as a reference with regard to approach and implementation of all EU regional and rural policies.

Table 2.1 – European budget 2000-2006 (in billion euros)

	€ billion	
Total budget	641	
of which:		
CAP	298	
Regional policies	212	
of which:		
Structural funds	194	
of which:		
<i>Objective 1 - areas lagging behind</i>		135.9
<i>Objective 2 - areas with major environmental constraints</i>		22.5
<i>Objective 3 – human capital</i>		24.05
Cohesion funds	18	

Of the total expenditure planned for rural development, i.e. €32.9 billion (half of which is for the Mediterranean countries), 38% will be appropriated to restructuring and measures to enhance farm competitiveness, 52% is earmarked for less favoured regions including mountain regions and agro-environmental measures, and 10% is earmarked for rural communities. If one includes the expenditure connected with Objectives 1 and 2 of EU regional policy relating more specifically to rural development, a total of €52.5 billion is earmarked for the 2000-2006 period, and 2.1 billion of this total is appropriated to Leader+ (see Table 2.2).

All in all, Community annual expenditure on rural development increased from €4.5 billion to over €6 billion per year between 2000 and 2003, and since the measures are co-financed 50% by the states concerned these figures have to be multiplied by 2. In 2003, the 2000-2006 schedule completeness rate was

³⁷ INTERREG, URBAN, EQUAL, LEADER.

estimated at 46% for the EU-15, whereas the rate for Greece was 29%, Portugal 30%, Spain and Italy 42% and France 45%.

Table 2.2 - Amounts scheduled for rural development in the EU 2000-2006

	Co-financed by the EAGGF	Community contribution	
		billion euros	%
Rural Development Programme	Guarantee	Spain	3.5
		France	5.8
		Greece	1.0
		Italy	4.5
		Portugal	1.5
		Total	16.3
NRDP EU-15		32.9	100.0
Programme – objective 1 with RD measures (zones where development is lagging behind)	Guidance	17.5	
Objective 1 Programme (areas with major environmental constraints)	Guarantee	2.1	
Leader+ Programme	Guidance	52.5	

Table 2.3 - Payments in less favoured regions (in euros)

	Average payment per farm (F) in a less favoured region	Average payment per ha for less favoured regions
Spain	1 300	13
France	3 700	53
Greece	800	26
Italy	1 800	75
Portugal	600	50
Average EU-14	2 319	EU-15 71

Prominent features by country:

In **France**, the rural population has stabilised at 13 million people; the agriculture and forestry sectors are relatively prosperous and can contribute to environmental maintenance. A National Rural Development Plan is adjusted to each of the 20 Programme Regions, and a Programming Document being issued for each region; the West Indies and Reunion Island fall within the scope of Objective 1 (regions where development is lagging behind), and Corsica and the North are at the transitional stage. The NRDP comprises 5 priorities: 1) to orient farms towards sustainable multifunctional agriculture; 2) to develop forest resources; 3) to consolidate the 'quality production' aspect and increase value added; 4) to improve employment and balance land use; 5) to promote and protect the ecological heritage.

A Leader+ programme covers all rural zones and involves 140 LAGs. The strategies adopted comprise new technologies, competitiveness of products and services, quality of life, and optimisation of natural and cultural resources. In concrete terms, the breakdown by type of measure shows that the Compensatory Allowance for Natural Handicaps (CANH) paid to farms in less favoured regions accounts for 36% of the NRDP budget, Agro-Environmental Measures 33% (CTE/CADs – sustainable agriculture contracts –, which have an impact in terms of regional projects specific to France and account for 2/3 of the AEMs, the remaining 1/3 being taken up by the other AEMs, the grassland payment and then the PHAE – agro-environmental grassland payment), forestry measures 6% and measures to help young farmers set up their businesses (Dotation Jeunes Agriculteurs DJA – young farmers' grant) 10%, i.e. a total of 85% of the NRDP budget for the 2000-2006 period (Chambers of Agriculture no. 993 07/2004).

Some of these measures – particularly those which have an impact on the de facto regionalisation of rural development – are co-financed through 'contrats de Plan Etat-Région' (State-Region contracts related to a 5-year plan), whose scheduling has been synchronised with the scheduling of EU programmes (2000-2006) since 2000 in the interests of coherence.

The evaluations carried out in 2000 by the CNASEA (National Centre for Farm Structure Management) and the DATAR (Area Management and Regional Action Delegation) stressed the need to strengthen the overall coherence of rural development policies, while conceding that approach, contractual tools and regional area management plans can all contribute. The application of the RDR still reflects a very agricultural approach essentially targeting farms. State initiatives thus appear to be still very sector-oriented and to depend too much on administrative and socio-economic zoning, while the financing channels are still too complex. Although regional structuring seems to be progressing (inter-communal cooperation projects, nature reserves, feature areas), little attention has been devoted to the rural-urban fringe areas, contrary to the situation observed in

remote rural areas. Action to improve the coherence of measures and to carry out monitoring using suitable tools are thus two of the main recommendations for the future.

Table 2.4 - Financial support for rural development policy in France

Programme	Total cost	Total public expenditure	of which EU contribution
million euros			
RDP (guarantee)	22 729	10 624	4 995
Rural dev. object. 2	2 709	1 554	768
Obj. 1 (guidance)	1 567	1 129	676
Leader+ (guidance)	536	506	268
Total	27 541	13 813	6 707

Spain undertook integrated development measures as soon as it entered the EU in 1986. The question of support for rural areas in difficulty, and in particular for mountainous regions, was clearly raised by a population of city-dwellers anxious to find their roots. Decentralisation is fairly advanced, some regions having more autonomy and prerogatives, such as Navarra and the Basque Country, which have their own tax collection system and can levy taxes to finance their development measures.

The rural world in Spain is confronted with problems of drought, risks of fire in forest areas (between 100 and 400 ha are burnt every year), soil erosion and scarcity of water resources as well as the ageing of the working farm population.

Both sectoral and centralised State measures have been implemented in Spain through two horizontal national programmes, which are relayed by each autonomous community. These two horizontal programmes, which are co-financed by the Guidance Section of the EAGGF, are being developed on 830 000 ha.

The measures are divided into:

accompanying measures: agro-environment (including the reduction of pesticide use, compensatory measures in less favoured regions, retirement aids for 12 000 farmers and the release of 180 000 ha of land, and the reafforestation of certain areas of farmland), and measures to improve production structures (farm modernisation, measures to help young farmers set up business, management of water resources). In addition, each autonomous community has drawn up a specific regional development plan focusing on the use of information technologies, product value added, the quality of life in rural areas, and the sustainable management of natural resources.

The Leader programmes were implemented from 1991 onwards and soon proved a great success, providing a means for development associations to establish

themselves and to learn how to develop regions. The Leader+ programmes, the most recent of the series, lay great emphasis on training, and LAG monitoring and networking. There are currently 150 LAGs; the areas covered are limited in size, totalling less than 30 000 ha. Overall public expenditure of approximately €14.2 billion has been planned for the 2000-2006 period, 9 billion of which are to be provided by the EU.

Table 2.5 - Financing of rural development in Spain

	EAGGF 2000-2006 billion euros	% of total
Rural development	3.1	34.7
of which water resources	1.0	11.2
Agro-environment	0.9	9.5
Afforestation	1.5	16.7
Leader	0.5	5.5
Young farmers	0.3	3.8
Compensatory measures	0.4	4.9
Other measures	1.4	13.7
Total	9.1	100.0

	public expenditure billion euros	of which EU contribution
Operational programmes	7.6	5.0
Rural development schemes	5.8	3.5
Leader+	0.8	0.8
Total	14.2	9.0

As result of administrative reform in **Greece**, the 6000 municipalities have been reorganised into 1033 'demes', similar to the 'communities of municipalities' in France. Two clustering patterns have been created: around regional capitals and medium-sized towns/cities, and, in rural areas, around small towns (with approx. 2000 – 17 000 inhabitants); the same pattern is followed in mountainous areas, but without any aggregation of housing or activities. A National Operational Programme covers the entire territory of Greece and is considered to fall within the scope of Objective 1. There is also a National Rural Development Programme, which is subdivided into 13 operational programmes, which are provisioned through several funds. These programmes aim to boost farm productivity and competitiveness and include aspects concerning methods of processing and marketing products while at the same time protecting the environment (water management, irrigation and drainage) and promoting rural development. One of the measures involved aims to encourage older farm managers to take early retirement. Public expenditure will amount to a total of €6 billion, 2.7 billion of which are connected with the NRDP, 1.2 billion being reserved for the retirement scheme. In addition to these sums, the EU is providing €3.4 billion. These programmes thus give prominence to measures designed to promote young and productive farms (retirement of older farm managers: 40 000 to 50 000

beneficiaries), compensatory payments (180 000 beneficiaries) particularly in mountainous areas, reafforestation of farmland (14 000 ha) and action to limit the pollution of groundwater in the Thessaly Plain and soil erosion. The aids for organic farming should concern approximately 27 000 ha and 1 650 farms engaging in organic animal husbandry. As for the Leader+ programme, it is implemented in fairly modest proportions but covers the entire country.

The governance of rural development is structured on two patterns: one falls within the classical institutional framework (at the regional level, at the département level and the level of the communities of municipalities); the other is the result of action by informal networks linked to the Greek diaspora throughout the world, whose members support the development of their native villages.

Table 2.6 - Financial support for rural development policy in Greece (2000-2006)

	Total public expenditure	of which EU contribution
	billion euros	
Compensatory retirement	1.12	0.34
Allowances	0.96	0.29
Agro-env. measures	0.40	0.30
Afforestation	0.17	0.06
Total EAGGF (Greek NRDP)	2.68	0.99
Objective 1 EAGGF Guid.	3.14	2.26
Leader +	0.25	0.18
Total	6.08	3.46

In **Italy**, there are 2.5 million farms, with an average acreage of 5 ha compared to the average acreage of 18.4 ha for the EU without Greece. The number of farms has decreased by 14.2% since 1990, and this decrease has concerned mainly the north of the country. In the south, the abandonment of land is entailing a major risk of desertification, while in the plains the predominant risk is that of overcultivation and groundwater pollution. There are 980 430 farms in less favoured regions on 10.84 million ha; these include 679 000 mountain farms on 7.7 million ha. Only 4.6% of holdings have an acreage of over 20 ha, and small structures are concentrated more in the south of the country. Employment in the agricultural sector dropped from 1.8 million workers in 1991 to 1.1 million in 2001. In view of this situation, each of the 21 regions in Italy (19 regions plus the autonomous regions of Trenton and Bolzano) is concentrating on improving farm competitiveness and, in particular, on protecting/improving the environment, the third priority being local development. There are 7 regions (Centre-North) which fall within the scope of Objective 1 (development lagging behind) with 7 “multi-fund” regional operational programmes, in which the emphasis is on agricultural investment. In the other 19 regions, agro-environmental measures play a more

important role (42% of financing compared to 29% in the Objective 1 regions). The difficulty lies in the fact that the actual implementation of the respective measures is somewhat behind schedule, and this can result in the reduction of EU funding. This delay seems to be being caught up in 2004. The same applies to 22 Leader+ programmes (21 regional programmes plus 1 national programme and 132 LAGs geared to innovation and diversification), where there are numerous delays in the procedure for selecting projects. All in all, expenditure on rural development in Italy amounts to a €14.3 billion, 7.8 billion of which are covered by the EU budget for the 2000-2006 period.

Portugal still has a large agricultural population (11%, i.e. 1.1 million). Of the 381 000 farms 90% are small or very small and the farmers are old and have no qualifications. Less favoured areas make up 80% of the territory (mountainous zones and hill country 42%, zones that are becoming desertified 37%, areas with specific handicaps 1.5%). One of the most serious environmental problems is the fire proneness of forestland: in 2003, forest fires devastated huge expanses (362 000 ha of woodlands were destroyed and 41 000 ha of farmland were also affected by fire). Pollution problems seem to be very limited in Portugal, which has a number of extensive farms that are economically viable and an asset for Portuguese agriculture.

Portugal has drawn up a Rural Development Plan, which is subdivided into 3 plans covering Metropolitan Portugal, the Azores and Madeira. The main strategies of the respective programmes are action to encourage older farmers to retire, measures to increase farm acreage, compensatory payments for farms in less favoured regions, support for good farming practices (agro-environment) and measures to conserve the ecosystems remaining from traditional agriculture, and aids for afforestation. Regional rural policies are implemented through a National Operational Programme for Agriculture and Rural Development and 7 regional Operational Programmes. And lastly, the Leader+ programme covers the entire country. It comprises 52 Local Action Groups (LAGs) and aims to improve the quality of life in rural areas by supporting local initiatives, encouraging cooperation between rural areas, enhancing the attractiveness of country districts, ensuring that sustainable approaches are adopted, and facilitating the dissemination of knowledge and transfer of experience.

The governance of rural development and aids is still highly centralised: it is based on a management authority, which is assisted by a management department comprising the Ministry of Agriculture at the central level and the départements responsible for each of the measures plus the relevant payment and monitoring departments.

Table 2.7 - Financial support for rural development policy in Portugal

	Total cost	Total public expenditure	of which EU contribution
	billion euros		
3 RDP	2.09	2.01	1.52
EAGGF Guarantee			
8 oPE Ob.1	5.39	3.25	2.12
EAGGF Guid.			
1 LEADER	0.27	0.22	0.16
Total	7.75	5.48	3.80

Rural development policy in Albania:

In the current transition phase, there are a number of priorities which the Albanian government is having to address including in particular that of developing institutions which can design and implement an agricultural policy in preparation for integration into Europe. This means that the primary issue is to improve agricultural production in line with European standards. A second issue of concern that has been taken over by the donor countries is that of reducing poverty in villages and improving the quality of life. However, first and foremost the skills and knowledge of the national and local officials involved in agricultural and rural development need to be enhanced. An institutional framework must also be developed at both the central and the local level. It is only when this has been accomplished that thought can be devoted to sustainable development and action can be launched. This also means that public/private partnership procedures must be set up without delay. An interministerial Committee on Rural Development has been set up and a technical secretariat has been established in the Ministry to facilitate the coordination of rural development measures and to prepare a National Action Plan for Sustainable Development.

2.3 - Rural development policies in the countries on the southern and eastern shores of the Mediterranean

Rural policies have gradually taken shape in the eastern and southern Mediterranean regions. They are the result of former agricultural policies but also of regional development and area management policies. The main stages in the shaping of these policies correspond with the following periods: *during the 1960s*, public intervention in most countries in the South had a marked social slant: measures to combat poverty, malnutrition, infantile mortality, illiteracy and chronic underemployment in rural populations. *The 1970s* were the period when national development projects were implemented – industrialisation, adjustments,

measures to promote export crops, ‘major works’ policies – which benefited mainly the commercial and entrepreneurial forms of agriculture. It was a period of massive rural depopulation and rapid urbanisation in the countries of the South. *The 1980s and 1990s* were a period when the national models of economic development began to break up and crises emerged in centralised State regulation systems. Rural areas were severely affected by the structural adjustment policies applied to them: inflation, budgetary restrictions, privatisation and liberalisation of the price system concurred to make the living conditions of rural populations more precarious. A *period of post-adjustment* began in the 2000s with the adoption of sustainable rural development strategies in most countries in an attempt to resolve the major challenges of fighting poverty and underemployment, combating social and regional inequalities and preventing the degradation of scarce resources strained by population pressure and inappropriate production systems.

Stage 1 with emphasis on the social field (1960-1970):

In the first few years following independence, the principal matrix of rural development policies focused on efforts to fight poverty, underemployment, malnutrition and illiteracy. The first governments addressed the rural/urban dualism that was particularly marked by the colonial heritage with the support of NGOs or international institutions (the FAO in the context of the World Food Programme, UNICEF, UNESCO or the UNDP) and with bilateral or multilateral public aid. This was the era of “full employment” worksites in mountainous regions or forest areas (reafforestation) involving land protection and soil reclamation measures combined with the distribution of free food rations (flour and powdered milk) for needy rural populations. It was the era of literacy campaigns, humanitarian actions or social programmes set up by public institutions in Morocco, Algeria or Tunisia. State intervention in rural areas remained sporadic and ineffective compared to the magnitude of the objectives to be achieved, and there was little coordination with overall development strategies. The failure of *agrarian reform* in Morocco, of the *efforts to establish agricultural cooperatives* in Tunisia, and of the initial reform – the “self-management” scheme – in Algeria are the result of the difficulty in launching structural changes in the economies and agrarian and rural societies of the Maghreb countries. In Turkey, the 1963 5-year plan accelerated the modernisation of the agricultural sector and promoted commercial forms of agriculture with a view to supplying domestic and external markets.

Intervention strategies with close State supervision (1970s):

This period was characterised by the establishment of large-scale agricultural facilities, the promotion of export crops, and the development of import substitution. Whereas the Moroccan and Tunisian public authorities oriented public investments essentially to the irrigated agricultural sector for the virtually exclusive benefit of modern privately owned farms, **Algeria** embarked on an “agrarian revolution” from 1971 onwards, clearly defining what was known as the

"village renewal" project. The major focus of the local development schemes, the commune development schemes relayed by special wilaya programmes, the rural electrification programme, the programme for the construction of "1000 socialist villages", and the National Fund for the Agrarian Revolution (FNRA) was to equip rural areas in order to end the isolation of the populations (to build tracks to open up areas), and to improve living conditions by creating socio-educational infrastructures or public facilities (roads, electrification grids, sewerage networks, schools, health centres, etc.). Significant progress was made in terms of human development as the result of these local development schemes and sectoral programmes in Algeria, since the living conditions of the rural populations improved on the whole. This progress is evidenced by numerous indicators (infant mortality rate, literacy rate, rural or agricultural workers in jobs and earning incomes, villages connected to the electricity mains, drinking water supplies, construction of permanent housing). The measures carried out benefited mainly public sector developers; they had little effect on households in sparsely populated areas and were unsuited to the economically and socially most vulnerable populations.

In **Turkey**, the objectives of agricultural policy were to increase yields and production and to raise and stabilise farm incomes.

To achieve the first objective, action was taken to develop the use of inputs and the use of credit subsidies combined with major public investments in water resources development and irrigation works. The main tools used to achieve the second objective were price support for agricultural commodities and input subsidies.

The centralised water management system and the large-scale water resources development works in **Egypt** gave the public authorities an important, not to say predominant, role in agriculture. With the Agrarian Reform laws and the policy of intensifying agricultural production, the State managed agricultural production by laying down the form it was to take and the output to be achieved, granted subsidies to farmers for purchasing inputs, and controlled domestic markets by fixing prices and monopolising the marketing of certain so-called "strategic" commodities.

Liberalisation and agricultural structural adjustment policies (1980-1999):

The agricultural policies that were recommended and implemented broke away from the system of regulation of the national economies by the central administration, which had been in effect during the previous decades. Important reforms were undertaken as a consequence of the structural adjustment programme (SAP) supported by the International Monetary Fund: abolition of quantitative restrictions on the import of goods and services, dismantling of administrative procedures for the allocation of foreign currencies, price liberalisation and reduction of subsidies, devaluation of local currencies, gradual transition to a flexible exchange system, liberalisation of price and subsidy systems,

privatisation of the public domain and services for agriculture. During this period, the SAP (launched in Morocco in 1984, in Tunisia in 1986 and in Algeria in 1994) was applied rigorously in Algeria, Egypt, Morocco and Turkey. The policy of budgetary restraints seriously affected social expenditure (health, education) and income redistribution policies. The structural adjustment programmes also resulted in a drop in investments in the agro-industrial sector (principal source of activity and employment in rural areas) and in agriculture, with the result that firms went out of business and employment figures dropped. As we know, the application of the SAPs resulted in a steep increase in prices (effect of exchange rate policy, the abolition of subsidies and the privatisation of services) and a decrease in incomes, two phenomena which exacerbated the steady downward trend in the purchasing power of the populations, accentuating the impoverishment of the most destitute social groups and entailing processes of social exclusion, particularly in rural areas. Despite the "social safety net" in Algeria or the "26-26 Solidarity programme" in Tunisia, for instance, SAP implementation resulted in the growing deterioration of the living conditions of rural populations, particularly those living in sparsely populated or remote rural areas. Increasing poverty, unemployment in the working population and social insecurity fostered frustration and a feeling of marginalisation, which seriously threatened political and social cohesion in the societies of southern Mediterranean countries.

Rural development programmes were launched during this period; in **Tunisia** they took the form of Integrated Rural Development Schemes, whereas Algeria launched a Rural Electrification Programme and an afforestation scheme, and Morocco introduced programmes to combat poverty in mountainous areas and areas of rain-fed agriculture.

In Tunisia, the integrated rural development schemes (PDRI) were based essentially on the implementation of projects with an agricultural component designed to promote agriculture, conserve natural resources and create jobs in rural areas. There were two generations of PDRI³⁸.

During the implementation of the first generation of PDRI (the period from 1984 to 1994) the (26-26) National Solidarity Fund³⁹ was created. It was designed as a means of covering the needs of deprived areas, creating jobs and improving basic infrastructures. Although there was some evidence of the positive impact of these programmes on the improvement of the living conditions of rural populations and on the reduction of rural poverty⁴⁰, assessments revealed that there was no real integrated development strategy, that the target groups were marginalised (women in particular), and that there were shortcomings in the planning, monitoring and evaluation of development projects. On the basis of this experience, a second generation of integrated rural development projects was defined in the 8th Plan

³⁸ All data have been drawn from the reports on the 10th Plan, the official document of the 10th Plan (2002-2006) and the investment budget for 2004 - documents issued by the Office of President of the Republic of Tunisia.

(1992-96), based on an integrated and participatory approach. The second generation of PDRI, which was launched in 1993, aimed essentially to protect the environment, to promote economic and social development in rural areas and to attenuate regional disparities.

The regions drawing the greatest benefit from the PDRI were the North-West and the Centre-West regions, which had the most serious problems of degradation of natural resources and rural poverty. The budget earmarked for the new programme for the 1993-1998 period amounted to 200 million dinars, distributed almost equally between agricultural activities and basic infrastructures⁴¹. It must be pointed out that projects targeting non-agricultural production activities were of minor significance, receiving only very small budgets (6.8 million dinars out of the total 200 million dinars allocated, i.e. just under 3.4%). Project operation and management were based on the principle of decentralisation with a view to reaching all regions. The units of the CGDR⁴² and of the CDRA⁴³ are in charge of mobilising target group organisations (collective interest associations (CIAs), water and soil conservation associations (WSCAs), and collective interest forestry associations (CIFAs), regional, rural and village councils, etc.), and to involve them in the relevant projects.

As the result of measures to fight poverty, the poverty rate was first stabilised and then reduced from 29.9% in 1985 to 13.9% in 1995 and to less than 5% in 2000. Action to provide drinking water supplies and electricity was also continued and by 1999 coverage rates of 74% and 80% respectively had been achieved for all regions.

In **Algeria**, a rural policy was gradually implemented in conjunction with the development plans. It was structured on two main lines of policy: investments to support local and regional development (economic and administrative infrastructures, education and training, means for municipalities and wilayas to

³⁹ The (26-26) Solidarity Fund was created by the Tunisian government in 1993. It was designed as a means of combating social and economic inequalities and aimed to help the poor and assist rural or urban municipalities situated in "grey areas". Almost 90% of the projects financed by the solidarity fund, which is provisioned by - mainly public - donations, concerned basic infrastructures and socio-collective facilities. The Tunisian Solidarity Bank was established in 1997 to grant subsidised loans to craftsmen, micro-project developers and young graduates who had no means of support.

⁴⁰ It is stated in the evaluation of the 8th Plan that the proportion of rudimentary housing decreased from 8.8% (1984) to 2.7% (1994), electrification rate increased from 29.3% to 63.7%, and the share of the population with access to drinking water rose from 49.4% to 68.3% over the same period.

⁴¹ The measures to develop agriculture comprised the creation of small irrigated areas around surface and tube wells, the development of tree crops, the purchase of livestock to be integrated into farms, the improvement of rangelands and grasslands, the development of fodder planting to promote animal husbandry, and, last but not least, logistic support for farmers. Basic infrastructures were designed to develop services (marketing, conditioning), to promote the creation of petty trades and to develop commercial activities with a view to facilitating the diversification of income sources.

⁴² CGDR: Commissariat Général de Développement Régional - General Commission for Regional Development).

⁴³ CRDA: Commissariat Régional de Développement Agricole - Regional Commission for Agricultural Development).

run projects, etc.), on the one hand, and, on the other hand, measures to improve the living conditions of rural populations (socio-cultural infrastructure, roads, schools, general hospitals, etc.). To this must be added all of the government measures which had an impact at the local level in rural areas: municipal development plans, special plans for less favoured wilayas within the context of regional balancing programmes, sectoral plans concerning specific agricultural and agro-food chains (poultry production plan, tree crops, milk production). All of these actions were carried out through the local or regional administrations (wilayas, dairas, associations of communes), agricultural and administrative units (DDA – Departmental Directorate for Agriculture, Development Commission, development agencies), agricultural commissions or technical institutes (which had recently been established and which created a ramified network of experimentation centres).

The evaluation of the situation prevailing in the rural areas in the early 2000s ⁴⁴ revealed that, although social needs had been covered to a satisfactory extent on the whole as the result of State intervention in the context of sectoral policies or local development programmes, access to basic services was still very uneven and that, except for several targeted measures (agriculture, crafts and trades), the levels of economic activities were far from guaranteeing population stabilisation. The poverty and social exclusion observed in several wilayas (particularly in grassland regions) highlighted the need for strong/concentrated action to promote social groups living in isolated and marginalised areas.

In **Morocco**, a number of national programmes aimed to raise farm incomes, to conserve and develop the natural resources of rural regions, to improve rural living conditions, and to reduce regional disparities. In addition to the projects run on a national scale (rural electrification), many regional projects were also implemented: integrated rural development projects and MEDA programmes covering integrated rural development and natural resources management, rural and participatory development, development of rain-fed areas, agro-pastoral, sylvo-pastoral and hydro-agricultural improvements, and projects for rural development in mountainous areas.

The law on development areas (no. 33-94) created a legal framework for promoting sustainable agricultural and rural development in rain-fed agricultural zones. The implementation of that law is based on the participatory, contractual and decentralised approach and on the integration of a wide range of both agricultural and rural development actions. In order to achieve the objectives set, several projects were devised including in particular the National Rural Electrification Scheme (PNER II, 1980-1986), through which 68 000 rural households were

⁴⁴ The main lines of policy of the Sustainable Rural Development Strategy are defined on the basis of the results of studies carried out by the National Design Office for Rural Development (BNEDER) and/or the National Centre for Planning Studies and Analyses (CENEAP) in 128 rural communes in 2003-2004).

connected to the electricity mains. The PNER III (1986-1995) electrified 50 villages per year. The General Rural Electrification Scheme (PERG, 1995-2010) consists of the electrification of approximately 1 500 000 households, i.e. 100 000 households per year, as well as decentralised rural electrification concerning rural enclaves. In the agricultural development field, perennial irrigation projects concerned almost 56% of the large-scale water project potential and 47% of the small and medium-scale water project potential. Of a potential area of 1 353 000 ha, for example, 713 000 have already been equipped including 473 000 ha covered by large-scale water projects (Ministry of Agriculture and the Agrarian Revolution, MARA 1993). Since these projects are integrated and carried out on a large-scale, they have undeniably marked the development and management of rural areas. Large-scale water projects contribute substantially to both crop and animal husbandry as well as agricultural exports. They have led to the emergence of regional agricultural and rural development poles around irrigation areas, providing jobs as well as intensification and diversification opportunities. They also help to attenuate climatic risk effects. Furthermore, special attention was devoted to organisational and institutional aspects of rural development, and it was concluded that there were three preconditions for achieving sustainable development objectives: (i) there must be permanent dialogue amongst the partners involved in development actions; (ii) measures must be integrated and coordinated, and (iii) mechanisms for mobilising financial resources must be identified. In addition to official loans, Morocco obtained external aid from the Arab Maghreb Union, the European Union, Belgium, the United Nations Development Programme (UNDP), USAID, the French Development Agency, the United Nations Food and Agriculture Organization (FAO) and the Canadian Research and Development Institute (CRDI), having applied to these bodies for aid when the “national rural development strategy – 2020”, which the Ministry launched in early 2000, was under preparation.

The failure of sectoral and centralised approaches to rural development:

The rural development policies implemented in rural zones in the Mediterranean region were basically sectoral policies aiming primarily to modernise and intensify agricultural production. These agricultural policies on their own were unable to resolve employment or area management problems in Mediterranean rural areas and therefore failed to make rural zones more attractive in order to guarantee the reproduction of natural resources. They proved furthermore to be ineffective in addressing poverty problems and improving the living conditions of rural populations in southern Mediterranean countries. Sectoral policies were unable to take account of the diversity of rural areas as well as their assets and constraints. It was therefore urgently necessary to step up State intervention (agricultural measures, school or public health infrastructures, etc.), as part of a local development strategy for improving the living conditions of rural populations (provision of social infrastructures, public facilities, etc.). These new approaches in government policy concerned the conditions for reviving rural areas with numerous

constraints and the implementation of harmonious development which would reduce regional disparities. And finally, these policies were based on strong State intervention and actually neglected the participation of organised farmers, grassroots rural communities and decentralised regional authorities, a situation which was analysed as a factor aggravating the crisis in agriculture and the rural world.

The new rural development paradigms:

The major changes which were brought about in the definition of rural development strategies were the historical product of previous policies. The new guidelines were based on the fact that, as the main sector of economic activity in rural areas and the main employer and producer of wealth, agriculture will not suffice alone to bring about the development of rural communities. The rural development policies devised in the southern Mediterranean countries were structured on four main strategies:

- improving living conditions by developing basic infrastructures;
- interlinking agricultural and non-agricultural activities and diversifying activities with a view to developing rural employment;
- protecting natural resources under serious threat;
- strengthening the role played by rural organisations in the definition and implementation of development projects.

In order to achieve these strategic objectives it became necessary to link sectoral and intersectoral policies, to integrate a regional approach as a new framework for developing economic, natural and cultural resources, and to promote the emergence of new actors (municipalities, associations, public and private enterprises, cooperatives and producers' organisations) in the management and/or implementation of these new policies. The sustainable local rural development achieved in many regions demonstrated how essential it was to take these factors into account in order to bring about a process of sustainable rural development. These new guidelines are illustrated by the rural development strategy (for the period up to 2020) in **Morocco**, the implementation of the new generation of integrated rural development programmes in **Tunisia**, and the sustainable rural development strategy in **Algeria**.

The rural policies implemented in **Egypt** are geared to area management and involve large-scale water resources development works as well as action to develop new land and to create new rural areas. They aim to correct the effects of high population density and to increase the agricultural area – a sine qua non for increasing output in order to meet the growing internal demand and to increase exports. They aim to reduce unemployment in the rural world and seek to remedy a new form of unemployment – the unemployment registered amongst young graduates. The objectives of these programmes concern many different sectors, the

aim being to mobilise the investment capacities of the private sector in order to improve the employment situation by encouraging the development of industry, tourism and services in rural areas as well as mining and farming.

Agriculture and rural development, strong links in the South:

One of the principal objectives of the regional development strategy pursued in the 10th **development** plan in **Tunisia** (2002-2006) is to devote special attention to priority zones. The implementation of the various specific regional schemes for consolidating local development and integrating developing areas into the local and regional economic process will be continued in 2004, and the improved integrated rural and urban development projects which the public authorities have approved should also be effectively launched. In addition to increasing the output of small and medium-sized farms, improving the living conditions⁴⁵ and incomes of the inhabitants of the impact areas and promoting rural women, these projects will also focus on conserving natural resources and ensuring that they are tapped more efficiently.

The measures taken to mobilise and tap water, forest and grassland resources, to conserve water and soil and to promote zones where conditions are difficult are part of the national programme to combat desertification, which provides a unifying framework for projects and schemes aiming to preserve natural resources.

The 1980s and 1990s were particularly difficult years for the **rural world in Algeria**. The self-adjustment measures which the government adopted in the 1980s to accompany the implementation of its Structural Adjustment Policies (dismantling of the subsidisation system for agricultural inputs and staple commodities and disbanding of municipal multi-service cooperatives), the liberalisation measures which followed the 1987 reforms (law no. 87-19 on State farms, law no. 90-25 on land tenure guidelines, abolition of the agrarian reform, privatisation of services, etc.), terrorist activities in country districts (destruction of public infrastructures and threats inciting the most vulnerable populations to migrate) in the 1990s caused a degree of deterioration in the living conditions of rural populations that had been unprecedented since independence (1962). It was not until 1997 that public investments picked up with the adoption of the rural employment programme, which aimed to address underemployment and the deterioration in the living conditions of rural populations in areas particularly affected by poverty, and it was not until July 2000 that the National Agricultural Development Programme (PNDA) was adopted. This programme was extended to rural areas, and in particular to isolated and marginalised zones, in the 2002-2003 farm year. The National Agricultural and Rural Development Programme (PNDAR)

⁴⁵ A drinking water access rate of 80% should be achieved in all governorates through these projects, improving the mains connection rate of households to approximately 95.5% by the end of 2004. With regard to the developing regions in the interior where conditions are difficult, the 10th plan (2002-2006) will comprise the implementation of 11 integrated agricultural development projects involving a total budget estimated at 216 million dinars).

that followed was a sort of natural continuation of the PNDA; it was designed as an overall coherent response to the main challenges and natural, technical, organisational and cultural restraints of the Algerian rural environment. The purpose of these field experiments was to prepare the public authorities for formulating a rural development strategy as of 2003⁴⁶. It was not until June 2003 that the guidelines for a sustainable rural development strategy were mapped out. The **Algerian** sustainable rural development strategy is based on past experience but also takes account of the *population trend and steady growth in the working population with high expectations regarding jobs, incomes and access to social services*. *Socio-economic and technical imperatives* were also factors contributing to the changes in orientation of the agricultural programme, for the authorities realised that the pressure on natural resources could only be coped with in the context of an ambitious area management scheme and of projects for land development and soil reclamation, for diversifying agricultural activities with higher value-added and for creating enterprises (service enterprises and small crafts companies, and very small local production and processing firms).

In this new conception of rural policy, measures to revive rural areas, to restore the ecological balance and to improve the living conditions of rural populations are now the priority issues. At the institutional and organisational level, the Decentralised Rural Development Project (PPDR) is the "cornerstone" of the structure built by the Sustainable Rural Development Strategy. This project provides a basis for "identifying the development measures to be taken, integrating the available means and resources and organising action."⁴⁷ State action is limited to supporting populations in their investment efforts and projects and to building an environment more conducive to sustainable development.

In **Morocco**, there was a general consensus as to the urgent need to implement a development process in the rural world as a pre-requisite for the economic and social development of the country as a whole. The principal factors justifying this imperative were the need to strengthen national cohesion and protect natural resources and the desire to correct the flagrant disparities between the urban and the rural world.

Rural development is now declared a priority for national development. The government opted for the scenario of maintaining a large rural population and at the same time sustaining a large number of small farms and developing rural towns, which will provide services, small and medium-scale agro-industrial activities and jobs. It decided against the scenario of massive depopulation of rural areas (prevalent in Europe in the 1960s/1970s/1980s) due to the lack of industrial and tertiary poles which could absorb the surplus of labour from rural areas.

⁴⁶ In July 2003, the Council of Ministers adopted the main lines of a rural development strategy, which did not take shape until the following year; it was based on the first measures launched in rural areas in the context of the initial Decentralised Rural Development Projects (PPDR).

⁴⁷ MADR, Minister in charge of rural development (2004): "Stratégie de développement rural durable." ("Sustainable rural development strategy"), July 2004, p.3.

The main objectives set in the 'strategy for 2020' of the Ministry of Agriculture, Rural Development and Maritime Fisheries take account of the pre-eminence of the agricultural sector in terms of economic impact and also concern natural resources and action to improve the living conditions of the rural population. This new strategy adopts integrated and regionalised approaches and encourages the development of public-private partnership. The instruments and levels of implementation of rural development policy have been revised (financing systems have been set up that are suited to the requirements of decentralised action and the diverse needs of the rural world). And lastly, in the 'strategy for 2020' emphasis is laid on the plurality of actors and on the new rules they will have to play in rural development.

In **Egypt**, rural development is regarded as a key issue in the document entitled "Strategic vision of socio-economic development - 2022". The 5-year plan for the 2002-2007 period sets the objectives of developing local industries, supporting small and medium-sized enterprises and combating unemployment. The economic imperatives related to globalisation also make it essential for rural areas to enhance their competitiveness, to rationalise their investments and to encourage exports. And finally, in addition to regional development, the Egyptian strategy aims to promote local democracy and human development.

An "Agricultural Reform Implementation Project" in **Turkey** for the 2001-2005 period makes provision for abolishing price support and replacing it with direct income support based on farm size rather than on output. All farmers registered in the Farmer Registration System and cultivating between 0.5 and 20 ha are eligible to benefit from this scheme. Some 2 million farmers are concerned – about 75% of farmers in Turkey. This reform changes the public authority intervention system in effect until the end of the 20th century with a view to Turkey's integration into the EU. The GAP project (Güneydoğu Anadolu Projesi – South-East Anatolia Project) is the main tool for implementing rural development policy in Turkey; it was originally a large-scale water resources development project (on the Tigris and Euphrates rivers) but a large number of rural development components have meanwhile been developed. The project involves 75 000 km² and covers extensive fields – irrigation, energy production, agriculture, rural development, infrastructures, education and health – a fact which makes it one of the biggest multisectoral development projects.

The principal objectives of the GAP project include raising incomes in the rural sector and creating jobs in order to curb rural-urban migration in the region of South-East Anatolia.

The project is backed up with other rural development schemes, of which the following can be cited as examples:

- the UNDP sustainable development project, which aims to promote sustainable agriculture, social sustainability and local businesses and to ensure optimal and sustainable use of natural resources;
- the FAO rural development programme, which aims to help to boost agricultural productivity by diversifying activities, enhancing both farm efficiency and the competences of extension services and improving capacity-building;
- the regional development programme run in conjunction with the EU with a view to improving the living conditions of social groups living in the south-east of Turkey by creating jobs and supporting local entrepreneurs, restoring and rehabilitating historical sites in order to develop cultural wealth and tourism and, lastly, improving environmental protection in the region.

2.4 - Conclusion

Rural development policies in the northern Mediterranean countries all pursue the same objectives:

- Modernisation and efforts to make agricultural production structures more competitive so that they have a firmer foothold in their respective regions, rural zoning and land use being a recurrent concern. The aim is to intervene where viable agricultural or para-agricultural activities can be developed in socially acceptable conditions and, in certain cases, to strengthen the existing major infrastructures. The purpose is in fact to increase farmers' incomes by placing emphasis on the competitiveness of farms and on their ability to meet consumer demands in terms of food quality and safety and of "good agro-environmental practices". The second component concerns measures to compensate natural handicaps and aims, in the case of the Mediterranean regions for example, to encourage farmers to stay in mountainous areas and hill countries. The various trials that were carried out in these areas in the early stages (essentially in the field of mountain policy) were important examples for elaborating effective development policies.
- Consequently, the second objective is to ensure that the ecological management of natural environments – the media of farming and rural activities – is taken into account to a greater extent, since it is ecological management that will ensure the sustainability of rural regions through agro-environmental measures, which are of fundamental significance in this context. This even includes implementing complex contractual procedures as part of specific regional policies. Farmers are regarded and legitimised as the producers of public goods (biodiversity, landscapes, land use based on a grid that is as evenly spaced as possible and is managed, etc.), which are of benefit to society.
- The rules for implementing this rural development policy comprise the participation of local actors in brainstorming and in the subsequent elaboration of development measures at the local level which dovetail with the priorities

debated at the national level and, in the case of the European Mediterranean countries, at the EU level.

As an integral part of the Common Agricultural Policy, the rural development policies of the EU countries are part of a strategy to resolve the structural problems of the production sector with a view to moving very cautiously towards a policy which supports the many different functions of agriculture that are explicitly recognised by society. The plan is for rural policy to become integrated more and more into the broader framework of a rural world which itself is part of the overall economic and social process and to contribute to that process to the full.

Numerous operations but very mixed results the South:

In **Morocco**, the main programmes concerned hydro-agricultural development projects, projects for developing rain-fed areas (making provision for the creation of development areas with irrigation schemes, equipment and basic services, development measures, etc.), the national forestry programme (which is designed to limit the degradation of forestland and to integrate forestry into the rural development process), the programme for improving rangelands, the rural equipment schemes, the socio-educational schemes, the programmes for diversifying economic activities in rural areas (action to develop rural tourism in the High Atlas and in the northern provinces), and special programmes in mountainous regions, frontier zones and oasis areas.

The dynamics of these various programmes vary widely, and the results obtained often fall short of the declared objectives. Through the implementation of the 'strategy for 2020' it should be possible to reactivate certain projects and make them more coherent on the whole. That strategy makes provision for achieving the horizontal coherence of sectoral programmes, but in view of the diversity of the programmes underway this can only be done very gradually. Although the guidelines have been mapped out and programmes have been stepped up (as is the case with rural equipment and school education programmes, literacy training and health projects, for example), an overall plan of action complete with priorities and new concrete schemes has yet to be drawn up by the current Moroccan officials; although the assessment and guidelines issued in 1999 are not questioned, many stress that the declared ambitions lack pragmatism and are economically unrealistic. Some observers consider that these ambitions are out of proportion with the limited budgetary means implemented.

In **Algeria**, the National Agricultural Development Programme has registered favourable results: business investment has picked up (180 000 farms), land has been developed (70 000 ha), almost 480 000 jobs have been created, and 7 000 agricultural service firms have been granted aid. Local rural development projects (PPDR – almost 1000 in 2004), relayed by the programme for supporting economic recovery (PSRE), now mobilise financial resources for the benefit of the rural environment which support this dynamic trend, but performance remains

nevertheless fragile and inadequate. The measures carried out have mainly benefited farmers; they have had little effect on households in sparsely populated areas and are still inaccessible to the economically and socially most vulnerable social groups.

In **Egypt**, land use and development policy is mobilising almost all public and private investments in the agricultural and rural development field. In order to compensate for the low level of investments in rural zones in the past, the 5-year plan for the 2002-2007 period earmarks 27.9% of total investments (i.e. 50.3 billion Egyptian pounds) for rural development, in particular for projects providing access to drinking water and to the health system. Although the agricultural sector has considerably improved its competitiveness in the last few years, measures have still to be taken to ensure that rural regions enjoy the benefits.

3 Rural development, sustainable development: how should natural resources be managed?

As we have seen in previous chapters, sustainability has gradually become one of the main paradigms of development over the past 15 years. More specifically, it is a question of how resources should be used and managed, whether they be natural resources or human resources. And this awareness has also emerged in the Mediterranean world. However, the question of how a development process compatible with the sustainability imperative can be brought about depends on the ecological and historical context in each of the States.

The present chapter is thus divided into two main parts: the first aims to take stock of the situation with particular regard to natural resources, viewed from the angle of the needs of the population; the second focuses more specifically on the environmental policies applied in the agricultural and rural development context.

3.1 - Survey of the situation

3.1.1 - Scarcity and fragility of natural resources in the South

What is generally observed for the countries in the South, with very few exceptions, is that natural resources are being overtapped and are extremely sensitive to the way they are being used. This is resulting in processes of soil erosion, desertification, salinisation of water, which is particularly scarce, and in marked degradation of self-sown plant resources.

This overtapping is related to population pressure, which, as we have seen, has been steadily intensifying since the second world war, and the population level has not yet stabilised.

Natural factors – tendency to aridity, sudden violent climatic phenomena (heavy rains and windstorms) combined with relatively light soil and vegetation subject to rainfall patterns – make for fragile ecosystems, particularly since socio-economic and technical factors are often ill-suited to this natural fragility of the ecosystems. Intensification and mechanisation policies are being implemented to cope with the rising agro-food needs of a rapidly expanding population. In a context of changing agrarian structures (transition from a more or less collective land management system to a system of private ownership) government development policies and the implementation of large-scale schemes in which too little thought has been devoted to preserving natural resources in difficult and arid environments are accentuating this natural fragility of ecosystems and are resulting in the impoverishment of rural populations in certain cases. Economic and social poverty and the overtapping of resources are in fact two phenomena that are closely related.

Tunisia has an area of 16.4 million ha; one-third of this is cultivated, just under one-third is forestland and scrubland, and roughly one-third is desert. In the three major regions belonging to sub-humid, semi-arid and arid environments *soil degradation* is mainly anthropogenic. Land is not being used (1995) in a manner that is actually in keeping with its potential. Many areas of marginal land – estimated to cover an area of 1 million ha – is cultivated and a large proportion of sandy soil, which in arid environments is vulnerable to water and wind-induced erosion, is ploughed.

Table 3.1 – Land use in Tunisia

Current land use	
Type of use	Area 1 000 ha)
Cultivated land, of which	4 774
– fertile land	3 020
– infertile land	1 754
Forestland (forests and scrubland)	831
Rangelands	4 706
Water and humid zones	393
Desert and various other zones	5 282
Total	5 986

Source : Inventaire forestier et pastoral national (*national forestland and pasture survey*) (IFPN) 1995.

The area of land lost every year in the country as a whole is evaluated at 23 000 ha, 13 000 ha of which are irreversibly lost (Mhiri et al., 1998). The 1980 erosion map shows that of the 5.5 million ha mapped 1.3 million are affected by erosion, and on 740 000 ha of this affected area the erosion is serious or moderately serious. According to the national water and soil conservation strategy, 3 million ha, i.e. 1/5 of the territory of the country, are subject to water-induced erosion, and half of this area is seriously threatened.

The threat of serious and moderately serious erosion is greatest in the arable land in the North and Centre regions of the country above the 200 mm isohyet. The Centre-East and Cap Bon regions are also threatened, but to a lesser extent. This amounts to a total of 1.2 million ha affected by water-induced erosion, i.e. 25% of the country's arable land.

Table 3.2 – Areas affected by erosion in Tunisia

Distribution of the areas affected by erosion in the North and Centre regions of the country							
Erosion zones	Total area 1000 ha	Spread zones %	Zones affected by various forms of erosion %				Total erosion 1000 ha
			Seriously affected	Moderately affected	Wind erosion	Total	
North-E	918,2	6,1	7,6	20,0	0,8	29,0	261,6
North-W	1 153,9	0,3	10,0	18,0	0,7	60,0	336,3
Centre-E	1 630,9	12,0	1,0	10,0	3,0	38,0	226,7
Centre-W	1 828,6	2,0	6,5	24,0	0,4	54,0	570,9
Total	5 531,6	5,5	5,9	18,0	28,0	47,0	1 395,5

Source: « Carte de l'érosion du nord et du centre de la Tunisie » (*map of erosion in the North and centre of Tunisia*), 1980.

Precipitation throughout the country provides an average quantity of water in the order of 37 billion m³, which is the equivalent of an average rainfall of 230 mm. Only an average of 2.7 billion m³ of that quantity can be mobilised each year by means of a well-developed drainage system, a topography that promotes run-off and an impermeable geological structure, which limits seepage.

Table 3.3 – Tunisia's water resources
(disregarding salinity, in million m³/year)

Water resources in Tunisia, disregarding salinity in million m³/year				
Resources	Potential	Exploitable	Developed	To be developed
Surface water	2 700	2 170	1 400	700
Underground waters				
- unconfined groundwater	670	670	700	-30
- confined groundwater	1 188	1 188	930	258
Total	4 558	4 028	3 030	998

Source: DGRE (Water Resources Management Division) - Ministry of Agriculture - Inventory 1995.).

Of this mobilisation potential 81% is collected in the catchment areas in the North, 13.7% in the Centre, and only 5.2% in the South. Surface water is considered very advantageous for agricultural development since it irrigates almost 131 500 ha and serves for spate irrigation of 170 000 ha. This resource is threatened, however, by the reduction of the storage capacity of silting dams, which accumulate over 30 million m³ of sediment each year.

The *groundwater salinity rate* is often high and limits the use of water for agriculture. Only 8.4% of groundwater has a salt content lower than 1.5 g/l, and

60% has a content of over 3 g/l. One-fifth of the water has a salt content of < 1.5 g/l, and 23% as a content of over 3 g/l. The salt content of groundwater is generally higher than that of surface water (Annuaire de l'exploitation des nappes [*Yearbook of groundwater utilisation*] 1993 – Water and Soil Resources Division, Ministry of Agriculture). Over 70% of the land is irrigated with water that has a salt content of over 1.5 g/l, a factor which accentuates secondary soil salinisation. Some irrigated areas have been abandoned completely.

The self-sown plant resources are also very much under pressure. Population growth, which exerts human pressure on plant resources (forests, rangelands, farmland), is the cause of major ecological perturbations. This pressure has increased with the disorganisation of transhumance and settlement, which has resulted in the extension of croplands at the expense of rangelands. The utilisation of vegetation for many different purposes is the only source of income for a population that is confined to degradation-prone forestland and is attached to rangelands which have shrunk and no longer meet the fodder needs of their animals. This results in the clearing of plant communities, which are converted into arable land, and inevitably in overgrazing, which depletes rangelands of annual and perennial species and contributes to the physical degradation of the soil (erosion, desertification).

And as regards rangelands, the reduction rate is estimated at 29 000 ha for the period from 1971 to 1992. Since the acreage reserved for annual crops is stationary, rangelands have decreased to the advantage of tree farming (mainly in Central Tunisia and in the coastal plains in the south-east of the country). This is confirmed by the feed balance, which shows a very marked decrease in natural rangelands. Tree farming has developed tremendously in central Tunisia and, more recently in the south-east of the country; the acreage under crop is reported to have increased by 703 000 ha in 21 years (World Bank, Project TUN-5736).

When one takes the UN definition of desertification as a basis, practically the entire territory in Tunisia is threatened by desertification, with the exception of the northern Tell, which is mainly part of the humid bioclimatic zone. In the case of the south of the country, for example, it is estimated that over 50% of the land – excluding natural deserts – is confronted with desertification (sand deposits, surface erosion). Desertification around certain farmed areas is so evident that it is visible on satellite photographs as whitish rings indicating sand accumulation (Menzel El Habib, Daher de Degache, etc...).

The fragility of the ecosystems in Tunisia is due to the severity of the climate, whose effects are accentuated by orographic and geopedologic conditions as well as by population pressure, inappropriate land use, unsuitable crop-growing practices, which exacerbate water and wind-induced erosion and even salinisation, and excessive animal pressure or, in other words, overstocking of rangelands. These endogenous and exogenous factors, which are both natural and anthropogenic, converge to cause the present state of desertification, the final stage of land

degradation. And persistent chronic droughts promote the degradation process. The lack of expertise in water management and the fact that crop-growing techniques are unsuited to the environmental conditions (soil, vegetation, climate) are, on the whole, far from being resolved.

At the socio-economic level, *anthropogenic pressure* is resulting in the parcellation and fragmentation of land, which is an obstacle to rational management. As the result of the overtapping of groundwater, wells and springs are drying up, and water salinisation, overgrazing and deforestation/land clearance are exacerbating the precarious state of the land.

At the social level, the *poverty of a rural population* driven by a strategy of survival allows of no medium or long-term action to conserve natural resources. As the result of the disruption of the traditional community structures that were organised around activities connected with the development of resources, rural populations no longer feel responsible. Settlement policy together with a land tenure system that is inconducive to sustainable development, the lack of a sustained area management policy, the unsuitability of administrative structures (centralisation, concentration, ponderous procedures, etc.), and the virtual absence of studies and research & development are all factors which have exacerbated the situation. This large population is exerting heavy pressure on the limited and fragile natural resources.

All of the anthropogenic degradation factors (ploughing of marginal land, inappropriate land use, persistent crop-growing practices which degrade the soil, agro-sylvopastoral imbalance) together with natural factors (aggressiveness of rains, violence of winds, orographic conditions which foster these processes) produce an effect of synergism on the degradation of soil resources. As regards plant resources and biodiversity, in addition to overgrazing and rangeland depletion the general use of high-yield breeder varieties has resulted in the abandonment of many local cultivars and the depletion of agro-biodiversity (barley varieties, melons, alfalfa, etc.).

Erosion is still rampant despite the efforts the Tunisian government has been making for several decades to conserve water and soil in the agricultural environment. Some incentives have been introduced to encourage farmers to protect the soil on their farms themselves, but they have had little effect. Efforts to introduce a participatory approach with a view to establishing partnership between farmers and the administration in the interests of sustainable management are still tentative and need to be stepped up. A large proportion of the water resources reserved for agriculture is lost in the distribution network and on farms, where resources are as yet only developed to a minor extent.

The processes described in detail above in the case of Tunisia apply to most of the countries in the South, with certain specific features in each individual country.

In **Algeria**, a total area of 47 million ha is used for agricultural and pastoral activities. Of the 8 million ha of cropland only 1.4 million (in the coastal and in-shore plains) are considered to be sufficiently productive, while 600 000 ha are irrigated. The production potential of the Algerian agricultural sector, which is situated essentially in zones with an arid or semi-arid climate, is confronted with the fact that less than 3% of AAU is reserved for irrigated land with high production intensity and that the per capita share of AAU is steadily declining (it has dropped from 0,75 ha in 1962 to 0,25 ha at the present time due mainly to population growth and the loss of farmland through erosion and soil degradation, which is difficult to offset through costly development whose effects are not immediate). Algerian agriculture is essentially rain-fed and consequently subject to changes in weather and a precipitation deficit that is now considered to be structural; the sector is also subject to other constraints, which burden its growth potential and weigh heavily on the ecological balance in the various natural regions.

The irrigation and drainage networks are often in a poor state of repair, and the efforts to combat salinisation seem to be having little effect. As is the case in all Maghreb countries, advanced soil erosion and serious salinisation processes are major handicaps for the future. Basically, desertification is actually threatening the 32 million ha of rangelands and forest canopy in the north of Algeria⁴⁸. Intensive overtapping of groundwater resources is also observed. Over the last few centuries, the land, which is of mediocre quality, has suffered from the effects of an aggressive human environment and crop-growing techniques (particularly dry farming) which have exhausted a considerable proportion of its humus capital and have undermined certain ecosystems⁴⁹. A veritable bioclimatic gradient is reported to be emerging over vast areas of highland plains, landscapes having already developed features specific to a sub-arid climate⁵⁰.

Like most developing countries, **Morocco** is having to increase agricultural production while conserving its environment at the same time – a dual challenge that is difficult to meet. With the exception of some alluvial plains, the land is fragile due to low organic content and aridity. It is estimated that 70% of total AAU is subject to intensive erosion. The mountainous regions, oasis areas and frontier zones are subject to desertification processes, which are exacerbated by the orographic conditions and harsh climate.

The rangelands, which cover the major proportion of the area of agricultural value are seriously degraded in certain zones – estimated at over 8 million ha in the east

⁴⁸ In “Stratégie Nationale de développement rural durable” (People's Democratic Republic of Algeria, 2004).

⁴⁹ The dry farming techniques introduced at the beginning of the century aimed to reduce the effect of evaporation and to ensure depth water storage by ploughing the land several times in succession. Initially the effect was beneficial, but with time the top layer of soil has tended to thin out as the result of wind and water-induced erosion. Cf. Dumont, R ; Mazoyer, P. « Développement et Socialisme », Editions du seuil, Paris, 1969.

⁵⁰ Côte, M. « Mutations rurales en Algérie : le cas des hautes plaines de l'Est », OPU, Algiers, 1979.

of the country and in the pre-Saharan and Saharan zones. The forestland, an area of only 9 million ha, is diminishing as the result of clearance operations and inadequate reforestation. The gravity of the degree of degradation of natural resources is thus a matter of great concern in the country, despite the fact that the climatic constraints are somewhat less severe due to the expanse of Atlantic plains and of the mountain and upland areas.

In the **Middle East region** there is heavy pressure on natural resources, particularly on water and arable land. Turkey has adequate resources compared to her neighbours, but the situation in Egypt and Lebanon is fraught with problems. This heavy pressure on land and water resources is related to the scarcity of those resources, on the one hand, and to rapidly increasing demand on the other, a phenomenon which is the result of population growth, urbanisation and changes in lifestyle and consumption patterns.

In **Egypt**, arable land is limited due to the geographical configuration of the country, which delimits arable acreage to the delta and narrow valley of the Nile: only 3% of the total area of the country is inhabited. As the population grows, the share of arable land per capita decreases dramatically, it fell from 0.6 feddan⁵¹ (i.e. from 2 400 m² per capita) in 1987 to 0.11 feddans (i.e. 440 m² per capita) in 1996. Furthermore, the arable land is used as a raw material for manufacturing building bricks (despite the fact that this is prohibited by law), or simply disappears beneath urban buildings.

The Nile is the essential water resource, a river which is shared with 5 African countries and whose sources are beyond Egypt's frontiers. The quota that has been laid down by international agreement is 55.5 billion m³ for the entire country, but as the result of rapid population growth Egypt has been below the water poverty line since the 1990s, despite the efforts made to streamline water resources management. The need to increase agricultural production by intensifying and developing new land is in fact resulting in the consumption of larger quantities of water.

Egypt has fairly serious environmental problems. The high population density and the imperatives of economic growth have resulted in serious degradation of the environment. The two main problems are air pollution, particularly in Cairo, where 25% of the population live, and the degradation of water resources. The massive use of chemical fertilisers and pesticides combined with ancestral irrigation methods is resulting in a high level of soil and water pollution. To this is added a problem of salinity and decreasing natural fertility of the silt-laden soil in the Nile valley and delta. Not to mention the problem of the gap between growing water needs and the limited quantity available, which is the principle constraint on development.

⁵¹ 1 feddan = 0.42 ha.

In **Lebanon**, the two limiting factors are the mountainous topography of the country and urbanisation. Arable land covers only 37% of the total area of the country, i.e. 385 000 ha. An acreage of 250 000 ha is cultivated, 100 000 ha of which are irrigated, and forestland covers 120 000 ha. Although it is difficult to compare the data over a long period in view of the heterogeneity of sources⁵² it can be underlined that the acreage under crop has decreased by 38%, whereas the urban zones have progressed by 35%, particularly in the coastal zone, where over 24% of the area is urbanised; the forest canopy has decreased considerably, and there is still a large area of abandoned land (140 000 ha).

Water is obtained from several small rivers, springs and groundwater. The rivers supply approximately 4.132 billion m³ per year, springs supply 1.150 billion m³ per year, and the volume of groundwater is estimated at 1.360 billion m³ ⁵³. The level of certain rivers has dropped noticeably over the last 30 years, to the point where they dry up except during the rainy season. Water demand has increased in Lebanon, particularly in urban areas, but demand is also increasing in the agricultural sector due to the development of irrigated agriculture. The various projections that have been carried out forecast an annual water shortage, particularly during the dry seasons.

There are also problems of soil erosion, particularly in the rugged zones where crops are traditionally grown on terraces which are built and maintained by the farmers. It is also observed that water pollution problems are increasing.

Turkey does not have any major problems with regard to the availability of water and land resources. Arable land covers 35% of the total area of the country, and pastureland 16%. The acreage under crop, 16% of which is irrigated, has almost doubled: increasing from 14.8 million ha in 1940 to 26.4 million ha in 2001. The irrigated area is due to increase considerably as the result of large-scale water resources development schemes within the South-East Anatolia Project (GAP). The objective of this project is to mobilise a major proportion of the water of the two main rivers, the Tigris and the Euphrates, in South-East Anatolia in order to irrigate vast areas amounting to 1.7 million ha and to produce energy. These water development schemes are a source of latent regional tensions with neighbouring countries. With Turkey's vast areas of forest land, one of the country's major problems is the risk of forest fires. The environmental problems in Turkey are not related to water scarcity as is the case in Egypt and Lebanon; they are due to the way in which these resources are being used. One of the major problems is forest fires, which are either accidental or deliberate, since relatively large rural populations live in forest areas. Forestland acreage is thus rapidly decreasing. This is compounded by problems of soil erosion, urbanisation, industrialisation and the

⁵² The agricultural map of Lebanon issued in 1961, the FAO land cover/use map issued in 1990, and the FAO project of assistance for the 1999 agricultural census

⁵³ Source : http://www.fao.org/ag/agl/swlwpnr/reports/y_nr/z_lb/lb.htm

development of tourism, all of which contribute to the decrease in croplands⁵⁴. Turkey has localised problems of soil and water pollution in certain regions, and soil salinity problems are also emerging as the result of irrigation combined with the massive use of fertilisers and chemicals.

Water is the scarcest resource and is the main cause of current or potential conflicts in the Middle East. Except in the case of Turkey, the quantity of water available per capita is decreasing in the Middle East, and the agricultural sector remains the main user.

Table 3.4 - Distribution of water by sector (in %)

Country	Percentage of freshwater used per sector		
	Households	Industry	Agriculture
Egypt	6	8	86
Lebanon	28	4	68
Turkey	16	11	72

Table 3.5 - Quantities of renewable water

Country	Population			Annual renewable freshwater resources (km³)	Quantity of renewable freshwater		
	(million inhabitants)				per capita (m³)		
	1970	2001	2025		1970	2001	2025
Egypt	35.3	69.8	96.2	86.8	2460	1243	903
Lebanon	2.5	4.3	5.4	4.8	1944	1120	896
Turkey	35.3	66.3	85.2	200.7	5682	3029	2356

Source: Data drawn from the table « croissance démographique et ressources en eau douce dans la région MENA » (population growth and freshwater resources in the MENA region), PRB, report on policy in the MENA region, 2002.

In Lebanon and Egypt there is strong pressure on land and water resources due to their scarcity and to population pressure.

All three countries have environmental problems (soil and water pollution, soil erosion, deforestation, need to protect biodiversity), which are the result of resources management methods and intensification.

⁵⁴ AKDEMIR, S., YURDAKUL, O.: Contribution to the collectif work «Agricultures familiales et développement rural en Méditerranée», Editions KARTHALA-CIHEAM, 2000.

3.1.2 - Differences in agricultural decline and in the reversion of land to nature in the North

The development of land use in northern Mediterranean countries is less marked by the decrease in the agricultural area in use than by the intensity of that use. In the period from 1970 to 1977, the acreage under crop remained virtually stable in Greece and France and decreased slightly in Spain, Italy and Portugal. It was the "permanent grasslands" category which decreased most – in all countries – whereas forestland, woodland heaths and open heathlands spread everywhere except in Greece. We thus have a configuration where arable land is generally used intensively, whereas pasturelands and woodlands tend to be underused.

Table 3.6 - Land use (1995) in 1000 km²

	Arable land		Permanent grasslands & area under pasture		Forests & woodland heaths		Other		Total area
	1000 km ²	%	1000 km ²	%	1000 km ²	%	1000 km ²	%	1000 km ²
Spain	191.6	38.4	106.9	21.4	161.4	32.3	39.6	7.9	499.4
France	187.5	34.6	120.8	22.3	170.0	31.4	63.2	11.7	541.5
Greece	39.2	30.4	52.2	40.5	29.4	22.8	8.2	6.3	128.9
Italy	109.2	37.2	45.6	15.5	68.4	23.3	70.8	24.1	294.1
Portugal	29.0	31.7	10.0	10.9	32.3	35.3	20.3	22.1	91.6
Albania									
Turkey	268.5	34.9	123.8	16.1	207.1	26.9	170.3	22.1	769.6
Mediterranean					750.4	9.5			
World	15 104.4	11.6	34 121.5	26.1	41 724.0	32.0	39 543.5	30.3	130 484.1

Table 3.7 - Development of land use expressed in indexes between 1970 (index 100) and 1977

	Arable land				Permanent grasslands & area under pasture				Forests & woodland heaths			
	1970	1980	1990	1997	1970	1980	1990	1997	1970	1980	1990	1997
Spain	100	100	98	93	100	93	89	92	110	110	111	114
France	100	99	100	100	100	96	85	79	100	104	106	109
Greece	100	100	100	99	100	100	100	99	100	100	99	99
Italy	100	83	80	73	100	98	93	87	100	103	110	111
Port.	100	102	102	94	100	100	100	119	100	105	114	114
World	100	103	108	109	100	102	106	106	100	100	102	103

Source: FAO, OECD.

A distinction is generally made between three types of area in the Mediterranean world: the *ager*, the cultivated area, which is ploughed fairly frequently, the *patus*,

the area under pasture, and the *sylva*, the area where trees are present. The relevant proportions of these various areas have developed in the course of history. There is a further area to be added in the modern age: *urban land* (infrastructures and housing); this area is gradually eating away the arable land and is highly unlikely to decrease in the short or medium term, or indeed even in the long term, whereas in the case of the other categories historical analysis shows that the opposite is the case. In the rural world, the use of these various categories of land must be analysed in terms of how they are being used and the production models and respective technical systems involved. The fact is that in the Mediterranean countries – in both North and South – coastal land is often intensively farmed and irrigated (cereals, vines, horticulture, etc.) and fertilisers and pesticides are used, whereas the uplands are devoted more to fruit tree crops and quality winegrowing. The land in the interior is often drier and is the domain of sheep or goat farming, which is generally extensive, at least in the use of self-sown fodder.

One can thus see the environmental problems which will arise in these regions, where far-reaching changes have been taking place over the past four decades, the main examples of which have been mentioned above. Intensively farmed land is exposed to localised risks of erosion but, above all, to groundwater pollution: the Po Plains in Italy, the region of Seville and Valencia or Barcelona in Spain, the plains of the Languedoc-Roussillon region in France, and those in Thessaly in Greece are the main examples.

Since agriculture is in decline on marginal land with very low agronomic potential, processes of abandonment or at all events underutilisation are predominant. The spread of scrub vegetation followed by progressive self-sown forest is the rule, and this causes/entails an evolution of biodiversity that is often considered very serious for the future, since the Mediterranean region is known to have a wealth of biodiversity. What is more, the process is resulting in the degradation of landscapes which is sorely felt by the local populations and liable to affect the green tourism business. And lastly – and most important – the spread of scrub vegetation is heightening the risk of fire: in 14 years of observation between 1980 and 1997, the forest area destroyed by fire ranged from 30 000 ha a year in France to 203 000 ha in Spain, the figures for Italy and Portugal being intermediate (41 000 and 63 000 respectively) (FAO and OECD). The same areas are sometimes subject to urbanisation with varying degrees of control that is related to a form of 'heliotropism' which urges northern Europeans to come and develop service and high-technology activities, a process which in turn exacerbates the gravity of the fires. As the tables show, forest zones are tending to spread steadily in the northern Mediterranean countries and croplands or permanent grasslands are diminishing fairly rapidly, as is the case in Spain and Italy, whereas in France they seem to be stable. However, the statistics only give the overall result; a more detailed analysis would show the changes in how land is being used. Greece seems to be the only country that is not affected by these movements, at least to judge by the statistics currently available.

A further element is woodland tenure patterns. The proportion of state-owned forests ranges from $\frac{1}{4}$ to $\frac{3}{4}$ of forestland acreage, whereby the rate is around $\frac{1}{4}$ to $\frac{1}{3}$ in the northern Mediterranean countries and $\frac{3}{4}$ in the countries of Ottoman tradition. Thus $\frac{2}{3}$ – $\frac{3}{4}$ of forestland is privately owned in France, Spain and Italy, and the proportion for Turkey and Greece is $\frac{1}{4}$. Given these figures one can understand or anticipate the potential impact of environment policy – where any such policy is implemented and allocated the necessary means.

These developments in land tenure and use thus raise questions as to the conservation of biodiversity and natural habitats, whether in agricultural areas in areas of more or less closed forest. It also poses questions in terms of local erosion control, but in particular of the preservation of groundwater quality. And lastly, measures to reduce the risk of fire and to preserve landscapes, whose cultural value is recognised, are also a matter of concern to both authorities and citizens.

3.2 - Agro-environmental policies

The awareness of the environmental problems caused by agricultural and rural development and at the same time by the economic and social evolution of society – an awareness which is more recent in the South than in the North – is leading to specific policies integrating various degrees of a sustainable development approach. As will be seen below, this approach is still more or less in the early stages and will involve a long process which will also depend on the financial resources available.

3.2.1 - Establishment of a formal framework and beginning of institutional brainstorming in the South

Given the serious degradation of natural resources that are crucial for rural development and for food security in the southern Mediterranean countries, efforts have for several years been focusing on establishing an institutional and legislative framework so that these resources can eventually be managed more efficiently and more appropriate solutions can be found to environmental problems. Some countries are also beginning to effectively integrate environmentally sound practices into their planning with the support of international institutions and non-governmental organisations (NGOs). Most of these countries have also vested themselves with institutions in charge of defining and managing environment policy.

Algeria, for example, drew up a National Action Plan for the Environment (PANE) in 1999. Environment policy has resulted in the creation of some 20 major reserves (including the El-Kala reserve, which receives funds from the World Environment Fund). A reafforestation programme aiming to reforest 14% of the area of the country and scheduled to run for the next 15 years, and a programme for converting production systems in arid zones, which will involve 700 000 ha in the

medium term, have been selected as the priority objectives of the most recent agricultural development plan (September 2000). These projects are run by the Ministry of Agriculture, the National Agency for Nature Conservation, which is under the authority of a Secretary of State for the Environment, and the Ministry for Area Management.

A number of measures have been launched in the context of the PANE with a view to protecting natural resources, including schemes for the deferral of grazing and forest and pastoral plantations.

Table 3.8 – Protection of natural resources in Algeria

Years Programmes	2001		New plantations 2002
	Projects	Potential cumulation	
	Unit : ha		
Deferral of grazing	1 191 469	1 854 304	1 632 608
Pastoral plantations	31 907	154 098	32 856
Forest plantations	9 029	1 058 804	9 034

Source: Algerian Ministry of Agriculture and Rural Development.

Algeria has also set up a mechanism for combating desertification and developing pastoral farming and the steppe; it is endowed with a special fund (FLDPPS) for supporting projects considered eligible according to specific criteria.

Other actions launched in the course of 2004 included the following:

- an agreement was concluded with the National Centre of Spatial Technologies (CNTS) for the use of satellite imagery for agricultural and rural area management purposes;
- pilot projects were launched with aid from the FIDA and the FAO; the IBRD will also be providing aid in the near future;
- local rural development projects (LRDPs) were launched in several municipalities by the Directorate General for Forestland (DGF) and the High Commission for the Development of the Steppe (HCDS); these projects are designed to serve as models for local populations and authorities, which will thus have practical references in the field;
- natural area management schemes (National Reafforestation Plan, National Electrification Plan, scheme for developing land through transfer, scheme for developing land in the south of the country) were adapted within the LRDPs in order to involve rural populations more in the efforts to preserve natural resources;
- agreements were concluded with several operators with a view to extending the use of renewable energies in rural areas (solar energy, wind energy);

- information days were organised for executive officials from the agricultural and forestry sector, focusing on explaining the setup of the agricultural and rural development plan and of the local development schemes.

Morocco has set up an Environment Secretariat and a National Environment Observatory; in addition, a "national strategy for environmental protection and sustainable development" was elaborated in 1996⁵⁵. There has been considerable delay, however, in the implementation of projects, and only a limited number of studies are currently underway. The most important measures aim to protect forest stock; a reforestation master plan was scheduled to take effect on an area of 32 340 ha (in connection with the 1998-1999 farm year). Morocco also drew up a National Action Plan for the Environment in 1999, which was adopted in 2001.

In 1995, **Tunisia** finalised its own Agenda 21, the "national action plan for the environment and sustainable development in the 21st century", whose content reflects the underlying philosophy of the action planned, sustainable development, equity and poverty alleviation being the fundamental principles. Sustainable development aims to improve present and future social well-being on the strict condition that the country's overall capital stock is preserved: its natural capital (air, water, natural resources), its physical capital (product of human labour, capital goods, technology), and its human capital (the skills, abilities and capacities of individuals). The Tunisian Agenda 21 thus attaches great importance to human development by ensuring the nutrition and health of the population and providing education and training. Absolute priority must be given to preserving this natural capital, since poverty and environmental degradation are interrelated. Poverty alleviation is considered to be a major objective for sustainable development. It involves an integrated human development strategy comprising: control of population growth, measures to improve the basic (maternal and infant) health system, education, measures to promote women, and regional development. Future actions will thus be geared more to ensuring that the poor population has access to employment and to the sustainable use of natural resources. And lastly, there is a national programme to combat desertification, which provides a unifying framework for schemes and projects aiming to conserve these natural resources. The plan of action has been scheduled over a period of 20 years, the aim being to achieve a level of protection where the desertification process can be reversed. The total cost of the programme is estimated at 2.992 billion DT. It will be financed through a National Fund for Combating Desertification (Law No. 97-88 of 29/12/97), which is provisioned through the classical sources of funding reserved for natural resources management.

⁵⁵ Ministry of the Environment: "Pour une action concertée et ciblée en faveur de l'environnement", Rabat, 1996.

Box 3.1 – Tunisia: The National Plan of Action to Combat Desertification (PANLCD)

The PANLCD aims to combat desertification and to reduce drought in arid, semi-arid and dry sub-humid environments through measures to protect resources and action geared to improving soil productivity and the living conditions of the rural populations concerned. In accordance with the main principles laid down in the agreement, the plan involves an integrated and participatory approach based on partnership and cooperation between the public authorities at all levels, the populations concerned, those who farm the land, producers' organisations and NGOs. The approach also includes the creation of a supportive environment (institutions, social structures, land tenure system) and the development of international cooperation at the sub-regional level (MAU), the regional level (Africa), and the international level.

The scheme essentially involves the socio-agro-ecological zones of the Tell mountains and the Dorsale ridge in the north of the country, the Highland Steppe and Lowland Steppe in the centre, and the Jeffara region, the zone of secondary chains in the Saharan Atlas, and the Chotts, Matmata, Dahar and Erg regions in the south.

The participation of local populations will be a major priority in the formulation of the regional master plans. Rather than creating new structures, the purpose of the PANLCD is to develop the associative and professional fabric which the country already has at its disposal: local communities, mutual interest associations in the water, sylvo-pastoral and water and soil conservation sectors (CIAs, Forestry Association of Collective Interests and Association for Water and Soil Conservation respectively), Agricultural Service Cooperatives (ASCs) and NGOs.

The challenge is to reverse the process of degradation of natural resources while at the same time providing decent incomes and better living conditions for a needy population by diversifying sources of income outside the agricultural sector and intensifying farming activities within the feasible limits in terms of available resources. It has been realised that a natural resources management code needs to be promulgated, that the producers' organisations, CIAs and NGOs operating in the desertification control field must be promoted and that women must be integrated at all levels.

The measures carried out or planned focus on reafforestation (to reach a rate of 15% by 2005), soil conservation in order to protect farmland and towns from floods, action to combat desertification, and the installation of water and sewage treatment plants. A law on organic agriculture was passed in 1999, and a specialised technical centre is in the pipeline.

Since development increases water needs, Tunisia has drawn up a more specific inventory of its resources and has set up a large-scale water catchment and transfer infrastructure. Both the water distribution master plans and the strategies (the 10-year strategy for the 1990-2000 period and the "Water 2000" strategy) underline

the challenges which Tunisia will have to meet in order to cover its water needs with a view to sustainable socio-economic development.

In **Egypt**, the Ministry of the Environment and its executive body, the Environment Agency, are working to integrate the environment dimension into all measures, projects and policies. The Agency is currently preparing an appropriate legislative framework and is strengthening partnerships in the environment field at the national, bilateral and multilateral level. It is also taking capacity-building measures in the environmental management units in the various governorates. One of the components of the measures carried out involves transferring and adapting technologies which protect the environment, drawing up standards in order to limit pollution and introducing market instruments in the environmental protection field. And lastly, information is collected and published on an ad hoc basis at the national and international level and pilot environmental protection projects are devised and implemented with a view to drawing lessons from the efforts to achieve sustainable management of natural resources.

Water resource management is crucial in Egypt and, for obvious reasons, is centralised in the Ministry of Irrigation and Water Control. But within the framework of the efforts made to enhance the efficiency of that management the government also encourages the creation of water users' associations bringing together the farmers who use the same irrigation network at village unit level.

Egypt participates furthermore in agreements and other environment actions at the regional and international level. The country is a party to the regional convention on the protection of the Red Sea, for instance, and at the international level it has ratified some 64 conventions including the conventions on biodiversity and climate change.

The main projects implemented in **Lebanon** were launched or supported by international institutions or regional groups such as the UNDP or the European Union. We would point in particular to the project for conserving the biodiversity of the arid land in the north-east of the country, which was launched for 5 years in 1999 and is coordinated by the International Centre for Agricultural Research in Dry Areas (ICARDA); it is a regional project (which also involves Syria, the Palestinian Authority and Jordan). And lastly, Lebanon drew up an environment code in 1997.

In the case of **Albania**, it has already been mentioned that measures to reorganise the agricultural sector and to boost agricultural production are the main priorities, and attention has also been drawn to the urgent need to develop an institutional framework at both the central and the local level. This can be an opportunity to make a fresh start on a sustainable model of rural development, a principle which is implicitly enshrined in the planning documents, but the means for achieving this objective have not yet been specified.

It can be stated **in conclusion** with regard to the southern Mediterranean countries that the need to take account of sustainability in development schemes is realised and relevant intentions are expressed, but these intentions are rarely translated into action by establishing the necessary institutional framework. An effective policy to support concrete measures geared to sustainable development is implemented in some countries, although as yet on a modest scale, particularly in the form of support to involve local populations in the sustainable management of natural resources or in rural development schemes, or in the form of extension activities and incentive measures. This is the case in Tunisia and Egypt, but a long collective learning process still lies ahead for institutions and organisations as well as private agents. For the widely varying local situations and their specific problems require that measures be appropriately adapted. These measures or actions can be successful, but any failures must be noted so that future action can be improved. More specifically, the actions that are planned do not yet seem to explicitly include systems for monitoring ecological, economic and social trends, which are interrelated.

3.2.2 - A slow process of experimentation and learning in the North

The question of better management of natural resources emerged in the mid 1980s. Rural development policies in the northern European countries are related essentially to the CAP, as was examined in Chapter 2, and more specifically to agro-environmental policies, but they also fall within the scope of regional policies in that regional and local components have been included from a very early stage – the mid-1970s in the case of mountain policy and the mid-1980s in the case of integrated development policies. Furthermore, each of the States has elaborated and implemented development policies aiming to improve the management of resources such as large-scale water development schemes or water and soil conservation schemes (such as the CES, the project for water and soil conservation, in France) or reafforestation policies – sometimes well before the Treaty on the European Union was concluded. These policies, which were often launched before the Second World War or before the establishment of the EU, served as models for some of the southern Mediterranean countries. Measures will be recalled such as land reclamation schemes and schemes for draining humid areas (the Pontine Marshes, etc.) before the second world war, the construction of major dams to provide a water supply for cities and tourism, which was in its infancy, land irrigation schemes in Spain launched after the civil war and continuing until 1970, the operations of the major development companies in France (CNABRL, Canal de Provence, Somivac in Corsica, etc.), the development schemes in the Thessaly Plain in Greece, forestry schemes (reafforestation in the 1950s through the National Forestry Fund (FFN) in France, forestry policies and water and soil conservation schemes in Spain, Italy, Greece and Albania in the post-war years, etc). The purpose of these schemes was indeed to develop natural resources or to preserve or rehabilitate these resources and to introduce a new approach to water and soil management. This required establishing major infrastructures, which in turn required direct State intervention.

The national policies introduced in the 1970s in France and sometimes earlier in the case of other European countries to set up national or regional parks and nature reserves must also be mentioned; these policies aimed to establish areas with varying degrees of ecological supervision and involved large areas under the authority of the individual States.

And finally, development policies which paved the way for involving local actors must also be mentioned, such as the integrated development policies implemented on an experimental basis in the Lozère and Ardennes departments in France and in the Scottish islands under the watchful eye of the European Commission; these policies were the preliminaries to the rural development programmes, which were followed by the Leader programmes launched in 1991. The latter programmes provided the basis for the general application of these approaches designed to make the regions more competitive while managing and developing the environmental component at the same time. The third generation of Leader programmes (Leader+) aims to establish the bottom-up approach characteristic of these programmes and to apply it generally by mainstreaming; Local Action Groups (LAGs) play a crucial role in this setup. Prominence is thus clearly given to the participatory approach involving local municipal council members and local development and nature conservation associations.

The concept of participation underlying all of these programmes (integrated and Leader programmes) is one of the components of the sustainable development approach, although participation alone will not of course suffice. Each State has its own history in this field.

It was not until 1992 (with the MacSharry Reform) that the EU launched a specific policy aiming explicitly to achieve sustainable management of natural resources. This was the agro-environmental policy which had previously been tried out on an experimental basis within the framework of the CAP to encourage farmers to adopt more ecological techniques: the Agro-Environmental Measures (AEMs) were applied from 1992-1994 onwards across the Union as the result of experiments carried out under Article 90 in the south of France in particular in the period from 1985 to 1989. The objective was to limit fertiliser consumption and groundwater pollution; the concept of integrated farming thus emerged. A further objective was to limit the spread of scrub vegetation in rangelands and open woodlands and to enhance land use by creating facilities to help young farmers set up in business, since they were considered to be in the best position to manage the environment. Agenda 2000 and in the 2003 reform introduced the concept of ecoconditionality for obtaining aids, which in principle were decoupled, a concept which had to be taken into consideration from then on. This enhances the efficiency of a full-scale policy for preserving and managing natural resources that is suited to local conditions in the EU context (varying degrees of agricultural decline, degradation of ecosystems and expectations of society concerning the protection of nature and rural amenities).

This agro-environmental policy can only be considered sustainable in a new conception of local development in which institutional decision-makers and local actors play a more prominent role and are encouraged to adopt the objectives of good ecological management of the environment. Their role is in fact to contribute to the designing of regional projects integrating this environmental dimension, which can become an asset for enhancing the competitiveness of individual regions (namely by developing local specialities whose high quality is related to a well-managed environment).

As has already been mentioned, the individual States launched more specific measures in conjunction with European regional policies or, in some cases, well before they emerged, aiming to regionalise development by setting up large-scale schemes and explicitly implementing major policies of systematic reafforestation.

It was not until later that the environmental dimension emerged as a deliberate and explicit policy, except where regional or national nature reserves were created, as was the case in France from the 1970s onwards. These natural parks were also to become focal areas of technical and social experimentation involving dialogue amongst local actors with a view to achieving the objective of protecting ecosystems. Apart from these structures, which were specific to protected areas, the implementation of regional or local development processes in the various EU countries – such as France with its “*politique des pays*” (“*regional feature development policy*”), facilitated the elaboration and application of the sustainable development policy. Inter-communal cooperation, and administrative boundary changes or, more generally, decentralisation were part of this approach. On the strength of these various, more or less explicit, sustainable development trials the States then sought to coordinate national initiatives and the EU incentives to a greater extent, and as a result these various measures converged towards a more or less efficient sustainable development approach. In particular, the application of the “Birds” and “Habitats” Directives and the establishment of the Natura 2000 network, which took over and extended the scope of environmental conservation actions of Community, national or regional interest at the European level, requires efforts to converge and coordinate action.

As was mentioned in the section on rural development policies, 52% of the amounts scheduled in this context went to less favoured regions and agro-environmental measures. The aid granted to less favoured areas in 2001 with a view to compensating natural handicaps and additional costs ranged from €600 per farm in Portugal to €800 in Greece, €1 300 in Spain, €1 800 in Italy and €3 700 in France, the average for the EU-15 excluding Belgium being around €2 700. In 2001, 19.3 million hectares were registered in the EU-15 as acreage under contract and 3.7 million hectares in the Mediterranean countries. The premiums varied from one Mediterranean country to another from €90/ha to €245/ha, which is higher than the EU average and reflects to some degree the extent of the efforts needed to preserve the environment and conserve a minimum of land use. Over the

period from 2000 to 2006, the EU Mediterranean countries will have expended half of the credits allocated to the EAGGF.

In concrete terms, it has been through the implementation of the Leader programmes that new expertise in decentralised development has developed in **Spain**, in which sustainability is steadily gaining importance.

In **France**, sustainability is one of the rural development priorities: measures to protect and develop the ecological heritage. Agro-Environmental Measures, specific forestry measures, and support for the Natura 2000 network are part of the efforts to implement sustainable development reconciling the ecological protection of sites and economic, social and cultural interests in rural areas. Every year, investment support is maintained for 35 000 farms, aid is granted to help 8 000 young farmers set up business, and training is provided for 40 000 family workers and 30 000 agricultural wage earners – figures which give an idea of the magnitude of the action undertaken. The Regional Farming Contracts (CTEs) introduced in 2000 and the Sustainable Farming Contracts (CADs) which replaced them in 2003 form the contractual basis for an agricultural project that affects the territory of the small regions concerned: the standard contract concluded at that regional level identifies the main problems and invites farmers to modify their farming practices in relation to those problems. Other measures encourage farmers to stay on the land, particularly in less favoured zones (CANH) and promote the implementation of a policy which helps farmers to adopt good practices (Grasslands Premium, subsequently replaced by the Agro-environmental Grassland Payment. These forms of aid are less binding than the CTEs, and, although they contribute considerably to maintaining a minimum of land use, their environmental effectiveness is a subject of debate.

In **Greece**, as was stated earlier, the priorities are issues concerning the modernisation of production structures. However, groundwater pollution, particularly in the Thessaly Plain, soil erosion in mountainous areas and uplands and increased fire risks are being taken into consideration more and more in the application of rural development policies.

There are three environment programmes under implementation in **Italy**: “Environment” (47% of funding), “Natura” (47% of funding), and “Third Countries”, for which the means provided in the CAP context and those of the regions are used. Protected area policy covers former and more recent national and regional nature reserves, including marine reserves and humid zones (57 000 ha).

4 New modes of governance of rural development in the Mediterranean

As the result of the government policies launched in the early 1980s:

- systems of economic regulation were often adopted which were based more on private market strategies;
- the role played by the State in intervention in rural areas and regions was often reorganised;
- local processes frequently emerged which emanated from civil society or were encouraged by the State and which in some cases involved new challenges and opportunities in connection with globalisation.

The promotion of new modes of governance in the rural world was seen as a strategy of agricultural policies. Decentralisation, the organisation of producers and civil society, and the introduction of regional bottom-up approaches became the guidelines for managing rural development projects⁵⁶.

4.1 - Changes in the institutional landscape, decentralisation and action to strengthen the role played by local actors

Significant changes have come about in the institutional landscape of the Mediterranean countries in the course of the last 20 years, particularly in connection with State disinvestment and the reforms accompanying the regionalisation and administrative decentralisation processes. It must be pointed out that the financial support for agricultural and rural development granted by the public authorities and international sponsors has often been made conditional on the establishment of new institutional rules and new organisational frameworks, which have been imposed on the various economic actors. This is the case, for instance, with the Leader programmes in Community Europe, which entailed the establishment of local action groups (LAGs) but also with international institutions (World Bank, IFAD, UNDP, international NGOs, etc.), which have made the granting of funds conditional on the creation of cooperatives and/or associative groups (as has been the case with associations set up in the Maghreb or with the NGOs operating in Albania and Lebanon). In practice, these changes have been major contributing factors in the modification of the institutional environment in rural areas.

⁵⁶ This chapter is based essentially on the work carried out by the RAFAC ("Comparative family farming systems") network of the CIHEAM's Institute of Mediterranean Agronomy in Montpellier, which was summarised in a work published in the context of the PAR-PA2 research programme. Cf. Part 3 of the work entitled « Agriculture et Alimentation en Méditerranée. Les défis de la mondialisation » edited by Ghersi, G and Bacht, M (2004), Editions CIHEAM- Karthala, Paris, pp. 277-325.

Emergence of rural organisations as the result of institutional incentives:

The legislation and/or institutions defining public rural development policies in the period from 1990 to 2000 stimulated the emergence of new organisations, which have generally sought to make the most of the opportunities which policies (particularly the Community policies) have been offering rural environments in the past few years as regards both funding for new projects and the involvement of social groups in local rural development processes.

It has been observed that organisations emerge whenever incentive policies create favourable conditions. Many organisations have been set up solely as the result of institutional incentives. They are established specifically in order to obtain a budget – a fact which clearly poses the problem of their sustainability once the scheme in question has been completed. The Leader programmes have triggered new organisations in all of the European countries concerned in our study. The funding of rural development projects in Turkey, Albania or Lebanon has been accompanied by the creation of producer organisations. All of the adjustment or economic reform programmes include the transfer of some of the State's prerogatives and decentralisation for the benefit of the representatives of civil society.

Legislation also encourages the development of democracy by providing a basis for the creation of grassroots associations and exerting pressure on the bureaucracy to induce it to streamline its working methods. In addition to the favourable context for organisations provided by the legislative framework, the political liberalisation progress has thus played a decisive role, as is observed when the conditions for creating organisations in Albania, Turkey, Morocco or Algeria are analysed.

These changes are accompanied by measures to promote a new conception of rural development and by the emergence of institutions and organisations specific to such development and, consequently, of new structures (the Algerian and Moroccan Ministries of Rural Development, the Local Development Agencies in Greece, the Ministry of Local Development in Egypt, the reorganisation of institutions in Albania, and so on).

The institutional framework has considerable influence on the creation of organisations, and indeed on the disappearance of previous organisational setups. The emergence of new organisations is furthermore encouraged by the possibilities which the new rural development policies offer for involving local actors.

Emergence of organisations as the result of dynamic independent action:

It must be pointed out that new organisations are also set up irrespective of institutional incentives. These various organisations can come under sectoral initiatives (water management, farmer producers, etc.), but they can also fall within the scope of more general initiatives (such as local development).

Their emergence is connected with the profusion of collective initiatives that are now being developed in the rural environment. People decide to join forces to take their development into their own hands (services, product development), to resolve a common problem, or to defend values (environmental protection, solidarity, etc.), and this is reflected in the associative movement which is blossoming in the North, particularly in France, but also in the southern Mediterranean countries (Maghreb).

Producer associations were set up spontaneously in rural areas in Albania following the dissolution of the agricultural cooperatives and the privatisation of land, and institutions – particularly informal ones – which existed before the communist era spontaneously replaced the former State institutions. The demand created by local social groups for new institutions grew once it was realised to what extent the State was withdrawing and the role it had played at the local level was being reduced.

Role played by the new rural elites in the development of organisations:

The emergence of organisations is promoted in particular by the presence of people who shape public opinion and who sometimes do not come from the local area. (many neo-rurals have launched small associations in the rural environment in France) Through their personal qualities or their political influence, leaders can actually rally diverging interests within an organisation. The political representation crisis which many countries are experiencing and the elective democracy crisis are prompting many citizens to devote effort to the associative movement in order to exercise their activities or develop projects.

The development of associations or organisations has also been promoted through the emergence of new elites, particularly in connection with the progress registered in the school education system established in the southern Mediterranean countries (in the Maghreb countries, for example). Some rural zones have thus taken advantage of the establishment of a network of secondary schools or university institutes which recruit their staff in the interior regions of these countries (as is the case in Morocco and Algeria). This "return to the local level" combined with unemployment amongst young graduates has helped to build up the human potential in these areas, a potential which has focused its efforts on creating associations with objectives that are geared to the needs of social groups or promote integration into a framework of local action.

4.1.1 - Rural policies in the northern Mediterranean countries and the development of rural organisations

Since the 1990s, the precepts governing rural policies have been based on the principles of *partnership* – subject to negotiating mechanisms and close coordination between the central administration and the competent regional authorities, the local authorities and public or private enterprises at all stages of

planning – and *subsidiarity* – which only involves the national or regional level in the selection of the projects to be financed when the objective that has been set cannot be achieved satisfactorily at a lower level (Cork Conference, 1996).

The Leader programme is one of the most significant measures for promoting rural development. Launched in 1991, this Community initiative is now in its third generation (Leader+ 2000-2006); it gives precedence to innovation and inter-institutional, transterritorial and transnational cooperation. The fact that rural areas have already taken economic and social initiatives is actually taken into account in the implementation of this programme, which thus aims to accompany these initiatives by issuing calls for project proposals on a territorial basis (involving areas which have an identity and are recognised by local actors).

The new institutional machinery in the countries of the European Union:

Since the 1970s, the public authorities in **France** have been stepping up procedures, local and rural development schemes and administrative and financial incentives with a view to providing or prompting a general and localised response to the disintegration/reconstitution processes in rural society. Although these measures have often been sectoral and geared to modernising agriculture, they have provided a means of creating partnership links between regional authorities and enabling them to receive aid - at the national level to begin with and then, after decentralisation, at the regional level; they have also built up economic extension services and intercommunal cooperation. The French State has thus progressively devised procedures for the institutional organisation of rural and local development: regional nature reserves, inter-communal development charters, etc., and with decentralisation, these new development tools have gradually been entrusted to local authorities. The Defferre Act (1982) established official recognition of local development structures and boosted the numerous initiatives that were emerging in the rural world. Recent policies now call for the involvement of a larger number of actors including those operating in the socio-professional and associative spheres. They mobilise these actors around budgets but also on the basis of cultural values and identity. The Planning Act on Area Management and Sustainable Area Development (1999) reaffirmed in particular the "local feature area" approach by giving civil society an official say in development issues. This law reflects the State's intention to establish urban and local feature areas by introducing the project dimension with a view to building up new regions and involving civil society. It aims mainly to involve citizens in public decisions, to create new forms of regional organisation that are suited to economic realities and lifestyles, to create project areas characterised by strong bonding based on human, social and economic solidarity, and to vest municipalities and their groupings, the departments and the regions with new powers in order to meet needs and enable these various bodies to cooperate more effectively. All of this undoubtedly encourages organisations to establish themselves in order to share in the development of their local areas.

In **Spain**, local areas are regarded as an essential element of rural development strategies. The Community initiative has resulted in considerable decentralisation of the Spanish State for the benefit of the Autonomous Communities (CC.AA)⁵⁷. This decentralisation process has considerably reduced the powers of the Ministry of Agriculture; a large proportion of powers has been transferred to the regional governments, and new rules have been implemented. Rural organisations have created forms of participation and/or partnership amongst the various actors (regional governments, local governments, private agents and civil society) involved in the implementation of this policy. The EU thus encourages the participation of private agents in the development and running of schemes.

A series of restructuring measures and reforms have been carried out in **Greece** over the last 15 years, which have affected rural areas and regions either directly or indirectly. The fundamental process and mode of operation of the institutional framework have been determined more and more in the context of the regional policies of the EU and by community initiatives in which the various central government institutions and local organisations and actors involved at the national, regional and local level have taken part. Two reforms have been carried out, one in 1974 and the other in 1997, contributing to the forming of more extensive territorial units, the 'demes', the 6000 communes thereby becoming 1033 'demes'. These two reforms express the State's intention to adapt the organisation of the regions to the new socio-economic realities, which have been characterised by the development and consolidation of the role of medium-sized towns and, at the same time, by the marked decrease in the number of villages with less than 1500 habitants except for those in the suburban fringe and non-marginalised tourist areas. The rural and local development policies of the European Community combined with the inadequacies of services and of the public machinery have promoted the conditions for the emergence of a new type of institution, the "*Local Development Agency*", which is now the most operational institution at the departmental and local level, despite the funding problems encountered. In the final analysis, the question of institutions and actors operating in Greece is not merely a question of era (before and after accession); it is a matter of a different approach to the concept of development and of the emergence of new priorities given to area management. The multifunctional approach which is defined reflects integrated rural development policies, which incorporate the diversification of the local and/or regional economic fabric, a setup where people engage in several different activities, and measures to conserve and protect the environment and natural resources and to conserve the cultural and architectural heritage.

⁵⁷ The 1978 Spanish Constitution stipulates that the Spanish State is organised at the regional level in communes, provinces and 17 Autonomous Communities. These CC.AA, which vary considerably in size, each have self-governing status with a parliamentary system of regional government. The level of powers transferred by the central government varies considerably from one Autonomous Community to another, Andalusia, Catalonia, Galicia and the Basque Country being those with the highest level of powers.

Duplication of structures and complexity of the organisational fabric:

Institutional changes have generated a certain degree of complexity and duplication of institutions, which causes coordination and cohesion problems in the implementation of actions and thus weakens the synergism amongst the various actors in development.

In **France**, there is a veritable "*maze of institutions*", which impedes relations between associations and other actors in rural development and limits coordination amongst social actors in the rural development field on the one hand and the positioning of the various associations on the "chequerboard" of development on the other. The crux of the problem is what is commonly referred to as the "*administrative kaleidoscope*", "*institutional congestion*", or "*duplication of mechanisms*", which arise at various levels.

There are cases where impact areas (intercommunal territories, Leader territory, local feature areas, parks, etc) are juxtaposed, for instance. Whereas the actors directly concerned can "find their way through the maze", many associations often lack information on the impact areas of the various projects.

Furthermore, as the result of the successive measures to retrace areas in connection with various policies, the ways and means of involving certain associations have been defined on the basis of their location. The Leader+ programme is a significant example of this phenomenon. From the decentralisation/deconcentration movement launched in 1982 to the current establishment of local feature areas – an evolution which inevitably involved the rapid expansion of intercommunal cooperation and the need to achieve synergism with urban hubs – rural environment actors have been confronted with a proliferation of levels at which decisions concerning them are taken.

As the result of this duplication of institutions, the focus of public intervention has gradually shifted in the northern Mediterranean countries. The approach of equity achieved through compensation organised on the basis of specific criteria that were applied relatively automatically is now being replaced by a project approach based on the development of comparative advantages implemented in the context of regional projects. Furthermore, the bottom-up approach which has been a logical corollary of the growing importance attributed to local and rural development objectives and to sustainable development has gradually replaced the top-down approach. In the Communication of 14 April 2000 in which the European Commission focuses on the guidelines it wishes to see implemented in the Leader+ context, the mobilisation of local actors and a territorial approach featuring bottom-up procedures are cited as two of the "strengths" of this approach, for the Commission wants territorial projects to be the product of broad participation and representative partnership. When discussing the secondary objectives of the programme it places emphasis on developing organisational innovation (attention

devoted to articulating public and private initiatives). All of the programme evaluation reports stress the knock-on effect, which also applies in the case of other regional policies.

4.1.2 - Institutional machinery under construction in the southern and eastern Mediterranean countries

Institutional change has greatly affected the organisational landscape in the various southern and eastern Mediterranean countries. It was not until the 1980s that several factors converged to grant civil society and its organisations more rights. The application of structural adjustment policies, which involves a certain degree of State withdrawal, European pressure to have democratic freedoms extended, and decentralisation policy are all factors which have contributed to the change that has come about in the State's attitude to non-governmental organisations. The State, which had declared itself the mainspring of the development of producer organisations and rural organisations in general, recognised these organisations as entities which could constitute relays for stimulating the local economy and for social regulation. The implementation of the reforms in connection with the application of structural adjustment policies also entailed transferring activities to farmers which the State no longer carried out. The organisation of agricultural producers and of rural society as a whole thus became a priority for most of the countries in the southern and eastern Mediterranean.

The construction of rural development institutions is thus a recent process which corresponds with the crisis years (the 1980s). It is taking place at various paces and with relatively high levels of State intervention.

A distinction must be made, however, between the on-going processes in countries undergoing transition from a centralised economy to a (decentralised) market economy and those which are being implemented more gradually in the context of structural adjustment plans (in Morocco, Tunisia and Turkey). Lebanon is a special case in view of the political situation which has resulted from many years of civil unrest.

Emergence of rural organisations in the context of adjustment and of its legal framework (Egypt, Morocco, Tunisia, Turkey):

Right of ownership, structures providing extension assistance and other services, forms of public intervention and of public authority organisation, and rural policies developed appreciably in these countries in the 1980s and 1990s.

The rural policy launched in **Egypt** in 1990 focuses on farmland intensification through ambitious schemes which are financed through various resources and

located in the Sinai and in the south and west of the Nile Valley⁵⁸, the objective of these new land development programmes being to provide opportunities for the private sector (responsible for up to 80% of investments) to develop industrial SMEs, tourism, services, mining and agriculture in these new rural areas. This policy has been a contributing factor in the transformation of Egypt's institutional fabric, which is currently characterised by two types of rural institutions and organisations.

The first type of institution, which is located in the old villages in the Nile Valley and Delta and in the surrounding areas, is traditional, and the second now corresponds to the new colonised territories⁵⁹. There are various different service structures on the new land, and a network of cooperatives has also been set up (on a private basis) in each village. The social management of water resources has been entrusted to user organisations, which are responsible for monitoring water quality and distribution. New public structures have been developed in the context of this policy, such as the Ministry of Local Development.

In **Tunisia**, the institutional landscape in rural areas has diversified since the implementation of the structural adjustment plan in 1986. A policy for promoting the establishment of farmer and producer organisations and for strengthening such bodies has meanwhile been implemented, and almost 250 *Development Committees* have been set up in this context. These informal bodies are established in particular in the context of agricultural and rural development projects in difficult areas (World Bank and IFAD projects). A "representative" group from the target population has generally been organised in the context of these projects and assigned the role of liaising between the population and the project specialists. The Collective Interest Groupings which dated back to the colonial era have been reactivated since the mid-1980s with a view to direct management of water resources in close cooperation with the local departments of the Ministry of Agriculture.

A new rural development approach was adopted in **Morocco** in the late 1990s⁶⁰, which spells out the need to build up the grassroots organisations of rural populations and to promote new operating rules in the context of decentralisation, regionalisation and measures promoting contractual and partnership relationships. Many development organisations have been established in this context. Numerous

⁵⁸ The government has elaborated a horizontal extension programme for the North Sinai region, which aims to irrigate 260 000 ha of new land, and the Sinai Development Authority in charge of coordinating the project has drawn up a plan covering the period from 1994 to 2017 and focusing on multisectoral development as well as an investment programme. The irrigable land is subsequently transferred to private investors, farmers and graduates. A similar programme has been launched by the Egyptian authorities in the south and west of the Nile Valley.

⁵⁹ Over 400 new communities have been established on the new land with a target group of over 100 000 families.)

⁶⁰ This approach has been defined in a reference document entitled « *Stratégie de Développement Rural 2020* », which has been issued by the Ministry of Agriculture, Rural Development and Maritime Fisheries (MADRPM).

Agricultural Water User Associations (AUEAs) are being set up in the areas covered by small and medium-scale irrigation projects – as well as large-scale projects –, and are to be involved increasingly in the development, running and maintenance of irrigation systems⁶¹. Other associations cover numerous production chains (fruit and vegetables, cereals and legumes, seeds and seedlings, etc), the services sector (supply of inputs, exports, etc), or the development of local agricultural development actions⁶².

The liberal policies pursued in **Turkey** since 1980 have encouraged civil society to take part in rural development. A legislative bill on agricultural producer associations was included in the measures implementing the 7th development plan (1996-2000). The process of adapting structures to the standards of the European Union plus the action of international organisations have together stimulated the creation of new institutions: the Institute of Economic and Agricultural Research was founded in 1996, for example, with World Bank (WB) support. The prerogatives of the irrigation service, which was under the responsibility of the State, have been transferred to the farmers' organisations in application of OECD and WB guidelines. A relatively dense network of organisations has been established covering all sectors of social or economic activity in rural zones⁶³, and numerous projects have thus been adopted and implemented on a national or regional scale⁶⁴. In addition to these schemes, several rural development projects involving local farmers have been run by rural development cooperatives and social organisations, in particular the Foundation for the Development of Turkey. Although the existence of rural organisations (both formal and informal, traditional and modern) is not a phenomenon specific to the 1980s and 1990s, the recent development of these organisations is also the result of independent local initiatives. It can be said that the creation movement is the product of both institutional supply and rural population demand.

⁶¹ AUEA Act no 2/84 promulgated on 21 December 1990 by dahir no. 1-87-12

⁶² According to the Directorate for Public Enterprises and Producer Associations (DEPAP) of the MADRPM (2000), there are some 180 associations, 56 of which operate at the national level and 124 at the regional level.

⁶³ There are some 70 producer organisations or associations and over 10000 agricultural cooperatives.

⁶⁴ The main projects are as follows: the Bingöl-Muş, Yozgat, Ordu-Giresun and Sivas-Erzincan-Tunceli rural development projects, the Anatolian water basin rehabilitation project, the project for promoting the development of Agricultural Producer Units, the project for supporting the elaboration of blue-prints for rural development in South-East Anatolia (GAP), the project of aid for improving the economic situation of the Birecik Dam population, the project for integrating women into the development process and enhancing their status in the GAP region, etc.

4. 2 - Objectives, activities and learning processes

The modernisation of agriculture has considerably promoted the diversification of objectives and activities: technical production activities have been improved, making farmers more available to engage in the life of the community while maintaining traditional social bonds.

4.2.1 – From objectives focusing on actors' needs to those promoting integration into the local action framework

Organisations have varying objectives. Some aim to defend the material and moral interests of their members, others aim to develop an economic activity or to promote economic projects, while others endeavour to meet a need which is not covered by either the State or the market. Rural associations or organisations generally implicitly base their activities on common moral or cultural values (solidarity, mutual assistance and cooperation, defence of their lifestyle, and so on), which are a powerful means of strengthening social bonds in rural areas. Many organisations are set up with a view to proposing a service (employment assistance, transport, assistance for the elderly, distribution of inputs to farmers and stock breeders), which generally fills the gap in services which are not covered by the State or private firms, since they are considered to be unprofitable. Other organisations are established for economic purposes (with a view to developing animal or plant products) or in order to create a source of income. This trend reflects adaptation to the environment and responsiveness to needs which exist but are neglected by the market or the State.

Furthermore, certain organisations aim to become part of regional development processes, in which case they endeavour to build up capacities for presenting proposals, negotiating and taking action with a view to playing a part in the development of a rural area. This organisational dynamism is often connected with the emergence of new regional entities, as is the case with organisations supporting Community programmes (in France, Spain, Italy, Greece and Portugal); alternatively, local development associations establish themselves with a view to exercising citizenship and taking part in the process of change and local development.

This analysis of objectives thus demonstrates the very wide field in which the activities of organisations are deployed in Mediterranean rural areas.

4.2.2 - Diversity of activities

The diversity of activities (cultural activities, services, development initiatives, solidarity actions, activities to protect the environment or to safeguard employment, microcredit schemes, or activities to promote rural women) is to be explained in particular by the expansion of the scale of the action carried out by the various organisations.

These activities generally reflect the major needs or concerns of rural society. It is observed more generally that activities connected with the evolution of the needs of society and the learning process within organisations are diversifying, so that activities are better matched to the needs expressed in the rural environment.

In **Portugal**, for example, the *Câmaras Municipais* have now progressed beyond the initial phase (1975-1989) during which they focused attention on basic equipment and infrastructures and now devote efforts to supporting economic activities and to quality of life, education, local cultures and identities, and regional integration through action to correct imbalances. They are actually concentrating their efforts on creating conditions which encourage the population to stay in the local area; they target the younger age groups in particular and focus on creating resources and jobs at the local level in order to limit the depopulation trend that is affecting rural areas in Portugal.

French associations are now no longer only “traditional” in nature – i.e. focusing on very classical activities such as sports, senior citizens' clubs, firemen's associations, and various other clubs. Their activities have been diversifying in the last few years and shifting towards rural development: associations of service providers in the tourist industry (organisation of tours), associations of farmer producers or of organic farmers (organisation of fairs, creation of sales outlets), associations promoting access to new technologies, transport, employment assistance, and so on.

In the **southern Mediterranean** countries many organisations in the agricultural sector have stepped up their activities in a wide variety of fields.

This is the case in the water management field in **Tunisia**, where there are almost 1 500 collective interest associations managing drinking water and almost 820 managing irrigation. The diversity and complexity of the water management problems encountered in rural zones and the difficulties encountered by the administration in monitoring irrigation equipment and managing it efficiently have been the main reasons for the implementation of a policy to promote collective interest associations.

The collective action of some rural associations in **Morocco** is based on the principles of tradition and modernity, which, although seemingly contradictory, actually fulfil complimentary aspirations at the social level. It is as though these associations were seeking legitimacy and recognition in the villages where they operate by combining public service missions (schools, mosques, drinking water supply, etc.) with charity missions (distribution of food parcels or schoolbags for children, providing of aid for the handicapped, etc.). For when the motives for creating these associations are analysed we observe how the organisations have included the concerns of the *traditional jma'a*⁶⁵ in their activities while expressing

⁶⁵ village assemblies

"modernistic" views.

The rural organisations that have been set up on the new reclaimed land in **Egypt** receive more action and resources from the State, so that they are able to provide many different services (technical advisory services, extension services, management of plant and equipment, etc.).

It will have been noted from the various factors presented in this section that rural organisations are emerging as an effective arena for innovation, for creating social bonds, and for formulating and responding to local economic, social and cultural demand.

4.2.3 - Relations developed by organisations, accumulation of social capital and collective action learning

Relations between organisations are developing, for organisations build up effective networks on a formal or informal basis (partnerships or exchanges between associations, for example) depending on their needs or on institutional incentives; it must be borne in mind that over and above the environmental strategies of individual rural organisations it is observed that the interplay of relations between the various actors is influenced by the existing institutions. However, there are still many factors curbing development in this field, and progress is slow.

In **Portugal**, for instance, it would seem to be easy for organisations to establish relations with one another, particularly where creating partnerships is concerned, but difficult for them to maintain and develop such links. Exchanges are generally vertical, since relations and forms of coordination with other actors at the horizontal or local level are still in embryo and do not yet run smoothly or efficiently.

New forms of solidarity are emerging within organisations. In **France**, for instance, associations promote activities where inhabitants who were born and bred in the region and neo-rurals can meet and mix. In **Greece**, cultural associations have helped city dwellers to keep in touch with their native areas and vice versa, and it is through these associations that villages maintain a "presence" in urban centres. With time, organisations have changed, developing from the status of mere organisers of meetings and festivals to that of agents which can really influence the evolution of their home villages. They organise congresses, committees and councils, for instance, with a view to taking specific action in the local events of their home villages or districts.

Many organisations have been recognised as legitimate partners by local rural society or public institutions (regional authorities, local administrations) through the implementation of development projects and the effects of such action on the development of the (economic, cultural or natural) resources of the regions where

they operate. The links they establish with other actors as the result of these development projects help them to build up negotiating capacities and thus contribute to the construction of rural civil society.

In the northern Mediterranean countries, Community policies and the concomitant institutional changes have had major effects on the general structuring of actors in rural development, particularly in France. Community policies have had an impact at two levels: on the one hand, they have promoted the emergence of new associations, and on the other hand they have put several associations in touch with one another and involved them in common development projects. They have helped to create a climate more conducive to the development of relations amongst actors, they have generated the establishment of networks within which diverging approaches can be reconciled, and they have stimulated the involvement of actors in common development actions. Participation and structuring seem to have been strengthened through the Community programmes – particularly the Leader programmes – by means of joint action, for most associations have realised that their activities can only be developed and that they can only hope to contribute to the development of the region by joining forces in a spirit of collaboration and partnership with other local actors. Although some partnerships are limited to the flow of funds or of information, it is interesting to note that cases where partnerships are envisaged in the context of efforts to define common objectives, tasks and responsibilities are becoming more and more frequent. In these cases the focus is on joint project administration.

In the southern Mediterranean countries, partnership with foreign institutions is regarded as one of the main acquisitions of associations. In Morocco, partnership with a foreign association not only brings a material contribution but also enables associations to communicate a credible image and to use that image in negotiations with State institutions, rural communes and provincial authorities. Experience of partnership with certain State institutions is rated more severely, on the other hand. It is considered to have little effect, since the efforts devoted to negotiation do not bring any really tangible results. State institutions do not always honour their commitments, and the agreements concluded remain promises for long periods of time due to the lack of legislative and financial frameworks.

In many countries in both North and South, various schemes that have been implemented have enabled these collective actors to enter a broader political sphere and thus be present in the various decision-making bodies (technical departmental committees, departmental and regional planning committees) or advisory structures.

There are several constraints restricting the activities of these rural organisations, however, and preventing them from developing their assets to the full. The role these organisations play is in fact still mainly advisory in nature. They constantly have to apply to the political authorities or public institutions to have the legitimacy

of their actions reconfirmed; they are never assured of lasting recognition as essential partners at the institutional level. Although the legitimacy of associative action in the rural development field is beginning to be accepted, organisations have to constantly demonstrate the advantages their contributions bring in order to win more established recognition. Several organisations have actually stated that they have often had to "be assertive" and "pile on the pressure" in order to be allowed to take part in the planning and implementation of collective projects.

Associations generally are not invited to participate as partners in the designing of development schemes. They are identified by the services they offer rather than by virtue of their knowledge of their target groups. It has to be stated that, despite significant progress, the involvement of non-institutional actors is still fragile. The question of actors' participation is also conditioned by problems of inadequate awareness and information and their low level of training, since the measures involved are rather difficult to implement. Associations and local authorities obviously need each other: associations provide a means of mobilising the population and identifying social demand, but their legitimacy is strengthened by the moral and financial support of local council members. It has been observed that relations are established between the authorities and associations in the context of operations involved in any of three major objectives: promoting and organising activities, providing services (for individuals in the social or cultural field), or taking part in decisions concerning the community as a whole. However, although practices are evolving, it is not yet guaranteed that the problems arising in the coordination of the activities of these two groups of actors have been resolved.

In the current stage of development of rural organisations in the Mediterranean region, local authorities are naturally seeking to use the local associative fabric to best advantage. There are two lines of policy which seem to be emerging in this context: some regional authorities regard associative life as a factor for improving their performance, whereas others seem to tend to see it more as a factor for what could be termed "deepening democracy" or democracy learning.

In most cases, all forms of rural organisation encounter problems of resources (both financial and human), which limit their capacity for promoting rural development.

4.3 - The challenges: limited financial and human resources and an unfinished decentralisation process

In most Mediterranean countries, the primary problem cited by rural organisations is that of the considerable financial constraints with which they are confronted.

4.3.1 - Financial resources

The financial situation of rural development organisations is crucial, since their ability to act often depends on it and it is furthermore a serious indicator of their sustainability. But the fact is that in most southern Mediterranean countries – and also in the North in some instances – many organisations suffer from financial instability.

It must be underlined that the financial resources granted to rural organisations in the northern Mediterranean countries have been a powerful means of development. This is precisely the case with associations but also with groups which emerge in connection with a specific programme or subsidy (Leader).

It has been observed that many associations have been considerably strengthened as soon as the Leader programmes have been set up. It must also be noted that as the result of budgetary support rural organisations have often found themselves in a situation of dependence on public authorities.

In **Spain**, the Community initiatives and the relevant funding of development projects have played a major role in the creation of new organisations, since target groups established themselves in order to take advantage of the opportunities which Community policy offered the rural environment. It is also pointed out that the intervention of the central public authorities was maintained at a high level in the projects that were run. This was justified essentially by the very important fact that a considerable proportion of the programmes was financed by those authorities⁶⁶. Agents were organised around rural development groups merely because it was a *sine qua non* for obtaining funds. Some of the members of these rural organisations actually recognise that a large number of organisations are liable to disappear in the future when these external financing programmes come to an end.

The situation of associations in **France** is very mixed depending on how well they are integrated into the institutional channels which provide subsidies. Their ability to obtain funds and their conversancy with procedures and sources of budgetary

⁶⁶ As regards the measures considered in the Rural Development Regulation, the Spanish Ministry of Agriculture provides 50% of the funding and 50% comes from the Autonomous Community concerned. The Ministry's contribution means that a rural development policy can be pursued throughout the country, but at the same time it also limits the discretion of the Autonomous Communities to some extent.

funds constitute a factor of social and economic performance which promotes their viability and durability. This ability is very often related to the possibilities of mobilising expertise and the type of human resources available in general.

Rural organisations in **Albania** are also faced with serious economic difficulties, which make their durability uncertain. These organisations are often set up in connection with a project financed by international organisations and they generally cease to exist when the project comes to an end, since no further funds are available. The high level of financial dependence of rural organisations on central structures and the government budget affects the level of their action and/or fields of activity.

The chambers of agriculture, producer organisations and rural associations in **Algeria, Morocco** and **Tunisia** are very dependent on the State administration both as regards property (the premises they occupy are provided by the State) and as regards financial resources. Their ability to function depends to a large extent on subsidies or public credit.

Human resources are another determining factor in the functioning of associations in the rural environment; they are often a means of compensating for the limited financial means of certain associations. The presence of motivated and qualified staff is thus essential for the dynamism and indeed the survival of these associations.

4.3.2 - Financial resources

There are two major aspects in this context. On the one hand, there is a new rural elite (often younger and with a higher percentage of women), which is the result of school education; the members of municipal councils, the leaders of producer associations and of young farmer or women's associations are better educated. And on the other hand, there is now a relatively marked *continuum* between rural and urban areas in Mediterranean countries, which in certain respects is conducive to mobilising human resources for the benefit of rural associations. Although the rural elites do not always live in rural areas – particularly in the southern Mediterranean countries –, they maintain relatively close bonds with their roots (their home villages in particular). Both elites and local populations travel back and forth between the city and their home villages, where they spend their holidays or settle for their retirement. Young graduates who are out of work because they cannot find a job or work in the city return to their home villages. These factors have contributed to improving the human resources potential of rural areas, and rural associations recruit some of these trained elites to develop their projects.

Although the national and/or regional organisations in **Albania** are better endowed with human resources, producer associations, the local farmer organisations and the informal traditional organisations are short-staffed or lack qualified leaders.

In **Egypt**, social structures and lifestyle in the new human settlements are radically different from those in the traditional communities which have been established in the former rural areas for thousands of years. Although the population in the new communities which have settled on the reclaimed land is younger and, in particular, more educated, and signs of growing professionalism are beginning to emerge, there is nevertheless a marked shortage of trained managerial staff in rural organisations. In order to remedy these deficiencies many associations – particularly in rural areas in the North – try to improve their capacities by running training schemes and recruit highly qualified development officers (engineers, young graduates who have specialised in local development). And training centres often support the initiatives of local rural development agents.

Combined with the education work of specialised bodies these factors help to promote a process of growing professionalism within organisations in both North and South⁶⁷, which will necessarily involve the development of expertise in management, operational skills and extension services as well as in the monitoring and evaluation of development projects. Training geared to improving human capital will be a decisive factor in building up the capacities of these organisations.

4.4 – Conclusion : constraints and prospects

Political changes liberalising the public domain have provided a legal framework which promotes freedom of association in many countries in the southern and eastern Mediterranean. In the North, there has been a veritable revival of rural development, which has progressed as the result of the fact that concerns regarding the future of the rural world have been integrated at the institutional level. As the result of the emergence and/or rapid development of a ramified network of organisations which these new rural development policies have brought, the opportunities for social actors to take independent action in the life of the local community have multiplied. The organisational dynamism observed in the context of these activities has reflected new aspirations of the regions and regional approaches promoted by local populations and authorities as a response to the globalisation process and its concomitant effects. This organisational dynamism has also been part of an attempt to build up a framework for negotiation and activities with a view to taking more effective action to promote the development of

⁶⁷ Three operation modes have developed in rural organisations. The first, which is more prevalent in the northern Mediterranean countries, is a setup with salaried employees and a staff of permanent professionals who are recruited and paid by associations, which, in this particular case, have adequate financial resources at their disposal. The extension officers are generally well-trained and their presence is essential to the dynamism and indeed the durability of the association. These associations generally run large-scale activities, mostly on the scale of a department or region. The second mode of operation of associations is characterised by a limited number of permanent employees and a large membership of persons who carry out most of the activities on a voluntary basis. The third mode is marked by strong motivation on the part of dynamic founding members, who mobilise financial resources and rally members around local projects.

rural areas. The trend to restore social bonds and to restructure the relations between rural society and society as a whole has resulted in a profusion of rural organisations. The development of the associative movement and the creation of cooperatives, local action groups or rural development groups have been contributing factors in the emergence of rural civil society and in the involvement of rural populations in a process of local democracy learning. The modes of local governance, which have involved new elites, have also been based on, or have revived, the traditional forms of organisation of rural societies (village assemblies, family networks, diaspora, etc.) and have thus demonstrated considerable ability to adapt to the realities of the rural environment.

However, the local or national institutional framework has not resolved the problem of *financial pressure*, which remains the greatest constraint. Associations have to constantly devote efforts to avoiding financial crises which would mean the end of the organisation. The high level of financial dependence of rural organisations on central structures and the government budget affects the level of their action and/or fields of activity and determines their viability and durability in the long term.

The other constraint is still *grassroots actors' lack of training and information*, and it restricts capacities for mobilising expertise and human capital in general. For the availability of qualified human resources is essential to the dynamism and indeed in some cases the survival of these associations. The life of some associations depends on a dynamic leader or organiser, and this makes an organisation fragile over time. The degree of activeness of associations depends on their ability to manage projects (in terms of identification, implementation and evaluation) and their conversancy with the procedures involved in applying to the administration or to foreign sponsors for subsidies. This lack of training and experience is a major handicap, and it is aggravated by the ageing population factor, particularly in the rural zones in northern Mediterranean countries. The lack of training and qualification of human resources has repercussions on the exercise of collective or individual responsibilities within rural organisations.

Furthermore, the legitimacy of rural associations and organisations is often questioned in the local environment: they frequently have to seek recognition by the membership or the local population in order to be able to continue their collective action. They have to cope with the *inflexibility of the administration* and the various agents who already have a certain status as well as material interests and advantages of long standing. In the countries of the southern and eastern Mediterranean, the fact that the decentralisation process is incomplete or unfinished is an obstacle to the development of rural organisations. Some are sometimes the victims of abusive practices which benefit their leaders and/or certain social groups or aim to build up a network of political clientele, and they thus prove to be unrepresentative of the agricultural world as a whole, and in particular of farmers and the rural poor.

The last problem, which is closely related to resources, concerns the *capacities and social capital* accumulated by rural organisations. The relations entertained amongst organisations sometimes show that they have built up an appreciable social capital on the basis of existing institutional machinery, through which they have strengthened social bonds and enabled various population groups to act together.

General conclusions

1 – Free trade, regional competitiveness and rural poverty

The changes resulting from globalisation bring new perspectives for rural development and the future of rural regions in the Mediterranean, as is illustrated by the current animated debates in international forums on the multifunctionality of agriculture and sustainable development. The subject of rural development has taken on a very special dimension since agriculture is no longer regarded as the sole mainspring of rural development; new poles of activity (in the industry and services sectors) are needed in order to promote employment in rural areas, to enhance their resources and to develop their natural resources and heritage.

In the southern Mediterranean countries, globalisation and the prospect of free trade pose the fundamental question of rural poverty alleviation involving mechanisms to transfer resources to the poorest social groups on one hand, and on the other hand that of providing better protection for the small and medium-sized farm sector, which is geared to producing raw materials that are strategic in terms of ensuring food security for the local populations and improving their productivity levels.

In the northern Mediterranean countries, efforts to make each of the rural areas involved in the development process competitive are leading to plans to develop their capacities for innovation, adaptation and regulation. Social cohesion, enhancement of well-being and development of the economic amenities of the regions are a sine qua non for achieving this objective. Furthermore, while an efficient, equitable and indeed sustainable process of regional construction is emerging as “the result ... of actor strategies, collective learning mechanisms and a decentralisation trend” (Pecqueur, 1999), improving regional competitiveness requires identifying local geographical, economic, social or cultural communities or common interest groups which can promote or enhance this capacity for innovation and for developing resources and economic activities in the various groups of rural actors.

The current challenges posed for rural areas by free trade are those of enhancing the competitiveness of their areas and contending with competition while ensuring environmental, economic, social and cultural sustainability at the same time. The integrated and multisectoral approach promoted by rural policies (in both North and South) aims in particular to enable actors to achieve maximum value added in their local areas by creating or strengthening links between sectors and by combining resources in order to develop the specific features of their products and services.

Although progress has been made in certain regions (particularly in the northern Mediterranean), the agrarian structures, techniques and management methods which predominate in the vast majority of Mediterranean regions have a major impact on the productivity and competitiveness of the agricultural sector. Diversification (rural tourism, SME start-ups, recreational activities) and processes of economic or commercial innovation are still limited, however, and levels of equipment (information and communication networks, computer technology, public services) are lagging behind, and this compromises the attractiveness of rural areas. In the southern Mediterranean countries, the measures to establish infrastructures and public facilities have not been accompanied with efforts to promote and support economic activities which can generate acceptable incomes for local populations, and particularly for young people, and promote population stability. With the exception of agricultural policies, which have focused both on area management and on improving farmers' incomes, government measures have in many cases lacked the necessary economic scale and have sometimes been designed on the basis of the needs and concerns of urban populations. This is illustrated by the mechanisms for supporting business start-ups and employment.

The mismatch between tradition and efforts to seek new activities in the rural environment is affecting women in particular. Traditionally, integrating women into the economy generally involved activities connected with farming or certain crafts sectors, which have slowly but steadily declined. Efforts to seek new activities in the development of agricultural products and new market outlets for handicraft employment are avenues which complement other more general measures to promote rural women and involve them more in the life of the community.

One would imagine that capitalist farm managers who have already embarked on a modernisation process will be able to cope with trade liberalisation and thus with competition by stepping up productivity efforts⁶⁸. But this trade liberalisation is probably also liable to exacerbate poverty in many rural areas and concerns the vast majority of small rural producers, who have no financial means and no training. This could result in the accentuation of rural-urban migration with all the familiar consequences: impoverishment of urban fringes, risk of social unrest, political instability.

2 – Deepening (or enriching) the change in the ecological and economic paradigm of rural development

In the northern Mediterranean countries, agricultural development resulting from agricultural specialisation in rural areas is no longer considered sufficient to ensure the sustainability of regions, some of which have found themselves marginalised by the modernisation of agriculture. The new concepts defining approaches and theoretical frames of reference for rural development are *multisectorality*, which nowadays is related to the decrease in the relative significance of agriculture in the

⁶⁸ Cf. conclusions of the CIHEAM study on agricultural supports, which has already been mentioned.

rural world, the *regionalisation* of development in the context of measures to form new areas and the active involvement of local actors in that process, the *multifunctionality* of rural areas and agriculture, the *diversification* of economic activities and the *sustainability* of processes for developing resources.

The *change in the ecological paradigm* is the first modification of the framework for analysing rural development in the southern Mediterranean countries. The relations between the population, the economy, and the environment in rural areas pose complex problems: *population pressure*, *overtapping of resources* and *poverty* in the South, withering away of areas and degradation of resources in the North.

Population growth and the degradation of the environment are not the only explanations for the changes that are taking place in the rural world in the South⁶⁹. They have highlighted the fact that rapid population growth can also be accompanied by both regressive and progressive agrarian trends (regression in techniques and environmental degradation – more sustainable management of natural resources). The lessons drawn from the experience and management practices of the population-environment ‘duo’ must thus induce managers to change their way of thinking as well as the views underlying their actions. When studying the relations between societies and their environment, it must be borne in mind that although the rationale of the use and/or development of areas by human communities is related to the ecological sphere, it is far from adhering to the rules of the ecological system (capacity of resilience of certain natural environments). The state-of-the-art, the way in which a society uses its resources, changes, and survivability is practically never related exclusively to the natural resources of a given geographical region. Trade and economic exchange expand local possibilities; in other words, *an area inhabited by a population and the area of its resources* do not necessarily coincide. One of the major advantages of the programmes implemented in a number of countries (Morocco, Tunisia, Algeria, Egypt, Lebanon, but also in Greece or Turkey) has been that they have highlighted a complex typology of interaction between a population and its environment. Growing population pressure has induced populations to change their behaviour through mobility, migration and efforts to seek activities and incomes outside their areas and by reinvesting monetary resources that have accrued elsewhere and are invested in the development of fragile environments.

⁶⁹ Matthieu, P. (1998), Population, pauvreté et dégradation de l’environnement en Afrique, fatale attraction ou liaisons hasardeuses, *Nature, Sciences et Sociétés*, Vol. 6, no 3, pp. 27-34.

The whole problem of policymakers is thus to integrate this permanent mobility into action by providing support and accompanying measures which can prove effective in the relaxing of constraints⁷⁰.

The socio-economic paradigm must combine the intrinsic rationality of farmer organisations and family farming systems. It must be pointed out that farms and family businesses play an extremely important role in virtually all Mediterranean regions. Family businesses are governed by the principle of solidarity, in which individual calculations based on cost-benefit ratios play a minor role. Family groups cope better with crises and adapt more easily to change. If family organisation were better understood in the defining of government policies measures could be devised which would be better suited to this context of work organisation.

3 – Implementation of new tools for managing the connection between society, the natural environment and the economic system and for promoting research & development

Knowledge of the rural regions in the Mediterranean must be extensively mapped to illustrate the situation in the agricultural sectors and as regards rural development policies and policies to control the degradation of natural resources. If the knowledge and results of research are to be operational, it is essential to ensure that communication channels are organised between researchers and policymakers. Whereas research institutes in northern Mediterranean countries have many years of experience in mobilising intellectual executive officials with a view to preparing decisions on government agricultural and rural policy, attention must be drawn to the trends in government attitude to researchers in a number of countries in the southern and eastern Mediterranean. The Moroccan government has carried out extensive consultation on rural development strategies (in the spring of 1999) and has involved both national researchers and international experts. The Algerian government has also called upon the research sector to take part in the elaboration of its most recent agricultural and rural development programme. This dialogue with the research sector has progressed further in Tunisia and Egypt.

But in view of the need for a link between the education/research system and the social demand of rural populations both in terms of institutional support and technical innovation and in terms of management tools it is essential that

⁷⁰ With regard to the connection between population growth, poverty and environmental degradation, the instruments of analysis conveyed by the concepts of “degradation”, “overpopulation” and even “sustainable development” only make sense temporarily and locally. The static picture they give does not convey the constant interaction between man and his regions, technologies and organisations and political, economic and social decisions on the one hand and man’s biophysical environment on the other. Since the fluctuating and unpredictable nature of the environment-society interface is the epitome of its indeterminateness, the future holds possibilities which cannot be locked into unique models and general solutions.

programmes be set up for training the actors involved in rural development (producers' organisations, women's and young people's associations, cooperatives, development agencies, regional authority agents, etc).

Observatories for monitoring policies and economic tools for steering the rural economy must also be devised and geared to three objectives: (i) analysing the effects of market liberalisation in real time, (ii) developing capacities for anticipating and responding to changes in weather and economic risks, (iii) improving the analysis and monitoring/assessment tools themselves.

And finally, in order to back up water management policies with a view to the opening of markets, research into ways and means of economising water consumption is imperative in view of the critical situation that prevails in a number of Mediterranean countries.

The new functions, professions, products and services that have been created by rural regions in the northern Mediterranean countries are opening up new research and training fields. The elites that are emerging in rural areas in the North (neo-rurals) are actors whose knowledge and know-how can now be usefully mobilised to renew knowledge and build up innovative tools that are suited to the needs of these areas. What is needed in this context are programmes and frameworks in which this new potential can be expressed and the knowledge of these new elites can be maximised and articulated with the findings of scientific efforts external to the rural world so that all of this knowledge can be effectively placed in the service of development.

4 – Completing institutional decentralisation and ensuring transition to contractual management of rural development

The institutional landscape in the rural world has diversified as strategies for sustainable rural development have gradually been instituted in the vast majority of Mediterranean countries. The revival of these rural organisations in the field reflects governments' determination to change their mode of intervention in rural areas by promoting the creation of forms of mediation between rural populations on the one hand and the administrative machinery in charge of agricultural and rural development on the other. A policy has been implemented to encourage the emergence and development of rural organisations, but the fact remains that the process of *reorganising institutions in order to decentralise* their mode of operation, which is an urgent economic imperative, has not yet been fully accomplished, particularly in the southern Mediterranean countries. A new public administration culture is no doubt what is needed in these countries if dysfunctions are to be eliminated and the cost of intervention by public or private operators is to be reduced, and this calls for coordination efforts amongst institutions. Support for rural development, environmental protection and natural resources management will only be effective if greater attention is paid in schemes and projects to local populations and their areas. Efforts must also be based on local authorities,

synergism must be created amongst all actors in rural development, and conditions conducive to the establishment of contractual relations between the State, local authorities and rural populations must be created (master plan contracts for each individual region in a regional approach to decentralisation, etc.) so that an area management policy which preserves the identity and specific individual features of rural areas, develops their natural, human and cultural resources and enhances their attractiveness and competitiveness can be implemented successfully.

An effective rural development strategy must conceive decentralisation as a progressive process in which functions, resources and decision-making powers are transferred at the pace allowed by the institutional capacity-building concomitant with decentralisation. This is beyond any doubt a precondition for the sustainability of the change in governance. Efforts must be made to seek more effective distribution of responsibilities amongst the various components of rural areas. Whereas this must not merely amount to a concept of area management that is imposed on rural populations by the authorities in a top-down approach, it would also be risky to leave everything to local initiatives. A balance must be found between the excesses of administrative centralism and the risks of dissipation of effort due to the many and varied expectations of local groups, a balance which can only be the outcome of negotiation on the problems on hand and of efforts to strengthen the institutions and organisations of rural civil society, which should be a primary objective of public policy.

Such a balance would thus be the product of contractual relations, a form of intervention through which a compromise can be established between the interests of the local rural populations and the objectives of the public authorities. This transition to contractual management must include the following factors in particular: i) the promulgation of legislation promoting freedom of intervention for rural organisations and associations, ii) social policies improving the welfare and employment conditions of rural populations (consumer aides and employment subsidies to reduce poverty in rural areas), iii) policies of access to non-commercial services, policies for regulating and organising commercial goods and services markets. It must be underlined that economically efficient and technically expert administration is a prerequisite for promoting this form of contractual management.

The decentralisation implemented at varying paces in the northern Mediterranean countries is now promoting convergence between European rural development policies and national policies. Application of the subsidiarity principle has also facilitated individual and collective learning processes amongst the actors involved in local development schemes. However, institutional machinery is often still complex and the fact that there are many different intervention frameworks and project planning and monitoring structures hinders the coordination and supervision of action and thus increases the transaction costs involved in rural development operations. Although tremendous progress has been made, the collective learning of the decentralisation that has effectively been under way since

the 1990s is far from complete. Efforts to simplify procedures and institutional frameworks will be a means of improving modes of local rural governance in the future.

5 - Promoting exchange amongst rural zones and international cooperation

Measures are urgently necessary to develop concerted action between the areas of a region on the one hand and organisations operating at the regional or international level on the other. Areas must exchange information on the experience they have gained and must pool their acquirements. The *Community Initiative Programme* (CIP) for cross-border cooperation which has been instituted in the new agricultural policy (Interreg of Agenda 2000) helps to consolidate the transnational exchange initiated in the northern Mediterranean countries in the 1990s in the context of the Leader programmes. Concerted actions (*Medrap* on desertification issues), networks (*Euromontana* on mountainous areas, on Mediterranean forestland, etc.) and brainstorming groups have been set up and help to spread knowledge in society and to pool know-how in the development of rural regions in Europe. Cooperation experiments have also been launched between rural areas in the countries on the northern and southern shores of the Mediterranean. Local action groups have developed contacts with their counterparts in Tunisia, Algeria, Morocco, Egypt, Lebanon, Turkey, Greece and Albania, for example, on their various experiences of rural development⁷¹. Association agreements and MEDA projects financed by the European Union should provide a basis for extending these contacts, particularly since they are also encouraged in the context of other European programmes such as the Leader programme. And finally, there are the opportunities offered by the proposals of Euro-Mediterranean conferences. More specifically, the *Venice Conference* (November 2003) proposed that a special regional scheme be created composed of three components (sustainable rural development, quality of agricultural commodities, and organic farming)⁷². And finally, the European Commission recently decided (September 2004) to simplify cooperation tools. The European Neighbourhood and Partnership Instrument is due to replace MEDA (1995-2006) in the future, introducing in particular a component focusing on transborder cooperation, integrated rural development and the exchange of knowledge and know-how between rural zones in the Euro-Mediterranean region.

⁷¹ Cf. "Innovation rurale en zones difficiles (IRZOD - rural innovation in difficult areas)" research & development programme (IAM-Montpellier, IRA - institute for arid regions - in Medenine), Hérault 34 (France) and local associations in Tunisia). Similar cooperation initiatives are launched between regional authorities, development associations and local or regional administrations in Algeria, France, Greece, Albania, Egypt, Turkey and Lebanon.

⁷² Attention must also be drawn to the mid-term ministerial meeting in Dublin (May 2004), at which the European Union was invited to extend regional cooperation to non-commercial aspects such as sustainable development, organic farming and geographical factors.)

It would thus be in the interests of regional cooperation policies if guidelines conducive to sustainable rural development were translated into concrete action that could set an example and if financial and human resources were perhaps provided in order to sustainably institutionalise such action in the field.

PART II

Sector and country analyses

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5 The agricultural sectors in the respective Mediterranean economies

5.1 – The economies of the Mediterranean countries in 2003

5.1.1 - The international environment

Whereas 2002 was very marked by the consequences of 11 September 2001, 2003 was marked by the war in Iraq, and the SARS epidemic also considerably affected world trade. Despite these events and the uncertainty they caused, the G8 ministers of finance stated at their meeting in May 2004 that recovery was “proceeding rapidly, with global growth of around 4.25% in 2003-04, the best growth rate in the world economy in the last fifteen years.” In fact, according to some sources, the world economy achieved a growth rate of approximately 2.9% in 2003, which was the same as the rate recorded in 2002 (OECD), whereas according to other sources the growth rate was 3.3% (European Commission).

The countries which benefited most from growth were the US and the Asian countries, Europe achieving a lower rate (0.4% according to European Commission statistics). The European Union was conspicuous for its rise in unemployment rate (8.9% of the working population), its sluggish increase in productivity, a 0.6% increase in public deficits due to the lack of discipline of certain countries (Germany, France, Italy, Portugal), which exceeded the 3% threshold agreed in the Stability and Growth Pact binding European countries. Europe was penalised in this context by the 20.4% appreciation of the euro against the US dollar, which put European exports at a disadvantage vis-à-vis the rest of the world.

The effects of the state of the world economy differed from one Mediterranean country to another, the impact being greater or less marked depending on the policies pursued, the weather conditions determining harvests, and the structure of the various economies (oil-producing countries benefited, for example, from the sharp rise in hydrocarbon prices, and the smaller countries suffered more than the larger countries from the fragility of the European economy).

5.1.2 - GDP growth rate

Growth rate in the Mediterranean countries varied to some extent in 2003; the Maghreb countries registered rates above 5% – as the result of a prosperous farm year – and Turkey also did better despite a poor farm year, whereas Egypt stagnated and Lebanon registered low growth; in the northern Mediterranean countries, growth remained subdued except in Greece (due to the ongoing business activities in preparation for the Olympic Games) and Spain.

Morocco achieved a GDP growth rate of 5.2% in 2003 (as against 3.2% in 2002), as a result of a very good farm year, which brought an 18% increase in the gross agricultural product despite a virtually stagnating investment rate (22.9% in 2002 and 23.5% in 2003).

2003 was relatively prosperous year in **Algeria**, which benefited from a good farm year as well as high oil prices. The GDP growth rate in terms of volume was positive for the ninth year in succession: 6.8% in 2003, i.e. a sharp increase compared to 2002 (4.1%). This was due mainly to the exceptionally high oil prices (US\$ 28,90 on average for 2003). SH, the national oil company, achieved its best receipts from exports in 2003 since independence: \$24 billion (including \$2.2 billion accruing to shareholders), an increase of 32% compared to 2002.

Tunisia also registered a high growth rate was in 2003: approximately 5.8% in constant terms compared to 1.7% in 2002. This is to be explained in part by the good performance of the agricultural sector.

Egypt registered a growth rate slightly lower than GDP in real terms in 2003: -0.2% (3.2% in current terms), due in part to the lower performance of the agricultural sector (2.8% growth in current terms with an inflation rate of 3.2%), but also to the war in Iraq, which caused Egypt a loss of some 400 million US dollars which ought to have come from remittances of Egyptian workers in Iraq. The decrease in trade with Iraq also had negative effects. The 33% increase in revenue from the Suez Canal and from the 7.4% growth in the tourist industry failed to offset the losses due to the war – the compensation paid by the US (US\$ 37 million) did not arrive until 2004.

As for **Lebanon**, growth recovered in 2003 and continued during the first quarter of 2004, when it reached a rate of approximately 2%; all economic sectors were involved in this growth (tourism, industry, commerce, etc.), which was accompanied by a considerable inflow of capital, since a positive balance of payments of US\$ 3.4 billion was registered.

Growth rate in **Turkey** was approximately 5.9% in real terms – a decrease compared to the 2002 rate (7.9%). Decreases were in fact registered in all economic sectors, particularly in agriculture, where the growth rate was negative (-2.4%), but also in the industrial sector (a growth rate of 7.9% in 2002 and 7.3% in 2003) and in the commerce and services sector (6% in 2002 and 5.1% in 2003).

Greece registered a GDP growth rate of approximately 8% in real terms, a performance which is reported to be due to the growth in domestic demand (expenditure for the preparation of the Olympic Games, growth in tourism) and the growth registered in the agricultural sector.

Economic activity in **Italy** was sluggish, as was the case in all of the other countries in the euro zone (except Spain, where this factor was less marked): the increase

registered in GDP was 3.2% in current terms and 0.3% in real terms. This modest growth was due in part to the slowdown in manufacturing activities in real terms (-0.9%) and, to a greater extent, to the decrease in agricultural production (-5.6%), the trend in the services and construction sectors being more favourable on the other hand. This low increase was also due to the sluggish growth in domestic and foreign demand. In 2003, domestic demand rose by 0.6% in real terms, a result identical to that achieved in 2002, and, for the second year in succession, net foreign demand contributed negatively to the development in economic activity (-0.9%), whereas the public expenditure contributions proved positive. However, the acceleration in domestic consumption (plus 1%) was accompanied by a drop in investments (-2.1%). Furthermore, a decrease in gross investments was registered in 2003 compared to the previous year (-0.2% in current values and -2.1% in real terms). Investments in plant and machinery and various products suffered from the downswing in the national and international economic cycle, with an overall decrease of 3.6% – the third year of downswing in succession for this sector. The only growth component in investment expenditure was in the construction sector, where a positive variation of 1.8% was recorded, although this still marked a decrease compared to 2002.

In France, growth was virtually zero with a rate of 0.5% for 2003 as a whole – the worst figure for the last 10 years; this is to be explained to some extent by the absence of recovery, the appreciation of the euro against the US dollar and the effects of weather conditions on agriculture, the agro-food industries and the energy sector.

Spain recorded a GDP growth rate of 2.4%, which was 2 points higher than the European average, due mainly to the growth in internal demand. This growth rate seems to have been stagnating between 2% and 2.5% over the past few years, failing to regain the level of 4% achieved in the 1977-2000 period.

The **Portuguese** economy suffered recession in 2003, since the growth rate was negative (-1% according to the Bank of Portugal, -0.8% according to the European Commission). This slowdown in GDP growth can be justified as the consequence of the current economic adjustments in Portugal, whose effect has been aggravated by the persistently sluggish economic cycle in the European economy. According to the latest forecasts, growth in Portugal's GDP will apparently pick up, but the rate will still be lower than that of the euro zone economy. According to the OECD, GDP growth rates will not even out until 2005. The evolution in GDP growth rate is also to be explained by the trend in domestic demand, which has been steadily declining since the last quarter of 2001 due to the very high rate of family indebtedness. But other indicators such as investment and consumption (private and public) have also shown a downward trend. The only indicator where the trend was positive was the external deficit; this was the result of a combination of an increase in exports (plus 3.1%) and a decrease in imports (-2.9%). The experts consider that this performance is to be explained in part by the improvement in the competitiveness of Portuguese enterprises based on wage restraint.

5.1.3 - Evolution of unemployment

Unemployment is still high in both northern and southern Mediterranean countries, and the unemployment problem is still a crucial issue in economic policies.

In **Morocco**, the overall unemployment rate seems to have deteriorated slightly despite investment growth, since it apparently rose from 12.5% in the fourth quarter of 2002 to 12.8% in the last quarter of 2003. These rates seem to be much higher in urban areas, although the trend is similar: 20.1% and 21.4% at the end of 2002 and 2003 respectively (the annual averages being 18% and 19.3%).

The unemployment rate in **Algeria** decreased, a rate of 23.7% being registered in September 2003 – 4 points lower than the rate recorded in September 2002. This improvement is said to be due to the government's efforts to support business start-ups and create jobs. The employment rates in urban and rural areas are practically identical (23.9% and 23.4% respectively). Unemployment concerns mainly first-job seekers: almost half of jobseekers (48%) are under 25 years of age, 73% are under 30 and only 9.3% are 40 years of age or over. The same phenomenon is observed in this respect in both rural and urban environments, with very few differences. In rural areas, 52% of the unemployed are under 25 years of age and 73% are under 30, whereas jobseekers over 40 years of age account for 10% of the total number of unemployed.

The unemployment rate in **Egypt** has continued to grow, increasing from 9% to 9.9% of the working population between 2002 and 2003, whereas it was only 7.9% in 2000 and 8.4% in 2001. This can be explained in part by the large number of workers who returned from Iraq because of the war.

In **Turkey**, the unemployment rate dropped from 11% in 2002 to 10.3% in 2003, despite the slowdown in GDP growth rate. This decrease is no doubt to be explained by the continued efforts to implement the "Strengthening the Turkish Economy" programme.

The working population in **Italy** continued to increase and the number of unemployed persons continued to drop. Employment increased by 1% on average, and the unemployment rate was thus 8.7%, i.e. a drop of 3.3% compared to 2002. The increase in employment concerned all regions, although it was very restrained in the south of the country, and the number of jobs for women increased in particular. The increase in the number of employed persons was highest in the tertiary sector in 2003, where 0.8% growth was registered and concerned both wage earners and the self-employed (the latter work mainly in the commercial sector, the hotel and catering trade, transport and communications); the increase in the number of persons employed was less marked, in the industrial sector, however, where the figure was only 0.4%. Employment dropped by 3.7% in the

primary sector on the other hand, a trend which was more marked for wage earners (-6.1%) than for the self-employed (-2.1%).

The drop in business investments in **France** (-1.9%, after -3.6% in 2002) adversely affected employment. The number of jobs actually dropped slightly in 2003, whereas significant growth had been registered in 2002. Labour productivity actually continued to stagnate after a slight drop in 2001 and 2002, which meant that the damage in employment terms could be limited, but this situation is not conducive to competitiveness in the longer term, despite the limited pay rises granted this year. Furthermore, employment policies have not yet had any tangible effects; there has been no further reduction in average working time, and the mechanisms introduced by the government in the course of the year to relieve the cost burden have not yet had any effect. What is more, there has been a significant decrease in public employment in line with government policy: 100 000 jobs have been cut. Unemployment has thus increased (+210 000 in ILO terms), affecting all degrees of workers, the average annual rate rising from 9.0% to 9.7% of the labour force.

There was a very slight drop in unemployment in **Spain**, from 11.36% in 2002 to 11.3% in 2003. The employed population increased by 437 000 units (i.e. a growth rate of 2.7% and a clear sign of a healthy economy), but the labour force grew by 481 500 units at the same time. The unemployment rate in Spain is one of the highest in Europe despite the country's good economic performance. The reason for this would seem to be the lack of labour flexibility and the way in which wage negotiations are conducted.

In **Portugal**, the employment rate rose steadily throughout 2003 to 6.4%, the highest level in the last 6 years; this was a 25.5% increase compared to the previous year, when the rate was 5.1% (December 2002).

5.1.4 - Evolution of inflation

Anti-inflationary policies have continued to predominate in the Mediterranean countries. With the exception of Turkey, inflation has continued to be kept low, indicating that the policies to remedy budget deficits have been continued.

In **Morocco** the inflation rate has been very low since 1999, when it was 0.7%. After rising to 0.6% in 2001 and to 2.8% in 2002, it then dropped again to 1.2% in 2003 despite an increase in the budget deficit, which rose from 4.6% of GDP in 2002 to 5.4% in 2003.

The inflation rate in **Algeria** was negative in 2000 (-0.6%); it then rose to 3.5% in 2001, dropping again to 2.2% in 2002; according to the National Statistical Office the rate rose again to 2.6 in 2003, an increase which was no doubt promoted by the 13% depreciation of the dinar against the euro (3% against the US dollar).

Egypt registered an inflation rate of 2.8% in 2000, then 2.4% in 2001 in 2002. The rate rose significantly to 3.2% in 2003, no doubt as a result of a laxer budgetary policy.

After several attempts in previous years, **Turkey** began to pursue a deflationary policy in 2002 by applying the usual formula resorted to in such circumstances: measures to correct the budget and the current account deficit by reducing budget expenditure and obtaining resources through privatisation and special levies. However, despite these efforts Turkey still has the highest inflation rate in the Mediterranean, although considerable progress was made in 2003. For according to the 2003 report of the Central Bank, inflation – calculated on the basis of wholesale prices – dropped from 30.8% in 2002 to 13.9% in 2003. The microeconomic objectives were achieved, except in the agricultural sector.

Inflation rate was low in **Greece**, the consumer price index varying by only 3.5% in 2003 compared to 2002, although the variation was greater in the case of foodstuffs (+5%).

Italy registered a persistently high inflation rate in 2003. The deflationary process was curbed both by incidental exogenous factors, which were temporary, and more structural endogenous factors. The consumer price trend in terms of annual average was upward compared to 2002: 2.7% as against 2.5%. Italy was marked by an increase in inflation rate compared to the rate registered by its partners in the euro zone for the same period: measured on the basis of the harmonised index, the difference between the inflation rate in Italy and the average rate of its EMU partners increased by 70%.

It was also observed that agriculture promoted inflation, since a variation of 5.7% was registered in agricultural commodity prices, whereas the variation in the consumer price index was only 2.7%.

Despite recession and the depreciation of the dollar, the inflation rate in **France** remained relatively high – over 2%, contrary to the situation in the neighbouring countries. This increase is to be explained essentially by the rise in the prices of energy, tobacco and fresh foodstuffs; the increase in service prices was less marked and manufactured product prices remained stable.

The rise in inflation registered in 2002 in **Spain** was corrected, the rate registered in 2003 being only 2.6%; however, this rate is nevertheless 0.7% higher than the European average. It must be pointed out that an inflation rate of 2% was anticipated in the official forecasts, whereas more pessimistic forecasters reckoned that the rate would be 4%. Some of the causes of inflation remain the same from one year to the next: the inevitable convergence with the price levels of European partners, the need to take reforms further in order to enhance the competitiveness of key sectors (energy and staple goods), the annual wage bargaining rounds, and

the lack of monetary policy. Whereas euro interest rates remain low in order to encourage growth in the Member States, Spain is handicapped by this type of soft monetary policy.

In **Portugal**, the inflation rate calculated on the basis of consumer prices evolved favourably in the course of 2003, when a rate of 3.3 per cent was recorded, i.e. 0.3% lower than in December 2002. However, it is still above the EU average.

5.2 - The place of agriculture in the respective economies

Only minor variations were observed in the place of agriculture in the various economies compared to previous years, although it can change significantly in the long term. However, the general health of the economy depends more on agriculture in the southern Mediterranean countries than it does in the North.

In **Morocco**, the agriculture, forestry and fisheries sectors together accounted for 16.8% of GDP (compared to 14% in 2002); this was the highest rate recorded in the last 5 years, 2003 having been an exceptionally good year for crops as far as weather conditions are concerned. For the sake of comparison, the secondary sector accounts for 29.6% of GDP, whereas the services sector accounts for 55%. In the foreign trade field, agro-food exports exclusive of seafood products accounted for only 11% of total Moroccan trade in 2003, whereas the figure inclusive of seafood products rose to 22.5%. The share of agricultural imports in total imports decreased from 16.7% in 2002 to 13.8% in 2003 in view of the decrease in cereal imports and the virtual stagnation in the import of sugar and milk products.

The share of agriculture in GDP in **Algeria** increased slightly in 2003 (9.7% as against 9.3% in 2002), returning to the level registered in 2001; this was due in part to the exceptionally good cereal harvest. Agriculture still ranks third amongst the various sectors of the economy, after the hydrocarbon sector (32.8% of GDP) and the services sector (21.5% of GDP).

The contribution of the agricultural sector to total employment continues to be significant (between 21 per cent on 22% of employment), in view of the low performance of the industrial sectors and the building and engineering industry in 2003. Job creation by the sector is reported to have increased by 9.7% in 2003 compared to 2002. Even if these figures are probably very overestimated (since the Ministry includes the job creation forecasts made by developers in its statistics and does not allow for the fact that they inflate the number of jobs in order to get their project approved more easily), agriculture remains an essential employer, particularly in rural areas.

As regards foreign trade, a decrease in the share of agro-food imports in total imports was recorded in 2003 compared to 2002 (26.3% compared to 28.9%) and compared to the average for the period from 1994 to 2003 (31.5%), although

imports increased in absolute value (from US\$ 3.45 billion in 2002 to US\$ 3.56 billion in 2003). The share of agro food exports in total exports showed a downward trend in relative terms, dropping from 0.7% to 0.6%. It grew in absolute terms, increasing from US\$ 127 million to US\$ 135 million. Agricultural commodity exports seem to be progressing slowly but surely, since they now account for a 0.8% of total exports, progressing by 19% in 2003 compared to the average for the 1994-2003 period.

Private exporters are tentatively beginning to invest in foreign markets. An exporter from the wilaya of Jijel (in the East Central region of the country), for instance, having invested in sorting and packing plant with partial support from the FNRDA (national fund for regulating and developing agriculture), conducted the first export of vegetables to the French market in June 2004 (4 tonnes of sweet peppers and chillies, which were exported from Jijel, followed by a second consignment of 10 tonnes of sweet peppers and beans from Algiers Airport).

In **Tunisia**, the contribution of agriculture to GDP was only 10.8% in 2002, which was a particularly dry year. A negative growth rate of -11% was actually registered in the gross agricultural product the same year. In 2003, a favourable year as regards weather conditions, the contribution of the agricultural sector to GDP was 12.6%.

With regard to foreign trade, the share of agricultural imports in total imports was 12% in the years from 2001 to 2003 and the share of exports amounted to almost 13% of total exports.

As regards employment, agriculture employs almost 28% of the total working population.

In **Egypt**, agriculture continued to occupy the same place in the economy in 2003 as it did in 2002, accounting for 16.8% of GDP, coming second after the “industry, construction and electricity” sector, which accounted for 25.4% of GDP. Its share in investments increased from 13% in 2002 to 14.1% in 2003, and its share in raw materials exports remained stable at 47.6%.

With regard to employment, the sector provides work for 26.9% of the employed labour force, which makes it the leading sector in this field.

In **Turkey**, the relative importance of agriculture in the economy has not changed despite the crisis and the drought. It is still one of the main employer sectors (35% of the labour force) and one of the major contributors to GDP (13%), exports (Turkey is the fourth leading exporter of agricultural commodities amongst the Mediterranean countries) and industrial growth – through the inputs it supplies to the AFIs.

In the foreign trade field the agricultural sector (exclusive of forestry products and agri-foodstuffs) accounted for 3.7% of imports in 2003 (an increase compared to the 2002 figure of 3.3%) and 5.4% of exports (a decrease compared to the 5.8% registered the previous year).

In **Greece**, the contribution of agriculture and the fisheries sector to GDP (in constant prices) dropped to under 6%, whereas it was 7.7% in 1998. Despite this low contribution, the Greek agricultural sector still employs 16.6% of the total number of gainfully employed, thus coming third after the secondary sector (22.4%) and the tertiary sector (61%).

Agriculture's share in foreign trade is very significant, particularly in the export field; it remained constant in 2002 compared to 2001 (the data for 2003 are not yet available). Agricultural imports (exclusive of fisheries) accounted for 9% of total imports (8% in 2001), and agricultural exports accounted for 17% of total exports (16% in 2001).

In **Italy**, agriculture maintained its relative importance in the country's economy in 2003, accounting for 2.3% of total value added, although the sector registered an appreciable decrease in real terms (-5.6%).

With regard to employment, agriculture employs only 5.2% of the labour force as against 28.7% for industry and 66% for the services sector.

Agricultural exports accounted for 7.2% of the value of total exports. The opposite trend was observed in the import field with an increase of 1.8%, which contributed to the aggravation of the negative agro-food trade balance.

In **France**, there was no change in either the agricultural sector's or the AFIs' GDP ranking in 2002 and 2003: 2.1% and 2.4% respectively.

The same was observed in the employment field, agriculture continuing to employ 4.4% of the labour force as in 2002. The AFI sector's share in employment increased slightly from 2.4% to 2.5% of the labour force, thus reflecting a slight decrease in the sector's productivity.

Trade in agricultural commodities and agri-foodstuffs continued at the same level as in 2002 in terms of value, whereas it had progressed steadily in previous years.

In **Spain**, the contribution of agriculture to GDP is steadily decreasing. It was 5% in 1990, 4.3% in 1995 and 4.3 per cent in 2000; it then dropped to 3.4% in 2002 and remained at that level in 2003.

Similarly, the number of persons employed in the agricultural sector decreased from 5.7% of employed labour in 2001 to 5.4% in 2002 and 5.1% in 2003, but the productivity of agriculture labour is still well below that of the other sectors of the

economy: whereas an agricultural worker produces €30 000 of value added, the average for the economy as a whole is €45 000.

In the foreign trade field agricultural commodities and food stuffs account for 17.6% of total exports (17.8% in 2002) and 12.5% of total imports, a slight drop compared to the 2002 figure (13%).

In **Portugal**, the agriculture, forestry and fisheries sectors together accounted for 3.42% of the gross domestic product in 2003, slightly more than in 2002, when the figure was 3.29%, which marked a decrease compared to 2001 (3.34%).

With regard to employment, agriculture continues to play a major role, well above the European average, providing 12.3% of total employment in 2003 – the same proportion as was registered in 2002. Comparison of the percentages for employment and gross domestic product reveals, moreover, that productivity in the agricultural sector is still low.

6 Trends in agro-food production, consumption, trade and market policies

6.1 - The processing industry

Growth in agro-food production was subdued with in most Mediterranean countries. The growth rate was lower than the previous year but higher on average than the rate registered in the manufacturing industry as a whole. The difficult economic climate marked by a slowdown in the economy in most countries, due to low internal and external demand, and the decrease in the supply of agricultural commodities, which resulted in rising prices, are the factors which influenced agro-food production. The increase in the average price of agricultural raw materials and energy resulted in a downward trend in financial performance.

Production in the agro-food industries in **Morocco** developed at an appreciably lower rate than the overall GDP growth rate in 2003 (3.8% compared to 5.2%), but this rate was nevertheless slightly higher than the average non-agricultural GDP rate (3.2%). We have already mentioned that, with regard to the processing industries as a whole, the agro-food industries developed quite favourably, at least compared to the previous year: by achieving a growth rate almost as high as the rate in the industrial sector as a whole (3.7%), they nevertheless performed appreciably better than in 2002, when their growth rate was only 1.9%.

There are 1 767 establishments in the agro-food industries (AFI), i.e. 23% of the total number of industrial units in the country. These firms achieved almost one-third (32.6%) of the total output of industrial products and contributed one-fifth (20.4%) of total industrial exports. The AFIs also accounted for one-quarter of industrial investments and employed almost 50% of the workers employed in the processing industry. Employment figures have been tending to drop in the agro-industrial sector, and there seems to have been another marked decrease this year, since the employment figure is under 64 000.

Box 6.1 - The agro-food industries in Morocco: subdued growth

The slight increase in the output of the agro-food industries was the result of a sharp decrease in the manufacture of chocolate and confectionery products (-13.9%), a less marked decrease in grain-mill product output (-1.2%) and a very slight upward trend in the sugar industry (2%), and in the baking, confectionery and biscuit industry (1.6%). The growth rates in the components of the other food industries where appreciably higher growth rates than in the latter industry were achieved varied widely with quite distinctive trends in some cases. Their respective growth rates were high - sometimes almost 19%, as was the case with canned products, fruit and vegetables and vegetable or animal fats, where the growth rate was 12%. There was a sharp downturn, on the other hand, in other components such as the manufacture of animal feed (-7.7%). Growth was less marked in the other activities in this sub-sector. Milk production increased by 5.1% and canned fish and other canned seafood output grew by 2.6%, whereas output stagnated in the manufacture of various other foodstuffs. Output in the beverages and tobacco industry increased by 2% between 2002 and 2003. This subdued growth was registered despite the satisfactory performance in the production of beers and malt and of spirits, where the growth rate was 4.1% in each case. Tobacco output increased by 2%.

Source: Centre Marocain de Conjoncture, Bilan économique et social 2003, Bulletin n°27, Rabat, June 2004.

With regard to the production criterion, the structure of the food industries (exclusive of the tobacco industry) in 2002 was dominated by production units processing staple commodities: cereals and by-products accounted for almost one-third of the entire output (32%), milk and milk derivatives 13%, fats 11% and sugar 10%. It is observed that these industries are essentially geared to satisfying domestic demand and that exports – where they exist – account for only a marginal share (less than 5%). This is also the case with the beverages and meat industries (the latter are virtually in embryo, accounting for barely 1% of total output). The fish industry, on the other hand, which accounted for an appreciable share of total output (14%), is geared 90% to exports. The same applies, although to a lesser extent, to the fruit and vegetable processing industry, which contributed 5% of total output, two-thirds of which, however, was for external markets.

The **Italian** food industry confirmed its position in 2003 as the second leading manufacturing industry in the country. In a difficult economic climate of marked stagnation, the industry registered a 1.3% increase in production by the end of the year, whereas there was an overall decrease in production of 0.8% in Italian industry as a whole.

Despite a drop in exports, the turnover of the food industry in 2003 remained at the same level as in 2002, amounting to €103 billion; this was the fruit of the work of some 36 900 firms, most of which are small and medium-sized enterprises (6

910 of these employ more than 9 workers) and some 440 000 workers (273 000 of whom are employed in firms employing more than 9 people).

The value added of the food industry progressed by 5.9% compared to the previous year, amounting to almost €34.851 billion, approximately 11% of the added value of the industrial sector and 20% of that of agro-food system as a whole.

The most significant variations in turnover in the various components making up the agro-food sector concerned the meat industry, particularly poultrymeat (+19.5%), the fish industry (+15.2%) and the confectionery industry (+11.2%). Other variations in turnover, somewhat less marked, concerned soft drinks (+6.3%) and canned vegetables (+6.1%). Sizeable negative variations were registered on the other hand for sugar (-25.2%) and wine (-25.2%).

With regard to prices, 2003 was a difficult year due to the controversy over real inflation and inflation as perceived by consumers. In this context, the average of the producer prices of food industry products rose by 2.8%, which was barely higher than inflation rate (2.7%) and at all events lower than the increase in consumer prices, which was 3.1%. This sector's contribution to the rise in inflation rate was thus marginal; the reasons for that increase are to be sought in the structural deficiencies of the distribution chain.

The increase in foodstuff consumer prices, which rose steadily in the last few months of 2003, was due to a large extent to the trend in the fresh products sector. With a 3.1% increase in the annual average, fruit prices actually rose by 5.6% and vegetable prices by 4.7%.

In addition to this, the crisis and the financial scandals which shook the two major Italian food industry groups, Cirio and Parmalat, must also be mentioned. These affairs were the result of disappointing industrial management – partial insolvency of the industrial groups was brought to light, a factor that was aggravated by not exactly legal operations affecting not only the industrial system and employment but also a large number of agricultural producers. The activities of the Italian agro-food group Cirio, which focus on the production of tomato derivatives, sauces and fruit juices, accounted for a turnover of over €240 million and concerned 800 employees and over 3 000 farmers producing the primary commodities. In the milk products sector, Parmalat achieved a turnover of €950 million in Italy, employing 2 250 people.

In **Portugal**, meat and poultrymeat production dropped by 12.1% compared to the previous year due to the nitrofurans crisis, which started in March and affected all of the sectors in the chain from breeding (eggs) right down to slaughter. Turkey meat was the sector worst affected, registering a decline of 21% compared to 2002. A decrease was also registered in the output of the other poultry products – ducks, free-range chickens, etc. – but it was less marked.

Milk production also followed the downward trend of several other agrifoodstuffs. Total cow's milk output was 1.919 billion litres, a 6% decrease compared to the previous year; this can be explained by the fact that production quotas were exceeded in the course of that farm year (2002-2003). The trend was different as far as the other types of milk are concerned: there was an increase in ewe's milk output (+1%), whereas a decrease was registered in goat milk production (-3%).

In **France**, the activities and turnover of the agro-food industries stagnated in 2003. Although the index of industrial AFI output for the sector as a whole remained virtually constant (+0.2%), the results in the individual sectors were very mixed. Due to the heat wave, the beverages and fruit juice sectors achieved by far the best results (+2.2% and +9.6% respectively). Results in the meat sector were mixed: a downturn in poultrymeat production (-4%), where major restructuring measures were carried out, but marked growth in meat preparations and prepared meat products. The milling and dairy industries suffered from the decrease in raw material output (-0.7% in both sectors). Similarly, animal feeds were affected by the drop in demand for off-land agricultural commodities, despite the rise in demand for cattle feed from the summer onwards, but also, curiously enough, by a drop in the demand for pet food, which accounted for 10% of total tonnage (approximately 2 million tonnes), and much more in value. And finally, sugar production suffered from the poor sugar beet harvest.

Prices in the sector rose by 1.2% on average, with fairly comparable trends in the various sub-sectors; fats prices were the only ones to drop, due to the downward trend in oilseed prices. Unlike the situation in the other industrial sectors, the AFI's continued to create jobs, but at a very slow rate. The number of wage earners increased by 900 in the sector as a whole, i.e. +0.2%.

The prospects for 2004 are fairly grey, since consumption stagnated towards the end of the year with no sign of recovery.

Contrary to the previous years, the "provisional" results of the 2003 annual survey of enterprises in the AFIs were published in mid-2004. This is a survey which covers firms employing 20 workers and more and produces data on structures and results.

There was a slight increase in the turnover achieved by these firms (+1.1%). Exports stagnated (+0.2%), with very poor results in the meat sector (-4.2%); there was a very slight decrease in the number of persons employed (so it was actually the crafts sector that was more concerned in business start-ups). The most worrying figures were those for investments, which decreased in all sectors except in the dairy industry and in the fruit and vegetable processing sector, where several major operations were observed. The overall result was -4%, better than the result achieved in the rest of the industry (-8%) but still a long way from the figures achieved in previous years, when the AFI's were one of the most dynamic industrial sectors.

The largest processing sub-sector in **Greece** is the food and beverages industry. It is considered to be the most dynamic sector, but 2003 was a poor year. With regard to the food processing industry in particular, net profits amounted to €157 467 000, down by 26.7% compared to 2002. The overall poor performance of the food industry can be explained by two main factors: first, the considerable reduction in agricultural production during the last two years due to adverse weather conditions and, secondly, the fact that a number of industries that were profitable in previous years, registered high losses in 2003. Overall, the volume of food and beverages output was down by 3.2% in 2003.

The beverages industry on the other hand performed significantly better, increasing net profits by 32.4%. The tobacco industry had a very bad year, and the picture in the textile industry is equally negative: this once thriving sector, of crucial importance to the domestic economy, is today faced with adverse circumstances due to more competition from third countries (mainly from Far East countries) and the sharp decline in world prices, and the outlook for the future is not good.

When one analyses the Greek food industry in greater depth, the results of the 346 largest companies in 2003 are worthy of note. Total net profits dropped 15% from € 345 million in 2002 to €293.6 million in 2003, whereas total sales increased slightly by 3%, amounting to €7.2 billion. The domestic food industry can be separated into 2 distinct categories: despite the fact that profits were down in 10 out of 19 sub-groups, the 272 profitable companies increased their profits by 13.1% on average to €427 million, whereas the losses of the remaining non-profitable firms increased to a much greater extent (312%) – to almost €134 million.

The gross output of the **Spanish** agro-food industry reached a value of €62.116 million in 2003, which represents an increase in current prices of 5.5% compared to 2002. When measured in constant prices, it represents a 3.0% increase, which can be regarded as favourable, since from 1998 onwards the data indicated only slight increases or even decreases in gross output.

As we mentioned in last year's report, one of the main characteristics of the industrial sector in Spain is the relatively high percentage of small and medium-sized enterprises. As a matter of fact, in the agro-food sector only 3.39% of the firms have more than 50 employees, many of them being family-owned and managed firms. These firms tend to concentrate mainly on the domestic market, a fact which is a short-coming on a global market and a threat for the future performance of businesses.

As a further example of the disadvantages of the small size of firms, consumption data indicate that 21.6% of final food expenditure was effected on retailer brand products in 2003 (9.1 percent points above the 2002 figures). Since the profit margins of firms are smaller with products of this kind, larger-scale food industries

could improve their negotiating capital with retailers and thus improve their profitability.

As regards the sub-sectors, higher output values were achieved in the meat, alcoholic beverages and dairy products sub-sectors. Employment is more evenly distributed, on the other hand, although the bakery sub-sector accounts for almost one-quarter of total employment and the meat industries about one-fifth.

The agro-food industry in **Turkey** is export-oriented and is growing faster than the overall growth rate: between 1995 and 2002 the economy grew by 2.8% and food processing by 3.2 %. The share of food processing in GDP has thus increased in the last 15 years from 4.6% to 4.8%. By 2002, the food industry accounted for 20% of the total output of the manufacturing sector; it employs more than 100 000 registered workers and technical staff.

The agro-food processing industry ranges from small individual firms to large and small cooperatives and multinational firms. There are also small to modest-sized specialty and craft businesses that offer limited but high-quality products, often using traditional methods and recipes. The number of firms has increased by 25% since 1994 to a total of 28 000 with the following product breakdown: grain-mill and pasta products 65%, milk and dairy products 11%, processed fruits and vegetables 12%, vegetable oil 3.5%, sugar 3% and meat processing 1%. However, there are 2000 relatively large firms with advanced technologies accounting for a considerable amount of foreign direct investments, which are concentrated mainly in the milk product, vegetable and fruit processing sectors.

Pastry and milling industry products: wheat flour, semolina, bulgur, bread, macaroni and biscuits account for approximately half of the agro-industrial output value. The industry has its strengths and weaknesses. Its strengths as listed by the State Planning Office are: easy access to raw materials, a relatively cheap and even qualified work force, a large domestic market, proximity to developing markets, and prospective EU accession. Its weaknesses are: insufficient integration and cooperation between agriculture and industry, problems of quality and capacity utilisation, and an inadequate food control system.

The contribution of the public sector to the food industries in **Egypt** has continued to decrease over the last few years. The number of units in that sector as well as the value of their production has also steadily decreased – by 19% and 65.8% respectively in the period from 1999 to 2001 – due to the growing contribution of the private sector from year to year. This is basically the result of the privatisation programme which has been implemented over the past few years, and which includes the privatisation of increasing numbers of State enterprises as well as the absence of new investments in that sector.

On the other hand, the number of employed and the employment rate, the value of production, the value added as well as the number of units have decreased during the same period within the State industrial sector and the rest of the public sector.

Milling, baking, and the production of dairy products and oils are considered the major activities in the public food industry sector, even though they are suffering the impact of the privatisation programme. The value of the economic indicators for these industries has decreased steadily from one year to the next. There are no detailed data of food industry activities in the private sector.

The agro-food industry is the most important sector of **Lebanese** industry, accounting for 20% of industrial enterprises and contributing 26% of GDP (Tmasin and Trifiro, 2002). The sub-sectors include traditional products such as alcoholic beverages (wine and arak), confectionery, canned fruit and vegetables, bakery products and olive oil.

New plants have been registered in recent years producing potato crisps and snacks, dairy products, frozen food, and vegetables, as well as feed mills and poultry breeding centres.

According to the Directorate General for Industry, 824 new factories were established in 2002 (as against 599 in 2001), employing 6 721 persons (4 425 in 2001). The breakdown of newly registered factories by product category shows a preponderance of food and beverages, accounting for 24.7% of the total. The food and beverage industry considered to be an important economic sector; it accounts for 4.2% of total exports. However, there is a continued need to focus on standards and technical specifications, which can only be done by investing in technological innovation, automation and quality control in processing plants.

The fruit and beverages processing and preservation sub-sector accounts for around 4% of the total food and beverage sector (160 establishments), while bakeries represent 48% of the total and confectionery industries 22.5%. Some 150 companies have a production capacity which enables them to export.

The most important areas of production are processed foods such as pickles, jam and pre-packed foods, with 132 companies operating in this sector. Another 35 companies, mostly in the Bekaa valley, produce dairy products.

However, for many industrialists in this sector, the problems the industry is facing are due to policy and lack of financing, low technology and high taxes on raw materials – around 80% of the raw materials used by the food industry being imported.

6.2 - Food consumption

There was stagnation in food expenditure overall, particularly in the EU countries due to rising prices and the stagnation in the economy as a whole. Some improvement was observed in food quality and food distribution in the southeast Mediterranean countries, indicating a narrowing of consumption disparities between the various regions and the various socio-economic classes. A problem was observed in foodstuff prices in the EU countries: on the one hand, the consumer price indexes showed a sharp rise in real terms of 4% to 5%, whereas on the other hand the producer prices of agricultural commodities dropped in real terms. This problem still has to be resolved in most EU Mediterranean countries, which have set up price monitoring committees.

In **Algeria**, the National Statistics Office issued new figures in 2003 concerning the "household consumption budget 2000". They show on the whole, as regards total household expenditure, that inequalities have diminished on the one hand and that the gap between rural and urban areas has not widened, since annual per capita expenditure increased by very similar rates in both areas in the period from 1988 to 2000. All of this would mean that the policies pursued during the decade did not basically harm rural areas and were thus fairly balanced between the two environments. This testifies to a type of development which contrasts with what is observed in most developing countries, where structural adjustment policies (such as those pursued in Algeria in the period from 1990 to 2000) widen the gaps between the rural and the urban world.

Box 6.2 - The results of the "household consumption budget 2000" survey in Algeria

The same reduced gap was observed between the urban and the rural world in terms of growth in food consumption: Per capita food consumption increased by 478% in the former and by 444% in the latter in the period from 1988 to 2000. It is interesting to note that food consumption accounts for 43.7% of total expenditure on average in the rural world and 45.1% in the urban environment. Does this mean that the rural world is "richer" than the urban world? It would seem so, since another curious factor has also been observed which would indicate this: the decile 10 group (the richest) devotes 26.6% of expenditure to food in the rural world and 40.6% in the urban world.

In constant terms (obtained by deflating by the general price index), total per capita household expenditure would seem to have decreased more in rural areas (-17%) than in urban areas (-8%) between 1988 and 2000. The relative impoverishment is thus greater in rural areas than in urban areas. The decrease in per capita food expenditure was greater than the decrease in total expenditure both in rural areas (-27%) and in urban areas (-22%). Thus, although total per capita consumption was less in 2000 than in 1988, the consumption pattern changed in structure at the expense of food expenditure.

Analysis by decile shows that decile 1 (the poorest) increased total per capita expenditure much more in the urban environment (+21%) than in the rural environment (+6%). Per capita total consumption decreased sharply, on the other hand, in decile 10 (the richest) (-15% in the urban environment and -23% in the rural environment), food consumption thereby decreasing less in urban areas (-7%) than in rural areas (-39%). It would thus seem that, compared to the urban figures, non-food consumption in rural areas has caught up, particularly in the case of the richest decile.

In 2002, the general consumer price index (GPI) for foodstuffs was considerably lower than the general price index with a variation of 1.8% (compared to 2.2% for the GPI). The opposite was the case in 2003, when the general index rose by 3.5% and the foodstuffs index rose by 4.5%.

When all foodstuffs are taken into consideration it is observed that the products with the most marked price increases were local products, whereas there was generally a downward trend in the prices of imported goods. There was a price variation of -3.3% in the "Sugar and sugar products" group, for instance, and a variation of -2.2% in the "Coffee, tea and herb teas" group. Prices remained stable or showed a slight positive variation in the case of the other groups of products, which are mainly imported.

The sharpest price increases concerned animal proteins. Increases in the "Poultry and eggs" and "Fresh fish" groups were practically identical: +18.7% and +18.1% respectively. The "Meat and sheep offal" group followed with a variation of +11.3% and the "Beef and veal" group with +7.4%. The sharp rise in red meat prices

continued at the beginning of 2004; this is to be explained by livestock retention on the part of extensive farmers, who were taking advantage of natural grasslands (promoted by good rainfall) to fatten their animals and build up their herds. The other explanation of the increase would be the fraudulent export of animals to Tunisia and Morocco, whereby farmers are interested in the traffickers' offer of payment in euros (Aouzelleg, 2004).

In **Italy**, there was a decrease in the quantity of foodstuffs consumed and at the same time a sharp increase in the consumption of soft drinks and alcoholic beverages (+6.8% in volume), particularly in the third quarter due to the summer heat wave, and, in the last quarter, a 2.5% increase in the quantity of fish consumed. A decrease was registered on the other hand in the consumption of pasta, meat, bread, milk products, oils and fats, sugar, salt, tea, coffee and wines. At the bottom of the list, the downward trend in the consumption of fruit and vegetables was confirmed and is likely to continue further: the 1.1% decrease in purchases in the last quarter was in fact the continuation of the downward trend registered in the previous quarters. The drop in consumption is to be attributed to several factors. The lifestyle of Italian households, which has changed profoundly, non-domestic consumption, and a lighter diet have together significantly modified domestic consumption. What is more, the bad weather conditions which hit the country caused a sharp rise in the price of fruit and vegetables and also affected oil and wine production. And last but not least, the acceleration of inflation and the introduction of the euro contributed further to the decrease in consumption.

Food consumption in **Greece** accounts for around 16.5% of total consumption. In 2003, foodstuff consumer prices continued to rise at a significantly higher rate than the overall Consumer Price Index (CPI): the CPI increased by 3.5%, whereas the food index increased by over 5% and the drinks index by 4%.

It was also emphasised in last year's report that rising food prices have become a matter of national concern. In the course of 2003, officials stepped up efforts to reduce price increases for major consumer products including food products, but not always with the same success. Although food prices in 2003 did not increase as much as in 2002, the cumulative increase over the last 3 years is believed to have dramatically changed the way Greek consumers purchase food products: own-label products in retail chains are rapidly gaining market shares at the expense of well-known manufactured products, since the former are sold at a considerable discount. In 2003, the major food products registering the highest price increases were potatoes (19.2%), poultry meat (7.3%), fresh fish (5.3%), sweets/confectionery (4.8%), olive oil (4.3%), juices (3.8) and fruit and dairy products (3%).

Per capita consumption of fruit and vegetables in Greece is amongst the highest in the European Union. On the other hand, meat consumption (around 90 kg) is well below the EU average, with the possible exception of poultrymeat. Sheep and goat meat consumption is around 13 kg, while the self-sufficiency rate is around 90%.

Per capita consumption for beef and pigmeat is considerably higher (22 kg and 26 kg respectively), but self-sufficiency rates are very low (27% and 48%).

In 2003, total food expenditure in **Spain** amounted to €69 406 000, 4.8% higher than in 2002 – but only 1% in real terms. Every household spent €1 226 per capita. This household expenditure accounts for €50 716 000 and is the main factor responsible for the growth in total food expenditure. According to the breakdown of household expenditure by product, meat products rank highest in absolute terms (€12 200 000), while the next products in the ranking are fishery products, milk and other dairy products, fresh fruit, fresh vegetables, bread and pulses. Although there is a certain degree of stability in this ranking, some products have increased their share in the household food basket. Indeed, in relative terms, comparison with 2002 expenses shows that the main increases occurred in the case of beer, fresh fruits, prepared foods, mineral water and soft drinks, while the total expenditure on other products such as fresh potatoes and table wines dropped, despite the general rise in food expenditure.

One notable event was a heated controversy amongst actors in the agro-food chain over the vegetable prices during the summer of 2003. While consumers claimed that market price levels were unprecedented, farmers were protesting at the very low prices they were being paid. In fact, the CPI was severely affected by vegetable prices in those months, and the government started to monitor middlemen's margins through the "Prices Observatory" set up by the Ministry of Agriculture, Forestry and Fisheries. As prices dropped the situation calmed down, but new problems could arise, since the differences in market power between primary demand and supply remain unchanged.

Turkey can be regarded as a self-sufficient country. Food prices are almost half of the EU average prices. The highest food expenditure in Turkey in 2001 was on fruit and vegetables – accounting for 23% of total food expenditure. Expenditure on fishery products was only 1 % and the meat and milk product shares were 13.55% and 12.84% respectively. Expenditure on beverages and tobacco was also low, indeed the lowest when compared with OECD countries.

The recent data in **Egypt** indicate several favourable changes in food consumption patterns in Egypt. Average per capita consumption has increased for fruit, meat, edible oils and dairy products, for instance, whereas it has decreased slightly for vegetables and fish. Despite being lower than the international rates, this increase can be regarded as an indication of improvement in the Egyptian citizens' food quality, since these commodities are known for their ability to create energy and build the human body. Meanwhile, the per capita consumption of starches (grains and potatoes) has decreased despite the increase in the production of these crops. Per capita sugar consumption has only increased very slightly.

6.3 - Foreign trade

Growth in foreign trade at constant values was subdued as the result of low demand in most countries. A slight increase was observed in the foodstuffs import-export ratio in Tunisia, Morocco, Spain, Portugal, Egypt, France and Lebanon. The import-export ratio decreased in the other countries.

There was little increase in the value of agricultural commodity imports in **Algeria** in 2003 compared to 2002: only +3%. Imports increased steadily compared to the average for the 1994-2003 (+11.5%). Foodstuff imports proper only increased by 3.6% in 2003 compared to 2002 (+5.6% compared to the 1994-2003 average).

The structure of agricultural imports remains dominated by foodstuffs (73%). In food imports, cereals for human consumption remained predominant (25.2% of agricultural imports). The "Milk and milk products" group comes second in the list of foodstuffs (14.4%) and is followed by the "Other foodstuffs" group (11.2%) and the "Oils and fats" group (9.6%).

The non-food agricultural commodities, which accounted for 27% of agricultural imports, were as follows, in order of importance: wood and wood derivatives (8.5% of agricultural imports), with a considerable increase in value in 2003 compared to 2002 (+24%), and seed cereals and cereals for livestock feed (6.3%), with a sharp decrease in value in 2003 compared to 2002 (-36 %).

The highest increases in value were recorded for the following imports: the "Coffee, tea, spices" group (+25.9%); the "Other foodstuffs" group (+20.2%); the "Oils and fats" group (+19.3%), due to the sharp increase in the prices and quantities of imported soybean oil (+36.9% and +271% respectively); the "Fresh vegetables and dried beans" group (+7.3%) and the "Milk and milk products" group (+5.2%, where the price per tonne of powdered milk rose by 16.6% between 2002 and 2003).

Decreases were recorded in the values of certain imports: sugar and sugar products (-16.4%) due to an 8% drop in the unit price and a 7.5% decrease in the quantities imported; cereals for human consumption (-8.4%) due to the sharp decrease in the quantities of durum wheat imported (-16.4%); grain-mill products (-7.6%) due to the simultaneous decrease in the quantities and unit price of imported flour (-69% and -15.3% respectively).

Algeria continues to obtain most of its agricultural imports from the EU (44.8%), the North American Free Trade Agreement (NAFTA) countries (16.8%) and the countries of the Latin American Integration Association (LAIA) (17%). There was a relative decrease in imports from the EU and NAFTA countries in 2003 compared to the previous year, whereas imports from the LAIA increased further and those from CIS countries remained stable.

The main cereal suppliers were France (27%, essentially durum and common wheat) and the US (15% of cereals, essentially maize). France also dominated "Milk, eggs and honey" imports, accounting for over 32% of Algerian imports in value, followed by Argentina (11.4%), Poland (10.3%) and Belgium (8.5%). With regard to the "Oils and fats" group, Algerian imports were dominated by Russia, which accounted for 24% of these products, followed by Malaysia (17.2%) and France (9.6%).

Agricultural and food exports remained negligible although higher in value than in 2002 (+6%): barely 135 million US dollars covering 3.8% of agro-food imports (as against 2.3% in 2002 and 2.6% in 2001). Agri-foodstuffs only accounted for just over 38% of these exports, whereas the "Fertilisers, cork, hides and leathers" group accounted for 62%. The main agro-food exports were fresh and dried fruit (12.3% of these exports), fishery products (4.9%) and wines and beverages (4.5%).

The European Union and the Arab League continued to be the main destinations of the very limited volume of agro-food exports (70.3% and 14.6% respectively). Expressed in value, exports to the EU decreased by 2%, to NAFTA countries by 15%, and to the countries of the Arab League by 9%, whereas there was a sharp increase in exports to LAIA countries (+50% – although the absolute amounts were low) and to the countries of the Arab Maghreb Union (+42%).

Although Algeria's self-sufficiency rates improved slightly as the result of a good farm year, they were still low for pulses (25.6%), milk (41.2%), durum wheat (37.7% in 2003 compared to 21.1% in 2002) and common wheat (34.5% in 2003 and 18.4% in 2002).

The industrial tomato processing industry again rebelled against the policy pursued by the Ministry of Agriculture and Rural Development (MADR) and the Ministry of Trade, complaining that MADR policy was not encouraging the production of fresh tomatoes through the FNRDA (National Fund for the Regulation and Development of Agriculture) and arguing that the EU was paying producers a subsidy of €34.5 per tonne delivered to canning factories. And as for the policy pursued by the Ministry of Trade, they complained that it was not sufficiently protecting the domestic market: the authorities were too lax in issuing import licences for concentrated tomatoes, there was no import quality control, and the inputs for tomato production were "overtaxed" (Benouaret, 2003).

The evolution of the agro-food trade balance in **Tunisia** over the last decade has remained very dependent on variations in output level. The import-export ratio thus varied widely over that period. From 1992 to 2002 the ratio oscillated between a minimum of 46% in 1995, low performances of 45% and a maximum of 99% in 1999.

The agricultural import-export ratio registered in 2003 was 76%, slightly higher than the average calculated over the period under review (71%).

There has been little change in the composition of Tunisian trade in agricultural commodities and agri-foodstuffs over the last few decades. Imports have been largely dominated by cereals and sugar, and exports have been composed essentially of olive oil and fishery products. In view of the variations registered in domestic agricultural production, foreign trade in these products shows:

- a drop in cereal imports of 50% in the case of barley compared to the 2002 trade flows, 6% in the case of durum wheat and 4% in the case of common wheat,
- an increase in olive oil exports from 22 500 tonnes in 2002 to 60 000 tonnes in 2003,
- an increase in milk imports of almost 12% of the volume imported in 2002.

As regards the geographical distribution of Tunisian trade with the rest of the world, the European area continues to be the primary trading partner, accounting for 77% of total imports and 84% of agricultural exports.

The agro-food trade balance in **Morocco** improved in 2003 with an import-export ratio of 100% compared to 91% the previous year.

It must be underlined that seafood product exports weighed extremely heavily in the agro-food trade balance, so that in order to evaluate that balance properly it is preferable to distinguish between the "balance" including seafood products and the "balance" without them. The balance "excluding seafood products" shows a considerable deficit, with an import-export ratio of barely 49.2%. The situation improved compared to the previous year (import-export ratio of 42.1%). This easing of the deficit position is actually due more to a marked decrease in imports than to any improvement in agro-food export performance.

Evaluation of the contribution of seafood products to overall trade also varies depending on whether or not they are included in agro-food trade. Exports exclusive of seafood products thus only accounted for 11% of Moroccan trade in 2003, whereas this proportion increased to 22.5% inclusive of seafood products. The share of agricultural imports in total imports decreased from 16.7% in 2002 to 13.8% in 2003 in view of the decrease in food expenditure already mentioned.

The structure of imports changed, due precisely to this drop in the cost of cereals supplies, cereal imports decreasing by 11 percentage points from 39% to 28%, whereas sugar and milk product imports only progressed by just under 1% and just over 1% respectively. Since very little oilseed is produced locally, this commodity scarcely benefited from the good results of the farm year, and the cost of oilseed imports rose. With regard to food dependence in respect of the 4 traditional groups of foodstuffs, the sharp decrease in wheat imports did not help to reduce their share in total imports to the extent one might have expected: that share dropped from 62% in 1991-1994 to 56% in 2003. And lastly, raw wood now features as a non-food product which is gaining significance, accounting for 11% of imports.

In the export field, seafood products alone accounted for practically the same volume as "soil products "; exports exclusive of seafood products remained dominated by citrus, which represented 29%, followed by various vegetables (16%) and fresh tomatoes (13%), although there was a considerable decrease in the latter exports in terms of both volume (-21%) and value (-16%). The other fresh and frozen fruit plus dried fruit and edible nuts accounted for one-tenth of total exports. Canned fruit and vegetables, for which the trend was also negative (-12 to -13% in volume and value), accounted for 15% of the total. And lastly, the "other products" totalled 17% of all exports, covering a wide variety of foodstuffs (particularly potatoes, spices, fruit and vegetable juices, olive oil, etc.) and non-food products (paper pulp, plants, cork, hides, plant fibre, etc.).

Seafood product exports are based to a large extent on 2 groups of products: shellfish and molluscs on the one hand and canned fish on the other, accounting for 44% and 34% of total exports respectively.

The marked stagnation of international economies and the devaluation of the dollar against the euro adversely affected **Italian** foodstuff exports. In 2003, the value of agricultural and food product exports was €18.039 billion, i.e. a decrease of 2.2% compared to the previous year. These exports accounted for 7.2% of the value of total exports. The opposite trend was observed in the import field with an increase of 1.8%, which continued to aggravate the negative agro-food trade balance: the figure for 2003 was - €5.411 billion euros, i.e. -17.9% compared to 2002. This was due to the situation in the agricultural and food sectors in that both registered a larger deficit in the trade balance than was registered in 2002, (i.e. +9.9% for agricultural commodities and +29.8% for foodstuffs). It can thus be argued that the sector is conserving its traditional inflexibility with regard to the raw materials and semi-finished products on which the agro-food industry depends.

There was a downswing in all sectors of the agro-food balance in terms of both value and quantity. Closer observation of trends in domestic trade reveals that fresh fruit (where the balance, although less favourable than in 2002, was nevertheless positive) and live plants, which even registered growth, formed the spearhead of agricultural commodity exports. The balance was positive in the agri-foodstuffs sector, although decreasing slightly in terms of both value and quantity. The mainspring sectors of Italian exports included beverages, particularly wines, followed by confectionery and bakery products, processed vegetables, rice and grain-mill products. There was a marked negative balance in the meat, milk and milk derivatives groups, on the other hand, in terms of both value and quantity.

The balance was extremely negative for fresh seafood products and cereals. The trend in the tobacco trade was stable, on the other hand, with a deficit only in value, since exports exceeded imports in terms of quantity.

Italy's main clients marked time in 2003. Once again, Europe (particularly France) was Italy's closest market link for both agricultural commodities and foodstuffs in both the import and the export field, although exports dropped by around 3%. Exports to the United States also decreased, despite the apparent recovery on the US market. Although the figures for trade with third countries were quite satisfactory, this trade is more residual in nature. Approximately 65% of Italian agri-foodstuff exports went to the European market. Imports from the EU showed a slight upward trend and accounted for almost 75% of total agro-food imports.

Portugal's negative trade balance in the production of staple foodstuffs remained, with very few exceptions.

Food self-sufficiency was achieved only for fresh fruit and vegetables, butter and poultry. The cases of cereals and sugar clearly illustrate the unsuitability of weather conditions in particular and the inability of production structures to increase the output of these commodities, which are furthermore subject to quotas limiting production and preventing the expansion of acreage under cereals or sugar beet.

So it is hardly surprising that the food balance was extremely negative (- €2 778 800 000 in 2002, i.e. 44.4% of domestic agricultural production). The import-export ratio was around 24.6%, higher than the previous year.

In short, in view of exports – some €909 200 000 in 2002 – Portugal only produces 70% of the foodstuffs it consumes. This is a chronic situation which has been going on for a long time and which has many different causes that are difficult to eliminate (weakness of agrarian structures, production quotas, etc.).

With regard to the geographical distribution of Portuguese trade with the rest of the world, the European area continues to be the primary trading partner in terms of both imports and exports, accounting for 90% of agricultural trade.

In **France**, trade in agricultural commodities and agri-foodstuffs continued at the same level as in 2002, whereas it had progressed steadily in previous years. Exports remained constant, with a fairly marked upward trend in the first quarter compared to the same period the previous year; they then suffered the effects of the drop in production from the summer onwards. There was a very slight downswing in imports, so that, all in all, the balance grew very slightly to €10.1 billion compared to €9.9 billion in 2002. Once again, the agricultural and agro-food sector's share in the country's trade is much greater than its contribution to production as a whole: it is the most positive item in the trade balance. We would point out that this very positive contribution to the balance of payments is a relatively recent phenomenon: this balance has only really been permanently positive since 1980, and trade in agri-foodstuffs now accounts for the bulk of it (6.3 billion out of 8.6 billion). This is also a fairly recent phenomenon, since it is only in the last 20 years that agri-foodstuff exports have also "overtaken" bulk commodities.

It is always the same products which contribute to this positive balance, beverages, wines and spirits, and cereals accounting for the major share. Paradoxically, there was a marked growth in cereal exports this year (+ €240 million), and the positive balance grew by €277 million. This figure is of course to be explained mainly by the good results achieved in the first 6 months (strong demand and stocks from 2002), but it must be noted that the early harvest and crop quality in 2003 also meant that products could be exported at high prices.

The situation in the beverages sector was more mixed, exports remaining at the same level with the same balance as the figure recorded in 2002. Wine constituted the bulk of these exports (5.8 billion); although the volume and value of champagne continued to grow (+5.5%), the downward trend in the export of other wines of registered designation of origin, which began in 1999, continued. Another sector which traditionally shows a large surplus, the sugar and sugar product sector, also registered a sharp decline this year (-7% in value).

A deficit was registered for fish, shellfish and fish products, tobacco, fruit and tropical products, as was the case the previous year. There was a sharp increase in tobacco imports in the 1990s, essentially due to the decrease in domestic production (acreage under crop has decreased by almost 60% since 1980). Imports decreased for the first time in 2003, as did consumption, and the trade balance dropped from € -1.54 billion to € -1.44 billion. We would also draw attention to the increase in fruit imports, mainly citrus and tropical fruit. There was a sharp increase in the negative balance this year, which was essentially the result of the sharp drop in output.

As was the case in previous years, France trades its agri-foodstuffs mainly with the European Union, which accounted for 72% of exports and 70% of imports. The variations in Euro parity thus played a minor role as far as the explanation of these flows is concerned.

The main clients and suppliers remain the same from one year to the next, the 6 leading clients and 6 leading suppliers all being in the EU. We would point out that the role played by Brazil, which has gained considerable significance in imports in the last few years, did not progress further and that, despite the decrease in dollar parity, with the various trade disputes and political conflicts with the United States the latter is still far from being the leading non-EU client, imports remaining at the same level as that recorded in previous years.

The EU enlargement in May 2004, in preparation for which the customs duties on agricultural commodities had been virtually totally abolished by 2003, had little effect on France's agro-food trade. The 10 accession countries actually only accounted for a very small share of that trade: exports amounted to €459 million, 153 million of which went to Poland, and imports amounted to €223 million, 102 million of which came from Hungary, i.e. 1% of total EU imports. It must be

pointed out that France accounts for only 3% of the agro-food trade of the EU-15 with these countries.

Contrary to the general merchandise trade balance, the agro-food trade balance for **Spain** has shown an export-import ratio of over 100% in recent years. Indeed, whereas the general import/export ratio for 2003 has been around 75%, the agro-food export/import ratio has been 105%.

Both imports and exports in the agro-food sector increased this year, imports growing by 2.6%, and exports by 3.9%. A further remarkable aspect is the relatively high proportion of agro-food exports, which accounted for 17.6% of total merchandise exports in 2003, whereas agricultural commodity imports accounted for 12.5% of expenditure.

More detailed analysis of exports reveals several factors. First, the two main categories of exports in terms of economic importance are fresh fruit and vegetables. Next in rank are prepared fruit and vegetables, beverages, and oils and fats, and fish and meat products also figure in the list. Of these products, only oils and fats exports decreased in value in 2003, while the exports of the other commodities grew in 2003 at a higher rate than the general agro-food index. Thus, with that one exception, it can be concluded that the main exporting sectors are competitive on the destination markets, which are mainly the EU and other European countries.

The sectors with the poorest exporting performance in 2003 were wool, leather and live animals.

With regard to imports, the main chapter is fishery products, accounting for nearly 18% of import expenditure. Timber, beverages, tobacco, fruits, oilseeds and cereals are also of special relevance; of these major commodities, cereals were the only one where the value of imports decreased. The value of fruit, tobacco and beverages imports increased significantly, on the other hand, at a rate above average.

A further point to bear in mind is the different pattern that can be observed in trade in raw materials on the one hand and food products on the other. While the export/import ratio for food was 120%, the ratio for raw materials – timber, leather, cork, wool, fibres etc. – was only 60%. Spain has a shortage of those materials and they have to be imported. The expenses to be borne are financed by the surplus in net food exports.

And there is another difference depending on the origin of the commodities traded. Forestry products accounted for 11.4% of imports and only 6.14% of exports. A similar situation can be highlighted for fishery products: as mentioned, their weight in imports was quite relevant (17.6%) contrary to their share in exports (6.59%). Trade was more balanced in the case of animal products: 16.2% of imports and 15.7% of exports; and, unlike the latter products, the balance for plant products

was clearly biased towards exports. The export/import ratio for plant products was approximately 150%, despite the major deficit in net exports of certain staple commodities such as milk, cereals and oilseeds. In fact the significant surpluses achieved in trade in fruit and vegetables offset all the previous deficits.

During the last farm year, the association of fruit and vegetable producers and exporters of (FEPEX) expressed its concern regarding the acceleration in the import of fruit mentioned above. It stated that, as the EU market opens up following the bilateral agreements signed by the EU with Mediterranean partners and other countries, Spanish productions still face certain non-tariff barriers when entering high-income countries such as Japan and the United States.

In **Turkey**, agro-food exports and imports increased from 2002 to 2003 by 30% and 32% respectively. However, imports increased faster for the same products. The export-import ratio for the agro-food trade remained around 100%. Turkey is a net exporter of food products and a net importer of non-food agricultural commodities. Agro-food products have a higher and increasing share in exports. Bulk non-food commodity imports dominate agricultural imports. This latter component of imports is also related to non-agricultural exports. The imported raw materials are not necessarily for domestic consumption; this is especially the case with the largest import category, textile fibres, which are for textile exports.

Trade relations between Turkey and the EU are based on a system of preferential access, in which schedules and tariff reductions for the various products are defined (in Council Regulation EC 1506/98). Turkey effects almost two-thirds of her exports under preferential conditions. Tariff-rate quotas apply to apricot pulp and hazelnuts, and voluntary export restraint agreements apply to tomato paste and peeled tomatoes. Minimum import (entry) prices for 11 fruits, 4 vegetables, grape juice and grape must are further restrictions imposed by the EU. There are seasonal restrictions for preferential tariffs for 4 fruits and 7 vegetables. The quotas set for tomato paste, watermelons and onions are 30 000, 14 000 and 2 000 tonnes respectively. High specific duties prevail for almost all 'core' products such as cereals, sugar, dairy products, meat, olive oil, etc.

The EU is a primary partner in the context of Turkey's foreign trade, accounting for 47% of exports and 21% of imports.

Turkish agriculture has only been protected recently by "relatively high" tariffs. In other words, the "market access" area still provides the widest scope for further liberalisation, and here the tariffs are decreasing in accordance with the commitments signed in agreements. What is more, even high tariffs provide only limited protection. The decline in world prices, coupled with high domestic prices reduces the effects of the protection that tariffs bring. The beef and sugar industries are already suffering from this problem.

There have been favourable developments in **Egypt's** foreign trade in commodities over the last 3 years. The value of exports has increased, whereas the value of imports has decreased throughout the years under review. This has brought a steady reduction of the chronic deficit in the Egyptian trade balance, since in 2002/2003 it amounted to only 57% of the 1999/2000 value. There have also been numerous positive developments with regard to the values of agricultural imports and exports, the value of exports increasing from around \$300 million in 1999/2000 to around \$538 million. In addition, the value of imports decreased during the same period, although only very slightly. This resulted in a constant reduction of the deficit in the agricultural trade balance during the same period, but at a slower rate than that of the total trade balance. The share of the agricultural deficit in the overall trade deficit thus increased from 11.4% to 15.5% over the last 3 years.

These positive trends can be explained by the following factors:

1. the active export policy pursued by the government in recent years, especially in the field of agricultural exports, as mentioned above;
2. the constant decrease in the exchange rate of the Egyptian pound during that period, which led to the increase in the prices of many unimportant imports , with the result that imports ceased.

As for the geographical distribution of the Egyptian commodity trade, the European markets account for the major portion of Egyptian exports, followed by the Asian markets. On the other hand, the share of exports going to Arab countries is decreasing (despite the constant efforts to expand trade with Arab countries). And finally, the American market's share remains limited.

It is also noted that although recent years have witnessed the achievement of the Euro-Egyptian Partnership Agreement, the share of the European countries in Egyptian exports rose slightly from 34.3% to 34.9% and then decreased to 30% in the last 3 years. On the other hand, the share of the other countries (mostly Asian and African countries) increased from 33.6% to 40.1% then to 46% during the same period.

It should also be pointed out at this point that there was a sharp decline in Egyptian orange and onion exports to the Arab countries and a sharp increase in the exports of these 2 commodities to Asian and African markets during the period under review.

As regards imports, it is observed that the American markets account for the major portion of Egyptian imports, which have been increasing from year to year until they reached around 73.3% of total Egyptian imports last year. The Asian and African countries come second, followed by a number of European countries with decreasing percentages. The Arab countries come last with a very modest percentage despite all that has been said about the numerous agreements with

European and Arab countries to increase the volume of commodity exchange with Egypt.

What is very remarkable in the development of Egyptian commodity imports is the huge leap in imports from the US of most agricultural commodities during the period under review, especially sugar and meat products, which were conventionally imported from Asian markets and mostly from the European markets. Then there was this conversion to the American markets, which have now become the main source for these 2 commodities with a percentage of 78% and 99% respectively last year; this was a leap from a share which had not exceeded 1% in the 2 previous years.

Agro-food exports in **Lebanon** amounted in 2003 to US \$ 235 million as against US \$ 175 million in the previous year. The share of food and agricultural products in total exports was 15.48% in 2003, against 16.7% in 2002. The largest export components in this category were prepared foodstuffs, beverages and tobacco (63.8%), followed by plant products (27.66%).

The Gulf countries are the main destination for Lebanese agro-food exports (60%), followed by Syria (21%), Jordan (10%), the EU (2%) and Egypt (2%). The geographic distribution of these exports shows that Lebanon's main clients are Saudi Arabia, the United Arab Emirates, and Kuwait. In fact, most of the vegetable and fruit industry products are exported to Saudi Arabia (16%), the US and the UK. The value of agro-food imports, on the other hand, amounted to US\$ 1331.6 million in 2003 compared to US\$ 1237 million in 2002. The main exporting countries are Brazil, Egypt, Iran, the Netherlands, and the US. Cereals are imported from the US (41% of total cereal imports), Australia (11%) and Germany (8%). Most live animals and animal products are imported from France, Germany and Turkey. Lebanon is self-sufficient in poultry products. The wine industry has achieved notable success and accounted for US\$ 8 million worth of exports to Europe, America and Australia.

7 *Agricultural and agro-food policies*

7.1 – Structural policies

In the European Union, farm structure policy falls within the scope of “rural development”, or the “second pillar of the CAP”, which is being implemented in the context of the “Agenda 2000” reform for the period from 2000 to 2006; it will be presented in the section on rural development. However, countries may define and finance complementary policies with the agreement of the European Commission; this is the case in Spain in particular with the policy on public investment in irrigation, which is still very active. Furthermore, Italy promulgated an agricultural guidelines law in 2003 with a view to adapting the statutes governing the status of agriculture and of farmers to the present circumstances and in particular to the reform of the Common Agricultural Policy and the introduction of decoupled payment entitlements. France also has a similar law in the pipeline, whose purpose will also be to adapt “structure control”, i.e. statutes aiming to give young farmers who are setting up preferential access to land and to expand small and medium-sized farms.

In the other countries, public investments in farm irrigation schemes are always a major item of public expenditure, although large-scale schemes seem to be less predominant this year. There are two other subjects which also feature in the country reports: land issues, more specifically measures to make State-owned land or land which has been developed by the public authorities available to farms, aids for financing farming activities, and the continuation of State withdrawal from the banks in charge of this funding. there were few events or prominent decisions in either of these two fields in 2003.

In **Spain**, irrigation is still the principal public expenditure item in the structural field; the National Irrigation Plan is continuing, involving a total investment of € 5 billion, € 3 billion of which is government-sponsored. The environmental issues related to this development of irrigation are a subject of keen debate, which will be presented later in the present report.

2003 was also marked by the continuation of a national debate on the future of agriculture and agricultural policies, which was opened by the Ministry in 2002. The discussions brought together university experts, professionals and national and regional administrations, who together broached the following issues: agricultural structures, taxation, income guarantees, training, relations with other economic sectors, cooperatives, rural development, environment, impact of the CAP, etc. The debates resulted in the publication of a 2300-page “White Paper on agriculture and rural development”, intended as a basis for reflection on the future of agricultural policies in Spain.

In **France**, the government introduced a legislative bill in 2003 aiming to modernise agriculture. The bill aims essentially to adapt the status of farms and the various categories of family labour to the new farming conditions and to relax and simplify the policy on controlling farm structures and on public intervention in the land sector with a view to managing the new payment entitlements resulting from the new reform of the CAP. A national debate organised at the regional level is being held on the preparation of this law, bringing together the representatives of all agricultural producers' organisations.

In **Italy**, the Agricultural Planning Act which was passed this year provides a new definition of farms and farmers. It introduces the concept of professional farmer, which replaces the concept of main-occupation farmer. This is a person with agricultural knowledge and skills who devotes at least 50% of his/her time to farming and obtains at least 50% of his/her earned income from those agricultural activities. Professional farmers enjoy tax relief concerning indirect taxation and credit, for which provision is already made for full-time farmers. The law also introduces the farm company, which must mention the term "farm company" in its trading name and business name, and whose sole object must be to carry out agricultural activities.

The Planning Act also extends activities that are termed 'farming activities': in addition to traditional farming activities, processing and sales activities are also taken into account as well as the providing of services directly connected with farming. Processing activities remain in the agricultural system, not only as regards the use of the farm's agricultural commodities but also as regards the share of products purchased from third parties. These new arrangements further reduce the tax pressure on farms and also help to establish their multifunctional role as well as the role played by farmers in providing services for the community.

In **Morocco**, as in the other to Maghreb countries, water control investments continue to account for the largest share of investments. In an investment budget marking a sharp decrease compared to 2002 (1.94 billion dirhams as against 2.58 billion, i.e. -25%), there was a slight increase in the water control share again in 2003 (61% as against 57%), large-scale water projects accounting for over half of total investments. The essential factor in the 2004 budget, again with a marked downward trend (-10%), on the other hand, is the drop in the share of investments in large-scale water projects, which decreased from 52% in 2003 to 41% in 2004, benefiting agricultural development measures and training in particular. It is not certain that this type of trend will be confirmed in the budgets of the next few years, since there is still a great deal to be done to equip the agricultural zones downstream from existing dams. In addition to 1 million ha of effectively irrigable land, there were still some 123 000 ha to be developed in 2002, and this will entail sustained investment efforts for many years to come.

Morocco finally implemented the restructuring plan of the two State enterprises – SODEA and SOGETA – in 2003, as announced in the 2003-2004 report; these two

enterprises hold some 124 000 ha of the land which the State recovered from the colonial power in 1972. This plan, which was adopted on 26 May 2003, covers the period from 2003 to 2006 and is based on three components: land tenure, financial measures and social measures. The land must be allocated as follows: one third is to be kept by SOGETA so that the State can focus solely on producing breeders' seed and certified seedlings; almost 35% is to be returned to the private domain of the State, but on condition that the State begins by allocating part of it – some 7 000 ha – to young agronomy and veterinary graduates; 27% is to be transferred to private investors, both Moroccan and foreign, on long-term leases and on the basis of invitations to tender and pre-established specifications; and finally, 5%, consisting of land situated in urban or suburban zones, is to be sold to operators on the property market with a view to promoting social housing, tourism and economic activity zones.

The most important issue is the acreage which the State intends to let out on long-term leases to Moroccan or foreign investors in the context of its new policy of partnership with the private sector. This year the government just managed to finalise the preparation of the engineering design with a view to inviting tenders. The farmers who until then had had leaseholds demanded a sort of “right of first choice” so that they could take over the farms on which they had settled. Furthermore, as potential investors, Moroccan operators lamented the fact that they had not been involved in the elaboration of the specifications from the outset and demanded that a “national preference” mechanism be set up, through which they in turn could be given an advantage over foreign investors.

And finally, 56 500 ha will be leased to investors following an international invitation to tender, which is scheduled for 15 October 2004. Between 200 and 250 projects are expected, distributed between the agricultural and the agro-industrial sectors. Projects in the export chains such as citrus, olives and vines should be favoured, and the consistency and viability of a project will be a more important criteria than the “financial bid”. Some 300 expressions of interest have been registered, the potential foreign investors being mainly French, Spanish and Italian.

With regard to the other land allocation methods, little has been achieved as yet, also as far as suburban land is concerned, despite the fact that it is highly coveted.

The project for restructuring the Caisse Nationale du Crédit Agricole (Moroccan national agricultural loan fund – CNCA) was finally brought to a conclusion in December 2003 with the publication of “Act no. 15-99 Reforming Agricultural Loans”. The “Crédit agricole du Maroc” (Agricultural Bank of Morocco – CAM), which replaces the CNCA, is a limited liability company in which the State holds at least 51% of the capital, which means that the remaining 49% can be transferred to the private sector.

The CAM becomes a “bank like any other bank”, which pursues the objectives of profitability and security, placing a high premium on solvent clientele. Of the bank’s present 200 000 clients 70 000 are considered to be solvent. The bank estimates that there are between 300 000 and 350 000 potentially solvent farmers, so that it is justified in concluding that there are another 280 000 clients to be won.

If the State entrusts it with a mission of “public service” for “political” reasons, such as supporting small and medium-sized farms and re-scheduling farmers’ debts where this is required by exceptional circumstances, it will then have to lay down the rules for doing so by contract and pay the price by granting a special subsidy. The financing of the vast majority of Moroccan farms will thus fall within the scope of these measures, but the detailed rules still have to be defined.

It must also be pointed out that part of the initial project has been abandoned – the plan to create regional banks in the form of open-end cooperatives governed by the provisions of banking law and known as “Banques Régionales de Crédit Agricole” (“regional agricultural credit banks”). This arrangement was intended to promote an area-based approach, to contribute to the development of local and regional life and to provide a means of involving farmers in the management and sustainability of these institutions.

Algeria is working all-out to make up for lost time in the mobilisation of surface water. According to the 2003 survey of the National Dam Agency, 13 dams are currently under construction, 2 of which were commenced in 2003 and 6 will be completed in 2004. Furthermore, of 10 small dams and hillside levees only 1 was completed in 2003, 6 are nearing completion, and work is just starting on the other 3.

It must be pointed out, however, that, despite the fact that the country is financially sound, effective expenditure from the public amenities budget on farm irrigation schemes and dam construction by the Ministry of Agriculture and Rural Development (MADR) and the Ministry of Water Resources (MRE) dropped significantly in 2003 compared to 2002. This is to be explained both by the inadequacy of the economy’s ability to absorb investments (in particular the lack of efficient enterprises running projects) and by the – undoubtedly excessive – caution on the part of Algerian financiers in view of the uncertainties in the payment of oil resources.

The status of land use by collective farms (EAC) or individual farms (EAI) in the case of public land made available through the restructuring of the State agricultural sector (which was formerly self-managed) poses particularly complex problems and has been the subject of numerous decisions, which were already mentioned in previous annual reports. The rules governing the transfer of this land were redefined this year, as were the potential beneficiaries: paid agricultural workers in EACs or EAI, wage earners in the agricultural sector (including officials of the Ministry of Agriculture and Rural Development who resign from their civil

service posts) and young people who have undergone agricultural training. Furthermore, a further provision which is liable to shake the confidence of EAC/EAI beneficiaries states that in urban zones or zones that are due to be urbanised the State can now invoke its pre-emptive right, not only in order to allocate land to public projects but also to allocate it to investment projects submitted by private law individuals or corporate bodies.

In **Tunisia**, irrigation water is considered to be an effective intensification factor in agricultural production systems. Almost 350 000 ha of land are irrigated, i.e. just under 10% of the acreage under crop each year. Yet this irrigated land accounts for almost 45% of the value of agricultural production. In 2003, favourable rainfall allowed reservoirs to be filled up to a record level, but it is observed that the limits of this resources are a felt in the long-term.

Furthermore, the precedence given to developing irrigation in the distribution of public aid, which is inevitably limited, accentuates the dual structure of agriculture; there are no major schemes in Tunisia, or indeed in the other countries in the South, for improving competitiveness and living conditions on small farms in dry zones or simply for implementing policies to limit the fragmentation of such farms. And the fact that the measures to protect and support agricultural markets are continuing to be reduced is also liable to accentuate this general trend.

In **Egypt**, investments in agriculture still account for a very large share of total investment – approximately 15% in 2003. The level of public investments is still very high (amounting to over 30% of total investments each year, and even 41% in the 2002-2003 period. Efforts to develop new land and water control investments are the two main sectors. A 5-year socio-economic development plan was launched in 2002 (to run from 2002 to 2007); the plan is to develop a total of 1.1 million feddans (i.e. some 450 000 ha), 84% of which is to be carried out by the private sector. The main zones concerned are southern Egypt, the Sinai and the New Valley; the plan includes urbanisation incentives and makes provision for population migration to those zones. The measures to equip an area of 935 000 feddans (approx. 382 500 ha), which is already being farmed, are to be continued with private sector participation for 53% of the area.

Egyptian agricultural financing policy is implemented essentially through loans from the Principal Bank for Development and Agricultural Credit (PBDAC), a State bank. Since the policy for liberalising the agricultural sector was launched, the bank has been applying classical commercial criteria in its relations with clients, but small farmers and farmers in the developed desert zones are continuing to receive loans that are subsidised with government aid. A large number of short, medium, and long-term loans are available. Although the total amount of loans is steadily growing, the increase concerns essentially short-term loans. The main beneficiaries are the animal husbandry and intensive crop sectors, the animal husbandry sector using mainly medium-term loans (between 1 and 5 years). Long-term loans, which include credit for irrigation and for developing new land, on the other hand,

account for a minute part of the total amount, which continued to decrease in 2003 (0.1% of this year's total).

In **Lebanon**, agricultural financing now also accounts for a very small share of public expenditure in the agricultural sector. It must be pointed out, however, that the government launched a programme of subsidised loans in 2002, part of which are covered by a public guarantee system (run through the Kafalat Corporation) for small and medium-sized enterprises. Farms accounted for 30% of the total amount of loans granted in 2003, amounting to 27 billion pounds, i.e. almost equivalent to the total budget of the Ministry of Agriculture for that year.

7.2 – Price and market policies

In the European Union, 2003 was marked by the major event of the adoption of the so-called “Mid-Term Review” of the Common Agricultural Policy on 26 June. This reform was presented in detail in the CIHEAM report for 2004; all observers note that it is a far-reaching reform of the very principles of the CAP based on the principle of decoupling direct aids. It will have major consequences on the agricultural economies of the European countries and on intra-European and world trade, but its impact will be difficult to foresee. In April 2004, reforms based on the same principles also concerned major Mediterranean products: cotton, olive oil and tobacco (as well as hops). The countries have considerable leeway in the application of these reforms; they communicated their methods for applying them in the summer of 2004. Furthermore, this period was marked by the final phase of EU enlargement to 25 countries, which became effective on 1 May 2004. The main decisions with regard to the CAP had been taken in December 2002, and it must be pointed out that national frontiers had already been virtually opened for agricultural commodities. This enlargement and its consequences for the countries in the South was the subject of a chapter in the Agri.Med report for 2004.

The countries in the South are continuing their policy of liberalising markets and reducing state intervention, at varying paces and with possible setbacks. Input subsidy policies are being pursued again to some extent, for example, in order to cope with the variability of production due to climate factors. Where consumer aids still exist they now only concern the supply of staple commodities to the most destitute social groups; however, both the social situation and the effects of market liberalisation can require an increase in these aids, as is the case in Egypt. Many countries are continuing to move towards opening their frontiers by reducing the protection of products in most branches of activity. This is the case in particular with Tunisia, Lebanon and Egypt. Turkey, whose principal intervention tool is now a decoupled per hectare aid, is in the process of completing the dismantling of state commodity marketing monopolies. On the other hand, a certain increase in export subsidies, which are generally used only to a limited extent in these countries, is to be observed, as is the case in Egypt or Lebanon.

In the field of market liberalisation, the signing of the **Morocco-US Free Trade Agreement (M-USFTA)** was a major event, although the most sensitive local commodities are still highly protected. This agreement was signed in June 2004 after very active negotiations throughout 2003; it is scheduled to enter into force on 1 January 2005. It is the first agreement which the United States will have concluded with an African country and, after the agreement with Jordan, the second with an Arab country. It will affect the country's trade relations, particularly with EU countries. It covers virtually all fields in which trade between the two countries can develop through liberalisation. It obviously covers issues of market access for agricultural commodities, industrial products and services, but also questions concerning investments, intellectual property, public procurement, and a wide variety of other issues (transparency, environmental protection, the right to work, etc).

Box 7.1 - The agricultural component of the Morocco / US free trade agreement

The process of trade liberalisation and thus of access to agricultural and agro- industrial product markets has been structured around the various lists of products with precise schedules for dismantling tariffs, which will commence on the date on which the agreement enters into force.

List A refers to products with immediate duty-free access; list B+ comprises products where tariffs will be phased out over a period of 5 years (or 6 years for list B+); list C comprises products where tariffs will be phased out over a period of 10 years (or 8 years for list B+); List D, which makes provision for dismantling tariffs over a period of more than 10 years, was finally subdivided - in the course of the seventh round - into lists D1 and D2, with or without quotas, for dismantling periods of 18 and 15 years respectively. Lists E, F and G each actually concern the category of products enjoying "special treatment" due to their extremely sensitive nature: these are beef and veal, white meat and wheat, respectively.

A large proportion of the products likely to be exported by Morocco are included in list A. This is namely the case with fresh and frozen vegetables, fresh fruit and processed vegetables. The other products subject to somewhat longer dismantling schedules are distributed over the other lists, but the most important ones are included in list D2.

However, it was obviously the access conditions for American products to the Moroccan market which posed the most problems. Lists A, B and C focus essentially on access to American genetics and technology and livestock feed, but they also comprise fresh or processed products for which Moroccan products would have competitive advantages over products of American origin. There are two products to which special attention should be devoted, since they are staples: maize and soybeans and their derivatives; these have been included in list B+, with an accelerated dismantling process. They enjoy a 50% tariff reduction in the first year followed by a 10 per cent reduction per year for the next 5 years, so that they will obtain duty-free access in 6 years.

Box 7.1 (contd.)

List D contains products deemed to be sensitive. It comprises 2 product categories:

. The first concerns mainly legumes, milk and milk products, almonds, honey, eggs and certain prepared foods. The process for liberalising these products can be controlled by programming adequate transition periods and including appropriate safeguard provisions. The dismantling of tariffs on legumes should thus extend over 18 years and should will be non-linear. The dismantling process for barley should will also be non-linear but should be spread over a shorter period of 15 years. The other products will also be subject to a 15-year tariff reduction schedule, but the phasing-out will be linear.

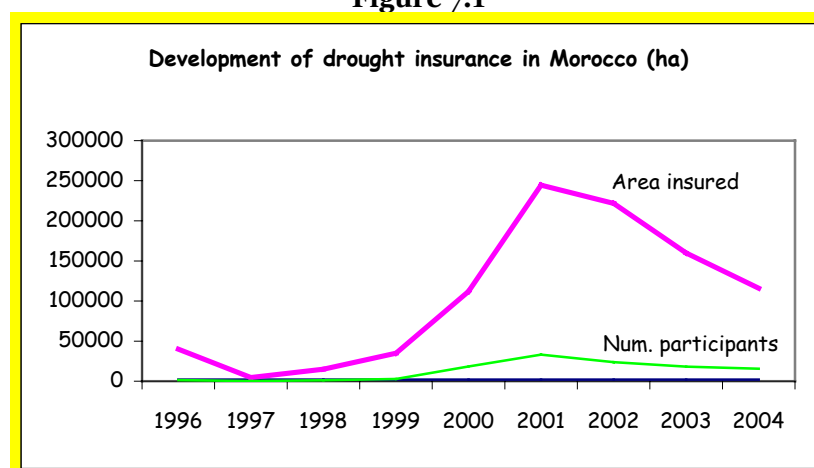
. The second category of products on List D comprises those considered to be “extremely sensitive”: red meats, white meats and wheat, for which rather special systems have been agreed. In the case of durum wheat, American exporters will be able to market an annual quota of 250 000 tonnes, which will increase by 10 000 tonnes each year. The MFN customs tariff, which will be applied to exports exceeding the quota, should will drop by 25% during the first 5 years, and the remaining 75% would being retained for the following 5 years. In the case of common wheat, the system is more or less identical to what has been agreed with the European Union in the latest agricultural agreement for the period from 2003 to 2007. The principle is to index the import quota on the basis of the national output level, with a quota threshold lower than that granted to the European partner. Thus, for a national output of common wheat equivalent to or higher than 3 million tonnes the import quota would commence as soon as the agreement comes into force at a minimum of 280 000 tonnes (compared to 400 000 tonnes for the EU), and for a national output lower than or equivalent to 2.1 million tonnes the quota would go up to a maximum of 700 000 tonnes (1 million for the EU). Between these two thresholds the same linear system will be applied as that agreed with the EU for determining the quota. In the longer term, the thresholds of 280 700 thousand tonnes should be increased on a linear basis, reaching a level of 400 000 and 1 million tonnes respectively in 10 years. The levels of preferential tariffs applicable to these quotas were also the same as those obtained by the EU, i.e. a reduction of 38% on the MFN levels.

The abolition of the certified cereal seed subsidy in Morocco last year resulted in an increase in the price of breeders’ seed of 5% to 8% and a 16% drop in sales compared to the previous farm year, with the risks that this entails for production. The authorities recognised this causal relationship and reintroduced the subsidy for the 2003-2004 farm year. In the field of farm machinery and equipment, the subsidies and premiums for which provision is made in the context of the Fund for Agricultural Development have also been maintained. In particular, the scheme for extending drip irrigation, which was launched in 2001 and aims to equip an area of 115 000 hectares, has been revitalised with an increase in the subsidy rate for such equipment, which is now between 30% and 40%, depending on the region.

The drought insurance system, which was launched enthusiastically in the mid 1990s, is continuing to decline. As the figure shows, the system seemed to have “caught on” to some extent in 2000 and particularly 2001, with a total insured area of almost 245 000 hectares and 33 116 participants in the course of the year; there has been a downward trend since then, which seems to have been accelerating from

2003 onwards, to the point where the insured area in the 2003–2004 farm year was just over 116 000 hectares and the participating farmers totalled 15 570. Of course, the fact that there was no drought in 2003 played a role in this regression, but the trend nevertheless demonstrates that the system provides little incentive and that farmers lack motivation.

Figure 7.1



Tunisia has concluded several agreements in the WTO with the EU and, more recently, with Libya and Morocco, in line with its outward-looking policy and agenda for integrating the Tunisian economy into the world economy. The commitments undertaken in the agricultural field concern essentially internal support, market access and competition (reduction of export subsidies). Tunisia's offer at the WTO, which was formulated in 2000 for a period of 2 years, is coherent with the guidelines adopted and reforms undertaken since the introduction of the agricultural structural adjustment programme (ASAP). It contains only two components: internal support and market access.

With regard to the first component, Tunisia has undertaken to reduce the Aggregate Support Measure (ASM) by 1.33% per year for 10 years covering the period from 1995 to 2004. The value of the ASM will drop from 68.4 MTD to 59.3 MTD in 2004. These measures are not considered to be particularly stringent in view of the commitments that have already been made and honoured in the ASAP context. As regards market access, the commitments made concern first of all non-tariff measures such as import licences and import levies. Consequently, the protection of local production and import control can only be ensured in the future through the customs tariffs mechanism. Customs duties have been consolidated at levels ranging on the whole from 75% to 100%. It must be pointed out that the rates that are actually applied – generally below 40% – in fact vary widely from those

quoted in the official offer. In other words, the content of the offer is interpreted to mean higher levels which are of limited applicability in actual practice.

In the case of certain products minimum access will be ensured with corresponding customs duties levied at the rates applied during the reference period (1986-1988). As a result, reduced-tariff quotas ranging from 15% to 35% (see Table 7.1) have been established for certain products. Above these quotas, tariffs equivalent to the consolidated rates can be applied.

Table 7.1 - Agricultural commodities subject to quota restrictions in Tunisia

Commodities	Average imports 92-94 in tonnes (1)	Quota in tonnes (2)	Difference (2)-(1)	Tariff in %
Beef and veal	10 500	8 000	-2 500	27
Mutton and lamb	538	380	-158	27
Powdered milk	18 700	20 000	-1 300	17
Durum wheat	45 190	300 000	255 000	17
Common wheat	694 880	600 000	-94 880	17
Barley	162 950	200 000	37 050	17
Sugar	198 000	100 000	-98 000	15

Source: Ministry of Agriculture.

On the basis of these commitments, suspensions of common customs tariffs were thus registered in Tunisia in 2003 for agricultural commodities and agri-foodstuffs, certain machinery, raw materials and energy products. Furthermore, on the basis of the agreement with the EU, which has now entered its eighth year, products that are manufactured locally have to contend with tariffs 55% lower than they were in 1995.

Despite this, agriculture and fisheries are still two of the most protected branches of industry; the protection rates for these sectors are higher than the national averages, and the reduction of protection is always more marked in relation to the EU than it is for the rest of the world.

A price stabilisation mechanism has been maintained on the internal market; it is based on the following guidelines:

- In the case of so-called essential commodities, prices are still always administered, the principle being to guarantee that output is marketed at prices that are fixed in advance (intervention prices) depending on how production costs evolve and on an incentive level of income for producers. However, producers are under no obligation to deliver set quantities produced at these prices.

- In the case of products subject to the liberalisation of distribution in the context of the agricultural structural adjustment programme, price policy is based on "real prices", the principle being to ensure that market mechanisms are regulated in such a way that supply (supplementary imports, increase in storage capacity, price stabilisation funds) is better matched to the demand for these products. However, there are still price controls at all the various stages in the marketing of agricultural commodities, and what is more, at distribution level agricultural commodity prices are still subject to the fixing of profit margins, a fact which is bound to have a negative effect on the marketing of agricultural commodities, particularly as regards product differentiation according to compliance with quality standards.

As already mentioned, the reform of the **European Common Agricultural Policy** adopted in June 2003 is based on the decoupling of aids, each farm being granted entitlement to a "single payment entitlement" equivalent to the total of the aids received on average by each producer in the 2000-2002 period ("historical" calculation)⁷³. Provided that the farmer farms an area equivalent to the area entitling him to these aids, he will continue to receive an equal amount irrespective of the commodities produced (with the notable exception of fruit and vegetables!), even if no crops are grown, provided that the land is maintained in good agricultural condition.

A further particularly new element in this reform is the considerable leeway which countries have been allowed for applying it, at the request of countries such as France, which are against total decoupling. In particular, the date of effective application can be later than the "normal" date of 1 January 2005, and, what is more, a certain "recoupling" rate is possible in the case of a large number of commodities. The plans for applying the reform presented by the countries in the summer of 2004 are set out in the table below. We would point out in particular that the 5 Mediterranean countries include one, Italy, which will be applying the reform virtually in its entirety, and one of the most reluctant countries, France; the other three countries are more in favour of recoupling.

The reform also introduces new coupled aids. The very high per hectare premium (971,73 €/ha), which will compensate for the decrease in the intervention price for rice will at all events remain coupled at 58%. Similarly, 60% of the per hectare premium for starch potatoes will remain coupled, and the special premium for high-protein crops will be totally coupled; and finally, in addition to the durum wheat premium, which is decreasing and at least 60% of which is decoupled, a

⁷³ A further possibility referred to as the "regionalisation" or "mutualisation" of aids is a possible option; it involves the allocation of the same amount of per hectare SPE to all farmers in each region, equivalent to the proportion of the total amount of aids paid in the region in 2000-2002 per total eligible area. This system will not be applied in the Mediterranean countries; the countries which have chosen to introduce it have made provision for applying it progressively or will implement a "hybrid" system.

special premium of 40 €/ha has been introduced to encourage quality improvement; it is reserved for crops for which selected varieties are used. These complex decisions clearly highlight the difficulty of the compromise between the general principle of decoupling – and thus market-driven orientation of production – and management of the risk of relocation or the risk that some commodities will simply disappear.

And finally, the reform makes two provisions of the "Agenda 2000" reform – aid modulation and conditionality – mandatory; these provisions were introduced on an optional basis in the "Horizontal Regulations", but countries have in fact only used them to a limited extent.

Modulation is the progressive reduction – in very limited proportions (3% in 2005, 4% in 2006, 5% in 2007) of the aids received above a threshold of € 5 000 per farm. The savings thus generated will be used to augment the funds for rural development measures.

**Table 7.2 - Application of the 2003/2004 reform
in the 5 Mediterranean countries**

	Options	Portugal	Spain	France	Italy	Greece
Application year	2005, 2006 or 2007	2005	2006	2006	2005	2006
Definition of payment entitlements	Individual historical basis or regionalisation	Historical	Historical	Historical	Historical	Historical
Level of « coupling » maintained						
Arable crops	25 % maximum	0	0	25 %	0	
Special premium for durum wheat	40% maximum for traditional production regions	0	40 %	25 %	0	40 %
Seeds	Decoupling not compulsory	No decoupling	No decoupling	Decoupling except for flax and hemp	No decoupling	
Beef and veal	100% (PMSCH)* 40% premium for the slaughter of adult cattle or 75% male bovine premium 100% premium for the slaughter of calves	100 % 40 %		100 % 40 % 100 %	40 % 100 %	
Cow milk	New premium in 2005, total decoupling compulsory by 2007 at the latest			2006		
Mutton and lamb or goat meat	50% of GMP	50 %	50 %	50 %		50 %
Mediterranean commodities (April 2004 – application in 2006)						
Olive oil	40% maximum, reserved for olive groves of environmental or social interest	Not known	40%	Not known	0	40 %
Cotton	35%	Not known	Not known	No production		35 %
Tobacco	60% until 2010, then total decoupling	Not known	Not known	Not known	60 %	60 %

* Premium for maintaining a suckler cow herd, currently amounting to €200 per beef cow per year.

The conditionality of aids means that the aids – whether in the form of the decoupled single payments or other aids – will be paid provided that the farmers comply with the regulations in force in the environmental field (5 directives) as well as the regulations concerning animal identification (4 directives and regulations), food safety and public health (4 instruments), animal health (3 instruments) and animal welfare (3 instruments). This application will be progressive: the first 2 fields in 2005, the next 2 in 2006, and animal welfare in 2007. Conditionality also involves farmer compliance with "good farming and environmental conditions" defined at the national or regional level in each country and the maintaining of

areas of permanent grassland in each country. The monitoring methods and the rates for reducing aids depending on the gravity of infringements can be negotiated by the countries to a certain extent; on the other hand, any product of this conditionality (aids which are not paid) must be paid back to the EAGGF, the countries being allowed to keep a maximum of 25% to help to cover monitoring costs.

In April 2004, the new Council of Ministers adopted the "Mediterranean programme", i.e. the reforms of the Common Market Organisations in the olive oil, tobacco and cotton sectors⁷⁴, on the basis of the same decoupling principle⁷⁵. These reforms will take effect in every country. The principles of the reform are the same for all three products, but the long-term objectives are different; in particular, it has been stated clearly that support for tobacco production will eventually be abolished altogether, whereas, over and above their productive role, olive plantations are also considered to be an important landscape element and a major environmental protection factor in Mediterranean regions; there is no question of discontinuing olive production, and olive grove maintenance is a major environmental and social issue.

In the case of olive oil, the basis of the reform is the decoupling of aids at a rate of at least 60%. The States can decide to apply a higher decoupling rate, but the aid budget at their disposal will remain subject to the maintaining of the olive groves. Furthermore, the countries can decide to reserve 10% of that budget for operators' associations for implementing and managing quality improvement schemes. There is a 4-year reference period for calculating the aids (1999-2003), and the reform is scheduled to take effect as of the 2005/2006 farm year. And finally, a minimum area of 0.3 hectares has been laid down, below which decoupling will be total, irrespective of the method chosen by each member state.

With regard to tobacco, the reform makes provision for an additional scheme from 2006 to 2009, during which at least 40% of the premiums will have to be decoupled while the remaining 60% can remain coupled but will be subject to certain conditions (production regions, quality). As of 2010, on the other hand, the reform will establish a total decoupling scheme, which, however, will concern only 50% of the amount. The remaining 50% will provision a fund for reconverting and modernising production structures and improving quality.

And finally, in the case of cotton, 65% of the total amount of aid will be decoupled, the remaining 35% continuing to be paid in the form of a per hectare aid.

⁷⁴ As well as hops, a commodity which can be of considerable local importance and for which France and Spain accounted for a total of 7% of European production in 2002, with an output of 1 500 and 1 200 tonnes respectively.

It must be borne in mind, however, that the measures applied in 2003 and 2004 are still those deriving from the "Agenda 2000" reform. The transition period during which the reform was progressively applied came to an end in 2002 in the case of most commodities, the only item remaining to be applied in 2003 being the final stage in the increase of the level of "beef and veal" aids. Furthermore, in addition to the measures concerning the Common Market Organisations laid down at the Community level, each country can, with the agreement of the European Commission, also implement measures for organising sectors or aids for producers with special difficulties. In 2003, the amounts of aid paid for crops that had suffered as the result of adverse climatic conditions were particularly high.

In **Portugal**, producers' organisations called for the defining of payment entitlements that are decoupled by regionalisation, since they considered that this was the only way to limit the unfair aspects of the allocation of aids : the fact that the 2 500 biggest producers receive €250 million per year (80% of the total), whereas the 248,000 family farms receive amounts from the remaining 20% – most of which are symbolic. This regionalisation of the Community aids of the CAP would have made it possible to redistribute prices and subsidies within the country by distributing them over each of the 7 agricultural regions (excluding the Azores and Madeira) and it would also have been possible in the future to grant aids to both potato and fruit and vegetable producers, who do not receive direct aids at the present time and are excluded from the decoupled aids in the system by individual references.

The method that was finally chosen was that of individual references, as is the case in the other Mediterranean countries. The socio-professional associations in the sector generally consider that the new CAP price and subsidy policy entails the risk that farmers will give up farming and that this will have immediate effects on employment and unemployment rates in rural areas and on the local, regional and national economy in general.

Special attention was devoted in Portugal in 2003 to the monitoring and taxation aspects of food security, which fall within the jurisdiction of the Food Quality and Safety Agency. These measures cover all of the stages in the production chain: farms, abattoirs, AFIs, commercial establishments, restaurants, hotels, etc. as well as imported foodstuffs.

The figures published on these inspection activities are impressive:

- 3.7 million live animals inspected on 124 000 farms;
- 180 million fowl, 2.3 million pigs, 1.3 million sheep and goats, 400 000 head of cattle, in abattoirs;
- 100,000 tonnes of fish inspected at landing points;
- 8,500 controls and inspections in which 350 000 tonnes of products were checked;

- 130 000 medical analyses to detect animal diseases (BSE, etc.) and to check for prohibited substances;
- 1 500 agents were involved and €100 million invested in these operations.

In **Spain**, the results of the reform are considered to be detrimental to national interests in general. Indeed, farmers' organisations have stated that the calculation of the decoupled payment on a historical basis would result in lower payments for Spanish farms than those received by other countries. Moreover, there could be discrimination between farms within the same country after total decoupling, since, for example, cereal farms could turn to the production of other more profitable crops still receiving the cereals single payment.

Furthermore, the increase in the number of policy options for member states has led to fears that the CAP will be re-nationalised, a scenario in which poorer EU countries such as Spain could not afford to support their agricultural sectors to the same extent as richer countries. In addition to these shortcomings of the single payment scheme, its reductions through modulation are seen as a new source of uncertainty: while the losers are clearly identified, it is still uncertain who stands to gain from the redistribution of funds. Rather paradoxically, most Spanish farmers still see rural development as a threat rather than an opportunity.

With regard to the new regulations for 3 Mediterranean products – cotton, tobacco and olive oil – since they follow the same approach of partially decoupling payments from production, some argue that they could lead to land abandonment in certain low-yield areas. The farmers' unions have blamed the new government for accepting a bad agreement, while the government argues that the “decoupling” trend is unavoidable and farmers must be prepared for adjustments of this nature.

France was against the reform of the CAP on the whole and was against the principle of decoupling in particular; and this opposition contributed to a large extent to the final decision to allow each country to opt for only partial decoupling of certain aids. So it is not surprising that France will be using the partial decoupling possibilities to a maximum with a view to conserving “tools for market orientation and production area location”, as stated by the Minister of Agriculture when presenting the methods for applying the reform in June 2004.

France also argued to have the reform applied at as late a point as possible but finally decided – with the agreement of the majority agricultural producers' organisations – to apply it itself in 2006 rather than in 2007, for two reasons:

- the risk of distorting competition and trade with countries opting to apply the reform at an early date, in view of the major uncertainty over the effects of the reform in this field;

- the difficulty of managing a long transition period between the decision on the reform and its application, in particular in the case of land transfers, farm start-ups and farm closures: how can entitlements to premiums be defined?

France is also consistently against the principle of the uncontrolled commercial transfer of production rights and payment entitlements⁷⁵. The main arguments in support of this twofold opposition is the risk of the accelerated relocation of the production units concerned. France has recognised comparative advantages in the case of many crops, but it also has large mountainous or disadvantaged regions where an essential area management objective is to maintain farming activities, and managing production rights and payment entitlements has always been perceived as a means of contributing to maintaining them. Transfers of payment rights in France are thus heavily “taxed” unless they are combined with land transfers: 50% of the amount will thus be taxed by the State in order to provision the “national reserve”.

The application of the Agenda 2000 reform is now complete; there was thus little change in 2003 with regard to crop support. Expenditure on market regulation amounted to a total of € 9.6 billion in France in 2003, i.e. 0.6% more than in the previous year; 57% of this expenditure concerned arable crops and 22% beef and veal. Of the € 9.6 billion € 9.1 billion came from the EAGFF. The bulk of this amount (7.8 billion) consists of “direct aids”. Of the € 7.8 billion € 7.2 billion were paid to farmers, virtually entirely in the form of direct aids.

France has a long tradition of aid to farmers affected by “agricultural disasters”, and this is a permanent item in the agricultural budget, covered entirely by the national budget. The country suffered a series of climate incidents in 2003 involving large amounts of aid. The largest amounts of aid concerned drought, taking various forms: covering of the interest on the loans of farmers in financial difficulties and subsidisation of consolidation loans; special subsidised “disaster” loans; direct indemnification (through the Guarantee Fund) of farmers who had had their livestock slaughtered due to lack of fodder; and finally, aid for the transport of fodder (straw from the cereal-growing regions in the north) to the animal husbandry regions worst affected. Cereal intervention stocks were also placed on the national market, and certain direct aids were paid to farmers before the normal date in order to help them overcome their cash flow problems. It should be pointed out furthermore that the project of State aid for harvest failure insurance, which was mentioned in the 2002 report, continued to be implemented “as an experiment” in 2003. The government plans to gradually replace the

⁷⁵ In France, for example, milk quotas are linked to land, and the management of unused quotas or new quotas is carried out on the basis of procedures in which both the French administration and farmers’ professional representatives are involved. Similarly, entitlements to “beef and veal” premiums are organised in France according to the same type of procedure, the commercial nature of transfers being ensured through the payment of a symbolic amount (according to Regulation 1254/99, it is compulsory to conclude contracts on the transfer of such premiums).

“disaster” system with a system of subsidised insurances based on farmer contributions from 2005 onwards.

Italy is planning to apply the reform as of 2005, but there are still several problems to be resolved. The basic line of policy is that of total decoupling, with individual payment entitlements based on 2000-2002 “historical” references. The main questions that remain unresolved are as follows: application of total decoupling even for durum wheat and reliance on Article 69 of Community Regulation 1782/2003, under which a maximum of 10 % of the financial ceilings can be deducted and reused to finance environmental quality and protection projects.

With regard to durum wheat, the milling and pasta industry, on the one hand, points to the risk of losing a large share of production in the event of total decoupling, and, on the other hand, the Ministry – which is supported by the farmers’ organisations which are in favour of total decoupling – considers that keeping 40 % of premiums coupled as approved by the European Commission would only resolve the risk of decrease in production to a limited extent but would, on the contrary, entail the risk of not using the entire financial ceiling recognised by the European Commission as the supplementary aid for durum wheat in traditional zones.

With regard to the second point (the possibility of deducting 10% of the financial ceilings), the most likely hypothesis is a horizontal type of application for all crops, linking the quality bonus to production disciplines within the context of inter-trade agreements or even crop contracts between agricultural producers and the processing industry – a mechanism which would thus aim to encourage quality projects but also to strengthen the links between the various actors in the food chains.

In Italy the revision of the legal status and recognition of the economic activities of the Producers’ Organisations in the fruit and vegetable sector, which was requested by the Commission in the context of the CMO reform in 2000, is progressing very slowly. With a marketed output of €3 billion, the Producers’ Organisations now account for almost 35% of total national output. Through the operational programmes planned by the CMO they received aids from the EAGGF in 2003 amounting to €100 million out of a Community total of € 452 million. There are still numerous problems to be resolved, however, in particular: the trial of strength between the Producers’ Organisations and the marketing cooperatives, which are predominant in the functions of supply concentration and market representation and which meet the minimum turnover threshold required for recognition as generic or specialised organisations.

And finally, the implementation of a tool aiming to promote the vertical integration of agro-food production through food chain contracts has been confirmed.

In **Greece**, the “Mid-Term Review” reform of the CAP was generally not discussed to any great extent, not only because the final agreement was recognised as a compromise (compared to the initial proposal) especially with regard to decoupling and cuts in cereals prices, but mainly due to the fact that the major commodities grown in Greece were not included in its provisions. All major actors were awaiting the new CMOs for olive oil, cotton and tobacco, which were finally agreed in April 2004, while a reformed CMO is still awaited for fruit and vegetables. It is indicative that the subsidies for the first three commodities amount to two-thirds of all subsidies granted to Greek agriculture (€ 1 650 million out of € 2 500 million).

Although most of the actors involved have been generally in favour of the new CMOs, recognising that they contained more positive than negative points, there is still a certain amount of scepticism in connection with the fear that the new CMOs will lead to the gradual abandonment of farms and the countryside, while the remaining farmers will be less involved in their business and will earn smaller incomes because of the reduced subsidies.

The olive oil sector is an important sector for Greece, since around 500 000 farmers are involved in olive-growing. EU subsidies are crucial, given that Greece receives from the EU around € 600 million annually for olive oil, i.e. 26 % of total EU expenditure. It should also be pointed out that 17% of Greek farms are very small (with an output of less than 100 kg and subsidies of up to 5 000 €; these farms will no longer be subsidised in the new regime); 70% (or 350 000 farms) are small and medium-sized (up to 0.3 ha and receiving subsidies of up to 5 000 €) and only 13% are considered “large” farms (receiving subsidies of more than 5 000 €) and subject to partial decoupling.

The most critical issues that need to be addressed in Greece are the exact percentage of decoupling that is to be adopted for “large” farms (60-40 or 80-20), how quality production will be enhanced and promoted and the creation of the olive oil producers register. It should be also mentioned that under the new regime Greece – unlike France and Portugal – has not received permits for new olive oil plantations.

The new CMO for cotton is of great importance to more than 71 000 agricultural holdings in Greece. Greece is by far the leading producer in the EU, with more than 80 % of the total area, the rest being grown in Spain, and a few hectares in Portugal. In the new regime, 65% of the subsidy for “large” farms will be decoupled, and 35% will be allocated per hectare of cotton grown; for “small” farms, total decoupling will apply. The premium will be granted for a maximum acreage under cotton of 370 000 hectares. For Greece, this subsidy is set at 594,1 €/ha for the first 300 000 hectares, but is reduced to 342,8 €/ha for the remaining 70 000. An anticipated effect of the reform is a negative impact on farmers with high yields (more than 4 tonnes per hectare, but, generally speaking, the new CMO is considered to have more positive than negative points in Greece, the most important being the securing of the current acreage under crop (original proposals

referred to a reduction of around 40 000 hectares). However, it is feared that the high percentage of decoupling (65%) will actually serve as an incentive for producers to abandon production, a fact that may have a severe impact on the domestic cotton industry. The producer organisations are also calling for the prohibition of the cultivation and import of genetically modified cotton and the continuation of a certain degree of Community preference.

Finally, the new CMO for tobacco is perhaps the one with the strictest provisions compared to the previous regime. Greece used to receive € 339 million in tobacco subsidies annually, but under the new CMO 40% will be completely decoupled from production by 2006, while the rest will remain coupled with output volumes until 2010, and only granted to quality varieties (Basba, Katerinis, Coulak and Virginia). In Greece, although the new CMO is thought to be less harsh than the Commission's original proposals, it is feared that it will lead to the gradual abandonment of production in areas that are remote, mountainous, or less favoured and where alternative crops are scarce. Production volumes will probably decrease and the domestic industry will face severe problems, especially after 2010.

In **Turkey**, border measures, administered prices, input subsidies and budgetary payments were the main policy instruments supporting agriculture. Following the advice of international organisations, the government launched a comprehensive reform of the agricultural support system in 2000 to encourage better allocation of resources and fiscal stability. The focus was on phasing out the subsidies for fertiliser and credit (inputs) as well as the price supports for output. As a compensation, a direct decoupled income payment system has been introduced. This is a uniform per hectare payment, independent of crop pattern (roughly \$80/ha to begin with). In 2002 this programme covered 75% of farmers and accounted for more than half of the annual budgetary subsidies (the participation rate may increase to 90% in 2003).

The next emphasis of the reform was on support agencies. The restructuring of quasi-governmental Agricultural Sales Cooperative Unions and the privatisation of parastatal enterprises (Turkish Sugar Company, Turkish Monopoly- Alcohol and Tobacco Company, State Tea Company, the Turkish Grain Board) are still continuing. These reforms have considerably reduced the government's direct role in agricultural production and processing.

All of these measures together with subsidy reduction programmes have contributed to tightening the budget. However, not all reductions have necessarily meant a loss for farmers. A considerable amount of the funds were wasted in the previous support system in any case. The direct income support compensated a considerable proportion (almost half of the decline in gross agricultural product) of the net loss. The expected shift from heavily subsidised to other more profitable crops has not been observed, for several reasons: 2001 was a year of exceptionally severe drought; the unsubsidised and limited credit market delayed the supply response. It is still too early to analyse the effects of the 2003 reform.

The reforms brought agricultural prices down by about 12 % (in real Turkish Lira) and the volume of agricultural output fell only by about 4 %. The production of cereals, pulses, nuts and fodder crops increased between 1999 and 2001, whereas oilseed, industrial crop and tuber crop output fell. Fruit and vegetable production remained fairly stable. However, the decline was much more marked in animal husbandry than in the crop sector. Supply control measures are also applied to sugar beet and tea. Deficiency payments are implemented for oilseeds, cotton and milk. Input subsidies are provided for irrigation and livestock production. A transition payment is also offered to cover the costs of switching from overproduced commodities to other commodities (attempts of this nature in hazelnut-growing regions have failed).

The reform was also accompanied by a set of measures concerning external trade, supply control and the improvement of production conditions. Tariffs are still high for livestock and meat and milk products, but those applied to cereals are lower and were further reduced to 40% for wheat in 2002. The import approval procedure based on sanitary and phytosanitary conditions continued in 2002; export subsidies, limited to a maximum of between 10% and 20% of export values and between 29% and 100% of the quantities exported, continued to be provided for processed fruit and vegetables, fruit juices, olive oil, potatoes, apples, poultry meat and eggs.

The data for 2003 have not yet all been published, but the OECD has calculated the PSE percentage for Turkish agriculture; despite this move towards liberalisation, the percentage rose from 23 % to 26 % between 2001 and 2002, and remained constant in 2003.

In **Lebanon**, agriculture is not an important activity, but for socio-economic considerations (including efforts to reduce rural-urban migration and to replace illicit crops) the government continues to support the sector and to provide external protection; it regulates wheat and sugar-related economic activities through the Directorate General for Cereals and Sugar Beet in the Ministry for Economic Affairs and Trade (MET).

According to current government policy, the State ensures that all wheat produce is purchased from local farmers and at a subsidised rate. Both the public and private sectors import wheat at international market prices, whereas refined sugar is imported only by the private sector. The Directorate General for Cereals and Sugar Beet obtains the wheat produce from farmers as well as from imports and sells this wheat to the 11 mills operating in Lebanon. The mills import three-quarters of the local market needs annually (300 000 tonnes) after obtaining authorisation from the MET, provided that they buy a minimum share of their total purchase from the Ministry. The current ratio is set at 1 local tonne to 4 imported.

A recent decision taken by the Council of Ministers concerned resuming sugar beet market support, as urged by Bekaa farmers, a decision that was based on social

considerations. This was one year after taking the opposite decision in the context of reducing subsidies to farmers in response to WTO and EU agreements.

The Ministry of Agriculture (MOA) grants input subsidies to farmers (veterinary drugs and vaccinations, pesticides, seeds, seedlings, honey bee disease control etc.) on a yearly basis. In 2003, the budget allocated to pesticides was considerably reduced, the aim being to disseminate Integrated Pest Management techniques, cut down on the use of pesticides and improve the quality of produce.

In the foreign trade field, as a response to apple producers' complaints about the surpluses of their produce the Council of Ministers suggested in 2003, given the high cost of production and tough foreign competition, that the Ministers of Agriculture and Finance increase the tariff on apple imports. On the other hand, the "Export Plus Programme", which was launched in August 2001 to support Lebanese agricultural exports is still in place. The direct payments made under this scheme have been paid to farmers on condition that they adhere to certain standards. Although the programme is criticised as being of benefit to traders rather than directly benefiting farmers, according to Investment Development Authority of Lebanon (IDAL) the results have been good on the whole.

Egypt has continued to orient its policies towards more integration into the international economy. In this respect, we have observed the following economic events:

First: finalisation of the ratification of the EU-Egypt Partnership Agreement, which came into force on 01.06.04. This agreement covers all aspects of relations between Egypt and the European Union in the political, economic and cultural fields. In the economic field, the principles of the agreement are:

- continued liberalisation of trade in commodities, services and capital, and the creation of a free trade area for Egypt and the European Union;
- full exemption from customs duties for all industrial exports to the European Union;
- an increase in the number of agricultural commodities with higher quotas which are duty-free when they enter the Union's markets (the amount of increase in the shares of the various commodities ranges from 18% to 247%). A 50% and 60% reduction of the custom duties levied on exports which exceed the quotas.

Secondly: the conclusion of the agreement on Qualifying Industrial Zones with the US (QUIZA/USA). This agreement, which was signed at the beginning of June 2004, states that Egyptian exports to the US are exempted from any custom duties and from the shares system, provided that the production of these exports has been done in limited industrial zones in Egypt. This concerns essentially garments, for which a huge increase in Egyptian exports is expected.

Thirdly: completion of the preliminary phase of the implementation of the Arab Free Trade Area Agreement (AFTA) so that it will come into force at the beginning of 2005 (rather than 2007). This agreement will liberalise the trade of Arab-origin commodities among the Arab countries.

More generally, Egypt is adopting an effective commercial policy, in which a major national goal is to boost agricultural exports within the framework of international and bilateral trade agreements. The past few years have thus witnessed serious efforts at the technical, legislative and administrative levels with the aim of providing all possible facilities to increase and diversify exports and improve their quality so that they can compete on international markets. The major efforts in this respect have been as follows:

- numerous laws have been passed which facilitate foreign trade and liberate it from bureaucratic constraints, and measures have been introduced to develop the institutional environment of the foreign trade sector;
- numerous exemptions from fees, customs duties and sales taxes have been introduced, and financial incentives for exporters have even been paid in certain cases in order to encourage the export of agricultural crops; efficient insurance systems for exports have been established, and support has been provided for the industries complementary to export activities (packing, wrapping, sorting, etc).
- a fund for developing horticultural exports has been created.

At the same time, the government continued to reduce its intervention in agricultural commodity and input markets, as well as in the agricultural equipment market. The only other remaining instance of government intervention in the case of agricultural commodities is the fact that it is prepared to buy some crops, especially wheat, sugar cane and cotton at pre-fixed prices in order to encourage farmers to expand acreage under these crops and thus control the market of these commodities both inside and outside Egypt. For other crops, a Basic Prices System is still in use involving fixed prices which exceed production costs as a means of encouraging producers to continue to grow these crops and to expand production in order to meet consumer needs and industrialise production on the basis of local resources. These prices usually reflect the international and local price movements for these crops.

The government also still subsidises the prices of some production inputs as well as the cost of performing several production services which are necessary for improving production or protecting the environment. This targeted subsidy concerns, *inter alia*, insecticides, improved seeds, organic fertilisers and agricultural lime, and also includes a sugarcane irrigation grant and measures to combat cotton epidemics. Direct government intervention is restricted to distributing some of these inputs through the channels it controls such as the Principal Bank for Development and Agricultural Credit (PBDAC) and its branches in various villages as well as the agricultural cooperatives. This is done in return for

fixed prices in order to eliminate monopolisation of these inputs (mainly fertilisers) by the private sector and to provide them at the right time and at a suitable price for agricultural producers.

Aids to food consumption are also decreasing over time, and the government has repeated that it intends to continue these cutbacks, but it is continuing to subsidise the prices of a number of staple commodities (the most important of which are wheat, wheat flour, sugar and food oils), so that poorer consumers can buy them at fixed prices, through a "Ration Card" system. In 2003, the sharp increase in foodstuff prices in the course of 2003 (after the liberalisation of the national currency) which was estimated at about 16% in November 2003, even forced the government to expand the subsidy system once again.

7.3 – Rural development policies

Rural development policies are still active in the northern Mediterranean, although in the Mediterranean countries of the European Union the complexity of procedures since Agenda 2000 initially resulted in a lack of financeable projects and thus in the loss of European funds which would normally have been available. The situation improved considerably in 2003, however.

We would point out that, since the 1988 reform of the structural funds, rural development policy in the European Union now falls within the scope of both agricultural policy and regional policy and includes aids for improving structures and agro-environmental measures. The Agenda 2000 reform adopted in 1999 applies to both policies and has redefined the way in which they are linked for the period from 2000 to 2006. In the case of regional policy, this period corresponds to the application of the "3rd Community Support Framework"; within the framework of the CAP, the basic statute is the Rural Development Regulation (RDR) R 1257/99. This very comprehensive instrument makes provision for 22 possible measures which countries can choose to apply or not, 4 of these measures being "accompanying measures": agro-environment, early retirement for farmers, afforestation of farmland and aid for agricultural production in zones subject to particular constraints, 5 aid measures for modernising and equipping farms (including in particular aid for helping young farmers to set up their businesses), and 13 measures known as "Article 33", which concern the development of activities in rural zones more generally and can also affect non-farmers.

The articulation of these two fields is particularly complex, whereas one of the declared objectives of the Agenda 2000 reform was to clarify and simplify programmes and procedures, for two main reasons:

- The subsidiarity principle: each country draws up a Rural Development Plan (RDP) either at the national level or for each region; the RDR is applied in the

- country but varies widely from one country to another, particularly since countries are not obliged to implement all of the RDR measures in their entirety.
- Regional policy is applied in each country region by region. Two types of zone have been defined at the European level, corresponding to two objectives. Objective 1: aid to the poorest regions (approximately $\frac{3}{4}$ of total regional aid); and Objective 2: aid to regions with particular structural difficulties, including rural zones. Part of the RDR agricultural aids can be mobilised in this context within the framework of operational regional programmes and can thus receive specific European funding; others apply to the entire territory within the framework of the RDPs. France no longer has any "Objective 1" zones on its metropolitan territory, but over half of the area of France and 30% of the French population fall within the scope of "Objective 2". In Italy, only the southernmost regions and the islands fall within the scope of Objective 1. The situation is very different in Spain: Objective 1 applies except in the northern regions (virtually all of which come under Objective 2) and Madrid. In Portugal, Objective 1 applies throughout the country except for the Lisbon region. And in Greece the entire territory falls within the scope of Objective 1.

Thus, in each country, there is a framework for applying the RDR throughout the territory (but with possible differences from one region to another), and in each region there is a framework for applying regional policy measures, which can mobilise some of the aids falling under rural development. To this are added measures coming under an additional sector of regional policy, the Community Initiative Programmes, the total funding for which is limited but which in certain rural zones can constitute significant support for special innovative action, in particular LEADER+ (innovative network-based rural development actions) and INTERREG (transnational actions).

All of these measures are co-financed by the States and the Community budget, the European financing thereby coming under several different funds including the EAGGF Guidance Section in the zones covered by Objective 1 and the EAGGF Guarantee Section elsewhere. Agenda 2000 also introduced the so-called "automatic decommitment" principle, under which, if the country does not effectively expend all of the scheduled European credit within the normal period of time, it will lose that credit. Greece, Portugal and France have been affected by this measure in varying proportions and for different reasons; this was still the case in 2003, although the situation had improved considerably compared to previous years.

The 2003 reform also makes provision for measures from 2005 onwards to increase support for rural development through modulation of direct payments but also through measures to step up the EAGGF aids for helping young farmers to set up their businesses and for agro-environmental measures as well as possible new aids: aids to upgrade farms to environmental standards, advisory services for farmers and farm certification, investments for improving product quality. And finally, following the second European Conference on Rural Development

(Salzburg, November 2003), the Commission presented proposals in July 2000 for a new policy of "Economic and Social Cohesion" for the 2007-2013 period, including rural development; if these proposals are followed, this will again mean in-depth reform.

In the southern Mediterranean, these policies vary widely but are often restricted by lack of resources, despite the affirmative statements of certain governments. They still cover mainly the equipment of rural zones (electrification, drinking water, roads, housing), or focus on remedying the – sometimes serious – backwardness of regions that are lagging behind. The Maghreb countries demonstrated particularly active policies in this field in 2003.

In **Morocco**, where a Minister of Rural Development was appointed in 2004 (under the supervision of the Minister of Agriculture and Fisheries), the Prime Minister laid particular emphasis on rural development in his inaugural speech in 2002 and demonstrated his determination to speed up the construction of basic infrastructures and public services, quoting figures in support of his plans :rural electrification, measures to provide rural areas with drinking water, construction of rural roads, etc.

The following projects were already underway by the end of the first 6 months of 2003:

- electrification of a further 2 500 villages, benefiting approximately 1 million inhabitants and bringing the total number of beneficiaries up to 6 365 000 by the end of 2003 (i.e. approximately half of the rural population).
- supply of drinking water to some 750 000 people, which amounts to doubling the number of new beneficiaries compared to 2002;
- construction of 1762 kilometres of rural roads in the course of 2003 , i.e. more than the 1 500 kilometres planned for that year.

The Integrated Rural Development Programmes, which are implemented in partnership with local communities and inhabitants, consist mainly of administering and rehabilitating farmland and establishing essential infrastructures: 37 projects are currently being carried out, scheduled over 10 years; they involve an investment of 2.4 billion dirhams (approximately €240 million) and should benefit some 2 million people in various rural areas throughout the country.

Other small and medium-scale irrigation schemes are also under way, involving 46 000 ha spread over 15 provinces; in phase I, which involves 3 provinces (Azilal, Khenifra and Al Haouz), 9 450 ha of land should be equipped by 2006.

Furthermore, several projects were launched with a view to developing forest areas in the Northern Region and in the Middle Atlas and to protecting water catchment

areas; a budget of 1.2 billion dirhams is to be allocated to these projects over a period of 5 years.

In addition, the government is preparing to launch "operations to promote women and young people in rural areas and to provide accompanying measures in the implementation of income-generating micro projects".

In **Algeria**, rural development policies could from now on be based on the guidelines of a major project, which has just been elaborated by the departments of the Ministry of State for Rural Development on a " Sustainable Rural Development Strategy" (MADR, 2004). This draft strategy, which has been based on a diagnostic study of poor rural communes and an analysis of experience gained in the rural development field in the past few years, proposes a series of development actions, evaluates the financial aspects for the various partners, and estimates the impact they will have in terms of job creation over the next 10 years.

Although the policy on land development through transfer is nonetheless necessary in order to make better use of the available resources and to improve the well-being of rural populations, it is still costly because it is being carried out too hastily. The ex-post assessment is only carried out very superficially and thus does not encourage the authorities concerned to prepare their projects properly. From time to time, the press draws attention to the wastage due to negligence in pre-development studies. In the wilaya of M'Sila, for instance, out of 25 development areas where substantial investments were effected 22 were apparently obvious failures due to the fact that there were simply no water resources available or due to dissension amongst the members of the target communities.

The rural housing policy defined by interministerial order of 3/7/2002 was maintained in 2003. It consists of granting aid amounting to 250 000 DA (approximately €2 500) for extending or improving an existing home and 400 000 to 500 000 DA (€4 000 to €5 000) for building a new home, provided – in both cases – that the housing is actually situated in a rural area.

In **Lebanon**, it is the Council for Development and Reconstruction that is responsible for coordinating rural development policies, which fall within the purview of several ministries. In 2002, the Council published a document on rural development strategy aiming to achieve more balanced growth in the various regions and, in particular, to improve local governance by enhancing the management and negotiation capacities of municipal councils.

The country is still receiving considerable amounts of aid from international agencies, with which it can finance local development projects:

- the Post-Conflict Socio-Economic Rehabilitation Programme for Lebanon (UNDP), which has been running since 2000 and which in particular has

- provided means for training the people in charge of agricultural cooperatives and financing micro projects that are defined at seminars;
- the Community Development Project (World Bank), which was launched in January 2003 to improve the living conditions of communities in greatest need;
 - the Economic and Social Fund for Development (co-financed by the European Union): launching of pilot projects to create jobs, fight poverty, and build capacities.

In **Turkey**, the 2001 agricultural census, which has now been published, shows that the proportion of rural households (persons living in towns and villages with less than 5 000 inhabitants or in zones with scattered populations) engaged in non-agricultural activities has grown since the 1991 census, since it is now 28% (the figure is 34% if one refers to the population living in towns with less than 25 000 inhabitants). This proportion is very high in certain regions: Marmara (54%), Mediterranean region (37%), Aegean region (33%). This means that rural policies must no longer be based mainly on agriculture, particularly in the latter 3 regions.

Turkey has been implementing extensive integrated development projects with international funding to develop activities and create jobs in rural zones. With a view approximating policies with those of the European Union, the authorities are now anxious to implement rural development and environmental conservation policies similar to those carried out in the EU and based on measures to encourage local initiatives.

Rural development policies in **Greece** are based on the “3rd Community Support Programme for 2000-2006”, which includes 3 schemes:

- the National Programme for Developing Agriculture and Restructuring Rural Areas (2000-2006), which has a budget of €3.2 billion supplemented by the Guarantee Section of the EAGGF with a budget of € 2.7 billion (early retirements, compensation for less favoured and mountainous regions, etc.);
- the Operational Programme for the Fisheries Sector (2000-2006) with a budget of €499 million, which was launched in 2001;
- the EU Leader+ Operational Programme (2000-2006) with a budget of €370 million, which was launched in 2002.

In the period from 2002 to 2003 expenditure on the first of these programmes increased from 37.5% to 25% of the budget initially planned. Despite this increase, expenditure level is still very low, and it is to be feared that Greece will no longer be eligible for other Community funds in 2004 (due to the EU regulations governing the utilisation of Community funds known as “automatic decommitment”). Expenditure on the entire “3rd Community Support Programme 2000-2006” amounted to 25% of the budgets allocated, and the authorities are trying to bring it up to 35%-37% in order to ensure that EU funds can be obtained until 2008. In

June 2004, Greece submitted a revised plan for this Community programme taking account of the new priorities.

As regards the programme in the fisheries sector, on the other hand, considerable progress was made in 2003 and during the first 6 months of 2004. By the end of May 2004, 100% of the scheduled public expenditure had in fact been laid out.

In **France**, the Regional Farming Contracts (CTEs) – the main means of applying the Sustainable Development Regulation to French farms – were suspended in July 2002 and replaced with Sustainable Farming Contracts (CADs), whose implementation did not in fact commence until October 2003. The main changes brought about by the CADs are a more limited list of agro-environmental measures with more specific reference to particular local issues and, in particular, much more limited aids, since the average aid in each département is fixed at €27 000 over the 5 years of the contract.

In the field of public expenditure on agriculture the loans for financing the CTEs nevertheless increased appreciably from €338 million in 2002 to €528 million in 2003, 376 million of which were earmarked for the environmental component. This is the cumulative effect of the marked increase in the number of contracts and in the average amount involved in the contracts during the first 6 months of 2002 (a large share of aids, particularly environmental aids, is paid annually throughout the contract, i.e. for 5 years). The quantitative objective initially announced was 50 000 CADs per year, which means that over half of the farms in France would have been eligible to receive aid. This objective was gradually revised downwards and, by the end of 2004, loans were announced with which 14 000 CADs could be financed for the next 5 years. Only a few dozen CADs were signed in 2003; there was then an upward trend in 2004, but the national figures are not yet available.

In addition to this, the Ministry of Agriculture announced a legislative bill in November 2002 on the development of rural areas. This project was drawn up in the course of 2003, and the legislative procedure commenced in January 2004, the law finally being passed in October. It supplements European agricultural and regional policies, aiming to improve the conditions for carrying out economic activities and the living conditions of people living in rural areas, taking account of the variety of situations (ranging from remote rural areas, where the population is decreasing, to suburban areas). The measures that are planned complement the European aids: financial aids and tax relief in regions in decline, measures to improve housing supply, action to promote employment and to encourage people to engage in several activities by providing training for seasonal workers and aid for employer groups, measures to develop new forms of public services, protection of the rural heritage.

In **Portugal**, “RURIS”, the national plan for supporting rural development, was approved by the European Commission for the term of the 3rd Community Support Programme (2000-2006). This programme aims to achieve competitive agriculture

in a context of sustainable rural development, and it comprises 4 major fields of intervention, which correspond to the 4 "accompanying measures" of the RDR:

- early retirement
- compensation for a handicap or constraints
- agro-environmental measures
- reafforestation of farmland.

The compensation paid to less favoured regions in 2003 amounted to €68 million, accounting for 9.3% of the total amount of aid and subsidies paid to the agricultural sector in Portugal from the EAGGF (€731 million). Despite its considerable financial impact, RURIS is subject to criticism, although it is only at the halfway mark. The main criticism is the mismatch between the measures of the programme and its objectives and the limited degree of importance attached to simplifying procedures. As a result, the resources allocated to RURIS are still underused to a large extent, and the "losses" that have accumulated since the programme was launched now amount to €300 million, some 77 million of which were "lost" in 2003. The fact is that there is still time to catch up and make up for these "losses", but the rules for using Community funds are rather too stringent to allow of any major successes in this field.

According to the socio-professional associations, RURIS's main weaknesses are as follows:

- lack of measures to make the programme known to potential recipients;
- the fact that there is no training for the ministry technicians in charge of providing advisory services and information for farmers and for the economic agents who apply to participate in projects;
- the departments and structures of the Ministry of Agriculture in charge of establishing and following up the measures of the programme are inadequately interlinked.

7.4 – Management of natural resources and the environment

7.4.1 - Water management

Water management in agriculture and public investments in the irrigation field are dealt with in the section on structural policies. Issues relating to water management are presented in the country reports, however, which fall more specifically under the environment field: limits of the resource, water quality, erosion and its consequences for the silting of reservoirs.

The case of **Spain** is rather special, since the development of irrigation which was planned in the context of the National Irrigation Plan launched in 2001, involving

public investments amounting to €3 billion, is a subject of controversy and major political debate, which is focusing on the utilisation of the water of the river Ebre and several of its tributaries for developing irrigation in the south-east of the country, where intensive production is developing rapidly; the water would be diverted by means of a canal several hundred kilometres long and flood control dams. This would also involve the inflow of water from the Rhone by means of a gigantic aqueduct almost 500 kilometres long to supply Barcelona and the tourist regions in Catalonia. The representatives of the farmers' unions and the right-wing government have been in favour of this project, which is opposed by environmentalists and left-wing politicians (as well as French environmentalist lobbies as far as the French part of the project is concerned) because of its cost and its effects on the environment.

In 2003, the debate became increasingly heated, the regions in the south denouncing the alleged egoism of the north of the country and refuting the economic and environmental arguments; furthermore, these projects involve European co-financing, and the views of the Commission and European Parliament also interfere in the debate. At the end of 2003, the government issued a call for tender for some of the public works required for launching the project; the political change that came about in the spring of 2004 has introduced a new political order which is less in favour of this project.

In the two countries in the South, Tunisia and Egypt, the question of the quantitative and qualitative limits of water resources has now been clearly stated.

In **Tunisia**, irrigation water accounts for more than 80% of the volume of water mobilised at the national level. Despite the efforts to mobilise water, this resource continues to be the object of mounting competition between the principal users, namely those who supply drinking water and those who meet the needs of tourist activities. It must be pointed out that almost 90% of the potential volume of water that can be mobilised is currently being tapped, making volumes available that are lower than the water stress threshold of 500 m³ per capita per year. The development of other sectors and the improvement in the living standards of the population which would follow the anticipated increase in their incomes would increase competition over this resource. It must of course be noted that as the result of the exceptional rainfall in 2003 it was possible to replenish the impoundment lakes to a much greater extent than in previous years, so that any threat of immediate water shortage has been eliminated.

Egypt is also coming close to the limits of its resources. In addition to the resource of Nile water, which the projects of upstream countries are liable compromise to some extent, the country is endeavouring to develop the use of tubewell water, particularly on new land, and the re-use of agriculture drainage water and even of industrial and urban waste water once it has been treated. But despite these efforts, with a population growth rate of 2% per year and growing urbanisation and

industrialisation, the water resources available per capita are now less than 1 000 m³ per capita per year, and the country could rapidly develop water shortages.

Table 7.3 - Total water resources and needs of the consumer sectors

Resources (billion m ³)		Needs (billion m ³)	
Source	Quantity	User Sector	Quantity
Nile water	55.5	Agriculture	53.1
Re-use of agriculture drainage water	4.5	Industry	7.5
Treated drainage water	0.7	Drinking and civil usage	4.5
Shallow groundwater	4.8		
Deep groundwater	0.6		
Total	66.1	Total	65.1

Furthermore, the quality of Nile water is steadily deteriorating due to the considerable volume of toxic chemicals in agricultural drainage water and to the inflow of untreated urban sewage and industrial waste water into the Nile. Water quality is monitored and there is an alarm system, but the effects are not yet being felt in practical terms.

In **Algeria**, the drinking water problem is still the subject of extensive debate : costly seawater desalination plants are being developed, whereas there is still tremendous wastage – related in particular to the lump-sum payment of water supplies – and this is compounded by considerable leakage in the often dilapidated networks; in fact it is estimated that total losses amount to over 50% of total resources. After the construction of 23 small water plants in the period from 1999 to 2003, which are still not operating to full capacity, 2 large-scale plants – in Arzew and Algiers – are due to start operating in 2004. The latter plant, which has been built by a US-Algerian joint venture and will use the reverse osmosis technique, will alone produce 100 000 cubic metres per day, i.e. twice the volume currently produced by all of the other plants together.

7.4.2 - Land and the environment

In the European Union, these issues are mainly dealt with in the context of the agro-environmental programmes, which are generally 50% co-financed by the EAGGF (although the co-financing rate is 75% in “Objective 1” zones, i.e. most Mediterranean regions), and which fall within the scope of the Rural Development Plans. Since these programmes have been launched for the period from 2000 to 2006, there were few new general measures in 2003, with the exception of the CADs in France presented above.

Furthermore, as has already been mentioned, the environmental component of aid conditionality for which provision was made in the 2003 reform will be implemented in all countries as of January 2005. Whether a farmer obtains direct

aids, and thus the Single Payment Entitlement, will thus be conditional on observance of the 5 EU directives in effect in the environment field, which deal with the protection of sensitive areas and habitats (Natura 2000) and efforts to combat agricultural pollution. Obtaining the aids will imply maintaining “good agricultural and environmental conditions” on the land giving entitlement to the payments, and this will also apply as of 2005; it is up to each individual country to define these conditions and the relevant practices. Furthermore, the existing grassland and pasture areas in each country will have to be at least maintained, otherwise the aid budget allocated to the country will be reduced.

The agro-environmental measures are based on contracts concluded between farmers and the State and thus imply that measures must be carried out that go beyond mere compliance with the legislation. Furthermore, the plan is to increase the share of European funding of these aids (60% and 85%) within the framework of the new reform.

The environmental policy issues mentioned in the national reports of the countries of the South are more specific and are connected with local circumstances, due in particular to lack of funds. It is noted that factors which were presented in previous reports as new developments which were operating on a small scale but likely to develop (support for organic farming, the link between the natural environment and product quality) are not given any special mention this year. These trends thus have still to be confirmed.

Since the agro-environmental aids were launched in 1992, **Greece** has always been fairly inactive in this field, and before Agenda 2000 the only significant programme implemented in the country was the scheme providing aid for converting farms to the organic farming system. Yet despite this, organic agriculture in Greece is still lagging far behind the other countries of the Union. The authorities have thus decided to give precedence to this form of agriculture in the 2000-2006 agro-environmental programme. All of the territory of the country has been eligible since 2002, and the conditions to be met by farmers in order to obtain this aid have been simplified. Other measures have also been introduced: grassland improvement and reduction of livestock density in order to combat erosion due to overgrazing, particularly in the islands; action to combat nitrate pollution in intensive farming zones in central Greece as well as more localised operations, in particular action connected with environmental protection coming under the European “Wild Birds” and “Habitat/Wild Fauna” directives (Natura 2000).

In **France**, in addition to the replacement of the CTEs (Regional Farming Contracts) by the CADs (Sustainable Farming Contracts), which, as already mentioned, are intended more specifically as support for agro-environmental measures than were their predecessors, it must be pointed out that the PMSEE (Premium for Maintaining Extensive Livestock-Farming Systems), the principle agro-environmental measure applied in France in addition to the CTEs/CADs, was replaced in 2003 by the PHAE (Agro-Environmental Grassland Payment). The

grassland payment concerned almost 70 000 farms in 2002 and 4.4 million ha; all of the contracts expired, and this measure was not included in the French Rural Development Plan, since the Commission considered that it was not really an agro-environmental measure. The new payment introduces new pasture or rangeland management conditions, which are more stringent than the former conditions; in return, the amounts paid are higher (increasing from €50/ha to €85 on average), varying from one region to another and according to the type of area concerned. There has only been a slight decrease in the total number of farms concerned, but the area under contract per farm has been reduced, on the other hand, and farmers generally only apply for the payment for holdings where it is not too difficult to meet the required conditions. Total expenditure increased in 2003 by almost 30% and is now at the €210 million mark.

And finally, the new PMPOA (Programme for Agricultural Pollution Control – aids for upgrading farm buildings and animal husbandry facilities to environmental standards) that was launched in the course of 2003 resulted in only very few new applications that year, since the procedure is considered to be more complex than the previous procedure and the conditions for obtaining payments more stringent.

In the other countries of the European Union, the action which always mobilises the most energy and gives rise to the most debate is that of defining the zones and rules for managing the habitats and areas that are protected in the Natura 2000 context, the majority of which are agricultural zones. With the exception of Spain, the European countries seem to be fairly hesitant in this area (judging by the percentage of national territory involved). The management rules differ widely from one country to another, France being the only country of the five to opt for contracts for agricultural zones (the farmers concerned sign a CAD).

In **Lebanon**, the measures to restructure agricultural production has been accompanied by rash use of natural resources: soil erosion and depletion, exhaustion and pollution of underground water resources, poorly controlled use of fertilisers and pesticides and poor waste management. Thanks to international aid, major programmes have been implemented in three fields:

- Action to fight desertification (with support from the UNDP and the GTZ – Deutsche Gesellschaft für Technische Zusammenarbeit); the programme launched in July 2003 concerns essentially follow-up and evaluation of the situation in the country prior to application of the United Nations Convention to Combat Desertification.
- Project to conserve biodiversity and promote the sustainable use of the Baalbeck Caza drylands (Baalbeck Caza zone in the Bekaa region). A full study of the causes of the degradation of biodiversity and of farming practices in the region was launched in 1999 and is resulting in management recommendations and legislative decisions in line with international conventions and in measures to educate and inform all of the populations concerned.

- Project for eliminating the use of methyl bromide in intensive farming, on the basis of the Montréal Protocol.

Furthermore, it has been observed that the decrease in credit allocated to subsidising inputs has resulted in these aids being reserved for integrated disease and pest control.

With a view to implementing a policy for developing sustainable agriculture, **Egypt** has launched two operational programmes in addition to the scheme for monitoring Nile water quality; these two programmes are currently being set up:

- tree plantations and development of green zones;
- environmental conservation and management of protected areas.

Measures to develop integrated control are regarded as a priority in crop protection, with the selection of resistant varieties of cotton, rice, sugar cane and maize and the development of biological control (particularly the use of viruses to fight pests). Furthermore, projects have been launched to promote the use of crop by-products as organic fertilisers, animal feed and industrial raw material and are supported with State aid.

Algeria is continuing its tree plantation programme (12 000 ha in 2003, i.e. an increase of 50% compared to the previous year), partly to the detriment of fruit plantations. These efforts are compromised, however, by the regular increase in areas prone to forest fires, which is to be explained in particular by the very strong population pressure. Such areas increased by 7% in 2003 compared to the previous year, which is regarded as a fairly good result, particularly since the progression has concerned areas of scrubland and the area of actual forestland burnt has decreased. It is estimated that the new plantations will serve in particular to replace the areas that have been destroyed; in the last 40 years, forestland has apparently only been extended by 300 000 ha, i.e. 7 500 per year.

Morocco also implemented measures to develop forest zones this year with a view to protecting the soil and water catchment areas in the Northern Region and in the Middle Atlas; a budget of 1.2 billion dirhams (€120 million) has been allocated to these projects for a 5-year implementation period).

8 Fisheries

The socio-economic, human and cultural dimensions of fisheries, although important, are often ignored. Many Mediterranean fisheries are small-scale, local and part of a long-established way of life. Recently, economic pressures and changes have been producing a new environment for the Mediterranean fishing community, whose future is difficult to evaluate due to the lack of information on and knowledge of this process. It is therefore necessary to take greater account of economic and social factors and to integrate them into management and decision-making. A better understanding of the economic and other factors which influence the fisheries sector and its financial success is needed. Furthermore, the importance of fisheries in a country cannot be measured in terms of volume and value of landings alone; the fact that fisheries resources and products are fundamental components of human nutrition and employment must also be taken into consideration.

Fishing activities carried out in the Mediterranean region ensure the income of a large number of people in the coastal areas. However, there is a lack of reliable information on most of the basic aspects of the fisheries industry, such as the essential socio-economic features and markets.

From a social point of view, it can be estimated that there are currently roughly 300 000 fishermen in the Mediterranean, plus a significant number of part-time fishermen. Assuming that every job at sea generates 3 jobs on land (commercialisation, fishmeal industry, administration, research and training, etc.) one can estimate that around 900,000 people are employed in the various fisheries sectors. Consequently, taking a minimum of 3 to 4 people per family, it is not unreasonable to say that about 3 million people depend on fishery activities for their livelihood, i.e. 2% of the population of Mediterranean coastal regions.

In economic terms, the fisheries component of a Mediterranean Transboundary Diagnostic Analysis performed by the GFCM Technical Secretariat in 1997 estimated that the value of landings is some 3.8 billion dollars annually. The same analysis also estimated that if fisheries were better exploited, for example, under Maximum Sustainable Yield conditions, the result would be an increase in income in the order of 451 million dollars. Even better, if fishing effort were reduced to the level corresponding to Maximum Economic Yield conditions, income would rise by a further 790 million dollars.

In fact, the trend towards modernisation and more efficient, larger boats in a race for fish results is a constant increase in fishing effort. Fish stocks are finite and, hence, cannot be increased in size by increasing productive inputs, as with many other business activities. In the Mediterranean, the fishing effort is in excess of the minimum required to generate the target fishing capacity (the maximum amount of

fish that can be produced by a fishing fleet if fully utilised). This results in a situation of overcapacity.

Furthermore, lack of input and output control, unsustainable fishery management methods and subsidies also contribute to overcapacity. Government subsidies that directly contribute to target fishing capacity being exceeded are categorised as 'bad'. What might be regarded as 'good' subsidies are those that contribute to the attainment of target capacity (e.g. some 'buyback' schemes). However, 'good' subsidies become 'bad' subsidies when unduly prolonged.

The sixth annual report – CIHEAM 2004 published in 2004 – included in Part II a quantitative study of Mediterranean fisheries devoted to the analysis of trends in the fishery sector in the Mediterranean countries focusing mainly on Mediterranean production.

The following aspects were analysed as means of production: fishing fleets (number of vessels and their main characteristics), aquaculture fish-farms and employment (number of fishermen), production (catches/landings and aquaculture production in volume and value), trade (import-export) of fishery products and food supply. The present report will perform the same kind of analysis updating the information with the most recent data and endeavouring to establish a way to analyse Mediterranean fisheries on an annual basis.

However, as has been indicated in previous reports, it must be borne in mind that an important constraint and a major difficulty in carrying out this kind of analysis is the lack of availability of regular and feasible information and data on which to base it. There is currently a lack of regularly updated fishery databases offering adequate coverage and reliability.

A limited number of sources of authorised information on fisheries covering all the region and updated annually are available, providing some useful background data for conducting an overall preliminary analysis. These databases have been used for the present analysis, as in the previous reports; they are FAO FISHSTAT, FAOSTAT and EUROSTAT.

The most useful and main sources of information that are available and updated on an annual basis are the statistical databases provided by FAO: FAOSTAT and in particular FAO-FISHSTAT with their components: GFCM capture production, aquaculture production and value, capture production and commodities, production and trade, and FAOSTAT for consumption of fishery products.

The other database that has been used is EUROSTAT, mainly for data on fleets and their main characteristics and also to obtain employment information, but since this database focuses on the EU countries, it does not provide a great deal of information on third countries, at least for the moment. In fact the main difficulty

is the gathering of information on fleets and, even more so, on the value of landings, because this kind of information is not provided by FAO. And in fact EUROSTAT only provides a limited amount of information on the number of vessels, the GRT and horse power of EU fleets, employment and value of landings.

Three groups of countries have been identified, as in the 2004 report:

- the European Union Member Countries: Portugal, Spain, France, Italy and Greece together with the countries incorporated in 2004: Malta, Slovenia and Cyprus.
- the countries in the Maghreb area: Morocco, Algeria and Tunisia
- the remaining Mediterranean Countries: Albania, Turkey, Lebanon, Egypt, Libya, Israel, Syria, Gaza Strip, Serbia-Montenegro, Croatia and Monaco.

It must also be pointed out that, except in the case of tuna fisheries, the Black Sea fisheries have not been taken into consideration for the analysis.

8.1 – Means of production

8.1.1 - Fishing fleets, harbours and fishermen

The information on fleets provided by EUROSTAT refers to vessels fishing in and outside the Mediterranean. For this reason, in the case of Spain, France and Morocco it has to be taken into account that a large proportion of these fleets do not operate in the Mediterranean and also that a large part of the Turkish fleet operates in the Black Sea; the same applies to Egyptian boats operating in the Red Sea.

Table 8.1 - Number of fishing vessels

Num.vessels	1995 (1)	2002	2003
Spain (3)	18 483	14 900	14 579
France (3)	6 586	8 158	8 079
Greece	18 483	19 473	19 043
Italy	16 352	15 808	15 655
Portugal	12 120	10 337	10 462
Cyprus	542		
Malta	1 609		
Slovenia	95		
EU MED	74 270		
Morocco (3)	2 416	18 825 (2)	
Tunisia	14 242		
Algeria	1 750		
MAGREB	18 408		
Albania	110		
Turkey		17 319	17 696
Lebanon	1 000		
Egypt	4 052		
Croatia	6 043		
Palestine			
Israel	456		
Libya	3 561		
Syria	1 490		

(1) EU countries: EUROSTAT; Others: FAO Fish.Circ.927.

(2) FAO Country profiles 2001

(3) Fleets operating outside Mediterranean waters included

Source: EUROSTAT 2004.

As has already been indicated, the only available data updated on an annual basis refers to fleets operating both inside and outside the Mediterranean waters. However, as was stated in the previous report, the number of fishing vessels operating throughout the Mediterranean can be estimated at approximately 100 000 units, up to 80% of which, in the EU countries, are small vessels less than 12 metres in length overall using small-scale gears. In the non-EU countries the percentage of small vessels is larger – generally over 90-95% of the fleets.

For this reason and in order to make it possible to analyse fishing fleets, it is recommended that the main characteristics of the vessels be examined, where possible, in order to have a better idea of their fishing capacity. However, information on fleet characteristics is scarce and is usually not readily available. Actually, the only annually updated information available is data on Gross

Registered Tonnage and Horse Power and it generally only refers to the fleets of the European Union countries.

Table 8.2a - Fishing fleet characteristics: Gross Registered Tonnage of EU fleets (metric tonnes)

GROSS TONNAGE Mt	1995	2002	2003	Average GRT
Spain	658 166	519 111	496 253	34.04
France	178 460	229 938	228 201	28.25
Greece	116 778	102 823	99 332	5.22
Italy	260 357	214 735	216 938	13.86
Portugal	125 418	115 954	118 548	11.33
Malta	nea	nea	nea	
Slovenia	nea	nea	nea	
Cyprus	nea	nea	nea	
EU MED	1 339 179	1 182 561	1 159 272	

nea: not elsewhere available

Source: EUROSTAT 2004.

Table 8.2b - Fishing fleet characteristics: horse power of EU fleets (kW)

Horse power kW	2002	2003	Average kW
Spain	1 257 948	1 200 712	82.36
France	1 116 022	1 108 942	137.26
Greece	591 892	567 320	29.79
Italy	1 281 990	1 284 720	82.06
Portugal	398 335	404 859	38.70
Malta	nea	nea	nea
Slovenia	nea	nea	nea
Cyprus	nea	nea	nea
EU			

nea: not elsewhere available

Source: EUROSTAT 2004.

The data on fleets and their characteristics highlight the different vessel size of European fleets. The Spanish and French fleets have an average GRT of 34 and 28 tonnes respectively while Italy and Portugal have 11 and 14 tonnes and Greece 5 tonnes. For as regards horse power, France, Spain and Italy have the fleets with the highest ratings with average registers between 82 and 137 while the average values for Greece and Portugal are 29 and 38 respectively. However, if only Mediterranean

fleets were included in the calculation the average values would probably be of the order of those of Greece and Italy. The 2004 CIHEAM report contained some detailed, but not absolutely homogeneous, information on the Mediterranean fleet characteristics gathered from various sources. This information can give us a rough idea of the average fishing capacity of the Mediterranean fleets.

These data on fleets also show the EU's evident effort to reduce the fishing capacity of fleets in the last few years. However, this year (2002 data) we nevertheless observe that Portugal has increased both the number of vessels and GRT and horse power, and Italy has also slightly increased GRT and horse power. On the other hand, as was observed in last year's analysis, the fishing fleets in the non-EU countries are steadily growing, as are vessel efficiency and size, resulting in a constant increase in fishing effort.

As regards employment, the figures again refer not only to Mediterranean activity but also to the total fishing activity developed by each country.

Table 8.3 - Employment in number of fishermen

Fishers	1995	2000 (1)	2001 (1)	2002
Spain	75 009	46 189	44 676	55 800
France	38 270 (1)	26 016	26 036	13 824 (4)
Greece	19 840	16 308	37 490	19 879
Italy	45 000	52 184	49 637	48 342 (4)
Portugal		25 021	23 580	20 033
Cyprus	1 097			1 139
Malta	1 707			2 552
Slovenia	102	118		336
EU MED				
Morocco	99 885			
Tunisia	61 258			
Algeria	23 000			
MAGREB	184 143			
Albania	720			
Turkey		50 000		
Lebanon	9 000			
Egypt	36 000 (2)			
Croatia	11 756			
Palestine				
Israel	1 250 (2)			
Libya	4 700 (2)			
Syria	4 200 (2)			
Total	452 514 (3)			

(1) Review of Fisheries in OECD Countries; (2) FAO Fish.Circ.927; (3) France, Spain and Morocco, Atlantic fishers included. Using 2001 national data from EU countries. (4) EU Concerted Action on Economic Performance of Selected European Fishing Fleets. Report 2003.

Source: EUROSTAT 2004.

The CIHEAM report for 2004 estimates roughly that, not counting the significant number of part-time fishermen, employment can be situated around 450 000 fishermen in the Mediterranean countries, around 300 000 of whom are working in Mediterranean fisheries. These figures do not include the jobs generated on land for persons working in the various fisheries-related sectors (marketing, fishmeal industry, administration, research and training, etc.). At this point in time, in view of the poor information available on this item few further conclusions can be reached except to state the lack of information.

With regard to means of production, it can be pointed out again that three groups of countries can be identified:

The first group includes the EU countries, with larger and high, but decreasing, fishing capacity: France, Greece, Italy, Portugal and Spain. As of this year three new “small fleet” countries – Cyprus, Slovenia and Malta – should be included in this group because their fleets will be included in the Common European Fisheries Policy.

The second group includes countries with fleets of considerable size but lesser individual fishing capacity. This group includes the Maghreb countries (Morocco, Algeria and Tunisia), Libya, Egypt, Croatia and Turkey. These countries are developing their fleets, increasing the number of vessels and improving their technological characteristics. It is also relevant to point out that the crews on vessels of similar characteristics is larger in these fleets than in those of the EU countries.

The third group of small countries or countries with a reduced littoral zone and small fleets under development, in some cases non-powered or even undecked: Israel, Lebanon, Syria and Albania. In these countries the number of crew per boat is also high.

8.1.2 - Aquaculture fish farms and production systems

No new information is available on this item since the last CIHEAM report was published.

8.2 – Production

Total world fisheries production in 2000 amounted to 130 million tonnes, of which 100 million tonnes were from marine production (86 million tonnes from capture fisheries and 14 million tonnes from aquaculture). It must be pointed out at all events that outside China the total production was of only 89 million tonnes. Furthermore, looking at the regional level, there is a group of major fisheries regions which in terms of volume of catches totalise up to 60 million tonnes; these regions are the North-West Pacific (including China), South-East Pacific, North-East Atlantic and the West Central Pacific. Capture production in the remaining regions ranks between 4.7 million tonnes in the East Indian Ocean and 2.1 million tonnes in the North-West Atlantic (the remaining regions in this group are East Central Atlantic, South-West Atlantic, South-East Atlantic, Western Indian Ocean, North-East Pacific, East Central Pacific and South-West Pacific). Capture fisheries production in the Mediterranean region with 1 507 506 tonnes (and a total production level of 1 891 667 tonnes) is not so far behind this second group. And when we consider fishing activities in terms of value or from the social point of view, rather than in terms of volume of catches, the relative importance of Mediterranean fisheries in the world context becomes much clearer.

8.2.1 - Fisheries (catches/landings: volume and value)

The trend of catches observed last year for the last 30 years, showed a progressive decrease in the European share of catches in the Mediterranean. The new data confirm this trend, i.e. the European industrialised countries are reducing their respective shares in the total landings in favour of those of developing countries.

Table 8.4 - Landings in metric tonnes

Country	Mediterranean			Total
	1995	2001	2002	2002
Cyprus	2 505	2 258	1 918	1 978 (1)
France	28 369	36 906	38 395	700 451
Greece	133 900	79 312	82 222	88 987
Italy	358 133	279 346	241 254	271 852
Malta	500	567	571	1 004
Portugal	0	84	18	200 037
Slovenia	1 851	1 621	1 459	1 686
Spain	140 426	133 939	108 487	882 876
EU MED	665 684	534 033	474 324	2 148 871
Algeria	103 536	129 326	130 447	134 325
Morocco	36 220	24 342	24 866	902 881
Tunisia	79 418	91 374	89 072	96 732
MAGREB	219 174	245 042	244 385	1 133 938
Albania	1 160	1 906	2 751	3 957
Egypt	42 475	57 803	56 920	425 171
Lebanon	3 565	3 200	3 273	3 970
Turkey	81 628	54 370	46 262	566 682
Croatia	14 467	17 507	20 206	21 236
Israel	3 362	3 548	3 262	4 880
Libya	32 470	31 060	33 006	33 676
Monaco	3	3	3	3
Palestine	1 229	2 380	2 195	2 378
S. and M.	332	371	411	1 394
Syria	1 795	1 952	2 493	9 178
OTHERS	53 658	56 821	61 576	72 745
TOTAL	1 067 344	953 175	889 491	4 355 334

(1) 81071 mt reported in 2001; (2) Fishstat 2004/capture production

Source: FAO-FISHSTAT 2004.

To allow a more detailed analysis of fishery production, Table 8.5a presents Mediterranean landings distributed by species groups and Table 8.5b those referring to tuna fishes. In this case landings from the Black Sea and Sea of Marmara are included. In both tables we can see that landings are continuing to decrease slightly but steadily.

**Table 8.5a - Landings in metric tonnes by group of species
(tuna fishes not included)**

Species group	1995	2001	2002
Cephalopods	62 526	53 849	53 195
Crustaceans	45 343	43 253	44 157
Demersal marine fish	276 813	213 838	208 271
Freshwater and diadromous fish	2 088	3 300	4 283
Marine fish nei	114 447	67 214	64 584
Other aquatic animals	231	784	514
Molluscs (excl. cephalopods)	90 230	96 393	89 443
Pelagic marine fish	475 482	474 210	424 708
Other	82	83	100
TOTAL	1 067 242	952 924	889 255

Table 8.5b - Landings of tuna fishes in metric tonnes by country

Tuna fishes	1995	2001	2002
Albania	1	32	39
Algeria	2 343	4 302	3 878
Bulgaria	25	49	0
China	137	0	0
Croatia	1 437	957	1 005
Cyprus	109	251	235
Egypt	1 227	1 850	2 717
France	9 608	6 159	5 887
Greece	5 610	5 731	4 437
Israel	215	70	50
Italy	17 843	14 972	13 394
Japan	741	188	390
Korea	460	0	0
Lebanon	500	450	400
Libya	1 540	1 950	4
Malta	670	326	433
Morocco	3 456	3 807	4 495
Palestine	0	120	183
Panama	1 498	0	0
Portugal	446	204	11
S. and M.	45	47	46
Slovenia	0	0	1
Spain	8 581	5 210	4 918
Syria	155	370	330
Taiwan	493	197	131
Tunisia	3 513	6 273	6 790
Turkey	13 470	15 920	8 956
Other nei	1 350	571	508
Total	75473	70006	59238

Source: FAO-FISHSTAT 2004.

Table 8.6 shows the information available on the value of landings. It demonstrates the scarcity of economic data available on fisheries, a fact which constitutes the major obstacle to performing an accurate assessment of fisheries.

Table 8.6 - Value of landings in million euro

million €	1995	2001(1)	2002
Spain	1 898		1 959
France	849 (1)	835	880
Greece	270	163	251
Italia	882	147	946
Portugal	280 (1)	292	906
Cyprus	nea	nea	nea
Malta	nea	nea	nea
Slovenia	nea	nea	nea
EU MED	nea	nea	nea
Morocco	nea	nea	nea
Tunisia	nea	nea	nea
Algeria	nea	nea	nea
MAGREB	nea	nea	nea
Albania	nea	nea	nea
Turkey	719 (1)	nea	nea
Lebanon	nea	nea	nea
Egypt	nea	nea	nea
Israel	nea	nea	nea
Libya	nea	nea	nea

(1) Review of Fisheries in OECD/OCDE Countries

nea: not elsewhere available

Source: EUROSTAT 2004.

8.2.2 - Aquaculture production (volume and value)

Table 8.7 - Aquaculture production by country in metric tonnes

Country	1995	2001	2002
Cyprus	452	1 883	1 862
France	280 786	251 655	249 734
Greece	32 644	97 512	87 928
Italy	214 725	218 269	183 962
Malta	904	1 235	1 116
Portugal	4 981	8 211	8 437
Slovenia	789	1 262	1 290
Spain	223 965	312 647	263 762
EU MED	759 246	892 674	798 091
Algeria	369	454	476
Morocco	2 072	1 403	1 670
Tunisia	960	1 868	1 975
MAGREB	3 401	3 725	4 121
Albania	340	286	860
Egypt	71 815	342 864	376 296
Lebanon	300	300	790
Turkey	21 607	67 244	61 165
Croatia	4 007	10 166	8 416
Israel	16 180	21 318	22 261
Libya	100	100	.
S. and M.	2 404	2 688	2 448
Syria	5 857	5 880	5 988
TOTAL	885 257	1 347 245	1 280 436

Source: FAO-FISHSTAT 2004.

Table 8.8 - Aquaculture production in 2002 by species groups in metric tonnes

Species group	1995	2001	2002
Aquatic plants	5 100	35	35
Cephalopods	1	16	14
Crustaceans	273	278	351
Demersal marine fish	69 121	250 354	255 539
Freshwater and diadromous fish	241 060	465 087	462 235
Marine fish nei	90	1 358	954
Miscellaneous aquatic animals	1	0	0
Molluscs (excl. cephalopods)	569 597	625 599	556 296
Pelagic marine fish	16	4 518	5 012
TOTAL	885 259	1 347 245	1 280 436

Source: FAO-FISHSTAT 2004.

With regard to aquaculture production, as was evidenced in the last report, production is dominated by six countries: Egypt, Spain, France, Italy, Greece and Turkey, which supply 96% of total production in the region. Whilst in Spain, France and Italy production is mainly based on molluscs (mussels, oysters, and clams respectively), in Egypt it is based on the semi-intensive production of freshwater species (i.e. tilapia and carp) and marine finfish species (i.e. mullet). Greece and Turkey, among others, concentrate most of their production on the intensive production of finfish (seabream, seabass and trout).

It is important to underline, however, that production has stabilised after the rapid increase observed in last decade. This is probably due to the decrease in prices due to that rapid increase and to the fact that production is concentrated on a limited number of species. It is currently not really expected that new species will be incorporated into aquaculture production from the market point of view, and this fact is also generating a demand problem.

**Table 8.9 - Aquaculture. Value of production by country
in 1000 US dollars**

Country	1995	2001	2002
Cyprus	4 467	9 527	10 487
France	663 176	453 763	472 127
Greece	157 307	307 364	243 891
Italy	419 288	415 318	337 129
Malta	8 127	3 080	3 747
Portugal	28 218	55 629	58 337
Slovenia	3 190	3 515	3 538
Spain	250 015	392 112	354 062
EU MED	1 533 788	1 640 308	1 483 318
Algeria	971	1 230	1 283
Morocco	12 254	3 375	4 478
Tunisia	5 454	9 196	8 746
MAGREB	18679	13801	14507
Albania	251	529	1 862
Egypt	115 194	756 980	655 565
Lebanon	1 500	900	2 361
Turkey	127 197	142 315	130 482
Croatia	12 472	32 597	29 245
Israel	48 906	77 523	61 208
Libya	150	150	0
S. and M.	6 028	6 769	5 692
Syria	26 912	28 716	50 761
TOTAL	1 891 077	2 700 588	2 435 001

Source: FAO-FISHSTAT 2004.

Table 8.10 – Aquaculture.
Value of production by species groups in 1000 US dollars

Species	1995	2001	2002
Aquatic plants	1 848	2	2
Cephalopods	1	66	56
Crustaceans	4 317	3 133	3 795
Demersal marine fish	466 943	1 035 779	876 116
Freshwater and diadromous fish	598 111	928 419	838 002
Marine fish nei	792	6 157	4 023
Miscellaneous aquatic animals	1	0	0
Molluscs (excl. cephalopods)	818 857	660 056	639 124
Pelagic marine fish	209	66 978	73 884
TOTAL	1 891 079	2 700 590	2 435 002

Source: FAO-FISHSTAT 2004.

The production figures in economic terms, by country and also by species group, confirm the same trend observed in production in terms of weight.

8.3 - Trade in fish and fishery products

8.3.1 - Imports and exports and trade balance

It must be pointed out first of all that the import-export data used refer to the trade activity in fish and fishery products landed by the fleets of Mediterranean countries operating inside and outside the Mediterranean region, but also the trade activity in those products landed by the non-Mediterranean fleets of Mediterranean countries. It is also important to bear in mind that these countries trade not only amongst themselves but also with the rest of the world. This fact can complicate the appreciation of the situation in the Mediterranean Sea, especially in the case of France, Morocco, Spain and Portugal, whose fleets also fish in the Atlantic Ocean, in the case of Turkey because its fleet also fishes in the Black Sea, and in the case of Egypt in the Red Sea. However, this type of analysis provides an overview of fisheries in each country.

In the area taken into consideration, Italy, France, Spain and Portugal, and the European countries in general, appear as the main importers, as is shown in Tables 8.11 and 8.12. The same countries, together with Morocco, are also the main exporters. However, exports are mainly addressed to EU countries, for which reason, the value of imports of EU countries is compensated by the value of exported products. No relevant structural changes are apparent between 2001 and 2002 in the area as a whole. However, there have been important relative changes in certain specific countries, some of which have registered an important increase in external trade (imports and exports). This is the case of Algeria and Syria. Morocco, the major “exporting” country, seems to be showing a significant

downward trend in exports together with an increase in imports, reflecting a significant increase in the internal consumption of fish and sea products.

Tables 8.11 and 8.12 (*attention, correction de numérotation*) show a significant increase in imports and exports in the EU countries, 5.1% in the case of imports and 5.42% in the case of exports. The EU countries import and export considerably more fishing products than do the other countries: expressed in volume, they account for 77.54% of total exports and 89% of total imports; expressed in value, the figures are 75.5% and 95.1% respectively. Despite this, the trade volume measured in metric tonnes has decreased by about 1% in the case of exports and 3% in the case of imports. This can be explained by two important facts. First, the constant growing scarcity of marine products and the consequent increase in prices; secondly, the Mediterranean countries are developing a fishing industry that is based mainly on the exploitation of the most popular and profitable seafood products.

**Table 8.11 - Export-import quantities and trade balance
in 1000 metric tonnes**

Country	Exports		Imports		Imports-Exports	
	2001	2002	2001	2002	2001	2002
Cyprus	790	796	18 314	17 069	17 524	16 273
France	442 998	406 566	1 058 048	1 025 997	615 050	619 431
Greece	85 725	73 061	196 668	194 309	110 943	121 248
Italy	134 722	127 910	883 836	868 621	749 114	740 711
Malta	2 269	3 150	17 360	14 614	15 091	11 464
Portugal	95 820	103 614	336 122	338 555	240 302	234 941
Slovenia	2 340	2 081	13 630	12 933	11 290	10 852
Spain	924 102	818 452	1 533 284	1 458 534	609 182	640 082
EU MED	1 688 766	1 535 630	4 057 262	3 930 632	2 368 496	2 395 002
Algeria	1 498	2 415	8 000	11 306	6 502	8 891
Morocco	371 632	354 938	13 230	18 948	-358 402	-335 990
Tunisia	15 051	17 438	17 336	17 810	2 285	372
MAGREB	388 181	374 791	38 566	48 064	-349 615	-326 727
Albania	2 052	2 175	5 470	6 918	3 418	4 743
Egypt	1 265	2 574	261 338	176 700	260 073	174 126
Lebanon	49	107	27 557	19 072	27 508	18 965
Turkey	27 476	39 996	49 812	37 208	22 336	-2 788
Croatia	21 471	22 009	56 118	67 632	34 647	45 623
Israel	1 416	1 299	65 042	60 393	63 626	59 094
Libya	1 586	1 720	4 879	4 034	3 293	2 314
S. and M.	194	89	40 503	39 973	40 309	39 884
Syria	52	109	10 757	22 827	10 705	22 718
TOTAL	2 132 508	1 980 499	4 617 304	4 413 453	2 484 796	2 432 954

Source: FAO-FISHSTAT 2004.

**Table 8.12 - Export-import value and trade balance
in thousand US dollars**

	Export		Import		Export-Import Balance	
	2001	2002	2001	2002	2001	2002
Cyprus	6 836	5 504	34 720	33 673	-27 884	-28 169
France	1 032 036	1 103 801	3 087 695	3 237 053	-2 055 659	-2 133 252
Greece	212 085	227 416	312 407	386 471	-100 322	-159 055
Italy	386 657	430 199	2 732 804	2 917 341	-2 346 147	-2 487 142
Malta	13 205	17 320	22 981	21 148	-9 776	-3 828
Portugal	276 167	303 917	937 333	949 424	-661 166	-645 507
Slovenia	5 824	6 049	28 397	31 947	-22 573	-25 898
Spain	1 859 140	1 903 364	3 733 478	3 867 431	-1 874 338	-1 964 067
EU MED	3 791 950	3 997 570	10 889 815	11 444 488	-7 097 865	-7 446 918
Algeria	4 876	5 816	14 043	9 260	-9 167	-3 444
Morocco	874 389	964 134	9 704	13 407	864 685	950 727
Tunisia	89 028	97 054	18 856	18 637	70 172	78 417
MAGREB	968 293	1 067 004	42 603	41 304	925 690	1 025 700
Albania	6 910	8 727	5 246	9 798	1 664	-1 071
Egypt	1 348	2 328	163 100	107 516	-161 752	-105 188
Lebanon	117	246	55 140	46 102	-55 023	-45 856
Turkey	74 841	118 270	30 676	29 671	44 165	88 599
Croatia	64 138	80 068	65 406	84 666	-1 268	-4 598
Israel	9 486	8 690	146 547	135 218	-137 061	-126 528
Libya	9 057	11 230	9 478	11 021	-421	209
S. and M.	319	169	36 226	37 989	-35 907	-37 820
Syria	268	138	43 359	85 220	-43 091	-85 082
TOTAL	4 926 727	5 294 440	11 487 596	12 032 993	-6 560 869	-6 738 553

Source: FAO-FISHSTAT 2004.

Table 8.13 - Export-import prices per kg in US dollars by country

USD/kg	Export		Import	
	2001	2002	2001	2002
Cyprus	8,65	6,91	1,90	1,97
France	2,33	2,71	2,92	3,16
Greece	2,47	3,11	1,59	1,99
Italy	2,87	3,36	3,09	3,36
Malta	5,82	5,50	1,32	1,45
Portugal	2,88	2,93	2,79	2,80
Slovenia	2,49	2,91	2,08	2,47
Spain	2,01	2,33	2,43	2,65
EU MED	2,25	2,60	2,68	2,91
Algeria	3,26	2,41	1,76	0,82
Morocco	2,35	2,72	0,73	0,71
Tunisia	5,92	5,57	1,09	1,05
MAGREB	2,49	2,85	1,10	0,86
Albania	3,37	4,01	0,96	1,42
Egypt	1,07	0,90	0,62	0,61
Lebanon	2,39	2,30	2,00	2,42
Turkey	2,72	2,96	0,62	0,80
Croatia	2,99	3,64	1,17	1,25
Israel	6,70	6,69	2,25	2,24
Libya	5,71	6,53	1,94	2,73
S. and M.	1,64	1,90	0,89	0,95
Syria	5,15	1,27	4,03	3,73
TOTAL	2,31	2,67	2,49	2,73

The information collected also shows that, with some exceptions, import prices seem to be higher than export prices. This is the case with Spain, France, and to some extent also Italy, where import and export prices are similar. This is probably due to the strong demand for expensive products on the internal markets in these countries despite the fact that they are already specialised in the production of this kind of product. However, in other countries such as Lebanon and Syria this is perhaps linked to production problems.

At all events, one has to look at the trade balance (Table 8.12) in order to understand the underlying trends of the Mediterranean fishing trade. This table shows that all of the European countries (Italy, France, Spain, Malta, Cyprus, Slovenia and Portugal) have a negative trade balance while Maghreb countries (Morocco, Tunisia) and Turkey have a positive trade balance.

The demand for fishery products in the European countries – as well as other countries in the south - and the relative shortage in relation to demand, together with the decrease in landings due to overfishing and to the reduction of fishing fleets, are forcing prices up. This scenario is also stimulating the development of

fisheries in the southern and eastern countries, where the sector provides a real source of income and employment.

The fact that the southern Mediterranean countries are not too far from the European markets, where there is high demand, means that these countries have an advantage over other countries around the world, because they can provide fish rapidly and without any major conservation problems. It must also be borne in mind that developing these fishing industries does not require significant investment, a fact which explains the rapid growth observed in the past few years.

This process is currently having a positive impact on the immediate development of fisheries in the southern countries, but it could jeopardise it in the future. Given the limitation of resources, it is only if production allows their sustainability that fishing will contribute positively to development in southern countries, i.e. to investment recovery and employment stability, as well as providing a supply to EU consumers.

8.4 – Summary

The possibilities for establishing a system of indicators for assessing fisheries in the Mediterranean are currently limited because of the lack of reliable information, particularly since this information needs to be updated regularly; and major difficulties arise when it comes to obtaining indicators relating to the fishing capacity of fleets, the pressure exerted by those fleets on resources, and the investments effected.

However, by focusing more on the European countries and on the major “fishing” countries (i.e. the CIHEAM member countries), on which more information is available, it has been possible to identify a set of basic indicators allowing us to perform some analysis of the status of fisheries in the Mediterranean countries.

8.4.1 - Production, demand and supply (consumption) of fish and fishery products

When we examine these indicators, which are summarised in Table 8.14, we can identify two groups of countries or, rather, two models of fisheries.

As was already stated in the previous report, one group of countries – those in the north – shows high consumption, which is growing despite the limitation of resources and a high demand for fishery products. The other group – the southern countries in general – presents relatively low consumption and demand. However, demand is steadily growing in all countries. These differences are probably due to the resources available and accessible in each area as well as to the trade process and consumer habits. There are also differences between the figures on per capita

supply provided by FAOSTAT and the estimates of production and export-import balance by country. Various factors, such as errors in reporting, can explain these differences, but in some cases – Morocco, for example – the difference is due to the use of fish captures for non-food products.

Table 8.14a - Summary I. Volume of production and supply (in metric tonnes). Apparent consumption estimated and provided by FAOSTAT in kg/caput/year

Country	Catch	Culture	Import-Export	Supply
Cyprus	1 978	1 862	16 273	20 113
France	700 451	249 734	619 431	1 569 616
Greece	88 987	87 928	121 248	298 163
Italy	271 852	183 962	740 711	1 196 525
Malta	1 004	1 116	11 464	13 584
Portugal	200 037	8 437	234 941	443 415
Slovenia	1 686	1 290	10 852	13 828
Spain	882 876	263 762	640 082	1 786 720
EU MED	2 148 871	798 091	2 395 002	5 341 964
Algeria	134 325	476	8 891	143 692
Morocco	902 881	1 670	-335 990	568 561
Tunisia	96 732	1 975	372	99 079
MAGREB	1 133 938	4 121	-326 727	811 332
Albania	3 957	860	4 743	9 560
Egypt	425 171	376 296	174 126	975 593
Lebanon	3 970	790	18 965	23 725
Turkey	566 682	61 165	-2 788	625 059
Croatia	21 236	8 416	45 623	75 275
Israel	4 880	22 261	59 094	86 235
Libya	33 676	0	2 314	35 990
Monaco	3	0	0	3
Palestine	2 378	0	0	2 378
S. and M.	1 394	2 448	39 884	43 726
Syria	9 178	5 988	22 718	37 884
TOTAL	4 355 334	1 280 436	2 432 954	8 068 724

Table 8.14a (contd.)

Country	Population	Supply per capita	FAOSTAT Sea food supply
Cyprus	796 000	25.27	28.5
France	59 850 000	26.23	31.3
Greece	10 970 000	27.18	23.3
Italy	57 482 000	20.82	26.2
Malta	393 000	34.56	50.2
Portugal	10 049 000	44.13	59.3
Slovenia	1 986 000	6.96	7.7
Spain	40 977 000	43.60	47.5
EU MED	172 630 000	30.94	-
Algeria	31 266 000	4.60	3.5
Morocco	30 072 000	18.91	8.8
Tunisia	9 728 000	10.18	11.1
MAGREB	71 066 000	11.42	-
Albania	3 141 000	3.04	4.1
Egypt	70 507 000	13.84	15.0
Lebanon	3 596 000	6.60	12.2
Turkey	70 318 000	8.89	7.3
Croatia	4 439 000	16.96	11.9
Israel	6 304 000	13.68	22.0
Libya	5 445 000	6.61	7.1
Monaco	34 000	0.09	nea
Palestine	nea	nea	nea
S. and M.	10 535 000	4.15	2.0
Syria	17 381 000	2.18	2.7
TOTAL	172 926 000	46.66	-

nea: not elsewhere available

A steady decline in capture fisheries landings has been observed over the past few years, while aquaculture production has been growing rapidly. However it seems that aquaculture production has also been levelling off recently and is facing problems, mainly a decrease in prices, which is probably due to the rapid growth in production observed in the last decade and to the fact that production is concentrated on a limited number of species.

Table 8.14b - Summary II – Value of production in 1000 USD

Country	Catches 1000 €	Culture	Export	Import	Balance Export- Import
Cyprus	nea	10 487	5 504	33 673	-28 169
France	880 000	472 127	1 103 801	3 237 053	-2 133 252
Greece	251 000	243 891	227 416	386 471	-159 055
Italy	946 000	337 129	430 199	2 917 341	-2 487 142
Malta	nea	3 747	17 320	21 148	-3 828
Portugal	906 000	58 337	303 917	949 424	-645 507
Slovenia	nea	3 538	6 049	31 947	-25 898
Spain	1 959 000	354 062	1 903 364	3 867 431	-1 964 067
EU MED	-	1 483 318	3 997 570	11 444 488	-7 446 918
Algeria	nea	1 283	5 816	9 260	-3 444
Morocco	nea	4 478	964 134	13 407	950 727
Tunisia	nea	8 746	97 054	18 637	78 417
MAGREB	-	14 507	1 067 004	41 304	1 025 700
Albania	nea	1 862	8 727	9 798	-1 071
Egypt	nea	655 565	2 328	107 516	-105 188
Lebanon	nea	2 361	246	46 102	-45 856
Turkey	nea	130 482	118 270	29 671	88 599
Croatia	nea	29 245	80 068	84 666	-4 598
Israel	nea	61 208	8 690	135 218	-126 528
Libya	nea	0	11 230	11 021	209
S. and M.	nea	5 692	169	37 989	-37 820
Syria	nea	50 761	138	85 220	-85 082
TOTAL	-	2 435 001	5 294 440	12 032 993	-6 738 553

nea: not elsewhere available

Table 8.14c - Summary III –Employment and fleets

	Employment	Fleets				
	Fishermen	Number of vessels	GRT metric tonnes	Average GRT	Horse power kW	Average horse power
Spain	55 800	14 579	496 253	34.04	1 200 712	82.36
France	13 824	8 079	228 201	28.25	1 108 942	137.26
Greece	19 879	19 043	99 332	5.22	567 320	29.79
Italy	48 342	15 655	216 938	13.86	1 284 720	82.06
Portugal	20 033	10 462	118 548	11.33	404 859	38.70
Cyprus	1 139	542(1995)	nea	nea	-	-
Malta	2 552	1 609(1995)	nea	nea	-	-
Slovenia	336	95(1995)	nea	nea	-	-
EU MED	161 905	70 064	nea	nea	-	-
Morocco	99 885(1995)	18 825(2001)	nea	nea	-	-
Tunisia	61 258(1995)	14 242(1995)	nea	nea	-	-
Algeria	23 000(1995)	1 750(1995)	nea	nea	-	-
MAGREB	18 4143	34 817	nea	nea	-	-
Albania	720(1995)	110(1995)	nea	nea	-	-
Turkey	50 000(2000)	17 696	nea	nea	-	-
Lebanon	9 000(1995)	1 000(1995)	nea	nea	-	-
Egypt	36 000 (1995)	4 052(1995)	nea	nea	-	-
Croatia	11 756(1995)	6 043(1995)	nea	nea	-	-
Palestine	nea	nea	nea	nea	-	-
Israel	1 250 (1995)	456(1995)	nea	nea	-	-
Libya	4 700 (1995)	3 561(1995)	nea	nea	-	-
Syria	4 200 (1995)	1 490(1995)	nea	nea	-	-
Total	45 1918	139 289	nea	nea	-	-

nea: not elsewhere available

In fact the information available on means of production in general and on fishing fleets and employment in particular is scarce and not always consistent when obtained from different sources of information. At all events, it would seem that the main part of fishing capacity is concentrated in the European countries plus Morocco, Turkey and Tunisia.

In the north it is evident that fleets are overfishing resources and, furthermore, that some of these resources are already depleted. For this reason measures to reduce fishing effort or fishing activity are recommended and have in fact been underway since 1990. However, the most recent data show that in two European countries (Italy and Portugal) fishing power (in terms of horse power and Gross Registered Tonnage and in the case of Portugal also in terms of number of vessels) seems to be on the increase again. On the other hand, and apart from the fact that the information available is limited, the fishing fleets and their fishing power in the non-EU "fishery" countries, are steadily growing. In fact, the Libyan fishing fleet of 400 units in 1980 had increased to 2000 units by 2000, and catches grew from 10 000 metric tonnes in 1980 to 50 000 in 2000. Also in Algeria the 2003-2007 Plan for developing the private fishery sector includes the construction of 1913 new

fishing vessels to increase annual production from the current 100 000 tonnes to 250 000 tonnes.

Despite the scarcity of information, it seems that in many EU countries costs are rising but incomes are remaining stable at same time, due mainly to decreasing resources. This phenomenon is having an impact on wages, which are directly linked with landings in a wage system based on a proportion of the sales. When wages go down, many crews leave the activity to find better wages in other sectors. This fact is actually jeopardising the future of fisheries, mainly because there are no newcomers interested in working in the sector.

8.5 - The Common Fisheries Policy of the European Commission

8.5.1 - European Fisheries

The European Union at present comprises 25 countries after the 2004 expansion, which has brought 10 new members; 4 countries have candidate status at the moment: Bulgaria, Romania, Croatia and Turkey. The next expansion in 2007 is expected to comprise Bulgaria, Romania and Croatia.

The fishery sector, which currently accounts for 0.2% of GNP and 0.4% of employment, is not an important economic activity in the European Union. In fact, the sector's contribution to the gross national product of Member States is generally less than 1%; however, its impact is highly significant as a source of income in areas where there are few employment alternatives. In addition, the fishery sector helps to supply fish products to the EU market, one of the largest in the world.

With an output of 7.6 million tonnes of fish – from fisheries and aquaculture – in 2002, the EU is the world's third largest fishing power after China and Peru. Yet, while 3.9 million tonnes of fish products were exported, 4.3 million tonnes had to be imported to meet the needs of the EU in 2001 (including the 10 new members). In economic terms this amounts to a deficit of over € 4 billion.

The EU fishing fleets comprise more than 95 000 vessels, which vary greatly in size and fishing capacity or potential catching power. Fleet capacity has declined over the past few years because it was too large for the available fish and was becoming uneconomic. The EU has facilitated the transition towards a better balance between fishing fleets and resources, i.e. vessels and fish, but more needs to be done.

Fishing provides a variety of jobs. Although the number of fishermen in the EU – in both full-time and part-time jobs – has been declining over the years, some 260 000 fishermen are directly employed in catching fish. Their activities generate more jobs in processing, packing, transport and marketing on the production side and in shipyards, fishing gear manufacturing, chandlery and maintenance on the

servicing side. These jobs form the backbone of many remote coastal areas all over the Community's coast. Studies carried out a few years ago identified some 300 coastal zones within the EU and showed that employment in the fishing sector across these zones represented only a small percentage of all jobs - between 1 and 1.5%. But this share amounted to 10% in 20 zones such as the Atlantic coast of Spain, the east coast of Italy and Scotland. In 82 other zones the fishing sector accounted for between 2 and 10% of all jobs. Even in areas where employment in the fishing sector is low, these jobs are still very important. In these areas, geographic and economic factors such as distance from the main centres of activity, sparse population, poor agricultural land or industrial decline, which characterise many coastal areas, combine to reduce other employment opportunities.

Table 8.15 - Fisheries production in the EU countries

	Catches Volume in tonnes 2002	Catches Value in 1 000 € 2002	Aquaculture Volume in tonnes 2001	Aquaculture Value in 1 000 € 2001
Belgium	19 874	72 000	1 630	6 049
Cyprus	nea	nea	1 883	10 637
Czech Republic	nea	nea	20 098	59 399
Denmark	905 351	464 000	41 573	167 045
Estonia	nea	nea	467	1 451
Finland*	96 711	23 000	15 739	44 312
France	403 334	835 000	252 062	474 776
Germany**	86 100	104 000	53 409	156 006
Greece	96 035	258 000	97 802	344 654
Hungary	nea	nea	13 056	25 283
Ireland***	202 909	184 000	60 935	102 157
Italy	253 802	946 000	221 269	475 968
Latvia	nea	nea	463	710
Lithuania	nea	nea	2 001	2 816
Malta	Nda	nea	1 235	3 439
Netherlands	478 159	327 000	52 064	116 224
Austria	nea	nea	2 393	12 239
Poland#	225 000	71 464	35 460	71 706
Portugal	173 920	306 000	7 824	59 931
Slovakia	nea	nea	999	2 402
Slovenia	nea	nea	1 262	3 925
Spain**	962 823	1 813 000	312 647	444 246
Sweden	284 279	114 000	6 773	17 480
UK	498 670	773 000	170 516	572 461
Total EU	4 461 967	6 290 464	1 373 560	3 175 316

nea: not elsewhere available; * catch data: only species subject to quota; ** 2001; *** 2000;
from reports

Source: European Commission.

Table 8.16 - Number of fishing vessels and employment

Country	Number of vessels		Gross tonnage		Engines Kw		Employment	
Year	2002	2003	2002	2003	2002	2003	2002	2003
Austria	0	0	0	0	0	0	2 350	nea
Belgium	130	125	24 276	23 794	67 774	66 732	940	nea
Cyprus *	700	nea	nea	nea	nea	nea	1 139	1114
Czech Rep.	0	0	0	0	0	0	2 167	nea
Denmark	3 825	3 587	99 656	95 922	345 835	324 650	5 112	nea
Estonia *	650	nea	nea	nea	nea	nea	7 352	7 954
Finland	3 571	3 494	19 873	19 535	188 711	186 416	5 562	nea
France ♦	8 158	8 079	229 938	228 201	1 116 022	1 108 942	15 476	nea
Germany ♦	2 247	2 212	69 227	66 002	163 862	160 248	4 347	nea
Greece	19 473	19 043	102 823	99 332	591 892	567 320	19 879	nea
Hungary #	0	0	0	0	0	0	3 500	nea
Ireland ♦	1 508	1 461	78 963	81 282	225 169	224 383	5 494	nea
Italy ♦	15 808	15 655	214 735	216 938	1 281 990	1 284 720	48 342	nea
Latvia*	470	nea	16 000	nea	35 000	nea	6 145	6 378
Lithuania *#	196	nea	54 000	nea	56 000	nea	2 400	nea
Malta*	1 900	nea	nea	nea	nea	nea	2 552	nea
Netherlands ♦	952	949	201 068	200 507	471 977	470 194	2 320	nea
Poland#	1 263	nea	75 000	nea	175 000	nea	15 000	nea
Portugal ♦	10 337	10 462	115 954	118 548	398 335	404 859	27 200	20 033
Slovakia#	0	0	0	0	0	0	700	nea
Slovenia*	110	nea	nea	nea	nea	nea	336	344
Spain	14 900	14 579	519 111	496 253	1 257 948	1 200 712	55 800	nea
Sweden	1 820	1 795	45 373	44 402	224 450	223 792	2 231	2 066
UK	7 567	7 260	240 335	232 196	921 043	899 177	12 746	11 774
Total UE	95 585	88 701	2 106 332	1 922 912	7 521 008	7 122 145	249 090	

Nda : No data available; * Fleet Data: author's estimation from special reports; # Employment data: author's estimation from special reports; ♦ Employment data from 1998.

Source: Eurostat.

In 2001, EU aquaculture (including the data on the 10 new members) produced just over 1.4 million tonnes of fish and shellfish, worth almost € 3.2 billion. Aquaculture provides some 35 000 full-time and 50 000 part-time jobs, mostly in coastal and rural areas.

The EU fishing sector is having to cope with the problems experienced by most other fishing industries in the world today, overfishing, which leads to smaller stocks, smaller landings and smaller incomes, being the main threat to the future of fish stocks and of the fishing industry itself.

Increased competition due to the globalisation of the market in fish products is an additional challenge. Greater ability to compete depends on the capacity of the

industry to adjust in order to cope with the constraints imposed both by the status of resources and by market demand.

Financial support has been available from the Community to assist the fishing sector during its unavoidable restructuring process. In this process the heterogeneity of the EU creates additional difficulties, because the importance of fisheries differs from one country to another. Furthermore, production is concentrated in only part of the member countries.

It has been difficult to obtain homogenised data from the EU as a whole this year, because the expansion to 10 new member states has made it more difficult to standardise data from the past. Despite these problems, we have endeavoured to present a panoramic picture of the present situation. We use data from different sources and, in some cases, from different years. The findings may not be absolutely accurate, but the general perspective allows us to understand the place of each country in the new fishing sector of the new EU.

Figure 8.1 shows that 4 countries alone account for 55% of total production in terms of volume of catches. With regard to economic value, the differences are even more conspicuous. Figure 2 shows that the percentage corresponding to certain countries is growing even more and that the relatively low Mediterranean production in terms of volume of catches is significantly greater when the economic value is taken into consideration. From an economic perspective, the weight of the Mediterranean countries in the EU fisheries sector actually is not marginal; it represents an important share of the value of EU aquatic production.

This heterogeneous situation makes it difficult to agree on common policies within the EU. Structures and problems are not the same in all countries. The reduction of employment in the fisheries sector is not constitute a major problem in every country. Some countries are specialised in extractive activities and others in processing catches. Some countries have developed marine aquaculture, while others have developed continental aquaculture; a third group of countries have no aquaculture industry at all. Some countries have industrial fisheries, whereas in other countries the major part of fisheries is artisanal. Some countries have a large fish market while in other countries fish consumption is very low; in addition, in some regions consumers prefer processed products whereas in others fresh fish is more popular.

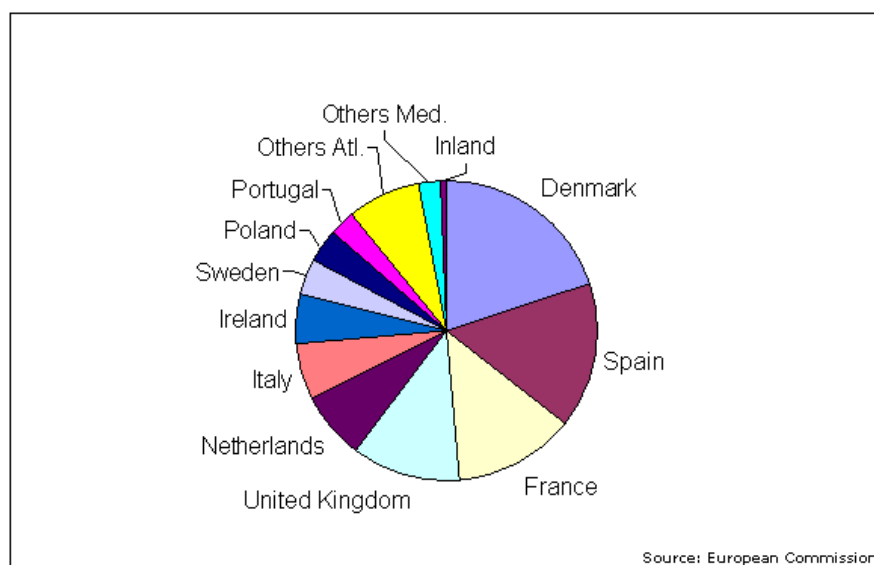
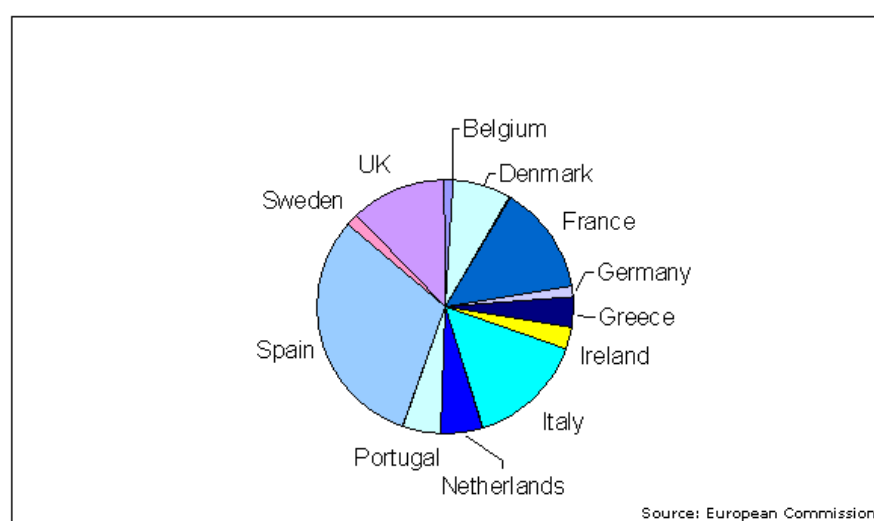
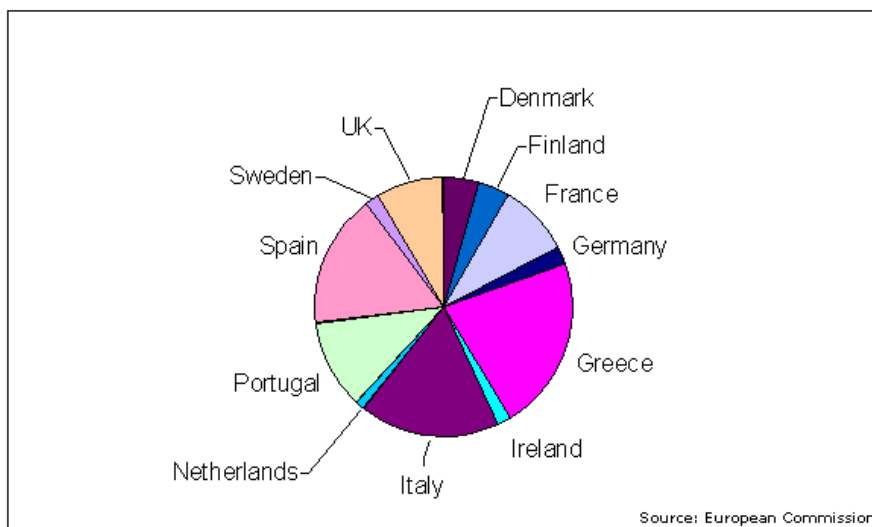
Figure 8.1 – Distribution of fisheries production in weight**Figure 8.2 – Distribution of value of fisheries production**

Figure 8.3 – Distribution of fishing fleets in number of vessels

All of these differences create problems when a fishing policy has to be agreed and implemented. In fact, a policy can favour a particular type of gear, a group of consumers, certain enterprises, a group of countries, etc., or others, depending on their priorities. This fact causes major difficulties when it comes to agreeing on a policy and even more so when we take into account that such a policy also presupposes financial transfers from the EU to a particular country, sector or region. Consequently, there is not always total coherence in the final agreements, and this also explains why the process of elaborating fishing regulations is slow.

In 2002 the European countries opened an internal discussion to revise their Common Fisheries Policy and to reconsider their rules and mechanisms, but it proved difficult to reach a consensus. The main questions on the table at that moment were:

- *What are the EU common waters?* Some large industries demand that the coastal area be included in the common waters, while artisanal fisheries try to keep their area outside it, and some industries frequently in crisis try to avoid competition from others and demand that the common sea be nationalised. The decision taken in this case was to maintain the present situation, i.e. 12 nm reserved for the fleets of the coastal country and to consider the waters outside this coastal area to be common sea.
- *What kind of subsidies need to be maintained?* The sector is used to receiving funds from the EU to amortise investments; however, the Commission is having difficulty increasing the budget in this context, mainly because a direct effect of

fishing capacity is the overfishing of resources and, consequently, the reduction of profits. Finally, the agreement reached was to maintain financial support, but only where fishing effort and catchability are not increased. In this scenario, subsidies for modernisation and new construction are over.

- *Is it convenient to maintain relative stability or it is necessary to establish a common market of fishing rights?* Preventing buying and selling between European enterprises is inconsistent with EU law. However, effective competence cannot be ensured when the sector is largely financed on the one hand and there is strong overcapacity on the other, and when, furthermore, the market has great difficulty in operating transparently. Relative stability is being maintained for the moment, but the Commission will allow each country to decide whether or not to leave fishing market rights open.
- *What kind of commercial control?* Some big industries prefer a low degree of control while small and medium enterprises prefer to ensure stringent control over quality and product identification.
- *What kind of consumer warranties?* Consumers call for stricter control, but some enterprises prefer to avoid making too much information on their products available.
- *What support can be given to joint ventures?* These companies contribute to reducing the fishing effort in EU waters and to withdrawing from certain areas without any aid from the Commission or member states. However, since the EU is reducing import tariffs, interest in this method of reducing fishing fleets is waning mainly due to the zero tariff. No decision has as yet been taken on this issue.
- *What type of international agreements, what type of financing, what type of control?* A wide debate has been opened on this subject both within and outside the EU. Some NGOs maintain that these agreements are a neo-colonial practice; others argue that they provide a means of development that ensures administrative control over their companies by the EU. Some companies and administrations such as the US prefer to establish private agreements, since they regard these agreements as a form of concealed aid; other companies and administrations, such as the EU or Japan, prefer to establish political agreements ensuring legality and control of shares (of landings), avoiding administrative corruption or abuse on the part of companies. The EU will maintain its traditional position in favour of political agreements.

8.5.2 - The Common Fisheries Policy

This chapter includes an introduction to the Common Fisheries Policy (CFP) and the agreements established under the 2004 reform as well as comments on the impact on Mediterranean fisheries.

The Community was created in order to ensure peace and to promote prosperity in Europe. The policies set up to meet these goals include measures to encourage economic development in regions suffering from lack of jobs and opportunities.

Fishing and aquaculture are considered to be a factor of economic and social cohesion.

At the outset of the EU (Treaty of Rome, 1956) marine resources were considered to be a common resource, and all member countries were assured free access. However, fish are a natural, biological, mobile and renewable resource and fish reproduction takes place without any control whatever. No one can own fish until they have been captured. In the same context, every fish taken from the sea is one fewer available to the other catchers. Every fisherman is, therefore, vulnerable to the actions of the others. Today fish stocks continue to be regarded as a common resource, but the need to manage them collectively is obvious.

The first common measures in the fishing sector of the European Union date from 1970. They laid down rules for access to fishing grounds, markets and structures. It was agreed that, in principle, Community fishermen should have equal access to Member States' waters. However, in order to ensure that smaller vessels could continue to fish close to their home ports, a coastal band was reserved for local fishermen who had traditionally fished these areas. Measures were also adopted for a common market in fisheries products and a structural policy was set up to coordinate the modernisation of fishing vessels and on-shore installations.

All of these measures became more significant when, in 1976, Member States followed the international movement and agreed to extend their rights to marine resources from 12 to 200 nautical miles from their coasts. Member States also decided that the Community was best placed to manage fisheries in the waters under their jurisdiction and to defend their interests in international negotiations. As a result of this decision and after years of difficult negotiations, the CFP came into being in 1983. This policy was developed with a view to managing fisheries for the benefit of both fishing communities and consumers.

The Common Fisheries Policy is the European Union's instrument for the management of fisheries and aquaculture. When the rules regarding the duties of the original Community were being drawn up, it was decided that the fishing sector, together with agriculture, would be a Community responsibility in order to ensure security of food supply. The common rules are adopted at the Community level and implemented in all member states.

The common measures are agreed in four main areas:

- **Conservation** - to protect fish resources by regulating the amount of fish taken from the sea, by allowing young fish to reproduce, and by ensuring that measures are respected.
- **Structures** - to help the fishing and aquaculture industries adapt their equipment and organisation to the constraints imposed by scarce resources and the market.

- **Markets** - to maintain a common organisation of the market in fish products and to match supply and demand for the benefit of both producers and consumers.
- **Relations with the outside world** - to set up fisheries agreements and to negotiate at the international level within regional and international fisheries organisations for common conservation measures in deep-sea fisheries.

In brief, these main areas have developed as follows:

Conservation:

Fish stocks need to be renewed as fish die as the result of both natural causes and fishing. In order to have enough mature fish to renew stocks, small fish must be left to grow and reproduce. The CFP lays down maximum quantities of fish that can safely be caught every year. On the basis of scientific studies on the main stocks the Council of Ministers decides on the amount of fish that EU fishermen will be allowed to catch the following year. These maximum quantities, called total allowable catches (TACs), are divided among Member States in a fixed percentage by area and species. Each country's share is called a national quota.

Each member state must monitor its quota uptake and close fisheries as and when quotas have been caught. Here the principle of subsidiarity is at work, where the task on hand is carried out at the most appropriate level of government. Member States must keep the European Commission regularly informed of their quota uptake to allow its services to monitor the situation at the Community level.

Quota management techniques vary from one country to another. Quotas can be kept in a national pool or allocated to producers' organisations or associations, or even to individual vessel owners. In a few cases, quotas can be hired, bought or swapped. Described as individual transferable quotas (ITQs), they are used in some countries, though in the Community such a system only applies to a few stocks in a small number of member states.

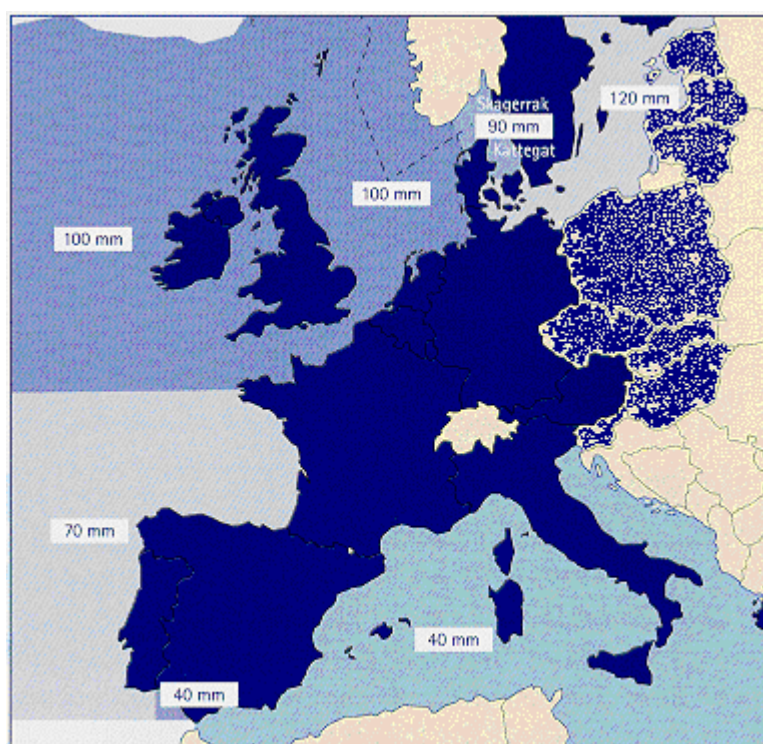
This system applies in the Atlantic and Baltic EU fishing areas, but in the Mediterranean only tunas are subject to TAC regulation (under ICCAT rules). The objective is to ensure biological and economic sustainability and prevent conflict between EU countries. However, the outcome is not satisfactory.

The status of stocks under exploitation is steadily deteriorating, mainly because the fishery administrations generally take account of the fishermen's complaints concerning the TAC proposals, which are based on scientific recommendations, and also because control is not perfect and real catches exceed those reported by fishermen. The system is actually controlling fishing pressure on resources but is not allowing those resources to recover and reverse the negative trend observed over the last 20 years. The TAC system therefore has not been applied in the Mediterranean, where it is considered inappropriate for market reasons and because of the large number of vessels.

On the other hand, the fixed percentage of TAC (the so called “relative stability” principle) prevents conflicts between countries, but it causes a problem when the complexity and specialisation in the different EU member countries is not taken into account as it is in other economic sectors. Some companies want to be allowed to buy and sell TACs between them.

In order to limit the capture of small fish so that they can grow to maturity, a number of technical rules have been adopted which are also in effect in the Mediterranean. Minimum mesh sizes are fixed in the different EU fishing areas as shown in the map in Figure 4. Certain areas can also be closed to protect fish stocks. Some fishing gears are banned and more “selective” techniques, which facilitate the escape of young fish and reduce the capture of certain species, can be made compulsory. Minimum fish sizes are laid down, below which it is illegal to land fish. Catches and landings have to be recorded in special log books.

Figure 8.4 - Regulatory EU mesh sizes for towed gears implemented in 2000



Structures:

Clearly inspired by EU Agrarian Policy, structural policy tries to promote the fishing sector. Funding is available for projects in all branches of fishing and aquaculture as well as for market and development research.

For a long period (1983-2002) funding was available for modernising fishing fleets and facilitating new constructions. Despite the requirements to compensate new construction by withdrawing the same or greater fishing capacity (measured in Gross Registered Tonnage and Horse Power), the result was that these facilities contributed to increasing overinvestment in the sector and to overfishing. The EU has been able to control and even reduce fishing capacity but not catchability, which is continuously improving as the result of technological advancement. This funding was therefore eliminated by the 2002 reform, although some financial commitments have been maintained until 2006.

In order to enable EU fleets to be restructured and to eliminate excess fishing capacity, EU funding has been available since 1986 to end the fishing activities of vessels by scrapping them or moving them to other sectors outside fisheries, such as marine museums, or transferring them to fishing activities outside Community waters. Multi-Annual Guidance Programmes incorporate a set of measures agreed by Member States and the Commission and map the planned development of each Member State's fleet over periods of four or five years. Community financial support is available for implementing these programmes from the Financial Instrument for Fisheries Guidance. For each Member State, fleet restructuring is planned within multi-annual guidance programmes setting out objectives and the means of achieving them. Funds are available for scrapping or reconverting fishing vessels. Eligible projects also include improving the selectivity of fishing gear, using more environmentally friendly fishing techniques, improving standards of hygiene and fish conservation on board vessels, and improving safety.

The EU may also co-finance national aid programmes for fishermen retiring early. It can also allocate a one-off grant to fishermen who have lost their jobs through the laying-off or transfer abroad of their vessels.

The common organisation of markets:

The consumption of processed fish products, especially in the form of prepared meals, has increased in the Community. New technologies and tougher food hygiene and environmental regulations are imposing severe demands on businesses. The processing sector has undergone significant restructuring in recent years, conditioned by several circumstances: production has been growing by 4 to 5% in recent years while employment has decreased, mainly because of the closure of small, poorly equipped processing units and mergers among larger companies.

The goal of market policy is to strengthen the EU common market to balance production and demand, for the benefit of both producers (stability of incomes) and consumers (health guarantees and supply stability). These original objectives

have been complemented with the establishment of the community single market and the gradual opening up of world trade.

The development of market policy covers two areas:

- customs barriers and any other measures which could prevent the flow of fish products from one Member State to another have had to be reduced or even eliminated;
- common rules for the market of fishing products have to be set up.

The result has been the free circulation of goods or products within the Community through the development of the single market. In addition, there has been a trend towards liberalisation of international trade through agreements under the General Agreement on Tariffs and Trade (GATT), now regulated within the framework of the World Trade Organisation (WTO).

Furthermore, it must be borne in mind that the common market is organised in four components:

- common marketing standards for fresh products concerning quality, grades, packaging and labelling of both Community and imported fisheries products;
- producers' organisations (POs), which are voluntary associations of fishermen, set up to help stabilise markets, their role being to protect fishermen from sudden changes in market demand;
- a price support system which sets minimum prices below which fish products cannot be sold; financial support is available to POs if they have to take fish and shellfish off the market, store them for later use or process them;
- rules for trade with non-Community countries.

As with other elements in the CFP, the common organisation of the market has had to adapt to major changes since its creation in 1970. At present, supply is often not adapted to the needs of the market in terms of quantity, quality and regularity. This is partly due to the poor state of conservation of fish stocks. At the same time, improvements in international transport have encouraged an increase in imports of fish products. In addition, marketing structures have changed; supermarket chains, now the main buyers of fish products, expect steady supplies and rely heavily on imports to meet their needs.

The result has been growing dependence on imported fisheries products, which now account for almost 60% of EU total consumption, and in the Mediterranean region less than 20% of consumption comes from regional capture fisheries. There has also been an evolution from a market dominated by fresh fish to one where consumers have increasingly turned to processed fish products, especially prepared meals. EU consumers have become more demanding, not only in terms of choice but also in terms of the dietary and hygiene quality of food products.

This results in stiffer international competition, which means that the Community fishing industry must become more competitive by exploiting its strength, particularly in the fresh fish sector. This is more difficult to achieve in a situation of overcapacity coupled with reduced fishing opportunities because of overfishing.

The Commission provides some support for the regulation of fish prices and the costs for stocking products, as in agricultural policy. For some products (especially small pelagic species) guaranteed prices have been established, but this mechanism has rarely been used, because of the high market prices due to the fact that demand exceeds supply. The only instance where production takes advantage of this support is fish production used to produce fish meal in Denmark and many environmental NGO's are questioning the appropriateness of encouraging this kind of processing.

As regards fish processing, uncertainty in supplies produces vulnerability and price fluctuations. The Community has to rely on imports in order to ensure a regular supply of fish and shellfish products on the European market. The EU deficit, or negative balance between imports and exports of processed products, has reached 3 billion ECU. Community funding can help finance projects which involve new methods and products and add value to the goods. Four categories of operations are eligible for support:

- improving the quality and hygiene of production, especially at the processing and packaging stages;
- restructuring and modernising processing businesses;
- promoting technological innovation and the development of new products;
- increasing the value added to the products by processing.

The Commission develops various initiatives to improve other aspects of the market process such as marketing, port facilities, promotion or product identification. These measures do not involve large amounts in terms of financial resources, but they are important in terms of impact on the added value of fisheries.

The structures necessary for marketing fish mainly include fish auctions, cold storage facilities and wholesale markets. The Community has helped finance the development of such facilities, especially with a view to improving the implementation of hygiene regulations. Equipment used to collect and transmit data electronically has also attracted support. Furthermore, port facilities need to be adapted in order to ensure that fish landing, handling and marketing are carried out in the best possible conditions. In addition, vessels require a growing range of services when in port. Substantial investments are addressed to meeting these needs.

On the other hand, the Community has been involved in promotional activities in order to encourage the consumption of fish and shellfish resources which are not overexploited or which are not well known by the public. Campaigns have been run to point out the benefits of fish in the diet in countries where fish is not a popular dish. Community support has been available since 1988 for this purpose. The organisation of, and participation in, trade fairs and exhibitions, quality certification programmes and market surveys are also eligible for support.

Finally, the promotion of Producers' Organisations (PO) can be mentioned as another of the lines covered by market policy. PO development is slow in the Mediterranean area for various reasons, but mainly because of the existing traditional fishery organisations, i.e. *Cofradias in Spain*, *Proudhomies in France* and other cooperatives, trade unions, etc., and because of the lack of effective incentives to encourage the fishery sector to patronise these new organisations.

It can be stated that the effect of EU market support is positive on the whole. In particular the improvement of the labelling system to clearly identify every product provides guarantees for consumers and producers. However, it can also have several undesirable effects such as the incentive to maintain an excessive number of auctions, which do not help to improve prices and supply and which increase logistic costs.

Relations with third countries:

The fisheries agreements, at bilateral and multilateral levels, became necessary when distant-fishing vessels from the Community lost access to their traditional grounds due to the extension of fishery zones. A large part of the European fleets' activities depend on access to non-Community fish resources, either in waters under the jurisdiction of third countries with which the Community has fisheries agreements, or in international waters. Fishing rights for such vessels have been negotiated with many non-Community countries in return for various forms of compensation whose nature depends on the interests of the third country concerned. The Community is also involved in negotiations with international organisations and regional fisheries organisations to ensure rational fishing.

Due to its exclusive competence for fisheries, the European Union is entitled to enter into international fisheries obligations with third countries or with other international organisations. Acting on behalf of the Union, the European Commission thus negotiates bilateral fisheries agreements with third countries and takes part in various Regional Fisheries Organisations (RFO).

The bilateral fisheries agreements between the European Union and third countries establish the general framework for access for Community fleets to the waters of these countries. A protocol attached to each agreement lays down the specific conditions (technical, financial, type of resources, etc.) for implementation of the agreement. There are different types of agreements, but the most important are those with development countries where compensation ranges from financial

payment for access to development cooperation in fisheries, trade or any other sector. The most important agreement from the financial point of view at the present time is the agreement with Greenland. A further type of agreement supported by the EU is the establishment of joint ventures entailing the definitive export of capital to a third country.

The Regional Fisheries Organisations (RFOs) are created by international agreements. The RFOs provide a framework within which the representatives of governments agree on ways of managing the fish resources of the open seas and straddling stocks. They are meant to strengthen regional cooperation to guarantee both conservation and the sustainable exploitation of fish resources. These organisations issue recommendations on management and conservation measures based on the best scientific advice available. The recommendations must then be implemented by all the RFO contracting parties.

Upon becoming a party to the **1982 United Nations Convention on the Law of the Sea⁷⁶ (UNCLOS)**, the International Community (including the EU) agreed, inter alia, to strike a balance between the rights and obligations of coastal states and those of countries engaged in fishing activities on the high seas. The main aim of such a balance is the sustainable exploitation of fish resources. Following the extension of the exclusive economic zones to 200 miles in the 1970s, distant-water fishing fleets had to reorganise their activities and consequently intensified their drain on resources. Combined with technical advancement, this led to an alarming overexploitation of most stocks.

Stable international legal relations and the implementation of real cooperation present a major challenge for the future of EU high-sea fishing. The European Union has played an active part in the development of three new instruments, which supplement and add further detail to the provisions established by UNCLOS, namely:

- **the Agreement to promote compliance⁷⁷** with international conservation and management measures by fishing vessels on the high seas, adopted by the FAO in 1993,
- **the Code of Conduct for Responsible Fisheries⁷⁸**, adopted by the FAO Conference in November 1995, which followed on from the Cancun Declaration of 1992,
- The Agreement for the implementation of the provisions of UNCLOS relating to the conservation and management of straddling fish stocks and highly migratory fish stocks, known as the **New York Agreement⁷⁹** adopted in 1995.

⁷⁶ www.un.org/Depts/los/convention_agreements/texts/unclos/unclos_e.pdf

⁷⁷ www.fao.org/legal/treaties/o12t-e.htm

⁷⁸ www.fao.org/fi/agreem/codecond/codecon.asp

⁷⁹ http://europa.eu.int/comm/doc_et_publ/factsheets/legal_texts/docscom/en/ec_98_414_en.pdf

The European Union's accession to these instruments has had implications on the fishing activities of the Community fleet in international and third-country waters, either through closer cooperation with developing countries to help them become more effective in fisheries matters, or through support for the international community's efforts to combat illegal, unreported and unregulated fisheries (IUU), particularly in the context of RFOs.

Against this background the Commission recently proposed an Action Plan for the eradication of IUU. It adjusts the **International Plan of Action**⁸⁰ developed by the FAO Fisheries Committee (COFI) to the scale of the EU, the EU thereby making an active contribution in keeping with the spirit of the Code of Conduct for Responsible Fisheries. Among the actions proposed in the Community Action Plan, a number of measures are planned at RFO level, in particular the development of control and inspection systems within each RFO, the regulation of certain fishing activities on the high seas, the identification and monitoring of IUU vessels, the promotion of uniform action plans to curb illegal fishing and the identification and quantification of illegal catches.

Aquaculture:

Aquaculture, or fish farming, in the Community plays a role similar to that of the fishing industry. By supplying the market with fish and shellfish it helps reduce the Community imbalance between imports and exports of fish products. It also generates jobs in areas which generally lack other industries. Consumers benefit from the variety of aquaculture products which complement those available from fishing. The past 15 years have witnessed rapid expansion in world aquaculture. Fish farming has become the fastest growing sector in world food production. Aquaculture production amounts to almost one fifth in volume and around one third in value of world production of fish and shellfish.

Community aquaculture has also grown substantially. There is a long tradition of fish and shellfish farming in some European countries, which helps to explain its diversity, ranging from the artisanal business to the industrial-scale multinational company. Community aquaculture comprises three main activities: sea fish, marine shellfish and freshwater farming. Mollusc species, mussels and oysters, dominate Community production; however the share of fish production is progressing constantly: tilapias and carps in the case of freshwater fishes, trouts and salmon in the case of diadromous fishes and the marine finfishes – seabream, seabass and mullets.

As a result of greater expertise in the needs of farmed fish and advances in technology, fish farmers have been turning their attention to more exotic species such as seabass, seabream and turbot. Diversifying the range of species available means that they are better equipped to face world competition.

⁸⁰ www.fao.org/DOCREP/003/y122e/y1224e00.HTM

Aquaculture has benefited from financial support from the Community since 1971. Limited at first to inland fish farming, Community support was extended to other areas in the late 1970s. Now financial support includes aid for projects involving:

- modernising existing premises or building new ones;
- installing or improving water circulation systems on site;
- installing new equipment;
- bringing hygiene standards up to Community requirements;
- reducing the impact on the environment.

In spite of its rapid growth in recent years, aquaculture has run into a number of problems. Food production is becoming an increasingly competitive market, and this situation is aggravated by fluctuation in demand, a problem shared with agriculture.

Greater public awareness of the need to protect natural resources and increase food safety has resulted in a more heavily regulated environment. New aquaculture projects as well as certain day-to-day operations require permission from various authorities.

Technical problems and risk of disease also add to the vulnerability of the enterprises.

A number of options for consolidating the sector are being considered. These include encouraging the development or strengthening of voluntary producer associations in order to promote rational production and more stable market conditions, to disseminate and make practical use of research findings and to share examples of good practice.

In the case of mature activities (seabass, seabream, etc.) some reduction (including a complete halt) of financial support is being considered. In fact there is no reason to maintain support for an industry that has no development problems. The overincentive to produce can induce the saturation of supply and then wreck the industry.

The present situation of the Common Fisheries Policy:

When the CFP was adopted, a mechanism of periodical revisions was established. The first CFP review conducted in 1992 showed that there were too many vessels for the available resources and that overfishing cannot be prevented through technical measures alone. Consequently, in order to make the common fisheries policy more effective the decision was taken to reinforce the links between their various components: markets, structures and resources. Control measures were introduced to ensure that rules are respected throughout the industry and new technologies are now used to transmit data to the authorities and to monitor larger vessels through satellite tracking systems.

Furthermore, since January 1995 all vessels fishing in Community waters and EU vessels operating outside Community areas are required to have a fishing licence. Fishing effort can be regulated through the allocation of special fishing permits stating the terms of access, time and specific fisheries. The Council of Ministers now decides which fisheries require such permits and the conditions attached to fishing.

It was in this context that the multi-annual guidance programmes (MAGPs) were established, which allow to each member country to manage their reduction of fishing effort. The scope of the control policy was extended to ensure compliance with the provisions in these MAGPs.

Prior to devising new targets for each multi-annual guidance programme, scientific appraisals on the state of the main stocks are commissioned. On the basis of the resulting reports, decisions are made on the required level of effort reduction. These reductions are specified for the main groups of fish stocks. To target vessels better, fleets have been divided into groups or 'segments' to match their main types of fisheries. It is then a matter of calculating the reduction in effort required in each segment for every national fleet. Reduction in effort can be achieved either by compensating for withdrawing vessels or by means of a system that ties vessels up in port for a given period of time.

However, the 2002 review has shown that the results are still unsatisfactory. In short:

- the TAC system succeeded in avoiding the collapse of resources, but was unable to ensure that stocks recover;
- the MAGP has avoided an increase in fishing fleets but has not promoted the necessary reduction effort; the symptoms of overcapitalisation are thus still there;
- profits have not improved and some segments have had difficulty maintaining their levels of employment and economic sustainability;
- wages and working conditions have not improved at same rate as in other sectors;
- consumer dependence on imports has increased;
- the resources allocated by the Commission (0.6% of their budget) has not produced the results expected, and the sector's dependence on public transfers has remained at the level registered at the beginning of the CFP; furthermore, additional state contribution has been necessary;
- the enlargement of the EU with ten new member countries is a new reason for revising the cost of the CFP.

For these reasons, the efforts made to date need to be reviewed and stepped up. Subsidisation within the EU will be maintained only for aspects that do not improve catchability, as is already the case with fishing capacity. This entails

eliminating the financial support for building new fishing vessels or for modernisation.

Other supports can be maintained in order to ensure facilities for withdrawing part of the surplus fleet, but also to provide port facilities for landings and the servicing of vessels, fish auction halls, handling facilities and processing which can meet ever tougher hygiene requirements.

However, before a common policy for managing fishing effort can be set up, new instruments are needed to manage access to fishing activities in general and access to specific fisheries in particular. Restrictions on fishing gears and on fishing activity in certain zones and seasons should be used together with the right to catch a quota. TACs and quotas are insufficient tools to ensure fisheries conservation. For even when fisheries are closed because quotas have been exhausted, for example, fishermen continue to catch fish, which they then have to dump, or discard, overboard. In addition, to make the most of their quotas, fishermen may choose to retain only the best fish and discard the rest. To minimise the occurrence of discards, total allowable catches and quotas have been complemented by technical measures to limit catches of young and non-targeted fish. The Council also has the power, although it has not used it so far, to set multi-annual total allowable catches to introduce more flexibility in the system. In addition, the Community has taken steps towards matching fishing effort with available resources by reducing fleet overcapacity.

A further measure for improving fisheries management is to increase knowledge of marine ecosystems as a whole. Data collection on catches in commercial fisheries has been carried out for years, but, given the cost and complexity of collecting statistical information, data on non-commercial stocks is virtually non-existent. Scientific evidence on the state of habitats and the impact of fishing on other living organisms is patchy, having been collected only for specific scientific surveys.

Research will make an essential contribution towards improving fishing management. At present the framework of the EU FAIR programme provides funding for, inter alia, studies in fisheries, aquaculture and rural development, which will help to improve knowledge of ecosystems. The Commission considers that the integration of environmental factors in fisheries policies will, in the long run, benefit not only the environment but also the fishing sector because fish resources need healthy marine ecosystems in order to flourish. EU policies requiring the use of selective measures and a reduction in fishing effort contribute to the improvement of these ecosystems.

The CFP in the Mediterranean:

The narrowness of the Mediterranean continental shelf has influenced the nature of fishing in the region. Most fisheries take place in the coastal band and involve a high number of small vessels. However, highly migratory species, such as tuna, are to be found offshore.

Despite the inherent complexity due to “Mediterranean multispecificity”, there is an identifiable series of target species which, in biomass or in economic terms, constitute the basis of production and consequently characterise the main fisheries. These species are: sardine *Sardina pilchardus* and anchovy *Engraulis encrasicolus* among the small pelagics; hake *Merluccius merluccius*, red mullets *Mullus* spp., blue whiting *Micromesistius poutasou*, anglerfishes *Lophius* spp., *Pagellus* spp., *Octopus* spp., squid *Loligo* spp., and red shrimp *Aristeus antennatus* among the demersals; and the large pelagics, bluefin tuna *Thunnus thynnus* and swordfish *Xiphias gladius* together with other species of local interest in specific sites. At all events, these species account for 70-80% of all landings, at least eight of them over 2% of the total catch, and two over 15%, a situation that is not unlike that of European Atlantic fisheries.

Fishing in the seven EU Mediterranean member states (Cyprus, France, Greece, Italy, Malta, Slovenia and Spain) employs some 150 000 fishermen in all of their fisheries (up to 50% or even more of all Community fishermen, an important proportion of whom work in Mediterranean fisheries), on around 70 000 vessels (up to 50 000 of which – half of the total number of Community vessels – operate in Mediterranean waters). The annual catch of these countries totals over 2 million tonnes, more than 40% of the total catch of European countries. Up to 500 000 tonnes of these catches are captured in the Mediterranean; that is more than 10% of the Community's production in volume and much more in value.

Figures 8.5, 8.6 and 8.7 give a general overview of Mediterranean fisheries in terms of production, consumption and means of production. Figure 8.5 shows different levels of volumes of production, trade and consumption of fishing products in the Mediterranean countries. Figure 8.6 shows the share of total production corresponding to the Mediterranean Sea. Figure 8.7 shows that the bulk of means of production of capture fisheries seems to be concentrated in the EU and Morocco, Turkey and Tunis.

Figure 8.5 – Production, trade and consumption of Mediterranean countries in metric tonnes

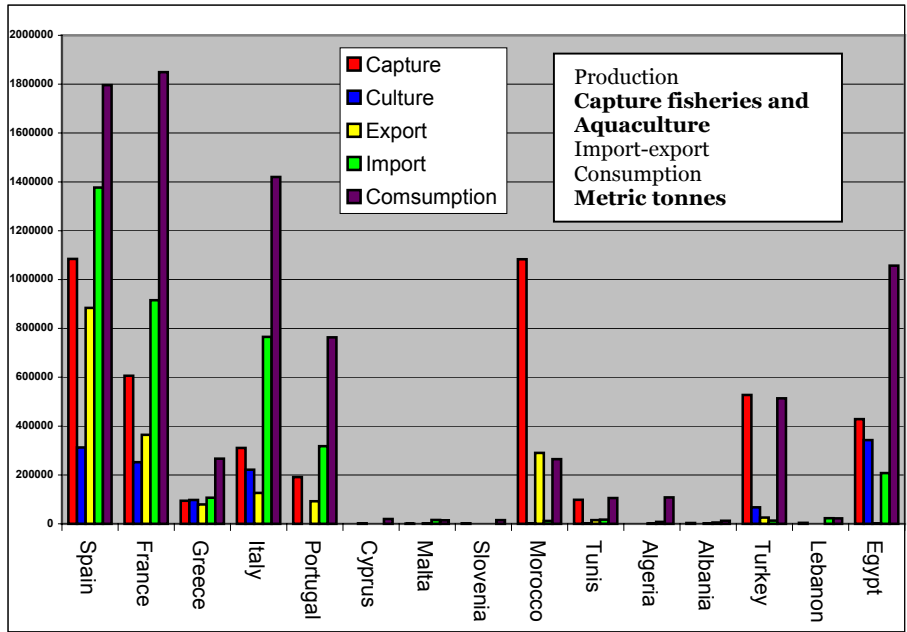


Figure 8.6 - Total landings in metric tonnes by country and Mediterranean share

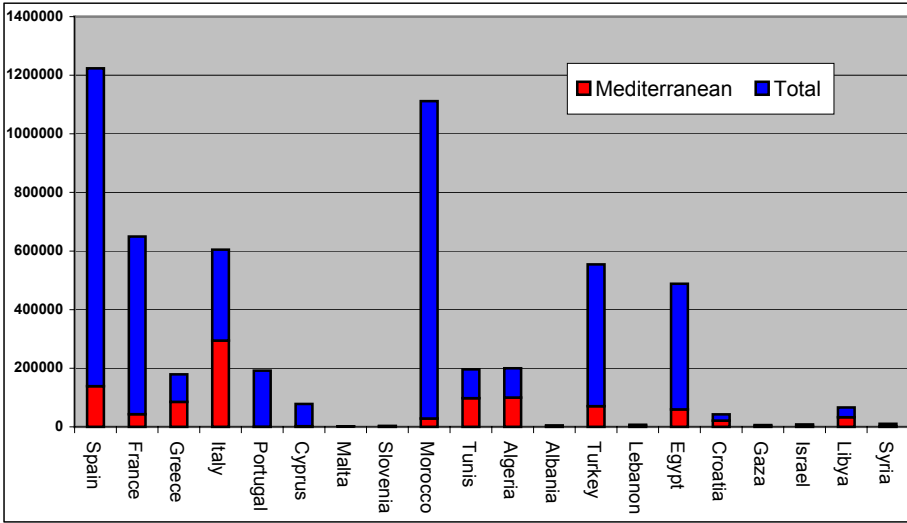
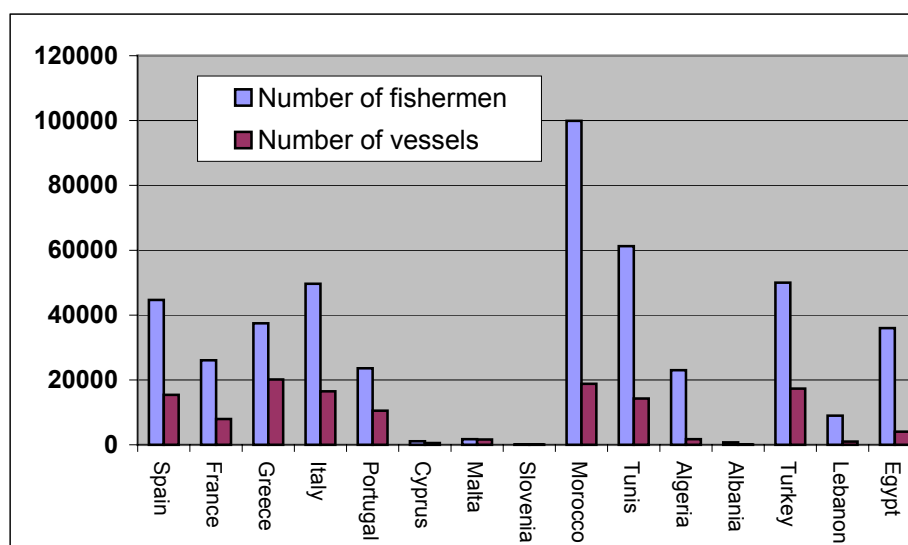


Figure 8.7 - Number of fishermen and vessels by country

The narrow continental shelf partly explains why most Mediterranean coastal States have not extended their exclusive fishing zone beyond the 12 nautical miles considered to be territorial waters. However, a number of Community conservation measures have nonetheless been introduced. In December 1997, total allowable catches were fixed for tuna fisheries following the recommendations of the International Commission for the Conservation of Atlantic Tuna (ICCAT) and in 1996 Spain established a Fishing Protection Area, which covers the major part of the potential EEZ in the Mediterranean.

The Community is a member of both the General Fisheries Commission for the Mediterranean (GFCM) and the International Commission for the Conservation of Atlantic Tuna (ICCAT). These Commissions make recommendations concerning Mediterranean fisheries and especially for tuna fisheries.

The fishing pressure and the threat of pollution in this densely populated region make Mediterranean-wide conservation measures necessary. The Community has adopted a dual approach to ensure sustainable fisheries in the region. In 1994, it introduced common conservation measures banning the use of certain fishing techniques and methods, fixing some minimal net mesh sizes and sizes below which fish should not be landed.

It is also actively involved in negotiations with Mediterranean coastal states and other parties with a view to enhancing cooperation in scientific research and devising conservation measures for the entire Mediterranean. Measures to

strengthen the General Fisheries Commission for the Mediterranean are regarded as the best way to achieve these objectives.

Except for tuna, which is relatively easy to control and is exploited by a very limited number of vessels, the Mediterranean is not affected by the TAC system at the moment, the reasons being the large number of species and the difficulty in controlling landings.

The CFP components concerning markets and structures which apply in the Mediterranean do not differ substantially. In fact, the Mediterranean is included in the MAGP; fleets are not allowed to grow and they are currently being reduced.

However, it is generally agreed that the Mediterranean needs to be managed through effort control, and it is also agreed that in many fisheries the national, regional or local regulations, when more restrictive, can coexist with a more general regional regulation without causing problems. In fact, since most fishing activities are local, the main consequences of a situation of overexploitation have an impact on the local community. It is probably for that reason and due to the resulting self-control that can be generated that the expansion processes (and crises) in Mediterranean fisheries are less serious than in other seas. However, despite the process of fleet reduction, improving technologies are resulting in an increase in the fishing power of these fleets.

This situation has called for additional management measures for the Mediterranean Sea. An EC Council Regulation (No 1626/94) was adopted in 1994 on certain technical measures for the conservation of marine resources in the Mediterranean, and in 2000 a new regulation⁸¹ was adopted amending the first one. Both regulations establish mainly which gears are allowed to be used and their characteristics, the minimum size of landing for some species and areas and seasons closed to fisheries. However, these Regulations are considered not enough to ensure the sustainability of Mediterranean fisheries, mainly due to the excessive number of derogations adopted. It is at all events important to point out that part of the fishing sectors in some countries are still calling for the adoption of new derogations.

A process to improve the Mediterranean Fishery Regulation is in progress at the present time. An initial draft proposal appeared in 2003⁸², eliciting a strong reaction from the fishery sector, national fishery administrations and even fishery scientists. The proposal tries to regulate the same aspects as are included in Regulation 1626/94 but incorporating new aspects – fishing protected areas, recovery plans, non-commercial fishing and the Malta fishing area.

⁸¹ Council Regulation (EC) No 2550/2000 of 17 November 2000.

⁸² COM(2003) 589 final, (9.10.2003) Council Regulation concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea and amending Regulations (EC) No 2847/93 and (EC) No 973/2001.

Agreement has not yet been reached on this new Regulation, and the Mediterranean will probably continue to be managed through an effort control system in the meantime, i.e. through measures to block methods used by fishing fleets or incentive measures to reduce these fleets as well as technical measures such as:

- measures to control the gears allowed to be used and their technical limitations
- stipulation of minimum landing sizes and perhaps degrees of tolerance
- definition and duties of Protected Areas
- limits and rights of recreational fisheries
- management plans
- control measures
- regulation of Malta waters.

If the new Regulation were approved it would help to provide clarification on certain definitions and would establish a minimum regulation that can be improved (subject to additional restrictions) at the national or regional level.

PART III

Consumption and food security in the Mediterranean

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Introduction

The latter part of the twentieth century witnessed unprecedented changes in the lifestyle of Mediterranean populations. These upheavals affected eating habits in particular, with both favourable and adverse effects on human health, which are now widely recognised. All too frequently, however, we only perceive some of the factors characterising these recent changes such as fast food, GMOs or mad cow disease, the core issues in the current debates of the socially aware. Yet it is only when the situation is viewed comprehensively and in its historical context that the magnitude of this evolution can be realised and the urgent need for action to correct the deviations in our eating habits can be appreciated. A historical analysis of food patterns of this nature, conducted from both the quantitative and the qualitative point of view, is necessary in order to control future developments with a view to ensuring better food security for the populations concerned.

Five major periods can be identified in the history of human food (Popkin, 2002, in Scalbert, 2003):

- The age of food gathering
Primitive man was a hunter-gatherer. Analysis of the eating patterns of populations which are still hunter-gatherers today has underlined both the significance of animal products with a protein content (19-35% of the energy consumed) much higher than the content observed in the Mediterranean zone (10-15%) and the diversity of the food consumed.
- The age of famines
The emergence of agriculture was accompanied with an initial phase of population growth, which a hunting and gathering economy would not have allowed. This period was marked by the consumption of a large proportion of plant products and the selection of a limited number of plant species for food. In many societies living from this traditional form of agriculture it resulted in frequent nutritional deficiencies and periods of food shortage and famine. Many third world countries today are still concerned by these risks of deficiency disease and famine.
- The age of famine decline
The Industrial Revolution brought a considerable increase in agricultural productivity and the development of food processing industries. The food consumed in all industrialised countries became more diversified in the course of the 20th century and there was a significant increase in the consumption of animal products (meat, eggs and dairy products 2003).

- The age of degenerative diseases
Although these changes contributed to the elimination of the major deficiency diseases, they also contributed to the development of obesity and generative diseases such as cancer and cardiovascular disease, which are known as civilisation diseases (or “Western diseases”).
- The age of behavioural change
Citizen-consumers are becoming aware of these recent developments in our diet and their effects on health and are beginning to change their eating habits.

How do the various Mediterranean countries stand? Are their eating patterns still close to the “ideal” healthy and balanced diet conveyed by scientists and the media? What are the consequences of these developments for the food security of the populations and for their state of health? Is food insecurity the result of eating habits? We shall endeavour in this chapter to present arguments and elements for debate in reply to these questions.

9 *Widely varying features and developments in the sub-regions*

Due to the diversity of peoples, cultures and purchasing practices in the region, Mediterranean food is far from homogeneous (Padilla, 2000). However, there are several fundamental features common to all countries. First of all, there is the concept of frugality; the available food intake amounts to only 2 500 to 3 000 calories per capita per day. Furthermore, it is economical in terms of primary energy, since only 20% consists of animal products. The reasons for this are simple: a limited area of arable land and a sea with limited fish stocks; since there is very little animal husbandry, meat plays a minor role. Consequently, many dishes are composed exclusively of vegetables, which are enjoyed as dishes in their own right and constitute the essence of the meal. In coastal zones, fish and meat serve to add flavour or are reserved for festive occasions. And vegetables are also used to accompany cereals such as couscous, pasta, etc. or form the basic ingredient of sauces dressed with olive oil and condiments. Salads – seasoned with olive oil – and fruit are part of all main meals. Cheeses are frequently mixed with vegetable dishes. Fresh milk is used very little, but fresh sheep or goat's milk cheeses, cultured milk (labneh, rayeb, ayran etc.) and yoghurt are staples in all Mediterranean diets. And finally, culinary herbs and spices and vinegar or lemon juice are widely used. As regards beverages, apart from the Muslim countries, where alcohol is prohibited, drinks are consumed during meals; they consist of wine – often diluted with water – or drinks flavoured with aniseed and accompanied with side dishes. (Padilla, 2001)

And last but not least, the fourth common feature is attitude to food. Meals also have a social role. "Eating patterns are marked by a certain form of sociability centred around three structured meals, which follow a certain ritual, and by respect for food and even a food cult.

Sociability is a marked feature in the Mediterranean region. Eating out of doors is not common practice in Mediterranean rural populations. Women rarely appear in public, particularly in Muslim societies. However, religious and social festivals and social visits are all occasions for people to meet, and in Maghreb societies 'nzahâts' are positively gastronomic events held in the country or in a garden. Having a drink or sharing a meal together are the necessary signs of the cohesion of a group. While having a drink together, men eat 'tapas' Spain, 'tramezzi' in Italy, 'kemya' in Tunisia, 'meze' in Lebanon or 'mezelik' in Turkey.

Yet this model, which is much praised for its nutritional and organoleptic qualities as well as its social role, is actually fairly recent in historical terms. Strictly speaking, none of the foods considered to be typical actually originated on the shores of the Mediterranean: olive, fig and almond trees originated in the Orient, as did wheat; citrus fruit came from South-East Asia, and zucchini, eggplants and

sweet peppers came from America. Marco Polo is said to have brought back the recipe for pasta when he discovered China (a story which is sometimes contested today). Tomatoes, which are of American origin, were not accepted as food until the end of the 19th century.

9.1 - Regional contrasts

Due to the diversity of Mediterranean peoples and cultures and to disparities in the purchase of products, the history of the Mediterranean region has created a diet that is unique in its tremendous diversity. Rather than standardising eating patterns, the blending that has taken place over the centuries has in fact helped to broaden dietary and culinary repertoires.

There has always been and still is a marked contrast between the North, the Balkans and the South as far as the structure of food intake is concerned. The diet in the latter countries is mainly vegetarian (10 % or less of calories are of animal origin); cereals are the basic ingredient and are complemented by legumes, which have a high protein content. Food intake in the riparian countries in the North has a high animal product content and, expressed in plant equivalent, is twice as extravagant as the southern diet (Table 9.1). The structure of this food intake has been very close to the western model, the only difference being more fish and legumes and less sugar (Fig. 9.1). The Balkan countries have an intermediate food intake structure situated between the structures of the North and the South: intake is richer in animal products compared to the South and also contains more cereals and legumes than in the North. The final intake is lower in the Balkans than in the southern Mediterranean and a fortiori than in the European Mediterranean countries.

Table 9.1 - Regional structures of food intake, 2000

Regions	Intake in final Kcalories	% of animal calories	Intake in plant equivalent
Northern Mediterranean	3563	35	9550
Balkans	3130	25	6760
Southern Mediterranean	3210	12	5155
OECD countries	3365	45	12450

Intake in plant equivalent

= number of plant calories + (number of animal calories x 7)

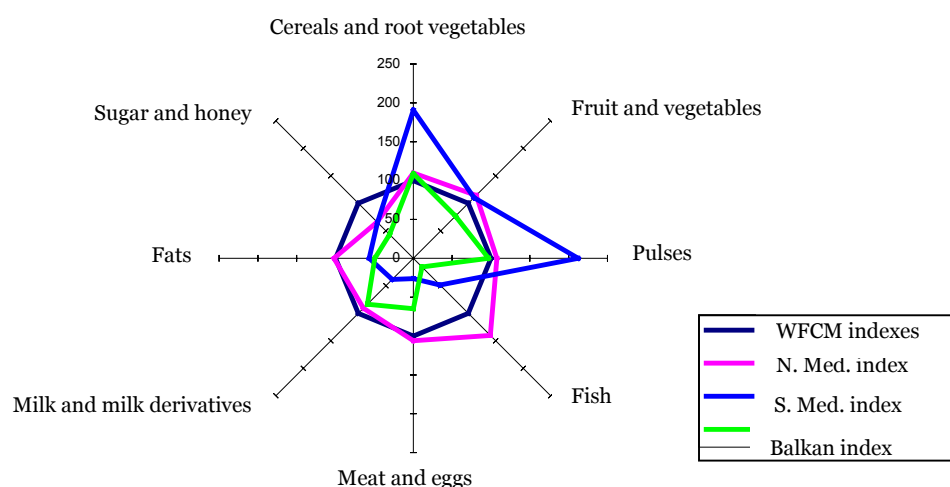
Northern Mediterranean : Spain, France, Greece, Italy, Portugal

Southern Mediterranean: Algeria, Egypt, Jordan, Lebanon, Morocco, Syria, Tunisia and Turkey

Balkans: Albania, Bosnia-Herzegovina, Croatia, Macedonia, Serbia, Slovenia

Source: Our calculations based on FAO figures.

Figure 9.1 – Comparison of Mediterranean diets - North/South Med and Balkans - in 2000



WFCM : Western food consumption model (average of OECD countries)

Source: Our calculations based on FAO figures.

There are substantial differences in diet within the subregions themselves. In the European Mediterranean countries, Spain is characterised by higher potato, fish and seafood consumption, whereas consumption in Italy is based primarily on cereals and dairy products. In Greece it focuses more on cereals, vegetables, fruit and "feta" cheese, which is known the world over. France, not surprisingly, is without a doubt the most "westernised" Mediterranean country, with a comparatively high level of meat and milk consumption. Whereas oils and fats are distributed evenly over the various countries, Portugal and France are conspicuous for their high consumption of alcoholic beverages consisting essentially of wine. Although there are strong similarities amongst the countries regarding products, there are considerable differences when it comes to culinary preparations (Padilla, Aubaile, Oberti, 2001). These reflect the history of the populations and do not stop at geographical borders: Greece is still very influenced by oriental and Ottoman cuisine, whereas Spain is very marked by the influence of the Moors, and Sicily and Provence are very similar to Italy.

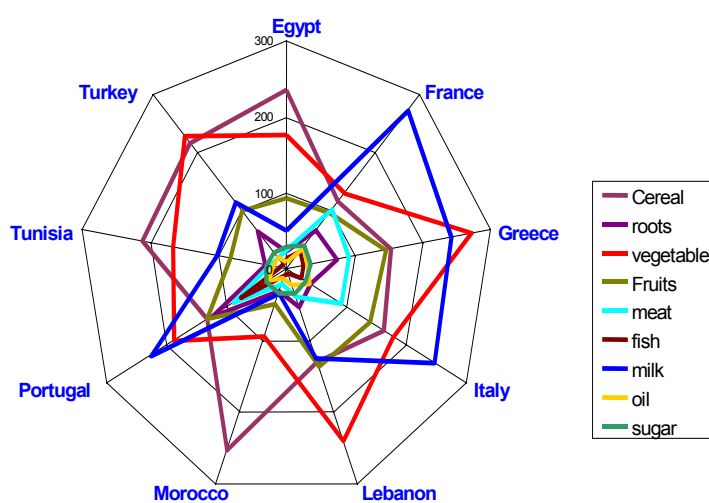
The situation also varies widely in the Balkans. Although consumption of legumes, fish, sugar, and fats is low and is not a marked feature of any particular country, consumption of the other foodstuffs varies widely from one country to another. The main foodstuffs consumed are animal products (milk, meat) and vegetables in Albania, milk, cereals and fruit in Yugoslavia and Slovenia, vegetables and meat in

Bosnia, root vegetables, tubers and fruit in Croatia, and, lastly, only vegetables in Macedonia.

Food patterns in the South are fairly homogeneous, only fruit and vegetables, root vegetables and tubers distinguishing Turkey and Lebanon from the other patterns. Milk and dairy products are typical of countries with a pastoral tradition such as Turkey, Syria and Algeria.

This Mediterranean diversity is clearly illustrated in Figure 9.2 below.

Figure 9.2 – Trends in food consumption kg/person/year among selected CIHEAM countries, 2001



Source: Figure developed by authors, based on data from CIHEAM country profiles, 2003.

9.2 - Towards greater Mediterraneanisation of diets?

An important review of epidemiological studies (Gerber, 2000) shows that the Mediterranean diet constitutes a very healthy balanced food pattern. These convincing factors stem from the nutrients contained in the foods described above: fibres (in cereals, legumes, fruit and vegetables), vitamins (in fruit and vegetables and legumes), antioxidants (in nuts, olive oil, fruit and vegetables, herbs and seasoning, legumes), minerals (in fruit and vegetables), phyto-oestrogens (in legumes, unrefined cereals, and certain fruits and vegetables), certain fatty acids (in fish and olive oil).

The Mediterranean diet has inspired many international or national recommendations (cf. La pyramide américaine, Willet, 2003) and was officially recognised as a model by the WHO in 1994. To get away from the classical debate over westernisation, we think it is interesting to analyse the development of the diet in each subregion compared to the typical Mediterranean food pattern, which, according to specialists, and as the result of the famous international study by A. Keys (1986), is the Cretan model of the 1970s. For it was in Crete or, more generally, in Greece that the relationship between dietary characteristics and the health of the population (lower incidence of cardiovascular disease, lower cancer rates) was established and recognised. We shall thus conduct our longitudinal analysis on that basis.

9.2.1 - *In the Northern Mediterranean: drift of the health model towards a northern industrial model*

All of the European Mediterranean countries were very close to the classic Greek model in the 1960s (Fig. 9.3), but this was no longer the case at all in 2000, by which time the consumption of animal products, sugars and fats had increased considerably.

The first characteristic is the increase in energy content: between 2 500 and 3 000 Kcal per capita per day in 1960, between 3 300 and 3800 Kcal in 2000. The second fundamental characteristic is the far-reaching change in the distribution of energy content between carbohydrates, lipids and proteins. The following is observed:

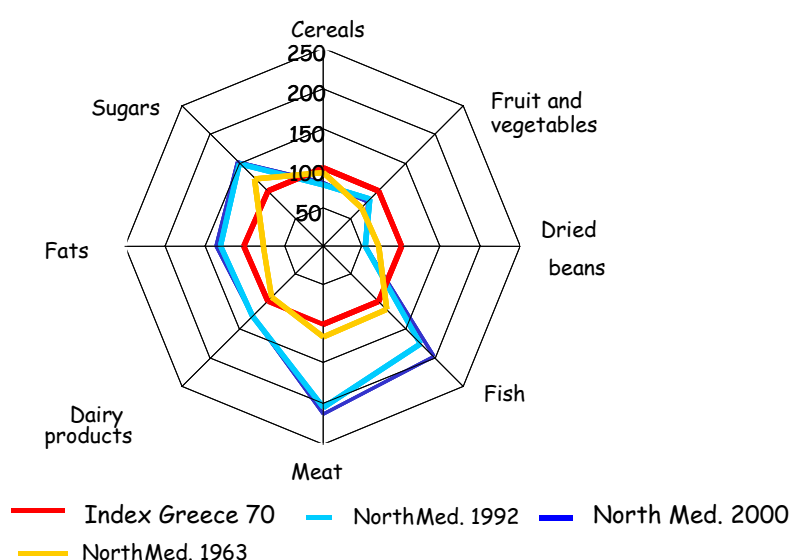
- A tremendous increase in the consumption of lipids, which is explained by the higher consumption of animal fats (dairy products and meat – this consumption increases as living standards rise), but even more by the consumption of vegetable oils used for cooking and seasoning or included in various industrial foods (pizzas, ice creams, bread, biscuits, etc).
- An increase in the consumption of simple sugars and a decrease in the consumption of starches. This is related in particular to the consumption of beverages and foods with a high sugar content. Are the US levels going to be reached, where this type of food contributes 3/4 of the simple sugar content and

soft drinks alone contribute 1/3? At the same time, the consumption of starch (bread, potatoes) decreased rapidly (by half and by one-third respectively in the last 50 years in France).

- There has been little change in the total protein content, but the share of animal proteins is increasing to the detriment of vegetable proteins (pulses, cereals).

And finally, the third essential characteristic is the diversification of the foodstuffs made available for consumption. This diversification is due to a large extent to the possibilities offered by technical advancement for processing, preserving and transporting foodstuffs, the development of a suitable infrastructure for transporting perishable foodstuffs, and the stiff competition amongst firms in the agro-food industry in a context of saturation of overall food demand. Thousands of different foods, whether domestic or imported products, are accessible to consumers every day, often in every season.

Figure 9.3 - Relative evolution of available foods per capita per day in the northern Mediterranean countries (1963-2001)



This change in eating habits is a universal phenomenon, generally concomitant with economic development and urbanisation. A clear link has been revealed between the gross domestic product of various countries throughout the world and the respective contributions of the various macronutrients to energy intake. The increase in individual calorie intake and of the share of lipids in that intake seems to have reached a maximum by the end of the 20th century in the case of many industrialised countries including the northern Mediterranean countries.

This change is the result of the phenomenon of imitation and dissemination of the dominant model, i.e. that of the countries in the North. And at the same time it is the result of the globalisation of the economy, the effect of which has been that the traditional Mediterranean sectors have become less competitive, to the advantage of the agro-industrial systems, which are dominated by better equipped countries. The developments in lifestyle and their corollary – the radical change in eating patterns and the industrialisation of consumption – can even be dated: the first signs appeared in 1975 when the European Community was established. With the development of the employment of women and the increase in the number of people living on their own, processed foods (ready for cooking) or prepared foods (ready for consumption) have become extremely popular. Mediterranean dishes, which require fresh ingredients and preparation, have been abandoned, since they are considered to be incompatible with modern working life.

**Box 9.1 - Illustration of a rapid and far-reaching change:
the case of Spain**

In Spain, traditions pertaining to the purchase and consumption of food are developing rapidly. Most Spanish consumers follow the Mediterranean diet composed of fish and seafood products, vegetables, fruit, olive oil, wine and salads. However, it is observed that the North American diet is beginning to infiltrate and is gradually replacing the Mediterranean diet. People are eating more prepared foods that are ready for serving, more health food, more low-fat and low-cholesterol foods, and more so-called natural products.

The recent increase in the proportion of Spanish households possessing a microwave oven can also encourage the consumption of more ready-made dishes and foods that are ready for serving. In 2000, almost 54% of households owned a microwave oven - an increase of almost 10% compared to 1999. Almost all Spanish households have a refrigerator (99.46% in 2000). This country is conspicuous for its high individual consumption level for all types of meat, which has been rising rapidly over the past few decades (from 20 kg in 1960 to 115 kg in 2002), pigmeat being the most popular. Traditionally consuming moderate quantities of beef (Mili 1997), Spanish consumers are conspicuous for the increase in beef consumption in the last decade - from 12.8 kg in 1991-1994 to 14.9 kg in 1999-2002.

Despite the recent tendency to depart from the Mediterranean diet, Spain is still the second-largest consumer of fish and seafood products in the world. In 2001, total fish consumption in Spain amounted to 1.29 million tonnes.

9.2.2 - Eastern and southern Mediterranean countries: an increasingly unbalanced diet

In the EM and SM countries, food consumption is in a transitional phase between the traditional diet based to a large extent on cereals with low animal protein content and providing just enough in terms of energy value and the "Western"

model, in which energy needs are amply covered and animal protein content is high.

In the southern Mediterranean the average food model seems to be departing from the Mediterranean model, although one still cannot say that the diet is becoming westernised. Intensification of the major components (cereals and pulses) is in fact observed as well as a comparatively high level of consumption of simple sugars (Fig. 9.4). The progress made in these countries in meat and milk production is often mentioned, yet there is no obvious effect on the increase of animal product consumption. Progress in terms of meat and milk production is too recent to be detectable in average consumption, but this does not mean that there has been no increase in consumption in absolute terms; consumption simply has not yet "caught up" (Table 9.2). The phenomenon of the imitation of the so-called western model, which was a major subject of debate in the 1970s and 1980s, thus does not seem to apply. No doubt economic conditions have been inconducive to the dietary development it was hoped these countries would achieve. The South is still very traditional, despite the fact that relatively modern dietary practices have been adopted in urban environments.

Figure 9.4 - Relative evolution of available foods per capita per day in the southern Mediterranean countries (1963-2001)

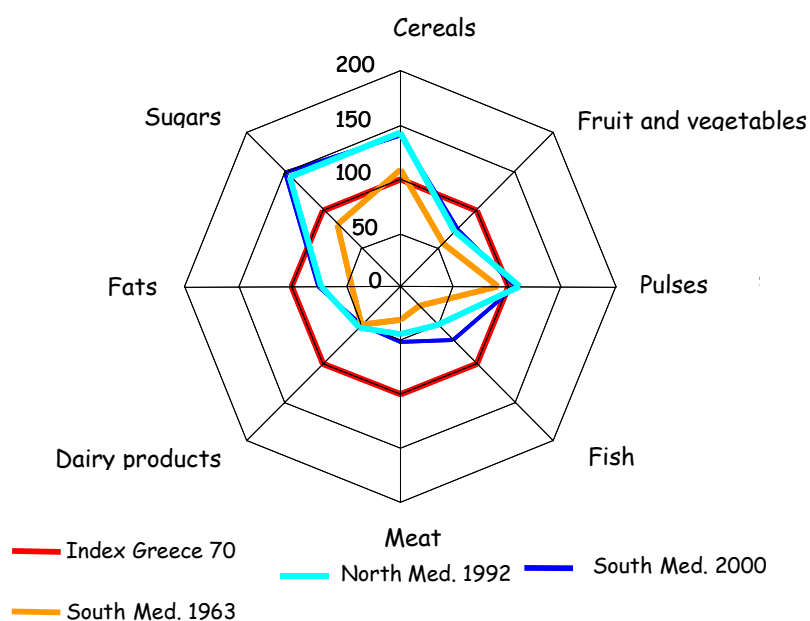


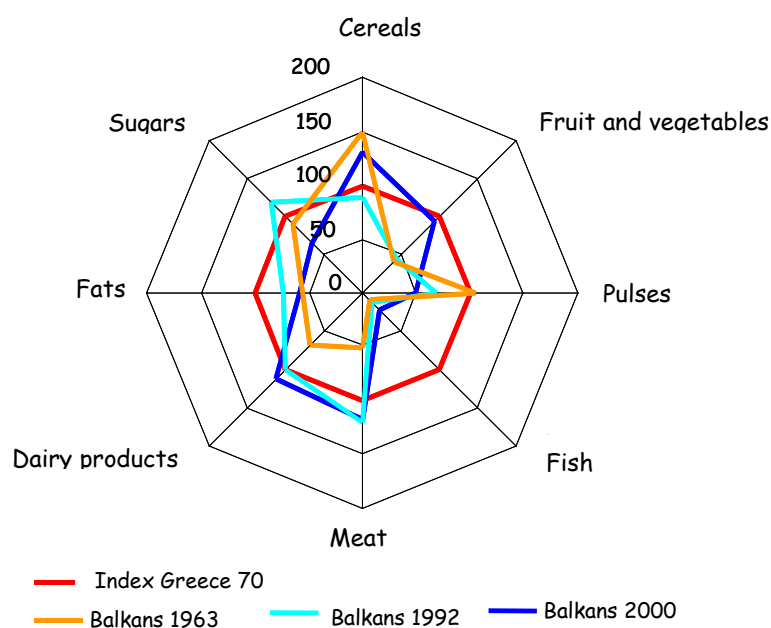
Table 9.2 - North/South comparison of food consumption in kg/capita/year

	Northern Mediterranean	Southern Mediterranean
Cereals	100-170	180-240
Tubers	60-125	20-40
Vegetables	115-130	100-200
Fruit	60-160	60-95
Meat	90-110	15-70
Milk	150-260	15-150
Oils and fats	15-35	10-25
Alcoholic beverages	40-140	0-20

Source: Medagri.

9.2.3 - The Balkan region: Mediterraneanisation which is becoming established

The structure of food intake in this region is somewhere midway between North and South: more cereals than in the North, more meat than in the South, but with low final calorie levels.

Figure 9.5 - Relative evolution of available foods per capita per day in the Balkan countries (1963-2000)

Comparison of the food situation in the Balkans in 2000 with the situation in 1963 reveals marked deterioration on the whole: all products seem to be less available, with the exception of animal products and fruit and vegetables, as well as foods obtained from domestic production for own consumption. However, observation of the evolution of the nutritional components of intake in that decade reveals major disparities. The nutritional balance in Bosnia, and in particular in Croatia, has deteriorated considerably, whereas Yugoslavia and Slovenia show a relative balance, and there is slight improvement in Albania and Macedonia - but at levels well below a nutritional balance.

Even though the Balkan diet seems to be diversifying to some extent and coming closer to the ideal Mediterranean model, there are signs of generalised poverty.

10 Overall food security in quantitative terms but qualitative insecurity

The countries in the eastern and southern Mediterranean are only just overcoming food insecurity or still have pockets where the food situation is precarious. In the south of France it was not until the 1920s that the population no longer sought to economise on food; in Italy or Spain, this was not the case until the 1950s, and in Portugal and Greece the 1960s. In the early 1990s, food consumption in the Maghreb and Mashraq countries barely exceeded what was estimated as necessary to cover people's food needs, leaving large fringes of the population in difficulty (Allaya, 1993). Active policies to improve the supply of agricultural commodities and to enhance purchasing power by controlling prices and introducing subsidies for staples in the 1970s and 1980s resulted in a marked increase in average food intake in quantitative terms. So what is the situation now that subsidies have been abolished and internal markets have been opened to products from the rest of the world? Has the food security of the populations improved?

Food insecurity exists when people lack access to sufficient amounts of safe and nutritious food and are therefore not consuming the food required for normal growth and development and for an active and healthy life. This is manifested by signs of general undernourishment or of deficiencies of a variety of nutrients and/or micronutrients. The prevalence of undernourishment is usually reported as a percentage of the total population as well as the total number of undernourished in a country.

10.1 - Food insecurity in the Mediterranean region

Ranging from the high income countries of the north Mediterranean (NM) to the middle income countries of the south Mediterranean (SM), the CIHEAM countries do not fall in the group of high food insecurity countries of South East Asia and sub-Saharan Africa. Firstly, there is no extreme poverty and, secondly, the incidence of the major infectious diseases, namely malaria, tuberculosis and HIV/AIDS, is limited. Also, the high incidence of major emergency situations arising from natural or man-made disasters such as wars and civil strife are uncommon and tend to be limited. The capacity to mitigate the impact of natural disasters such as drought, flash floods and fires is considered adequate. The challenges lie more in the domain of keeping a balance between free markets and a more regulated approach to nutritional goals; between increasing productivity and environmental restraint and sustainability; and between the health-giving potential of bio-engineering and the dangers of unknown side effects (WHO 1998). The food production index for almost all CIHEAM countries (Table 10.1) shows progression above the base value of 100, attributed to the 1989-1991 production level, when calculated per habitant. Managing the transition of modernising its agricultural

practices and their technical level without undermining the traditional food system (in both quantity and quality) is the challenge that faces Albania, a medium-income country that has made significant progress over the greater part of the last two decades in all development domains (CIHEAM Country Report 2002). The SM countries are at varying stages of this same transition, though progressing at a slower pace. Countries which are implementing partnership agreements with the EU may be more favoured in this respect.

Table 10.1 - Recent trend in food production among CIHEAM countries 2000-2001

Country Per capita	Population in thousand		Food production* index		Food production index per capita	
	2000	2001	2000	2001	2000	2001
Albania	3 314	3 145	135	139	141	145
Algeria	30 291	30 841	129	142	106	114
Egypt	67 884	69 080	152	149	126	121
France	59 238	59 453	106	101	101	96
Greece	10 610	10 623	105	102	100	98
Italy	57 530	57 503	102	104	103	101
Lebanon	3 496	3 556	154	148	120	113
Malta	390	392	130	128	120	118
Morocco	29 878	30 430	97	104	80	84
Portugal	10 016	10 033	102	99	101	79
Spain	39 910	39 921	119	119	117	117
Tunisia	9 459	9 562	132	119	113	101
Turkey	66 668	67 632	118	109	100	91

* Based on 1989-1991=100

Source: FAOSTAT food balance sheets 2001.

The trends observed can provide a means of monitoring progress with a view to improving the nutritional situation in a country and among the most vulnerable groups of the population. However, the situation in a country is far from homogeneous, and there may be communities or segments of the population that are more exposed to factors which make them vulnerable to developing food insecurity, whether transitory or chronic. Short-lived states of food deprivation can usually be compensated when sufficient food intake is restored or when there are coping mechanisms. Chronic exposure to food deprivation is manifested by more permanent changes such as stunting among children. Depending on the age at which the deprivation occurs, the impact may be irreversible and may even cross generations as is the case with malnourished mothers and low-birthweight babies.

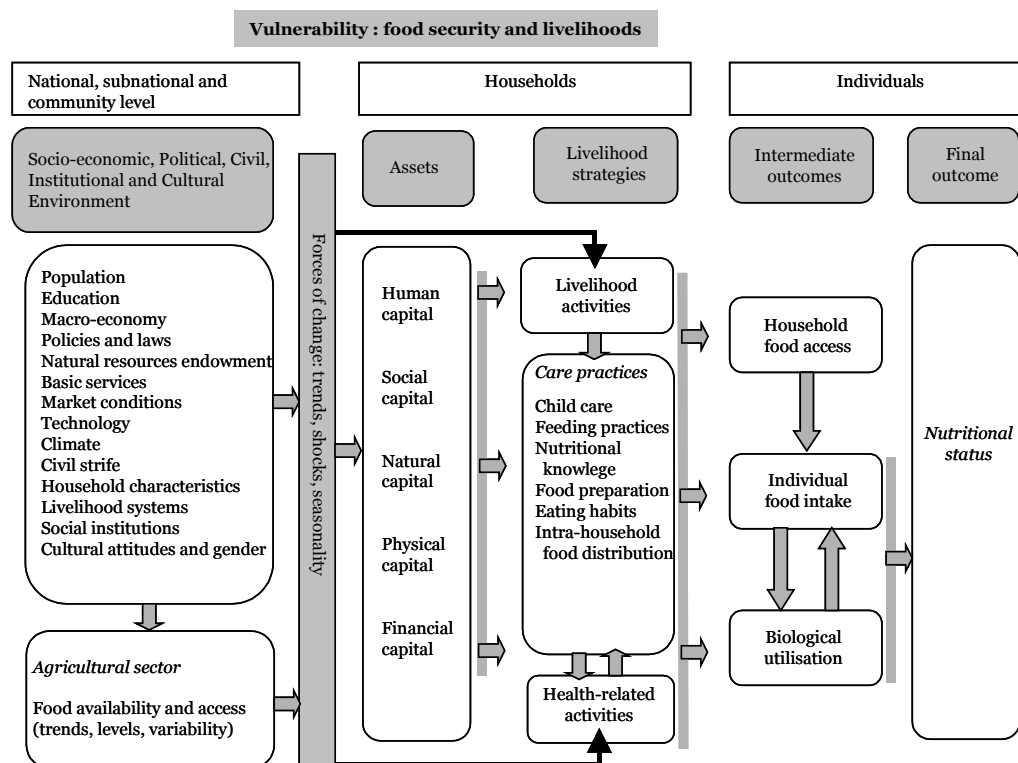
The changes in the dietary intake which accompany market influences, purchasing power and food availability may be insidious in their onset and the manifestations of undernourishment may not be immediately evident. The erosion of human

capital resulting from food insecurity can be considerable and can diminish the country's potential for development. The fact that it will be felt in the medium and long term means that it rarely ranks high on the development agenda of countries whose politicians are more preoccupied with development problems which are more evident and more pressing in nature. The benefits of reducing hunger and malnutrition are many (Behrman et al). Better fed people can contribute longer to GDP and are even likely to have healthier babies. According to one study, an additional pound at birth reduces infant mortality rate by 14%. Labour productivity can be strongly influenced by malnutrition at an early stage, since it can affect people's size and strength. Stunted growth often leads to lower earnings. One study in Brazil showed that a 1% increase in height is associated with a 2-2.4 % rise in wages. Furthermore, eliminating hunger can allow children to perform better in school and in turn increase the prevalence of skills needed for higher value-added jobs.

10.2 - Poverty and food insecurity

A number of conceptual frameworks have been elaborated showing the complex inter-relations amongst all of the factors that influence the development of food insecurity in a given population. Figure 10.1, developed by the Inter-Agency Working Group (IAWG) on Food Insecurity, shows the salient causes that influence people's access to and utilisation of safe and nutritious food. No single factor can be considered alone, since they are all interdependent in one way or another (Fig. 10.1).

Combining the fight against hunger with efforts to eradicate extreme poverty (which is the first of the eight Millennium Development Goals) is recognition of the fact that poverty and food deprivation are closely linked. Poverty can be both the outcome and a cause of perpetuating hunger. The higher share of the world's population that remains in poverty and lacks the necessary income to translate its needs into effective demand masks the real food insecurity situation and gives a false reading of the decline in the demand for agricultural products noted over the recent years.

Figure 10.1 – Vulnerability: food security and livelihoods

At the local level, this situation may worsen unless focused efforts are made to target the poorer groups of the population. Lifting people out of poverty remains a crucial strategy for overcoming food insecurity.

Analysis of the factors that influence progress in reducing food insecurity and strengthening food security has identified a combination of six indicators, which have proved most successful in differentiating among countries grouped according to their performance during the 9-year period from 1990-1992 to 1995-1997 and from 1995-1997 to 1999-2001. These indicators include population growth, GDP growth per person, health expenditure as the proportion of adults infected with HIV/AIDS, the number of food emergencies and the United Nations Development Programme's Human Development Index (itself a composite of several economic and social indicators). It was observed that a rate of growth of the per capita GDP of at least 2.5% was a determining factor in countries which succeeded in reducing the numbers of undernourished in their populations. The most successful countries also demonstrated more rapid agricultural growth (3.3% per year compared to countries where hunger increased throughout that period. Lower rates of

HIV/AIDS infection and slower population growth were also exhibited by those countries.

The situation of the 12 CIHEAM countries with respect to some of these indicators is shown in Table 10.2. A number of SM countries which show weaker indices for more than one of the indicators include Algeria, Egypt and Morocco. One of the pronounced differences between N and SM countries lies in the field of adult literacy and expenditure on health. The countries in the south have lower achievements in areas (not shown in the table) relating, *inter alia*, to higher levels of technical and scientific education, the use of communication technologies and gender empowerment measures. The Human Development Index which combines economic performance with social indicators is also lower for the same three countries cited above.

**Table 10.2 - Economic education and health indicators
among CIHEAM countries 2000-2001**

	Health expenditure per capita	Population below the poverty line		Unemploy- ment rate	Adult literacy rate	Infant mortality rate per live births	HDI	GDP per capita
	2001 in PPP	in % *		% of labour force	In %		**	in PPP
		< 1\$	< 2\$					
Albania	150	--	--	--	--	26	M	4 830
Algeria	169	< 2	15.1	--	31.1	39	M	5 760
Egypt	153	3.1	43.9	8.2 (2001)	44.4	35	M	3 810
France	2 567	8.0	--	3.0 (2002)	--	4	H	26 920
Greece	1522	--	--	5.0 (2002)	97.3	5	H	18 720
Italy	2 204	12.7	--	5.3 (2002)	98.5	4	H	26 430
Lebanon	673	--	--	8.6 (2000)	86.5	28	M	4 360
Malta	813	--	--	6.8 (2001)	92.3	5	H	17 640
Morocco	199	< 2	14.3	12.5 (2001)	49.3	39	M	3 810
Portugal	1618	--	--	5.0 (2002)	92.5	05	H	18 280
Spain	1 607	10.1	--	4.6 (2002)	--	4	H	21 460
Tunisia	463	< 2	6.6	14 (2002)	72.1	21	M	6 760
Turkey	294	< 2	10.3	8.5 (2001)	85.5	36	M	6 390

* In the case of the European countries, 50 % of the median income

** HDI = Human Development Index ; H = high HDI 0.8 and above ; M = Medium HDI 0.500-0.799

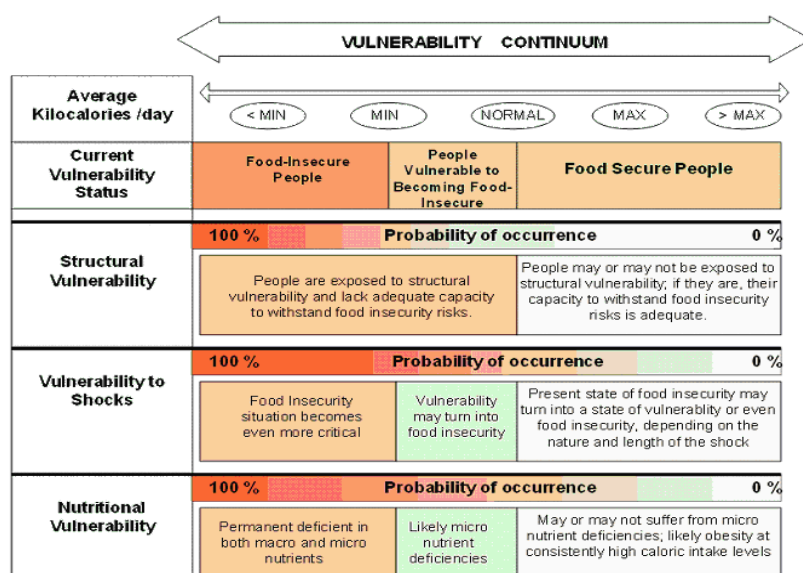
Source: Human Development Report, UNDP 2004.

10.3 - Vulnerability to food insecurity

Vulnerability is defined as the full range of factors which place people at risk of becoming food-insecure. The degree of vulnerability of individuals, households or groups of people is determined by their exposure to risk factors and their ability to cope with or withstand stressful situations. Vulnerability can be structural or transitory.

Although the industrialised countries in the north may not have food availability problems, a combination of some of the factors that are shown in Figure 10.1. may have an impact on a particular population group. The groups that may be at a higher risk of food insecurity can be pensioners with limited incomes, the unemployed and the marginalised segments of the population who do not benefit from social security and do not have sustainable livelihoods. In the NM, the problem of food insecurity is more one of food safety and quality than of food deprivation. (Fig. 10.2).

Figure 10.2 – Food insecurity in the north Mediterranean countries



Improving food insecurity in the SM countries depends not only on adequate food production and supplies but to a large extent on improvements in the economic and social indicators which together are expected to raise the HDI values and also on the capacity to meet the challenges of the “high tech” world of the 21st century. Universal access to sustainable livelihoods, to basic social services and to drinking water supply and safe sanitation disposal systems are basic ingredients for decreasing the vulnerability of the people in SM countries where the issue is not

one of low productivity. Emerging issues constituting future if not current challenges which can influence both food production and food availability in some of the SM countries include the projected progressive depletion of water resources (Hamdy A.) and the degradation in the quality of both soil and water as reported by many of the northern and southern Mediterranean countries in the country reports they submitted to the UN in the context of the Convention to Combat Desertification (UNCCD Country Reports).

The health and nutritional status of the people, in particular of children, has been shown to be dependent on the health of the agro-ecosystem. One of the results of unhealthy agro-ecosystems that is by no means insignificant is the inability to export food products to the NM countries, since they do not meet the European food safety and quality norms and standards. A potentially dangerous reaction to the perceived high pollution of waterways, particularly in the northern governorates of Egypt, has given rise to a recently observed change in food consumption patterns with a decrease in the consumption of fresh dark green leafy vegetables. These vegetables are one of the pillars of the traditional Egyptian diet, which is based essentially on a combination of cereals and legumes. If allowed to continue unhindered, the outcome of this decrease in the daily intake of fresh dark green leafy vegetables will manifest itself in various ways over the coming years, since these green vegetables supply a number of protective nutrients that are a vital complement to the traditional dietary system. The methods currently available for assessing food insecurity do not show intra-country variations by means of disaggregated data.

10.4 - Measuring food insecurity

Building a consensus among countries (as well as between the UN and its partners who are engaged in the fight against hunger) on the most appropriate methods for measuring and assessing food deprivation and undernutrition has, for the past few years, been at the forefront of efforts of the inter-agency initiative for establishing a global Food Insecurity and Vulnerability Information and Mapping System (FIVIMS). A series of consultations are being organised by FAO to promote the development of national and international networks of systems that collect, analyse and disseminate information on problems of food insecurity and vulnerability, and to support improved action. Albania and Turkey already participated in the meeting held in Romania in March 2004 on the measurement and assessment of food deprivation and vulnerability. The southern Mediterranean CIHEAM countries will have the opportunity to participate in the forthcoming meeting scheduled to be held in Cairo in February 2005 for Middle Eastern and North African countries. These would include Morocco, Tunisia, Egypt and Lebanon. The fundamental goal of the FIVIMS initiative is to enhance the use of existing national data, to support networks, and to promote capacity-building at the national level.

The International Scientific Symposium held in Rome in 2002 to agree on the most appropriate method for measuring and assessing food deprivation and under-nutrition agreed that no individual measure suffices on its own to capture all aspects of hunger and food deprivation. A suite of indicators was proposed to cover the different dimensions of food security, namely, availability, utilisation and stability of access (Proceedings of the Symposium, FAO 2002). The participants also concluded that absolute figures are less important than trends; however accurate they may be, they only represent a value for a point in time and may not necessarily be comparable because of the differences in methodologies and approaches used in the various countries. Trends that reflect progress and performance over time (Table 10.3) have greater interpretative value. Preliminary information obtained from an ongoing longitudinal survey on food consumption patterns (Ibrahim N.I. et al, 2003) showed that evidence of deficiencies of some essential nutrients including vitamin A and vitamin C as well as calcium, iron and zinc was caused by lowered intakes of dark green leafy vegetables.

Table 10.3 - Trends and prevalence of malnutrition in CIHEAM countries

	Undernourished people as % of total population		% of children under age 5			% of infants with low birth weight
	1993-1995	1999-2001	under weight	Stunting	Wasting	1998-2002
High human development index*						
France	4	3	--	--	--	7
Greece	--	--	--	--	--	8
Italy	--	--	1.5	2.7	0.8	6
Malta	--	--	--	--	--	6
Portugal	--	--	--	--	--	8
Spain	--	--	--	--	--	6
Medium human development index						
Albania	5	4	14.3	31.7	11.1	3
Algeria	3	3	6.0	18.0	2.7	7
Egypt	6	6	10.7	20.6	5.1	12
Lebanon	--	--	3.0	12.2	2.9	6
Morocco	7	7	9.5	24.2	2.2	11
Tunisia	--	--	4.0	12.3	2.2	7
Turkey	--	--	8.3	16.0	1.9	16

-- Data not available

* The human development index (HDI) is computed according to the standard procedure developed by the UNDP.

Source: 5th Report on the World Nutrition Situation, SCN 2004.

Actual food intake and recommended dietary allowances

The merits of the traditional Mediterranean diet have gained global recognition over the years, a diet which is often used as the yardstick for measuring and assessing deviations regarded as unhealthy. The basic Mediterranean pattern of food consumption has been used as a reference for both FAO and WHO in the global strategy on diet, physical activity and health adopted by the World Health Assembly (WHO 2004) (Table 10.4). The same Mediterranean pattern was also used as a reference diet in the 1990s within the WHO European Region's initiative (WHO 1998) for promoting the development of nutrition policies in member states.

Table 10.4 - Ranges of population dietary intake goals

Dietary factor	Goals
Total fat	15-30% energy
Saturated fatty acids	< 10% energy
Polyunsaturated fatty acids (PUFAs)	6-10% energy
n-6 Polyunsaturated fatty acids (PUFAs)	5-8% energy
n-3 Polyunsaturated fatty acids (PUFAs)	1-2% energy
Transfatty acids	<1% energy
Monounsaturated fatty acids (MUFAs)	By difference ^a
Total carbohydrates ^b	55-75% energy
Free sugars ^c	< 10% energy
Energy	
Protein	10-15% energy
Cholesterol	< 300 mg/day ^d
Sodium chloride (sodium) ^e	<5 g/day(<2g/day)
Fruit and vegetables	≥ 400 g/day
Total dietary fibre	From foods
Non-starch polysaccharide (NSP)	

- a This means "total fat – (saturated, polyunsaturated fatty acids and trans fatty acids)".
- b The percentage of total energy available after taking into account that consumed as protein, hence the wide range.
- c The term "free sugars" refers to all monosaccharide and disaccharides added to food by the manufacturers, cook or consumer, plus sugars naturally present in honey, syrups and fruit juices.
- d The suggested range should be seen in the light of the Joint WHO/FAO/UNU Expert Consultation on Protein and Amino Acid Requirements in Human Nutrition, held in Geneva, 9-16 April 2002.
- e Salt should be iodised appropriately.

Source: FAO/WHO 2003.

Food consumption expressed in kilocalories (kcal) per capita per day is a key variable used for measuring and evaluating the evolution of global and regional food insecurity. When studying the diet in Mediterranean countries, two questions arise: "Does a common Mediterranean diet really exist?" and "Will food consumption patterns in Mediterranean countries tend to become more similar

over time?”. Gil et. al (1995) answer both questions to a certain extent by analysing diet evolution in Mediterranean countries during the 1968-70, 1978-80 and 1988-1990.

The evolution of the calories consumed in different Mediterranean countries and the proportion of animal calories, as presented in Table 10.5, reflect the differences existing between developed and developing countries. The main difference lies in the percentage of animal calories out of total calories. In France, about 40% of the calories come from animal origin. For Spain the percentage is over 32%, while in Greece, Italy and Portugal, it is around 25%. In other countries, this figure barely reaches 10%.

Table 10.5 - Evolution of total and animal calorie intake (1970 – 2000)

Country	Total calories*				Animal calories (%)**			
	1968-70	1978-80	1988-90	2000	1968-70	1978-80	1988-90	2000
Algeria	1 819	2 531	2 944	2 944	9.8	10.0	10.9	9.8
Egypt	2 431	2 990	3 310	3 336	7.3	7.3	7.7	7.9
France	3 330	3 424	3 592	3 601	35.4	39	38.5	37.6
Greece	3 123	3 423	3 775	3 648	19.1	24.1	25	22.6
Italy	3 322	3 558	3 498	3 701	18.1	22.7	25.7	26.3
Lebanon	2 377	2 609	3 142	3 185	14.2	15.8	16.0	15.4
Libya	2 350	3 458	3 293	3 324	14.0	16.2	14.1	10.9
Morocco	2 344	2 699	3 030	3 026	8.1	7.0	6.1	7.2
Portugal	2 988	2 915	3 342	3 751	15.9	19.4	23.6	28.7
Syria	2 345	2 816	3 122	3 034	11.6	14.8	12.0	13.3
Spain	2 793	3 242	3 472	3 370	22.3	27.5	32.2	27.9
Tunisia	2 247	2 762	3 122	3 304	7.7	8.5	9.0	10.3
Turkey	2 814	3 067	3 196	3 372	10.4	9.7	7.6	10.7
Ex-Yugoslavia	3 318	3 526	3 545	2 703	18.4	23.3	23.8	29.3

* kcal/capita per day

** Percent energy derived from animal source

Data source: Options Méditerranéennes, série. A/n26, 1995 - Sécurité alimentaire en Méditerranée, FAO Stat.

Analysis of FAO statistical data shows that dietary energy measured in kcals per capita per day has been steadily increasing on a worldwide basis; availability of calories per capita from the mid-1960s to the late 1990s increased globally by approximately 450 kcal per capita per day and by over 600 kcal per capita per day in developing countries. In short, it would appear that the world has made significant progress in raising food consumption per person. It is generally agreed, however, that growth in food consumption has been accompanied by significant structural changes and a shift in diet away from staples such as root vegetables and

tubers towards more livestock products and vegetable oils. Analysis of FAOSTAT data shows that current energy intakes range from 2681 kcal per capita per day in developing countries, to 2906 kcal per capita per day in transition countries and 3380 kcal per capita per day in industrialised countries.

Regarding consumption of total calories, it can be stated that in fact, the countries which in 1970 had the lowest caloric diet grew, on average for the period considered, at higher rates than the countries with a richer caloric diet. It is observed, however, that as the development level of a country increases, so does the per capita caloric intake. Table 10.6 shows trends in percent of energy intake derived from animal products in the different Mediterranean countries. There has been a remarkable increase in the consumption of animal products in almost all countries. It is interesting to note the decline in energy derived from animal products in countries such as Egypt, Morocco and Turkey. For the large majority of people in the world, particularly in developing countries, livestock products remain a desired food for their nutritional value and taste. Excessive consumption of animal products in some countries and among certain social classes can, however, lead to excessive intakes of fat.

**Table 10.6 - Trends in animal product supplies
in selected CIHEAM countries**

	Meat (kg/person)			Milk (kg/person)		Animal fat (kg/person)	
	1961	2002	2003*	1961	2002	1961	2002
Egypt	10.8	22.4	--	30.8	50.2	2.1	2.4
France	77.1	102.3	91.5	220	275.5	10.4	18.7
Greece	21.1	83.2	82.5	101	255	1.9	3.1
Italy	30.5	92.1	82	144.7	255.9	3.4	11
Morocco	13.8	20.7	--	28.6	42	1.9	2.5
Portugal	20	89.2	93.8	60.7	219.7	3.3	13.6
Spain	21.8	118.5	128.9	83.2	158.3	1.5	5.2
Turkey	16.5	19.2	--	174.7	98	3.3	1.9

* Consumption data in kg carcass equivalent; source: OFIVAL Sept. 2004: Consumption of processed meat in 2003.

Source: Table based on data from FAO Stat.

10.5 - Is qualitative food security declining?

The Mediterranean countries are reputed for their healthy and balanced diet. But do all of the CIHEAM member countries share that feature? To answer this question we have developed a Food Quality Indicator modelled on Gerber et al. (2000). As knowledge has progressed in the nutritional sciences a number of recommendations have been made as to the quantities of certain foods to be eaten on a daily basis or to the proportions of nutrients to be adhered to in food intake. A Food Quality Indicator (FQI) has thus been calculated on the basis of the recommendations of the National Research Council, the American Health Association and, in particular, the latest proposals of the FAO/WHO Committee of Experts (2003). For certain foods considered to be important from the prevention point of view, a score has been allocated for each of the 3 consumption levels (Table 10.7); the sum of the scores indicates the intake quality. The lowest score (0) has been allocated to the quantities that are most beneficial for health, and the highest score (2) has been allocated when the recommended thresholds are exceeded. The lowest FQI indicates the intake that is most beneficial for the health and most preventive.

Table 10.7 – Scores allocated according to consumption levels

Variables	Scores		
	0	1	2
Meat (gm/day)	<200	200-400	>400
Olive oil (gm/day)	>15	15-5	<5
Fish (gm/day)	>60	60-30	<30
Cereals (gm/day)	>300	300-100	<100
Fruit and vegetables (gm/day)	>700	700-400	<400
% fats in intake	<15	15 - 30	>30
% saturated fats in intake	<10	10-13	>13
% complex sugars in intake	>75	55-75	<55%
% proteins in intake	>15	15-10	<10

- . Foods rich in saturated fats are butter, cream, cheese, prepared meat products, meat, palm, cotton and copra oil, and margarine.
- . Complex sugars are essentially cereals, pulses, fruit and vegetables.

Source: FAOSTAT, 2003.

Using this table of scores we have calculated the FQIs for the Mediterranean countries over the period from 1960 to 2000 (Table 10.8).

Table 10.8 – Number of Mediterranean countries according to food quality indicator scores for the period from 1960 to 2000

Year	Scores				
	0 - 4	5 - 6	7 - 9	10 - 12	13 - 18
1960	3	4	3	3	0
1970	1	3	8	1	0
1980	0	1	10	2	0
1990	0	1	9	3	0
2000	0	2	10	1	0
Type of FQI	Very good	Good	Average	Poor	Very poor

Source: FAOSTAT.

The table shows quite clearly that, although the situation in the Mediterranean countries is not disastrous (no FQI above 13), it is worrying, since there is a marked drift in the number of countries with a good or very good FQI in 1960 towards average or even poor FQI levels in 2000. The major preoccupations concern two aspects:

- An increase in the consumption of lipids, particularly saturated fats. This is due essentially to the increase in the consumption of meat, dairy products and industrialised products (in which a large quantity of palm or copra oil is used). In 1960, there were three Mediterranean countries which had a poor score for saturated fats (Albania, France, Malta); there were seven in 2000 (Albania, Spain, France, Greece, Italy, Malta, Portugal).
- There has been a very marked deterioration in the scores for complex sugars due to the sharp increase in the consumption of simple sugars, particularly in processed products (beverages, biscuits, desserts, etc.). Whereas there was only one country with a poor score in this field in 1960 (France), there were 9 in 2000 (all of the European Mediterranean countries plus Malta, Tunisia and Lebanon)!

At the same time, scores have improved for the consumption of two Mediterranean products: olive oil and fish oil. However, these two products are becoming increasingly expensive and consumption is thus limited to certain social categories.

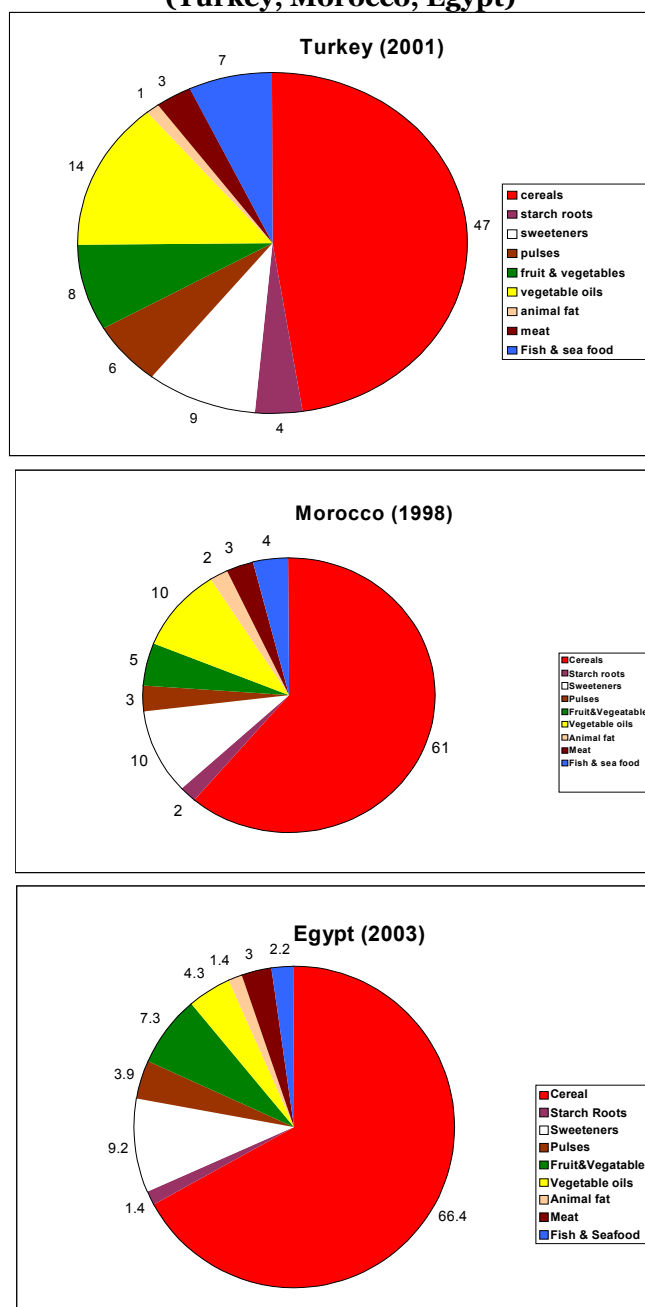
These changes in food quality are resulting in a certain degree of food insecurity, which is all the more serious since changes in lifestyle are reducing physical activity both at work and during leisure time (Gil et al, 1995).

10.5.1 - The Mediterranean diet and diversity

Examination of the nutrition country profile for Turkey, Morocco and Egypt (Fig. 10.3) reveals considerable disparities between the three countries. It draws attention to the fact that the food insecurity situation in each country, which is the outcome of the interaction of several interdependent factors, is specific to that

country and that the comparability of the dietary intake in Mediterranean countries is limited to general trends within which some sub-groups of countries may share common features. The share of major food groups in the dietary energy supply (DES) is considered one of the features that can provide an appreciation of food security. The proportion of DES contributed by cereals is higher for Egypt compared to that for Turkey and Morocco, at the expense of other food groups. Also, the share of vegetable oils in the DES, in terms of quantity and quality, varies considerably, since olive oil is consumed mainly in Morocco, to a lesser extent in Turkey and in limited quantities in Egypt, the latter being mainly a consumer of cottonseed oil. Fish consumption also varies considerably amongst the three countries, being highest in Turkey and lowest in Egypt. It can be observed that the diversity of the diet was inversely related to the share of energy derived from cereals. The higher the DES from cereals, the lower the share of energy derived from fruits, vegetables and fish, and the lower the diversity in the diet. Given its high poverty rates, Egypt is an obvious example of dependence of the poor segments of the population on the subsidised staple food (bread) resulting in a high energy content made up of empty calories. This level of poverty allows little room for food diversity or for adequate intakes of other essential nutrients. It is expected that such an unbalanced diet would give rise, in the long term, to signs of food insecurity. This explains the observed high incidence of malnutrition, stunting, and micronutrient deficiencies, notably iron deficiency, as well as obesity among children.

Figure 10.3 – Percentage of EDS by major food groups (Turkey, Morocco, Egypt)



Source: FAO Nutrition country profiles, Turkey (2001), Morocco (1998), Egypt (2003).

10.5.2 - The nutrition transition

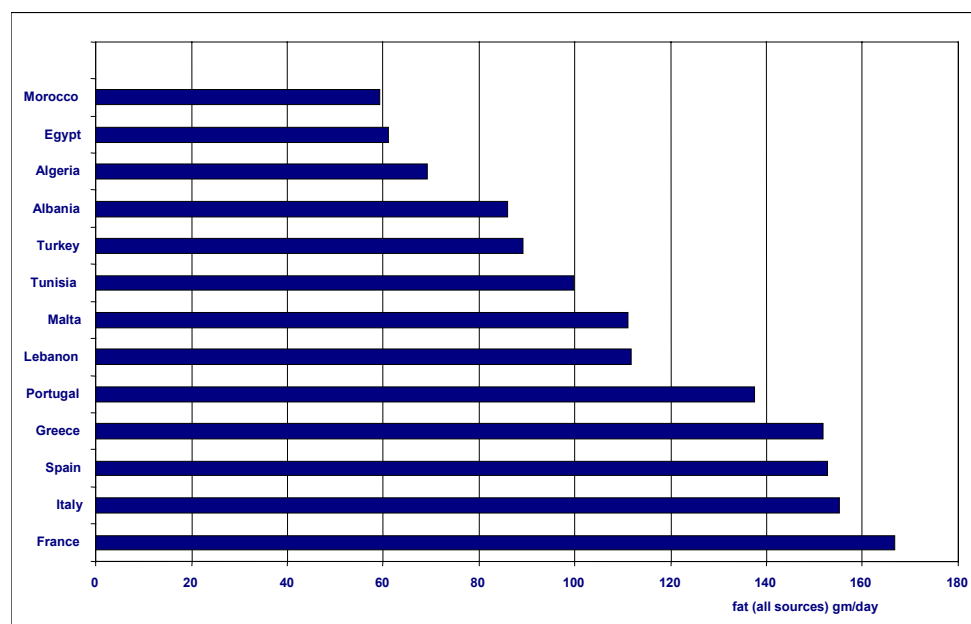
Diets evolve over time, being influenced by many factors and complex interactions. Income, prices, individual preferences and beliefs, cultural traditions, as well as geographical, environmental, social and economic factors all interact together in a complex manner to shape dietary consumption patterns. Data on the national food consumption pattern provide valuable insight into diets and their evolution over time. Changes in diet patterns often referred to as the “nutrition transition” that are already contributing to the causal factors underlying the observed increase in the non-communicable diseases in both the industrialised and the developing Mediterranean countries (FAO/WHO 2003).

A significant change in diet habits and physical activity level that has occurred as a result of industrialisation, urbanisation, economic development and increasing market globalisation have been at the root of the changes observed in the typical Mediterranean food consumption patterns. The Mediterranean countries are in a privileged position by comparison with other countries in respect of this nutrition transition, which is impacting countries worldwide. Action to protect the basic features of their diet and to adapt to the demands of modern lifestyles without losing much of the diet’s nutritional value is a challenge that can be turned to their advantage. A critical point has been reached at the present time. The 50% share of the dietary energy supplied by cereals (the staple food), which had remained relatively stable over time, is now undergoing subtle changes. A decrease is being observed (FAO/WHO 2003) in the share of the cereals, which is becoming more accelerated and more pronounced in developing countries. There are large variations among countries and within the same country in the amount of total fats (that is the fats in foods and the added fats and oils) available for human consumption. The variations can be related to a number of factors such as food habits, lifestyles or incomes. The fat intake tends to be higher in NM countries than in the south. The per capita supply of fat from animal foods has shown an upward trend in some of the NM countries (Fig. 10.4, Table 10.9), more pronounced in the industrialised countries. Rising incomes tend to encourage an increase in the availability and consumption of energy-dense high-fat diets that are characteristic of the fast food culture. Changes in the edible vegetable oil supply, in prices and in consumption patterns, affected both the NM and SM countries in the 1990s. A shift in the proportion of energy from fat over time and its relationship to increasing incomes has been observed (Guo et al, 2000) and is related to higher meat consumption.

**Table 10.9 - Trends in animal product consumption
in selected Mediterranean countries**

	Year of survey		Meat (kg/person)		Milk (kg/person)		Animal fat (kg/person)	
Egypt		2000		32.6		21.6		
France	1961	1999	28.6	26.2	220	265	28.8	39.6
Greece	1961	1999	5.1	22.3	101	257	9.5	20.8
Italy	1961	1999	14.6	25.6	145	261	12.0	25.4
Morocco	1973	1987	17.9	16.0	28.4	30.4	--	--
Portugal	1961	1999	6.4	16.8	62.0	207	8.6	28.0
Spain	1961	1999	6.0	14.0	83	165	14.5	23.0
Turkey	1977	1987	19.0	28.1	40.7	56.2	--	--

Source: Food and Health in Europe, WHO 2004. FAO Nutrition Country Profile.

**Figure 10.4 – Availability of fat (gm/day) in CIHEAM countries,
1999-2001**

Source: Figure based on data from FAOSTAT food balance sheet, 2001.

An equally important shift in the proportion of energy from added sugar in the diet of the SM countries is also a feature of the nutrition transition because of the trend for higher consumption of refined carbohydrates and sugars (Drewnowski and Popkin, 1997). The intake of saturated fatty acids is at or above 10% of total energy intake in the industrialised NM countries where the dietary fat from animal sources

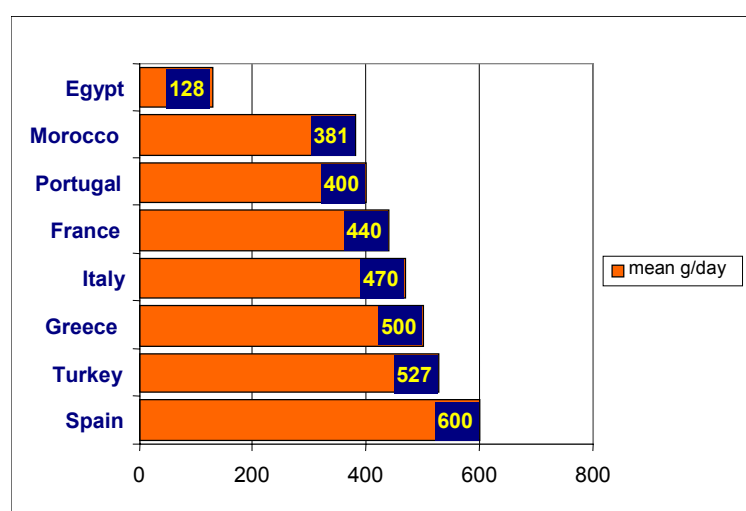
is higher than in the south. The increasing demand for animal protein is a feature shared by both NM and SM countries alike. It is recognised as a result of combination of population growth, rising incomes and urbanisation. The phenomenon, though present, may not be as generalised in the SM countries as it is in the north, being limited to those households with sufficient purchasing power. There is a strong positive relationship between the level of income and the consumption of meat, milk and eggs, which increases with increase in incomes at the expense of the staple food. It is this trend that represents a major deviation from one of the fundamental features of the traditional reference Mediterranean diet. The increase in meat consumption, though pronounced among the higher echelons of the society in SM countries, may not always be discernable in the overall per capita data. It is these privileged groups of the population that are at risk of excessive intakes of fats and meat. The environmental impact of the increasing demand for meat and of establishing intensive livestock production systems has not been estimated. However, it is expected to be high. The low energy conversion ratio from feed to meat and the land and water requirements for meat production are likely to become a major concern in countries of the SM where the reserve capacity of natural resources is low.

The availability and consumption of fish is also undergoing changes and is rather variable in the different Mediterranean. Inland and marine aquaculture has contributed to ensuring availability of supply in both the N and SM countries. The rise in prices and the dependence on the presence of a cold chain infrastructure are factors that affect the level of consumption in some of the SM countries. This results in unequal availability that privileges urban and higher income households and those living in proximity of the fish production source. The traditional dependence on fish among coastal populations continues to be observed.

The consumption of adequate quantities of fruits and vegetables plays an important role in maintaining the diversity and the nutritional quality of the diet. Traditionally, the reference Mediterranean diet is rich in fresh fruits and vegetables. However, the recent data from both the SM and NM countries show a downward trend below the recommended allowance of WHO/FAO of at least 400 gm. Among 8 of the CIHEAM countries, Egypt and Morocco, two SM countries show values less than 400 gm per day (figure 10.5). The decreasing in consumption of fruits and vegetables is becoming a persistent phenomenon and serious efforts are undertaken by some of the NM countries to reverse the trend, especially among children. It is only a small minority of the world's population that consumes the high average intake recommended by WHO/FAO in spite of the great increase in the vegetable availability recorded between 1980 and 1998 in most parts of the world. Though traditionally Mediterranean countries have been important producers and consumers of fruits, there is a current trend observed in some SM as well as NM countries for a decrease in the consumption of fruits and vegetables. The increase in urbanisation shared by both NM and SM countries is a challenge as it distances people from the primary food production source and negatively influences both availability and access in particular by the urban poor, to a varied

and nutritious diet with enough fruits and vegetables. It may seem contradictory but the same urbanisation may, for high income groups, increase their access to a diverse and varied diet though at a much higher cost. The preferred utilisation of peri-urban agricultural lands for horticulture, which is quite a lucrative business for farmers, is vital for guaranteeing a regular supply of fresh vegetables to towns and cities and maintaining the diversity of the diet. The factors underlying the occasionally observed trend of diminished intake of fresh green leafy vegetables among children in Egypt (Ibrahim et al 2003) is of concern to nutritionists. It is associated with the increase in the snacking and nibbling phenomenon and the fear of the risk of infection from the high level of pollution of irrigation waters.

**Figure 10.5 – Vegetable and fruit intake (mean g/day)
In selected CIHEAM countries**



Source: Figure developed by authors based on data derived from Food and Health in Europe, WHO, 2004 and FAO Nutrition Country Profiles.

10.5.3 - Monitoring food consumption trends

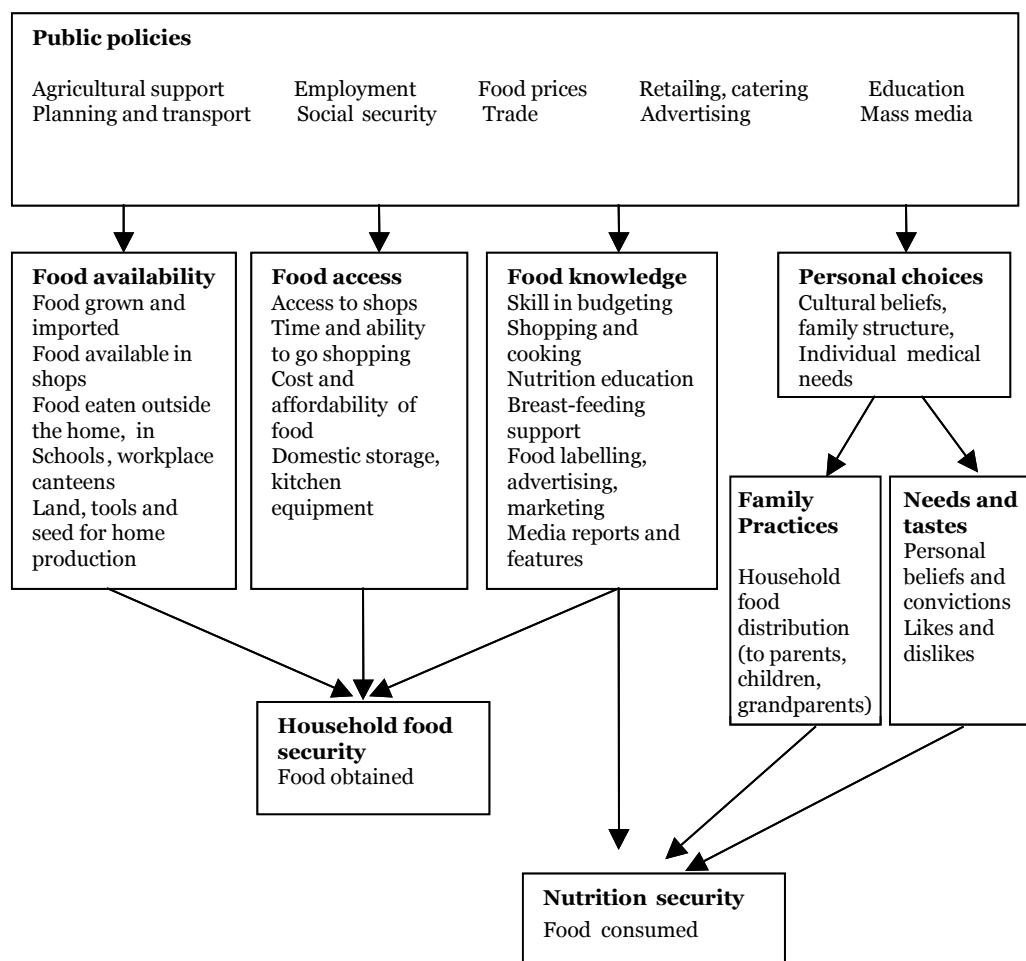
The need that is felt for measures to establish nutritional surveillance systems and for regular monitoring of food intake is a need that is shared by both the N and SM countries. The differences in the approaches used in nutritional surveillance and in the assessment of food intake has given rise to the FAO initiative to harmonise these approaches in consultation with the countries themselves (FAO 2002). Most of the N and SM countries undertake nutrition surveys that are either limited in time or in coverage. Problems mentioned in CIHEAM country reports and profiles refer to high costs and the lack of an adequate number of trained personnel.

Reporting on the period from 2000 to 2002, the recently established Nutritional Surveillance and Epidemiology Unit of the French Ministry of Health (USEN) focuses on the surveillance of risk factors and on public health measures to control identified risks (BEH 2003). A research group in Tunisia has undertaken extensive work with a view to identifying indicators to be used in nutritional surveillance in Tunisia (Padilla et al 2002). Working with a sample of 16 000 households, Ibrahim et al (2003) are in the final phase of a 12-year programme for developing a nationwide food consumption monitoring system in Egypt using the modified Food Intake Analysis System (FIAS).

11 Differences in food preferences between North and South as an explanation of food insecurity

Nutrition is coming to the fore as a major modifiable determinant of chronic disease, with scientific evidence increasingly supporting the view that alterations in diet have strong effects, both positive and negative, on health throughout life (WHO 2003). Most importantly, adjustments in food consumption behaviour may not only influence present health, but may determine whether or not an individual might develop such diseases as cancer, cardio-vascular disease and diabetes much later in life. However, the awareness of the gravity of the health and economic implications of these concepts is more evident in the industrialised northern Mediterranean countries than in the south. In the latter, they have not led to any significant change in policies or in practice. Food policies in these developing countries remain focused mainly on undernutrition and are not yet addressing the prevention of chronic disease.

Rapid changes in diets and lifestyles have occurred with industrialisation, economic development and market globalisation, which have accelerated over the past decade. With improvements in standards of living, food availability has expanded and become more diversified, and access to services has increased. There have also been significant negative consequences in terms of inappropriate dietary patterns (Popkin 1993). Food and food products have become commodities produced and traded on a market that has expanded from an essentially local base to an increasingly global one. Smil (2000) adds the globalisation of taste to the effects of growing international trade. Changes in the world food economy have contributed to shifting dietary patterns, for example, increased consumption of energy-dense diets that are high in fat, particularly saturated fat, and low in unrefined carbohydrates. These patterns are combined with a decline in energy expenditure that is associated with a sedentary lifestyle – motorised transport, labour-saving devices in the home, the phasing-out of physically demanding manual tasks at work, and leisure time that is preponderantly devoted to physically undemanding pastimes. Food consumption habits have also evolved in response to a set of determinants that range from public and macro-economic conditions to other determinants which have a direct impact on the consumer's behaviour (Fig. 11.1). A study discussing future strategies for the food industry predicts a growing consumer preference for convenience foods, since they meet the consumer's lifestyle and demand for convenience in terms of time-saving and skills and offer wider choice and greater location freedom. The analysis foresees the creation of a market of 'convenience-plus' to satisfy this well established demand.

Figure 11.1 - Influences on food choices

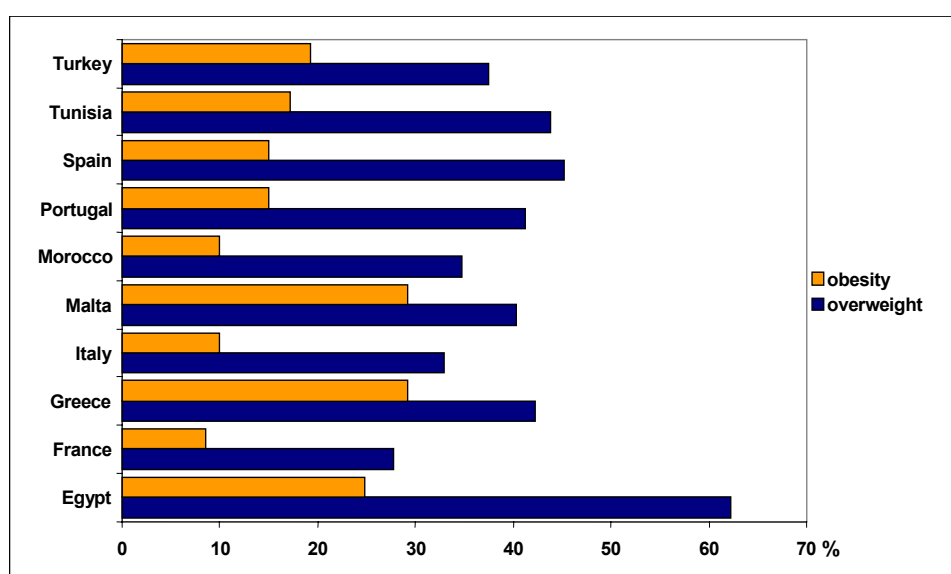
Source: Food and Health in Europe 2004.

11.1 - Obesity, a reflection of food consumption behaviour

Overweight and obesity are considered the biggest unrecognised public health problem in the world. They contribute substantively to both ill health and death in affected populations (Murray and Lopez 1996). Recent data suggest that certain European countries have some of the highest national rates of overweight and obesity among children (Lobstein et al. 2003) and adults. The prevalence of obesity is increasing in all age groups in most Mediterranean countries (Fig. 11.2 and 11.3).

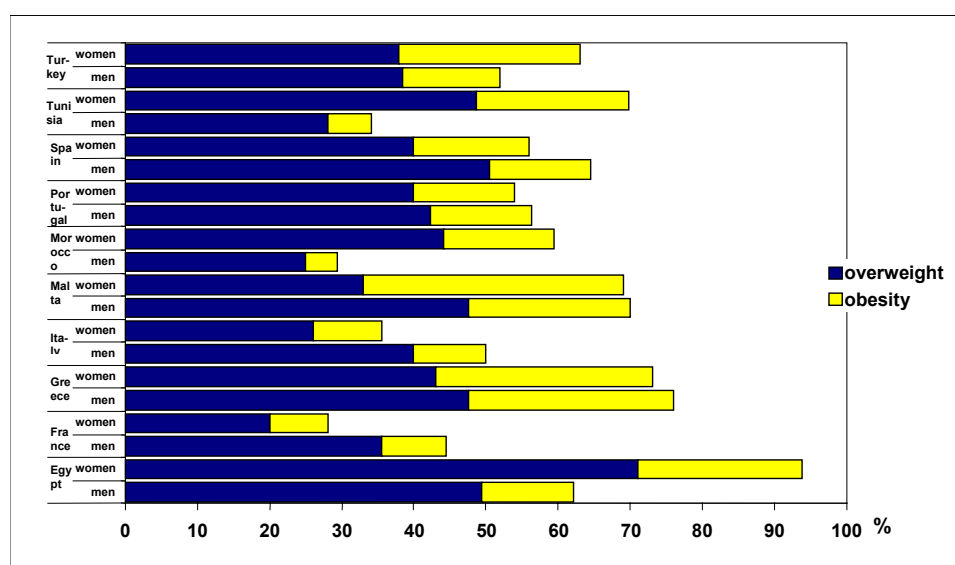
The trend of overweight is observed to be on the rise although the rate of increase may vary from one country to another. Obesity in children as reported in the UN Standing Committee on Nutrition is also on the increase (SCN 2004). It is not limited to affluent countries, but is also to be observed in developing countries, where it may co-exist with signs of undernourishment. In the North African Region, the percentage incidence of obesity among pre-schoolchildren (0-5 years of age) rose from 7.7% in 1995 to 11.7% in 2000 and is estimated to reach 17.4% in 2005.

Figure 11.2 – Percentage overweight (BMI = 25-29.9) and obesity (BMI = 30) in adults in some CIHEAM countries



Source: 5th report on the World Nutrition Situation, SCN 2004.

Figure 11.3 - Percentage overweight (BMI = 25-29.9) and obesity (BMI = 30) in men and women



Source: 5th report on the World Nutrition Situation, SCN 2004.

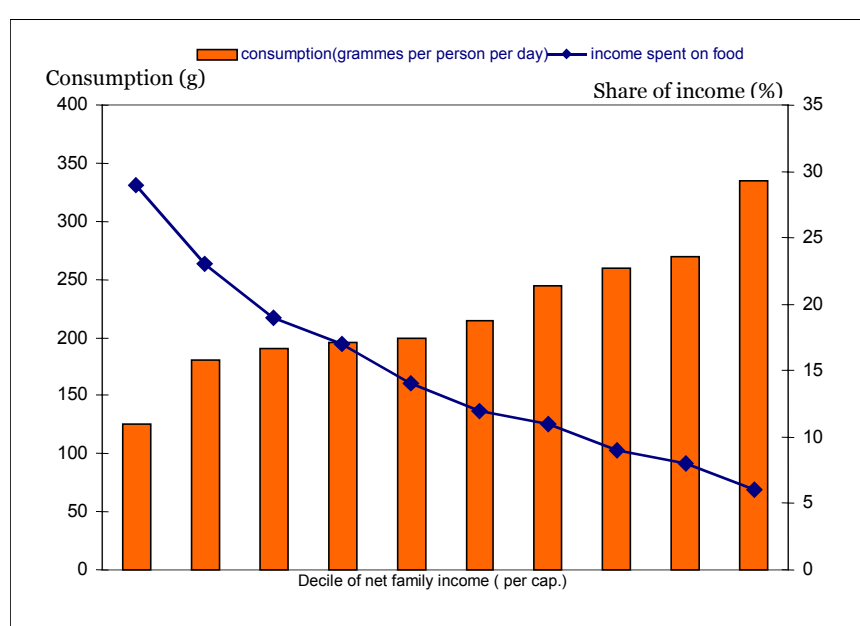
The prevention of obesity necessarily requires changes in consumption patterns which adopt a human life cycle approach, starting with child feeding practices up to adult eating habits and consumer behaviour. One such preventive measure is the call for restriction on school vending machines that provide students with ready access to energy-dense foods and soft drinks, and for increase in physical activity classes for all children and adolescents.

The influence on consumer behaviour and consumer preferences through food advertising is tremendous. Unfortunately the most advertised foods tended to be those high in fat and energy and low in micronutrients. In France, as in other countries, Borzekowski and Robinson (2001) noted that most advertisements are for food products and the vast majority of these are for foods high in sugar and /or fat. While the high cost of the health risks of obesity has been realised by most of the northern countries, the developing Mediterranean countries seem to be slow to react to this danger. The slow response of the nutrition and health communities may be influenced by the fact that the stigma against obesity is not as developed as in the NM countries. Even industry has also taken note of this widely spreading concern over the cost of obesity, and strategies to diffuse criticism and respond positively to a serious problem are reviewed in a study published by PROMAR International (2001).

11.2 - Fruit and vegetables, the healthy choice

The Mediterranean countries in both north and south show a higher intake of fruit and vegetables than in countries of northern Europe. Studies show that in low-income households, the intake of fruit and vegetables together with foods of animal origin are the first to suffer (Fig. 11.4). The share of expenditure on food among poor households is higher than that of richer households. It can amount to as much as three-quarters of the total income for poor households. Table 11.1 shows that for these low-income households fruit and vegetables are not a priority item on their shopping list (Ibrahim et al, 2003). The same trend was observed among poor rural households.

Figure 11.4 – Relationship of income to consumption of fresh fruit and vegetables and the share of income spent on food



Source: Food and Health in Europe 2004; CREDOC 2001.

**Table 11.1 - Typical food consumption structures
at varying income levels**

Annual per capita income US\$	Calories consumed per day	Composition of calorie supply
300	2 000	Two-thirds of calorie supply comes from root vegetables, pulses and cereals. Food is received raw and largely unprocessed.
3 000	3 000	Less than half of calorie supply comes from root vegetables, pulses and cereals. A large proportion of food is received in processed, prepared and packaged form.
30 000	3 400	Fish, meat, milk and eggs provide more calories than root vegetables, pulses and cereals combined. Services, convenience and customisation become important in food supply.

Source: Robbin S. Johnson, Food policy in APEC. Institute of International Economics, Special Report 9, Washington, October 1997. Cited in UNCTAD report TD/B/COM.1/EM.10/2, 1999.

Access and availability have been shown to be key factors in increasing consumption. Some of the barriers that have been identified (WHO 2004) as exerting negative influence on the consumption of adequate amounts of fruit and vegetables in European countries currently also seem to be exerting their influence in SM countries. Perishable fruit and vegetables do not always find a place on the shelves of the supermarket type of food outlets in SM countries, despite the growing popularity of this type of outlet. Technologies for optimising the display and prolonging the shelf life of fresh products are costly. Another issue influencing the marketing circuit for fresh fruit and vegetables and their availability could be the low importance attached by urban planners to preserving a peri-urban belt of horticulture fields and to equitable urban food distribution systems when designing new settlements and urbanisation projects. Their interest in the matter is observed to be variable and the whole issue is often perceived as unimportant and not progressive (WHO 2004). This is an issue that deserves follow-up in countries that are experiencing a rapid rate of urbanisation and the creation of new settlements. This is regarded as an issue of considerable importance, given the multiplicity of urbanisation projects in the SM countries for rehabilitating peri-urban slum areas – a widespread phenomenon – as part of the efforts deployed in the fight against poverty (HABITAT-Government of Morocco initiative to eliminate slums by 2010).

11.3 - The perceived importance of quality labels

In many of the SM countries, food labels are not yet developed nor fully applied. For ordinary regular food labels, not all countries possess the technical plateau and expertise allowing appropriate quality control for all food products. This situation is improving rapidly, however, following the trade agreements that the SM countries have signed with the EU. The weakness of the food regulatory system, which concentrates more on the larger urban centres and tourist sites, and the weakness of the consumer lobbies allows the food industry to claim what it likes on its labels. Traditionally, the experienced and discriminating consumer used to be able to easily recognise the origin and authenticity of products without resorting to an “accredited label”, since the system of quality labels has not yet been adopted in the SM countries. Interest in this field is just beginning, and initiatives to establish a system of labels of origin and of quality are under consideration in more than one of the southern and eastern Mediterranean countries. The experience of NM countries and the extent of the use that is made of the various quality labels as commented on in the literature for France, Italy, Portugal and Spain, shows that there is wide variation in the importance attached to such labels by consumers. The measure of popularity of the labelled product is reflected in the willingness to pay more for the quality and guarantee of its authenticity. At all events, the profile of consumers who seek and purchase quality products and are willing to pay a higher price sets them aside from the masses at least as being better educated and more affluent. It is in France that the labels are sought after, while Portuguese consumers are reported to show the least interest and to be reluctant to pay for a quality label. Wines and spirits are European products where labels of origin are usually appreciated by consumers.

11.4 - Consumer attitudes to branded food

The branded food market is reported by marketing consultants to be facing increasing pressure from a number of sources, the first on the list being the “fickle consumer” (PROMAR International 2001). Their response is to suggest ways and means through which the food and beverage industries can boost their products. Analysing the core drivers for change in the current global snack food environment, the global consumer is cited – as a force for change - alongside macro forces such as economic change and political influences. Strategies derived from a study of young Americans and their attitude to snack foods are offered to help industry succeed with these critical customers for whom snacking is a way of life.

The observed growth in the market share in NM countries for nutraceuticals draws on the strength of the growing consumer demand. The motivations behind consumer behaviour carefully monitored by producers, contribute towards shaping the development of this type of food product. These composite food products, which claim pharmaceutical attributes combined with nutritional value, are

becoming very popular with both young and old consumers, but they do not enjoy the same popularity in the SM countries.

11.5 - Urbanisation and food consumption patterns

The acceleration of urbanisation is more evident among SM countries than in NM countries, where the vast majority of the population is already living in urban areas. Urbanisation severs traditional extended family links and creates a new geographic, social and cultural environment that affects family structures and social cohesion. Urbanisation also means higher female participation in the work force with a shift away from traditional time-intensive food preparations towards precooked convenience food in the home or towards fast food and snacks for outside meals. Particularly for the urban dweller with limited income, the shift towards fast and convenience foods is also a shift away from fresh fruit and vegetables, pulses, potatoes and other root vegetables and tubers towards a much more sugary, salty, and fatty diet (Smil, 2000). It is also often a shift from a diet rich in fibre, minerals and vitamins towards one rich in energy, saturated fats and cholesterol.

Urbanisation also means more frequent eating outside the home, often under pressure of time and sometimes also under budgetary constraints. The fast food industry has catered for these constraints by providing fast access to cheap meals, take-away services or, alternatively, home delivery services. Fast food meals also satisfy other needs, most importantly the desire to eat a salt, sugar and fat-rich diet, an old, evolutionary desire to benefit from access to these formerly scarce resources. Fats and sugars also provide a desirable mouth feel and produce satisfactory satiety (Smil, 2000). Smil also underlines that the most popular items – hamburgers, pizza, fried chicken, doughnuts, quasi-Mexican dishes – draw more than 30% of their food energy from fats. In addition to the increased fat and sugar content, the size of the typical servings has substantially increased, resulting in energy supplies of up to 1200 Kcal per meal.

11.6 - Food markets and consumer preferences

The evolution in the food retail markets and distribution systems and the emergence of supermarkets in southern countries is at the heart of the remarkable changes in food consumption pattern. Where supermarkets have made such massive inroads into the food retailing system, they affect the entire food economy. They are crucial for farmers, since they determine quality and safety standards, packing and packaging, as well as payment practices. For consumers supermarkets often mean an abrupt change in available food supplies with mixed nutritional outcomes. Supermarkets often act as distribution channels for cheaper, unhealthy snacks and provide the platforms for fast food chains and junk food and are often instrumental in perpetuating unfair competition. In the SM countries the modern globalisation influences have not penetrated to the depth of rural areas and are

found to be limited to larger urban centres, only a few items filtering through to rural markets. The same happens with traditional foods, a number of which find their way on to the shelves of supermarkets. The co-existence of the two food systems, the traditional and the modern, enables households which are undergoing financial difficulties to revert to the purchase of less costly primary foods.

The present significance of the large-scale food retailing trade in Mediterranean countries must not be exaggerated, however. Where 2/3 of foodstuff sales are effected in the large-scale retail trade in the north, those effected in the large-scale retail trade in SM countries are still marginal, accounting for only 5% of sales. And only a population with high purchasing power can afford to shop there.

11.7 - Dependence on processed foods

The growing processing of foodstuffs is itself increasingly influencing food consumption patterns among urban and rural residents. The urban population is becoming more dependent on processed food than are rural residents. The almost universal shift to refined grain flour has a direct impact on nutrient intakes, particularly where wheat is the staple food, as is the case in Mediterranean countries. Many of the rural populations in the south are likely to consume not only higher levels of wheat but also much higher levels of white flour, which is largely devoid of the fibre, minerals and vitamins that the basic cereals contain. The role of food processing and food technology in the diet of rural residents of NM countries is different, being more sophisticated and using advanced technologies. Some processes can result in the modification of the nutritional value of foods and even the production of harmful agents. Vegetable oils, for instance, are important sources of essential fatty acids, but are as such not readily usable as ingredients for many sophisticated food products. Hydrogenation allows the transformation of fluid oils into margarine, but the same process turns valuable unsaturated fatty acids into non-essential fats and into potentially harmful trans fatty acids.

11.8 - Household income and consumer behaviour

Tight time constraints, coupled with an income pattern where wages are earned and spent daily, often compels the urban poor in SM countries to buy their food in small daily quantities from neighbourhood shops. This hand to mouth pattern leads to fragmented food systems and high per unit costs of food. Increase in incomes and in the opportunity cost of time, especially women's time, and exposure to advertising also result in a shift towards higher consumption of processed foods and street foods (Ruel et al 1998). Under comparable levels of income, urban diets tend to be more diversified than rural diets. The relatively high cost of traditional staples in urban areas, as well as the greater range of potential "substitute" foods, and the opportunity cost of women's preparation time are important determinants in the greater diversity of urban diets. Eating outside the home is an important

feature of urban consumption patterns. The health and nutritional consequences of this pattern – especially for young children – have not been fully investigated.

11.9 - Food prices in urban and rural settings

The food consumption pattern of rural populations depends not only on household purchasing power but also on a household's own production. In spite of this criterion, the limited coping strategies of rural residents compared to urban residents can adversely affect food intake. As the result of the liberalisation of the marketing of agricultural commodities in countries where it was previously state-controlled the need is now being felt for application of new price regulation mechanisms. This would serve to create a balance between the free market of the present and the centrally managed market of the past and also to maintain a balance between supply and demand. Market-based safety nets that target the poorer segments of the population – such as the measures applied in Egypt concerning food rations, subsidised foods and price control for certain staples – directly influences consumer choices limiting them to the subsidised or price-controlled foods.

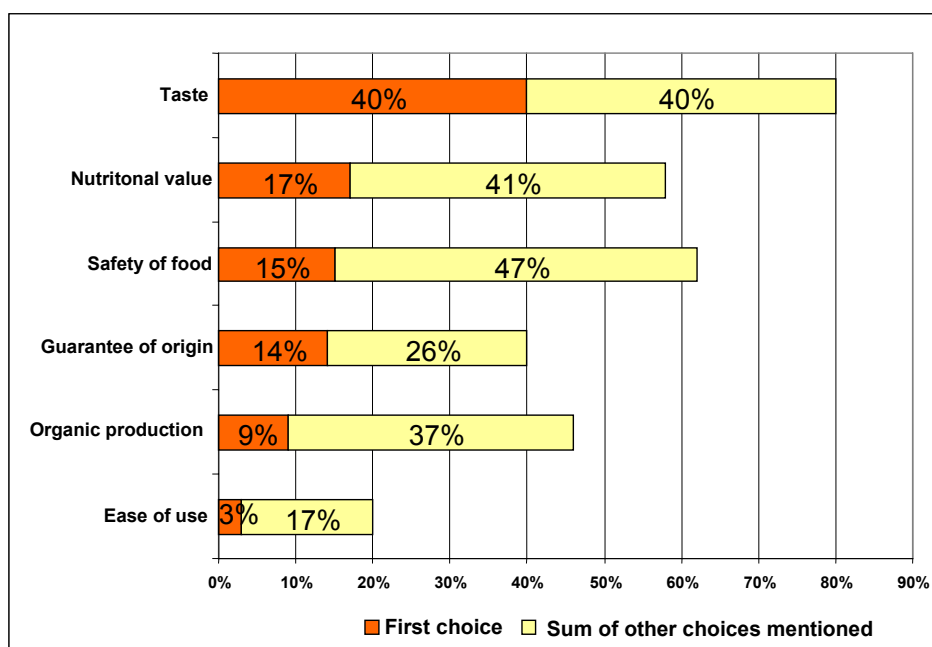
11.10 - The perception of food safety and quality by urban and rural consumers

Food safety is the assurance that food will not cause harm to the consumer when it is prepared and/or eaten. Evidence indicates that consumers' behaviour towards food safety is not an independent issue (Wilcock, A. et al 2001). Rather, it is linked to the consumers' demographic profile and socio-economic status, culture, personal preferences and experience. Behavioural differences also exist among urban and rural residents. In rural settings, the food producer and the consumer can have closer connections. There are fewer processed and packaged foods, most fresh food is traded in traditional markets, and street vendors supply much of the food consumed outside the home. Perishable food is prepared and consumed on demand and there is only limited storage of prepared foods.

Food safety concerns revolve around the use of untreated or partially treated waste water, use of sewage or manure on crops, the lack of appropriate transport and storage infrastructure (such as a functional cold chain), the limited coverage of the national food inspection system, the absence of clean water supplies, and the indiscriminate use of agricultural chemicals. Low consumer awareness associated with a relatively higher rate of illiteracy can explain the lower sensitivity of the rural consumer in some of the SM countries. A CREDOC study (Centre de Recherche pour l'Etude et l'Observation des Conditions de Vie Economique et sociale, France) of the relative importance attached by consumers to six food criteria placed food safety, expressed as the sanitary quality of foods, as the third quality sought by the

consumer in purchased foods (Fig. 11.5). The traditional rural consumer relates more to the freshness of food than to the modern coded safety criteria such as expiry dates and microbial contamination.

Figure 11.5 – Result of a survey of six food quality criteria by priority order of importance



In urban settings, food production and processing tend to occur on a larger scale at greater distances from the consumer, and commercial pressures succeed in reducing costs and increasing markets for the processed foods. Food safety problems tend to converge with economic development and wider and faster distribution networks. Public interest in the safety and quality of food is immense, and consumer lobby groups have increased pressure on governments to take greater responsibility for food protection. The fear of Bovine Spongiform Encephalopathy (BSE), the extensive illegal use of growth hormones, the outbreaks of *E.coli* O157, the extensive use of synthetic additives in food manufacturing and many other concerns have, to a certain extent, succeeded in shaking the confidence of the consumer in the food industry in general.

The HACCP concept (Hazard Analysis of Critical Control Points), which systematically identifies the areas in a processing operation in which safety problems can arise, institutes measures to ensure that control is exercised at these points. Although applied initially in larger-scale commercial food-processing

operations, HACCP principles are being applied increasingly throughout the food chain, from farm to table. Industrialised countries qualify for application of the HACCP system, although not all of them apply the full range of HACCP principles. In the SM countries, food safety systems are still at an early stage of development and are limited to a defined number of products and environments, mainly in urban settings.

Consumer concern about genetic food engineering are not uniform in CIHEAM countries. Food biotechnology has been a subject of public debate in Europe, while some of the SM countries remain comparatively calm as foods containing ingredients developed through biotechnology have begun to appear on the market. There seems to be much less concern about the consumption of genetically modified foods in rural settings.

Furthermore, according to economic theory, the demand for food safety is determined by the consumer's willingness to pay for safety guarantees (Fig. 11.5). On the other hand, the supply of safety is determined by the cost of producing safety incurred by profit-seeking firms. Thus, the market for food safety will be in equilibrium when the price consumers are willing to pay for enhanced safety is equal to the price at which suppliers are able to produce safety quality. Extrapolating from this, it is suggested that consumer demand for food safety is expected to increase when the gross production of a country (Gross Domestic Product, GDP) is increased, since the average consumer then has higher purchasing power. (Tangermann, S. 1986)

11.11 - Cultural considerations of consumer behaviour

Food, as an important part of a culture, serves an economic, social, ceremonial, and religious function. In many parts of the Mediterranean, food is used to cement social ties. In general, the sharing of food with others is an important social activity helping to increase social cohesion and cooperation. Foods often serve as an indicator of social class or act as status markers and are important gift items. Specific foods, and methods of food preparation, continue to be part of a country's (or a region's) cultural identity. However, along with religious practices, food habits are among the most resistant to change. They often act in a powerful way to build and/or maintain cultural identity, as is the case with the diet which is now recognised as the "Mediterranean diet" and which represents the dietary traditions of Corfu (Greece), Crete and southern Italy. The use of food to preserve cultural identity is of particular importance to ethnic groups living in the Mediterranean basin, hence their deep concern for protection of their labels of origin and of authenticity.

Communities living around the Mediterranean all share a strong attachment to tradition and to religious ritual. Through the ages, they have transmitted culinary traditions which they have inherited from their forefathers and which are

associated with a variety of feasts, celebrations or religious rituals. This attachment continues to this day for most communities, whether urban or rural. Even modern households continue to observe these occasions. This creates a demand for the associated traditional foods, which the food industry and food suppliers continue to make available. Foods that satisfy certain religious specifications such as kosher foods are available on the market for the respective communities all year round. Although it can be said that traditional foods still retain their place on the food market, there appears to be a tug of war between the new modern easy-to-prepare foods and the traditional foods; the latter are sensitive to consumer demand and are finding their way with difficulty into modern food markets. Turkey can be cited here as an example where traditional foods have found their place in western style food markets. In this age of travel and intercultural exchange, the issue is whether the new generations who are being exposed less and less to traditional food but are familiar with diets of several other cultures, will bear the torch of tradition and continue to act as perpetuators of their original culinary practices. Conversely, this role of perpetuator of food culture and tradition may be relayed by the food industry and food trade to satisfy the international consumer demand for Mediterranean types of food, in recognition of the intrinsic value of the Mediterranean diet.

12 What will become of the Mediterranean diet in the future?

12.1 - What are the quantitative prospects from now until 2025?

What will be the levels of consumption and what forms will consumption take in the long term (by 2025)? This important but extremely difficult question requires that thought first be devoted to this type of exercise.

We refer to the excellent work of McCalla and Revoredo (2001), who have drawn up a critical assessment of the various projections and forecasts on food security made by numerous international organisations and development agencies in the last 50 years. We would explain that a projection is a quantitative estimate generally based on a model, whereas a forecast is a qualitative projection based on expert opinion. We shall endeavour to make such a forecast in the present chapter.

Numerous projections (about 30) have been made by the Food and Agriculture Organisation of the United Nations (FAO), the US Department of Agriculture (USDA), the World Bank, the International Food Policy Research Institute (IFPRI), and the Food and Agriculture Policy Research Institute (FAPRI).

The results of these projections must be viewed with great caution, since, although projections at the global level are satisfactory with discrepancies of only around 5% compared to real figures, this result is a combination of major underestimations and overestimations at the regional level of the order of 25 to 30%! So just how reliable are these regional forecasts? Furthermore, it is very difficult to compare the figures, since the data sources are different and the variables included in the model, the reference periods and the agricultural commodities and foodstuffs included in the calculations do not come under the same nomenclature; most of them only deal with cereals and with separate units: grains, cereal equivalent, calories, etc. And finally, in most cases the geographical aggregates are unsuitable for comparison. The Mediterranean region never appears as such, for instance; the northern Mediterranean is included in Western Europe, North Africa is included in the main African continent, and the Near and Middle East and Turkey are included in Asia. The results are thus totally unusable for purposes of Mediterranean comparison.

By way of summary, let us examine the margins of error in the consumption projections compared to real figures in the regions including part of the Mediterranean.

Table 12.1 - Discrepancies in wheat consumption projections compared to real figures (in %)

	FAO				
	1963/1970	1967/1975	1971/1980	1979/1985	1986/1990
Near East	- 12,1	- 49,1	- 28,0	- 17,5	- 1,0
Western Europe	- 7,7	+ 20,0	+ 8,1	- 16,0	- 7,4
	USDA				
	1961/1966	1964/1970	1971/1980	1978/1985	1997/2000
North Africa and Near East	- 6,0	- 3,7	- 18,1	- 9,7	- 20,4
Western Europe	- 5,3	- 19,2	- 8,1	- 11,6	
	World Bank				
					1993/2000
North Africa and Near East					+ 17,3

Note: The most optimistic forecasts are presented here.

Source: McCalla, Revoredo, IFPRI, 2001.

Demand modellisation exercises are relatively unsophisticated compared to production models. Generally only population and income trends are taken into account, and sometimes also commodity price trends. . But the changes connected with income distribution and the preferences of individual populations are never mentioned. The forecasts are generally forecasts of food availability rather than of real consumption; they thus reflect the evolution of production and trade. It would be useful to carry out an extensive and thorough examination of these issues in the Mediterranean region.

We have endeavoured to make several consumption forecasts ourselves taking account of past trends and of our capacity as experts on long-term consumption trends in various development contexts (Padilla, 2002).

Table 12.2 - Consumption forecasts in 2025 by Mediterranean subregion (in Kcalories/capita/day)

	North	South	Balkans
Cereals, root vegetables	1040	1600	1200
Fruit and vegetables	240	260	180
Legumes	30	100	50
Fish	55	25	10
Meat	460	160	410
Milk and milk derivatives	360	145	360
Fats	1020	615	600
Sugar	360	450	390
Total	3565	3355	3200

Source: Our calculations based on FAO figures.

The northern Mediterranean countries will have achieved food satiety in terms of both food intake and intake structure. On the basis of what is known of the relative trends in the various products once this stage of satiety has been reached, simple projections must be extensively reviewed: cereal consumption should grow to return to the level recorded in the 1980s; meat consumption should drop, also to the level of the 1980s; the level of consumption of fruit and vegetables, oils, milk and milk derivatives, which is already high, could rise further but at a lower rate; and finally, legumes will have difficulty in overcoming their image as outdated foods, and the consumption of fish, a rare and expensive foodstuff, will not develop to the extent recommended by nutritionists.

The southern Mediterranean countries will have got over the maturity hurdle of developing countries, and, if economic conditions allow, will embark on the course of societies of food satiety; they will already have reached the global level, but not the structure, of food satiety by 2005. It can thus be reasonably argued that all of the simple projections will prove correct with the exception of cereals, where there should be a considerable decrease in consumption back to the level of the 1970s, i.e. around 1500-1600 calories/capita/day. This would result in a food intake of around 3 350 calories.

In the case of the Balkan countries, if one considers that the next 20 years will be used to restore political stability and a certain degree of economic growth, this would mean that the consumption level for most commodities could return to more or less the level recorded in 1990! Cereals, root vegetables and tubers, which provided almost 2000 calories of the food intake in these countries in the 1960s, now only provide half of that intake, and a further sharp downward trend is forecast. It would seem unlikely that consumption will continue to drop the way it has done in the past 10 years, otherwise the situation would become extremely alarming in this region of the world. We are thus banking optimistically on slow recovery, which would mean that reasonable consumption levels of around 3200 calories per capita per day could be reached in 20 years.

The consumption trends that are forecast will speed up food transition and epidemiological transition. The Mediterranean countries will very soon find themselves in a pattern similar to that of the northern countries in terms of health with the well-known consequences concerning the social cost of such a pattern. There is bound to be a sharp increase in cardiovascular disease, cancer, diabetes and obesity, with the ensuing consequences concerning the cost of treating these diseases, the increase in mortality and the decrease in human productivity.

12.2 - Possible scenarios

Several scenarios can be imagined at this stage with regard to the evolution of societies and diet in the Mediterranean regions. Either globalisation will convey the dominant image of the diet of western countries and local economic conditions will provide access to it (hypothesis 1). Or people will return to a sensible or careful diet, as the result of either economic constraints or enlightened consumer intention (hypothesis 2). Or, lastly, an international movement imitating the traditional Mediterranean diet will be observed (hypothesis 3).

Hypothesis 1: imitation of the northern countries

This hypothesis is very similar to the analysis we made above. Our point of departure was the principle that the countries were following international evolutive trends. In this case, the Mediterranean countries would be faced to a large extent with growing qualitative food insecurity.

Hypothesis 2: the return to a sensible or careful diet

The dominant consumption pattern of a population depends on the interplay of the actors in society who or which convey messages relating to a consumption ideal. Scientists can thus disseminate information as their scientific knowledge advances and can influence consumers and public authorities in their policies and regulations. Consumer associations and representatives of civil society ensure that consumers are educated and informed and that food safety rules are applied. The public authorities have a duty to protect consumers by means of quality regulations, measures to provide information, and health controls. They can support certain eating patterns by implementing a food policy (issuing recommendations, granting subsidies, taxing products, etc, as is the case in the Maghreb) or a nutrition policy (issuing recommendations, exerting pressure on lobbies, as has been the case in Spain and now in France). And lastly, the agents in the agro-food chain must not be forgotten (processing enterprises, distributors, caterers); these agents have clear strategies for expanding their market share and creating value added for economic purposes, and they try to influence consumer choice through advertising, by adapting to consumer needs or by attracting consumers.

Following nutritionists' dietary recommendations for a "sensible and healthy" diet, consumer trends in the society of satiety would have to be anticipated rapidly: acceleration in the consumption of cereals, legumes, fruit and vegetables, increase in the consumption of milk derivatives and fish, and a sharp decrease in meat consumption. The only divergences from this pattern would concern fats and sugar, where consumption should drop rather than increase. We would thus be very close to the "Mediterranean ideal" similar to the Cretan ideal of the 1970s.

This would be bound to result in much less pressure on arable land and acreage under crop in that it is animal products which are mainly responsible for this constraint. On the other hand, however, the question of pressure on aquatic resources would arise. Fish farms could of course be promoted, but the pollution they cause with their current management methods is well-known. Research on the management of fish farm effluents will thus be necessary. Furthermore, although the consumption of fruit and vegetables is undeniably very healthy, the production of these commodities requires the availability of large quantities of water, particularly if they are grown in greenhouses. Here again, it will be imperative to research ways and means of economising water in the production of this type of crop. On the other hand, the food security of the populations would be better assured in both quantitative and qualitative terms.

Hypothesis 3: the spread of the Mediterranean diet throughout the world

Man is a social animal, and diet is a vector of social and cultural identity. It is an established fact that people imitate one another within a given society and also imitate other societies; this allows the consumption pattern to spread, and the "dominated" imitate the "dominators". In the 1970s and 1980s, American food was regarded as a model, and this led to drastic changes in eating habits in the Mediterranean region. This rapid change in eating habits accelerated after the Mediterranean countries' accession to the European Union. It can be hoped, however, that the trend will be reversed as the result of the international dissemination-imitation phenomenon, which is tending to rehabilitate, and even to promote, Mediterranean eating patterns on a large scale. For at the instigation of the medical profession, the Anglo-Saxon countries have stepped up information campaigns in which the Mediterranean diet is presented as a desirable model. The Americans, the British and the Australians have included the Mediterranean pyramid in their official dietary recommendations. The "Mediterranean Diet Pyramid" has been designed by the Harvard School of Public Health, the WHO and the Oldways Preservation & Exchange Trust as an alternative to the Food Guide Pyramid". It aims to boost the consumption of specific commodities and encourages both ethnic and product diversity. The recommendations made by these institutions are based on the diet typical of Crete and southern Italy in the 1960s and 1970s.

It may seem paradoxical, but it is through the northern countries that the Mediterranean model is now regaining lost ground. There is every indication that the Mediterranean diet is becoming a veritable social phenomenon. A large number of major agro-food enterprises – even McDonald's, the champion of dietary uniformity – are using the Mediterranean image.

There have been recent signs of the same phenomenon of appropriating an image and a lifestyle in the southern Mediterranean countries. It currently serves to justify dietary models that have low animal protein content and are too rich in carbohydrates. This can be a danger for these countries in that only the

"Mediterranean" image remains and the fact that the southern Mediterranean diet has never been considered to be a "model" in nutritional terms is completely overlooked.

Contrary to the situation currently depicted, the Mediterranean diet still persists in the Mediterranean region and consumers are even returning to it with adaptations connected with their new lifestyle and new consumer expectations: simplification of meals, inclusion of less fats, less meat and less sugar, diversification of the culinary repertoire through the introduction of new dishes, which are often of Mediterranean origin. Food is still an issue of importance.

If the spread of the Mediterranean diet is confirmed, several options are possible:

- Consumers are very concerned about the territory of the production zone and demand products of Mediterranean origin. This would constitute a tremendous market, but then it would be very tempting to intensify production in order to create wealth – with the exhaustion of local soil and water resources that this would entail. It is a well-known fact, moreover, that excessive intensification deteriorates the intrinsic quality of commodities.
- Consumers set great store by the structure of the Mediterranean diet, the wide diversity of foodstuffs and the combination of foods. In which case the origin of production is of little importance, and some producers can embark on the production of new products to satisfy demand. This is how olive-growing flourished in the United States and in Australia. Fruit crops can emerge and vegetable production can develop, even if the crops are grown in glasshouses, and legume production can also progress; fish farms multiply. The rest of the world can soon become a serious competitor of the Mediterranean region.
- Consumers are very concerned about product authenticity and specificity. Mediterranean industrialists and craftsmen will thus have to get organised rapidly in order to protect their know-how, recipes and specific products by means of patents and labels. For the agro-food multinationals are always on the lookout for any market niche to increase turnover, and they use the Mediterranean image to create a market, appropriating the typical recipes of the region.

Conclusion : Preserving Mediterranean dietary systems for food security

What is important for those Mediterranean countries whose dietary traditions have survived the aggressions of modernity is to initiate serious and structured action to ensure that traditional foods “survive” while at the same time acknowledging the realities of the modern context and the demands of a modern lifestyle. This will help to preserve the basic structure of the diet and its components and will thus guarantee continuity in the valuable nutritional qualities of a traditional food system that has stood the test of time. A number of measures need to be taken to support such an initiative in several domains across the food chain, from the producer to the market. Adapting recipes in order to shorten preparation time is just as important as ensuring the continued availability of traditional foods and researching the best form in which they can be placed and accepted on modern food retail markets.

Due to continuing demand, a number of such traditional products have found their way into modern markets. One example is parboiled crushed wheat fermented in milk using an ancient traditional method, which – except for certain regional differences regarding details - is common to Egypt and the eastern Mediterranean countries. It is now being produced commercially in several final forms including an instant powder. In this respect, the fact that the extension of protection of designation of origin to WTO members was included in the Doha Conference Declaration marks the first strategic step towards protecting traditional and typical products of the Mediterranean region (De Castro P. 2002). This will ensure that the quality of traditional foods is maintained, discourage fraud and build up the products’ prestige value, the lack of which is one of the reasons why indigenous people are turning away from them to more attractive western style foods.

Introducing traditional foods in mass catering in institutions, schools, or hospitals can break the confinement of traditional foods to the privacy of the home. It is interesting to note that, although the tourist industry has successfully drawn on traditional foods, the various institutions in the SM countries seem to prefer to adopt western menus in their meal planning.

The preservation of traditional menus, dishes and various foods associated among the Muslim populations with the fasting month of Ramadan, in particular in the SM countries, is a factor which helps to preserve the culinary tradition associated with Ramadan. Attachment to these eating patterns is so strong that despite the significant increase in the cost of the foods traditionally consumed during Ramadan, households with limited purchasing power make an extra effort and allocate a larger budget to their meals during that month.

Will the Mediterranean peoples' attachment to their food culture save them in the end from the ill effects of the food transition that is already well underway? Whereas quantitative food security seems to be virtually ensured throughout the region, qualitative food security is an issue as yet unresolved; it is no doubt connected with consumer choices, but also with the non-involvement of actors in the food chain and the public authorities. It would seem to be imperative to implement coherent multisectoral policies if the food security of the populations is to be an objective in Mediterranean societies.

PART IV

Indicators of agricultural and food development in the Mediterranean countries

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13.1 - Introduction

This statistical section contains a short presentation of the main indicators of agricultural and food development in Mediterranean countries.

The data relate to demographic and economic aspects, resources and production means, consumption, and international trade.

In view of the fact that few data are available in several countries in the region, in order to ensure comparability we have deliberately limited our data to the indicators most frequently used for population growth, urbanisation, aggregate economic growth and growth agriculture, food consumption and international trade.

13.2 - Notes on methodology

13.2.1 - Data source

The agricultural statistics (land use, production, trade) have been drawn from the United Nations Food and Agriculture Organisation (FAO).

They are collected from the official bodies in the various countries and completed where necessary by estimates made by the FAO on the basis of provisional or unofficial information.

The macroeconomic information concerning population, national accounts, world trade, etc. have been drawn either from the United Nations series of statistics which are published in various yearbooks (statistical yearbooks, yearbooks of national accounts, population yearbooks, yearbooks of international trade) or from World Bank or IMF publications.

13.2.2 – Table of indicators

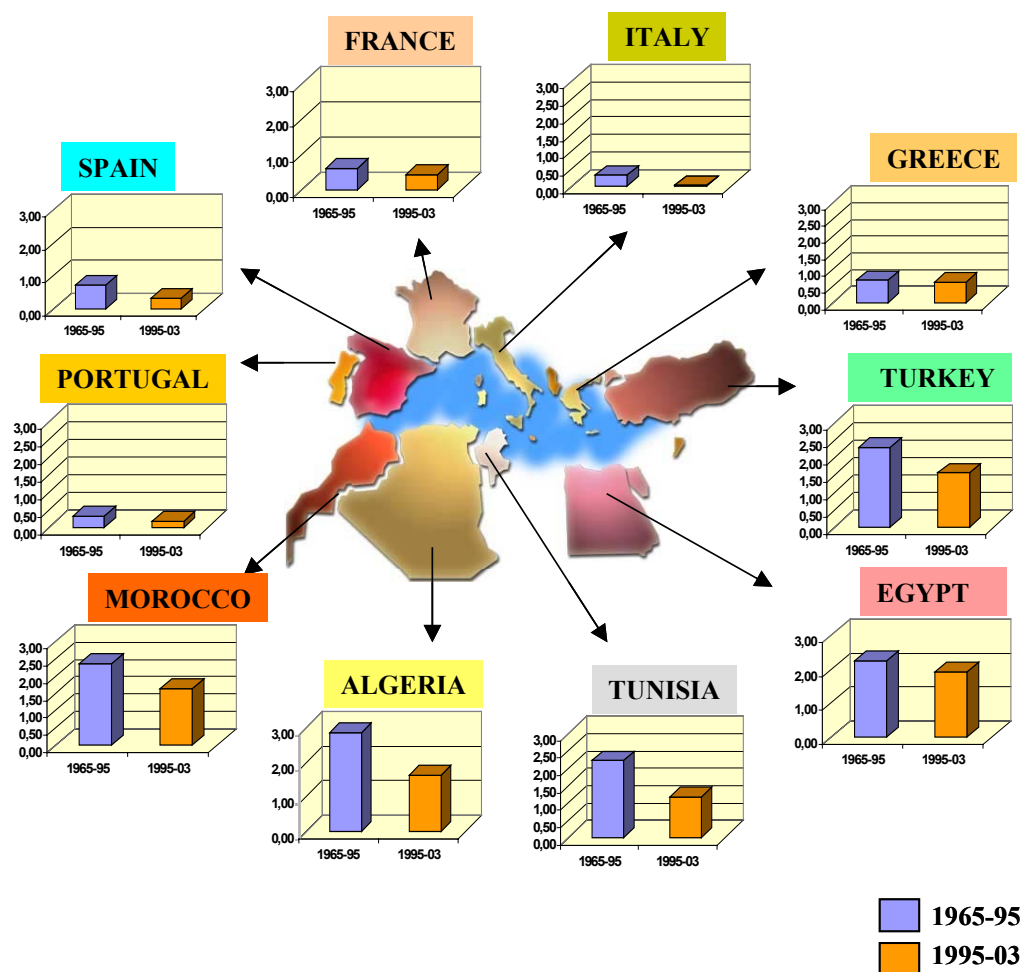
Table 13.1 - Population, demographic growth, urbanisation, agriculture ratio of employment. 2003

Country	Tot.pop.	Growth rate.	Urb.pop./ Tot.pop.	Rur.pop./ Tot.pop.	Agr.pop./ Tot.pop.	ALF/ TLF	Inhtts/ A.E.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	mns htts	%	%	%	%	%	
	2003	1965-03	2003				
Albania	3,17	1,40	43,3	56,7	46,3	46,3	4,2
Algeria	31,80	2,62	58,7	41,3	23,2	23,6	11,7
Egypt	71,93	2,19	42,0	58,0	34,7	31,5	8,4
France	60,14	0,55	76,2	23,8	2,9	2,9	77,0
Greece	10,98	0,66	61,1	38,9	12,1	15,2	15,0
Italy	57,42	0,26	67,5	32,5	4,6	4,6	49,6
Lebanon	3,65	1,40	87,9	12,1	3,0	3,1	87,0
Malta	0,39	0,68	91,9	8,1	1,5	1,3	197,0
Morocco	30,57	2,21	57,4	42,6	34,2	33,8	7,1
Portugal	10,06	0,29	54,3	45,7	13,0	11,5	17,1
Spain	41,06	0,65	76,5	23,5	6,3	6,3	35,2
Tunisia	9,83	2,00	63,5	36,5	23,5	23,5	10,2
Turkey	71,33	2,13	66,1	33,9	28,9	44,1	4,8

- (1) Total population in millions of inhabitants
- (2) Average annual demographic growth rate in period 1965-03 (%)
- (3) Part of urban population in the total population (%)
- (4) Part of the rural population in the total population (%)
- (5) Part of the agricultural population in the total population (%)
- (6) Part of the agricultural labour force in the total labour force (%)
- (7) Number of inhabitants per agricultural employee

Source: Medagri 2005, our calculations based on FAO data.

Figure 13.1 – Demographic growth (%)



Source: Observatoire Méditerranéen, CIHEAM. www.medobs.org

Table 13.2 – Gross domestic product, economic growth, agriculture ratio to the GDP

Country	GDP	GDP/ inhtts	Exchange rate *	GDP Growth rate.	AGDP/ GDP	AGDP/ Agr.E.
	mns \$	\$	MU p 1 \$	%	%	\$
	2003	2003	2003	2003	2003	
	(1)	(2)	(3)	(4)	(5)	(6)
Albania	6124	1934	121,86	6,00	25,3	1593
Algeria	65993	2049	77,39	6,84	11,1	2641
Egypt	82427	938	6,153	3,20	16,1	1275
France	1747973	29247	0,886	0,10	2,0	45089
Greece	173045	15784	0,886	4,70	6,0	14277
Italy	1465895	25570	0,886	0,30	2,4	30099
Lebanon	19000	5201	1507,5	2,70	12,2	
Malta	-	11536	0,3767	-	1,6	
Morocco	44491	1431	9,574	5,50	18,3	1872
Portugal	149454	14633	0,886	-0,80	3,3	8237
Spain	836100	20424	0,886	2,40	3,6	26052
Tunisia	24282	2546	1,288	5,50	12,9	3336
Turkey	237972	2573	1500885	5,79	13,4	1662

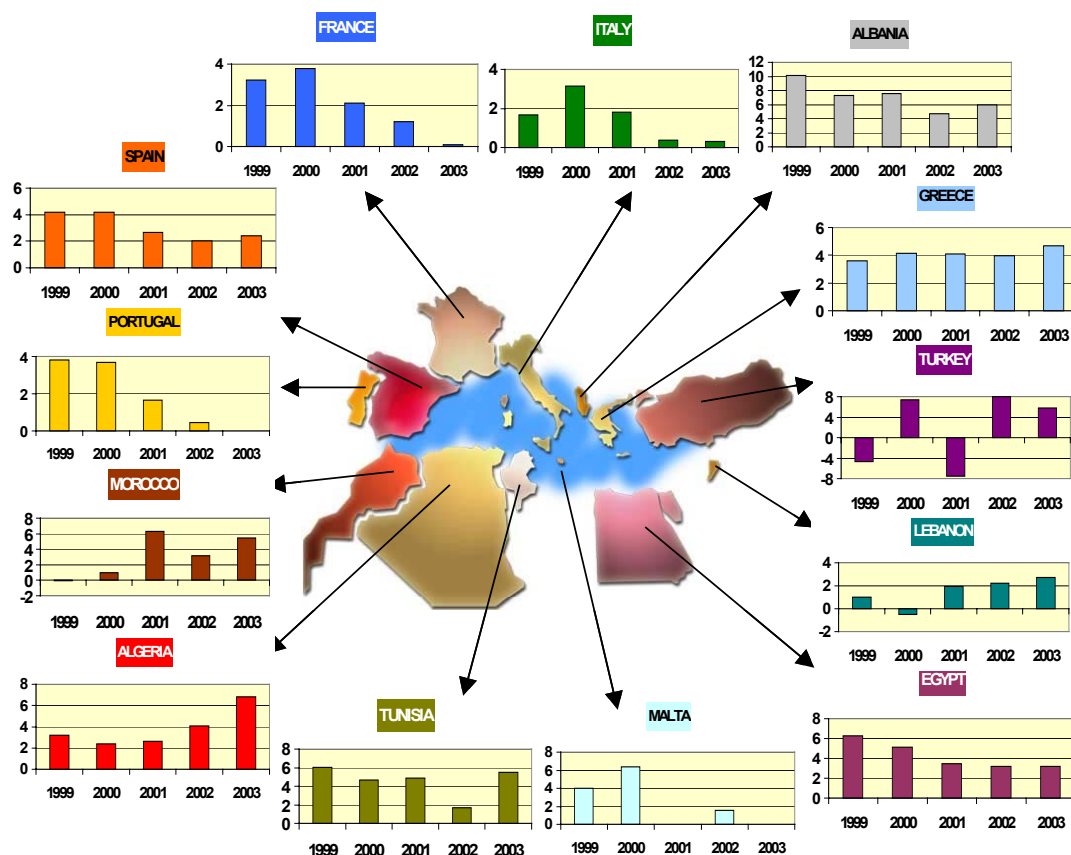
- (1) Gross Domestic Product in millions of \$ US. 2003
 (2) Gross Domestic Product per inhabitant in \$ US. 2003
 (3) Exchange rate. Local monetary unit per 1 \$ US. 2003
 (4) Average annual growth rate of GDP (%). 2003
 (5) Part of agricultural GDP in the total GDP (%). 2003
 (6) Agricultural GDP per agricultural employee (1 \$ US). 2003

* Euros per 1 \$ US in Spain, France, Greece, Italy and Portugal

* MU per 1 \$ = national monetary unit per 1 US dollar

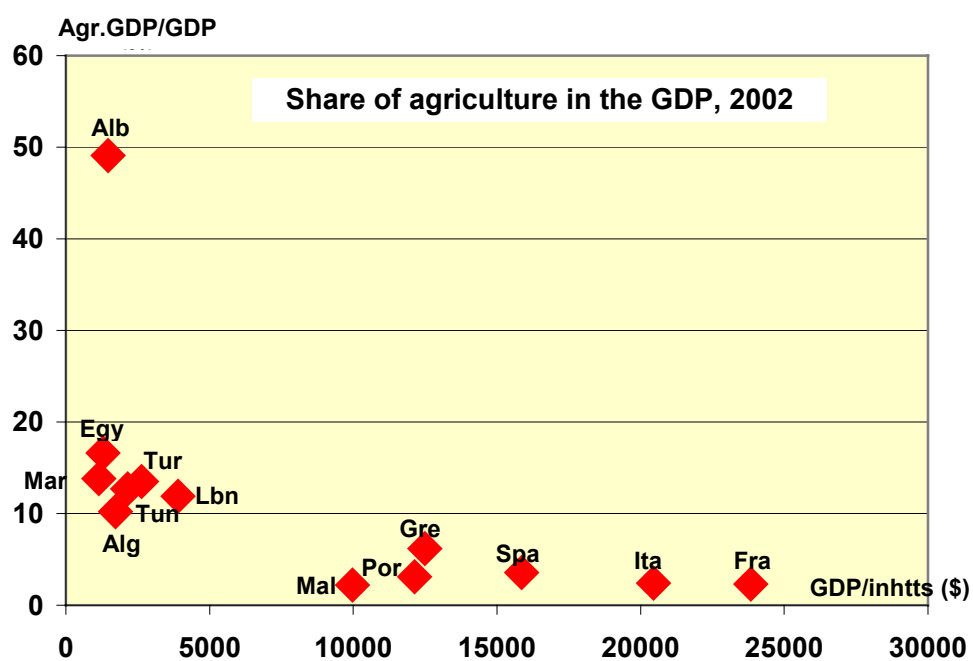
Source: Medagri 2005. Our calculations based on FAO data. World bank. IMF and National data.

Figure 13.2 – Economic growth. Annual growth rate of GDP 2003 (%)



Source: Observatoire Méditerranéen, CIHEAM. www.medobs.org

Figure 13.3 – Agriculture in the economy, 2002



Source: Observatoire Méditerranéen, CIHEAM. www.medobs.org

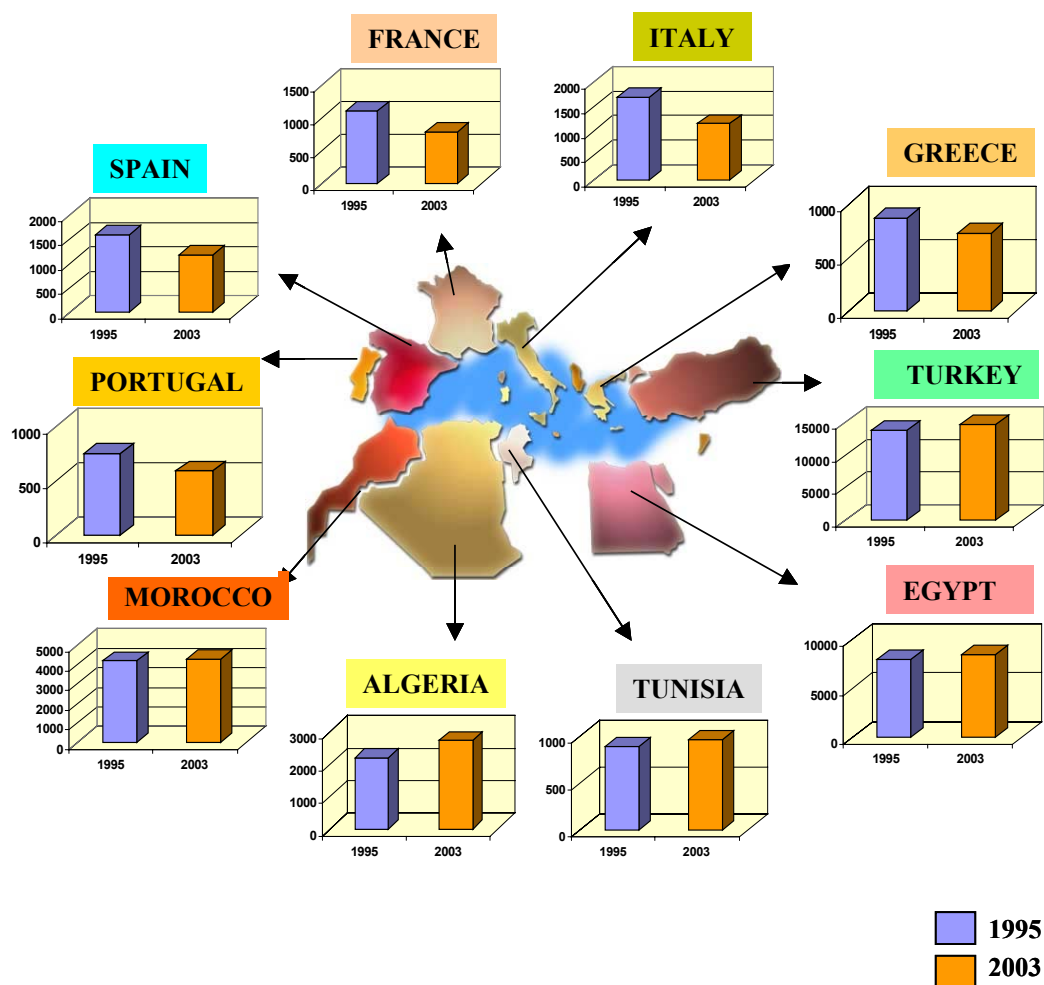
Table 13.3 – Cultivated areas. irrigated areas. means of production. 2002

Country	Arable land. perm.crops. 1000 ha	Cult.Land 1000 hts ha	Cult.Land/ Agr.E ha	Irrig.Land/ Cult.Land %	Cult.Land/ tract ha/tract.	Fert/ Cult.Land kg/ha
	(1)	(2)	(3)	(4)	(5)	(6)
Albania	699	223	0,9	49	88	51
Algeria	8265	264	3,1	7	85	12
Egypt	3400	48	0,4	100	38	373
France	19583	327	23,9	13	15	203
Greece	3846	351	5,1	37	15	105
Italy	11064	192	9,1	25	7	129
Lebanon	313	87	7,3	33	38	126
Malta	10	25	5,0	20	20	70
Morocco	9283	309	2,2	14	189	43
Portugal	2705	269	4,4	24	16	77
Spain	18715	457	15,3	20	20	115
Tunisia	4908	505	5,1	8	140	21
Turkey	28523	406	1,9	18	29	61

- (1) Arable land and permanent crops. 1000 ha
- (2) Cultivated land per inhabitant. ha
- (3) Cultivated land per agricultural employee. ha
- (4) Part of irrigated land in the cultivated land. %
- (5) Cultivated land per tractor. ha
- (6) Fertilizers per hectare. kg

Source: Medagri 2005. Our calculations based on FAO data.

Figure 13.4 – Agricultural labour force (1000 inhabitants)



Source: Observatoire Méditerranéen, CIHEAM. www.medobs.org

Table 13.4 – Main agricultural products. 2003

Country	Cereals	Vegetables	Fruit	Milk	Meat	Sugar	Olive oil
	1000 T						
Albania	507	664	156	1030	75	3	1
Algeria	4227	2924	1691	1523	553		45
Egypt	19231	14115	7408	4085	1445	1500	
France	54925	8641	9730	25423	6516	4282	4
Greece	4286	3862	4124	1940	484	223	367
Italy	18113	15150	15728	12042	4224	978	550
Lebanon	144	888	810	245	203		5
Malta	12	51	7	47	20		
Morocco	7963	4078	2681	1315	598	515	60
Portugal	1134	2230	1817	2229	717	56	29
Spain	21411	11846	17071	6917	5442	994	1330
Tunisia	1503	2092	1009	990	250		60
Turkey	30798	25672	11200	8160	1348	1875	70

Source: Based on FAO data.

Table 13.5 – Growth rate of agricultural products. 2003

Country	Cereals	Vegetables	Fruit	Milk	Meat*	Sugar	Olive oil
	%						
Albania	-2,27	0,45	0,00	1,98	4,74	0,00	0,00
Algeria	116,41	-0,02	-0,99	1,67	0,91		0,00
Egypt	0,35	0,00	0,00	0,00	0,21	0,00	
France	-21,16	-3,08	-8,92	-2,18	-0,09	-16,68	0,00
Greece	-10,67	3,59	7,57	-2,54	-1,83	-30,53	-1,00
Italy	-15,75	7,03	-2,17	-2,92	0,97	-36,16	-4,34
Lebanon	2,86	3,82	-0,37	-0,37	2,65		0,00
Malta	-0,85	4,12	1,02	-4,38	-0,46		
Morocco	50,45	1,45	8,37	1,08	-3,24	18,94	0,00
Portugal	-25,01	0,25	-10,04	2,73	-0,57	-13,78	-4,92
Spain	-1,24	0,19	8,41	0,19	3,68	-24,24	56,41
Tunisia	191,05	-0,43	0,67	0,00	0,48		100,00
Turkey	-0,08	-0,67	5,82	-2,96	-1,99	-11,14	-56,25

* Meat = bovine meat + ovine meat + poultry meat

Source: Medagri 2005. Our calculations based on FAO data.

Table 13.6 – Food consumption. 2002 (kg/capita /yr)

Country	Cereals	Root	Sugar	Pulses	Vegetables	Fruit
	(1)	(2)	(3)	(4)	(5)	(6)
Albania	164,5	32,1	26,8	5,3	172,3	82,3
Algeria	217,3	41,1	30,6	6,1	87,1	58,8
Egypt	235,2	22,5	29,9	9,9	174,4	92,4
France	117,3	66,3	40,0	2,0	137,8	100,0
Greece	152,4	67,3	34,5	4,8	245,5	167,0
Italy	161,9	39,8	31,2	5,6	151,0	131,2
Lebanon	125,5	76,3	34,9	9,5	224,1	130,2
Malta	190,3	76,6	49,2	4,6	129,8	105,6
Morocco	247,3	36,6	33,7	7,9	101,2	64,3
Portugal	132,1	127,6	35,0	4,0	174,4	139,0
Spain	98,2	80,9	34,2	5,7	147,7	118,5
Tunisia	204,2	30,3	32,8	6,8	171,2	85,1
Turkey	219,1	60,7	25,8	14,2	224,3	103,5

Country	Meat	Fish	Milk	Oil	Beverages
	(7)	(8)	(9)	(10)	(11)
Albania	39,3	4,1	298,8	11,2	21,0
Algeria	18,3	3,5	118,2	17,5	3,3
Egypt	22,4	15,0	50,2	8,5	1,0
France	102,3	31,3	275,5	37,0	93,4
Greece	83,2	23,3	255,0	31,4	70,4
Italy	92,1	26,2	255,9	38,4	81,4
Lebanon	51,3	12,2	122,7	20,5	10,7
Malta	78,3	50,2	201,1	19,4	49,8
Morocco	20,7	8,8	42,0	12,8	3,0
Portugal	89,2	59,3	219,7	30,7	118,3
Spain	118,5	47,5	158,3	32,0	106,5
Tunisia	24,5	11,1	105,1	23,0	7,2
Turkey	19,2	7,3	98,0	19,3	11,6

(1) Cereals

(2) Roots and tubers

(3) Sugar

(4) Pulses

(5) Vegetables

(6) Fruit

(7) Meat, total

(8) Fish and seafood

(9) Milk and milk products

(10) Oils and fats

(11) Alcoholic beverages

Source: Medagri 2005. Our calculations based on FAO data.

Table 13.7 – International trade ratios for agricultural products. 2003

Country	Total Import	Total Export	Agri. Import	Agri. Export
	TI	TE	AI	AE
	million \$			
Albania	1864	453	359	28
Algeria	14789	24697	2658	49
Egypt	14821	8205	2682	938
France	390644	386800	30657	42051
Greece	43672	13200	4744	2973
Italy	290821	292062	26831	20645
Lebanon	7171	1524	1285	239
Malta	3000	2200	318	16
Morocco	14174	8710	1668	990
Portugal	45082	31369	4935	2091
Spain	207886	155852	16319	21442
Tunisia	10908	8036	966	470
Turkey	68734	46878	4179	4831

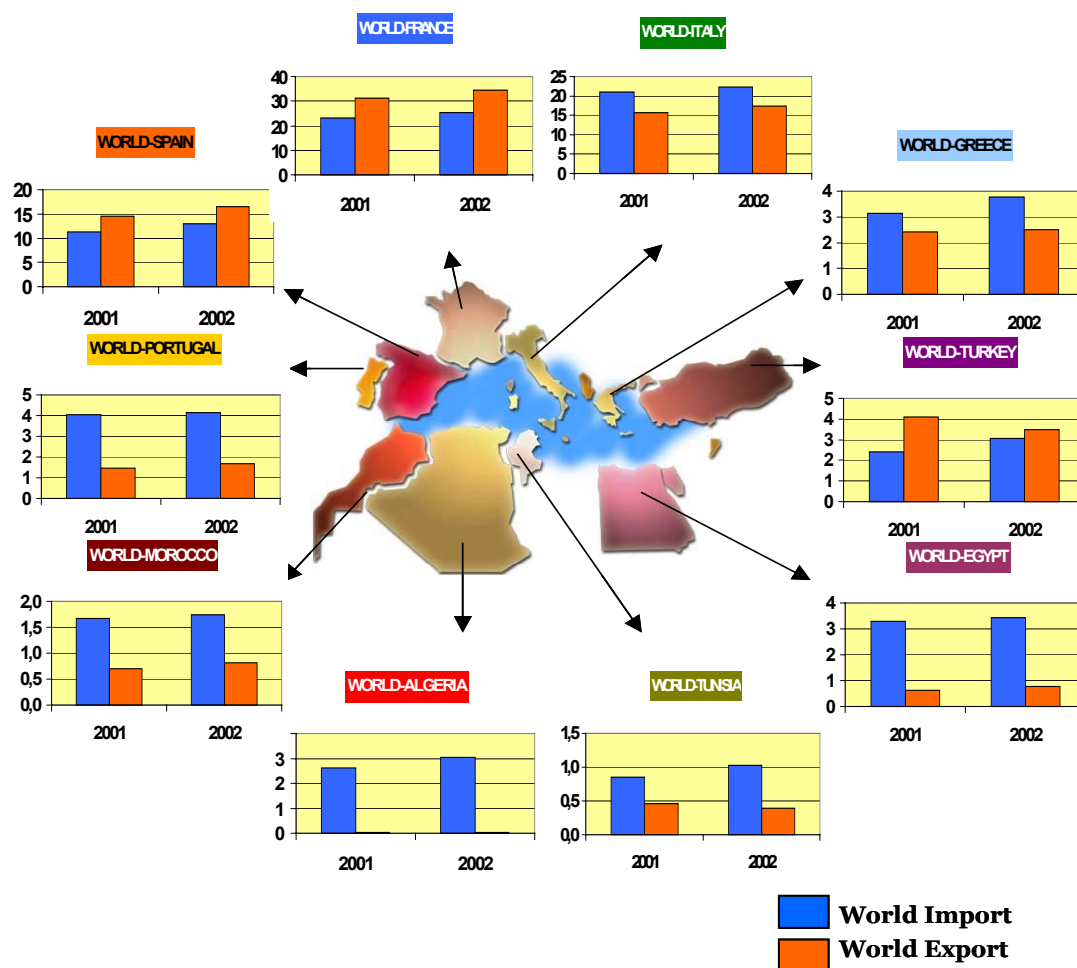
Country	Tot.Bal.std.*	TE / TI	Agr.Bal.Std.**	AE / AI	AI / TI	AE / TE
	%					
Albania	-60,90	24,30	-85,56	7,78	19,25	6,16
Algeria	25,09	167,00	-96,41	1,83	17,98	0,20
Egypt	-28,73	55,36	-48,17	34,98	18,10	11,43
France	-0,49	99,02	15,67	137,17	7,85	10,87
Greece	-53,58	30,23	-22,95	62,67	10,86	22,53
Italy	0,21	100,43	-13,03	76,94	9,23	7,07
Lebanon	-64,95	21,25	-68,67	18,57	17,92	15,66
Malta	-15,38	73,33	-90,49	4,99	10,61	0,72
Morocco	-23,88	61,45	-25,50	59,36	11,77	11,37
Portugal	-17,94	69,58	-40,48	42,37	10,95	6,67
Spain	-14,31	74,97	13,57	131,39	7,85	13,76
Tunisia	-15,16	73,67	-34,53	48,67	8,86	5,85
Turkey	-18,90	68,20	7,24	115,60	6,08	10,30

* Total Standardized balance = $(TE - TI) * 100 / (TE + TI)$

** Agricultural Standardized Balance = $(AE - AI) * 100 / (AE + AI)$

Source: Medagri 2005. Our calculations based on FAO data.

**Figure 13.5 – External agricultural trade, 2001-2002
(billion \$)**



Source: Observatoire Méditerranéen, CIHEAM. www.medobs.org

Table 13.8 - Euro-Mediterranean trade. 2003. All products

Country	EU exports TE*	EU imports TI*	Trade balance TE-TI
	million \$		
Albania	948,9	317,1	631,8
Algeria	6889,0	12972,0	-6082,9
Egypt	5308,3	3004,5	2303,8
France	217623,6	175515,3	42108,3
Greece	21014,6	5715,7	15298,9
Italy	138887,2	116200,5	22686,7
Lebanon	2931,3	162,1	2769,2
Malta	2253,9	843,4	1410,5
Morocco	7145,1	5515,0	1630,1
Portugal	32607,6	21461,6	11146,1
Spain	118094,6	82370,7	35723,9
Tunisia	6340,5	5417,4	923,1
Turkey	25000,8	21260,9	3739,9

* TE : Total export; TI : Total import

Source: Eurostat 6B- Intra and extra EU trade, 2003.

Table 13.9 – Share of Euro-Mediterranean trade in the total trade of each country. 2003

	EU export/ Total Import	EU import/ Total Export
Albania	50,91	70,01
Algeria	46,58	52,52
Egypt	35,82	36,62
France	55,71	45,38
Greece	48,12	43,30
Italy	47,76	39,79
Lebanon	40,88	10,64
Malta	75,13	38,34
Morocco	50,41	63,32
Portugal	72,33	68,42
Spain	56,81	52,85
Tunisia	58,13	67,41
Turkey	36,37	45,35

**Table 13.10 – EU agro-food trade with the Mediterranean countries:
Exports from the EU to the Mediterranean countries. 2003**

Country	Cereals	Milk	Oils	Sugar	Meat	Total
million \$						
Albania	5	5	11	24	6	51
Algeria	325	281	85	76	0	767
Egypt	155	97	12	29	1	293
France	363	2231	945	572	2724	6835
Greece	135	585	75	48	785	1628
Italy	970	2815	1279	490	3410	8965
Lebanon	9	73	9	40	4	134
Malta	3	21	8	12	15	60
Morocco	186	70	56	5	32	348
Portugal	326	350	231	55	631	1592
Spain	795	1209	259	434	715	3413
Tunisia	96	32	86	35	4	253
Turkey	79	32	62	14	1	188

Country	Cereals	Milk	Oils	Sugar	Meat
1000 T					
Albania	3	3	12	10	9
Algeria	2241	132	127	332	0
Egypt	1243	55	12	112	0
France	1171	1435	903	646	1022
Greece	759	319	74	36	325
Italy	5889	2823	989	542	1299
Lebanon	32	29	13	154	1
Malta	13	8	7	35	6
Morocco	1329	44	82	10	2
Portugal	2011	261	184	35	240
Spain	5254	845	399	533	230
Tunisia	699	31	153	162	2
Turkey	459	15	98	27	0

Source: Eurostat 6B- Intra and extra EU trade, 2003.

**Table 13.11 – EU agro-food trade with the Mediterranean countries:
Imports of the EU from the Mediterranean countries. 2003**

Country	Vegetables	Fruit	Tobacco	Cotton	Total
million \$					
Albania	2	1	2	0	6
Algeria	0	15	0	0	15
Egypt	134	48	0	174	356
France	1434	1445	383	411	3673
Greece	98	303	134	233	768
Italy	707	1796	131	1200	3834
Lebanon	0	0	1	0	2
Malta	2	0	0	1	3
Morocco	341	305	0	35	681
Portugal	104	154	118	139	515
Spain	3631	4223	139	421	8415
Tunisia	6	71	1	61	139
Turkey	212	892	130	502	1736

Country	Vegetables	Fruit	Tobacco	Cotton
1000 T				
Albania	1	2	1	0
Algeria	0	9	0	0
Egypt	259	50	0	61
France	4284	1434	69	69
Greece	67	298	34	104
Italy	680	1765	48	129
Lebanon	1	0	1	0
Malta	4		0	0
Morocco	356	358	0	6
Portugal	163	168	9	18
Spain	3460	4453	29	95
Tunisia	5	48	0	13
Turkey	242	566	29	185

Source: Eurostat 6B- Intra and extra EU trade, 2003.

Table 13.12 – Self Sufficiency ratios for main food products. 2003

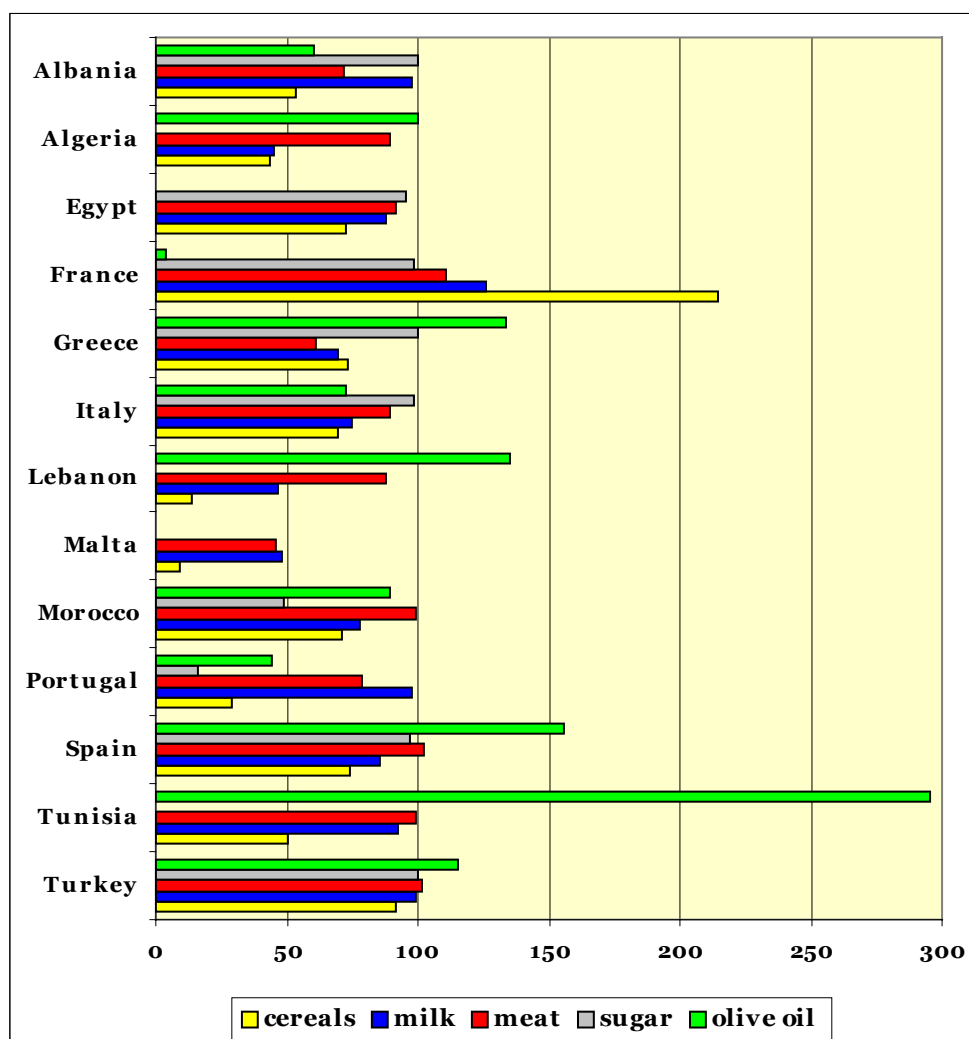
Country	Cereals	Milk	Meat*	Sugar	Olive oil
	%				
Albania	53,16	97,54	71,47	99,83	60,58
Algeria	43,48	44,85	89,37	0,00	99,88
Egypt	72,53	87,53	91,80	95,05	0,00
France	214,65	125,78	110,65	98,66	4,16
Greece	73,65	69,09	61,03	99,69	133,79
Italy	69,21	75,10	89,39	98,64	72,55
Lebanon	13,97	46,46	87,83	0,00	135,17
Malta	8,89	48,29	45,79	0,00	0,00
Morocco	71,03	77,60	99,59	48,65	88,94
Portugal	28,75	97,45	78,53	16,08	44,51
Spain	74,22	85,59	101,98	97,21	155,78
Tunisia	50,67	92,52	99,60	0,00	295,17
Turkey	91,31	99,05	101,73	100,03	115,61

* Meat = bovine meat + ovine meat + poultry meat

Self Sufficiency ratio = $\text{production} \times 100 / (\text{production} - \text{export} + \text{import})$

Source: Our calculations based on FAO data.

Figure 13.6 – Self Sufficiency ratios for main food products. 2003 (%)



Source: Our calculations based on FAO data.

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PART IV

- MEDAGRI (2005) *Annuaire des économies agricoles et alimentaires des pays méditerranéens et arabes*. M. Allaya, CIHEAM-IAM Montpellier.
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2005, the Year of the Mediterranean – such was the declared intention of the European Ministers of Foreign Affairs at the Council meeting in The Hague in December 2004. The Europe of the 25 is thus preparing to celebrate the 10th anniversary of the signing of the Barcelona Declaration and is turning resolutely towards its southern shores.

All are aware of the significance of the question of agriculture and food in the construction of a Euro-Mediterranean that can hold its own against the major continental groups in the world.

As it is the case each year, this new edition of the CIHEAM annual report gives a detailed overview on the most recent evolution of the agricultural economies and the agro-food sector in the Mediterranean states which are members of CIHEAM.

Observing, analysing, understanding and disseminating information are central to the missions of the CIHEAM and are also the ambition of the present 7th edition of the annual report. The CIHEAM aims to make the knowledge that has been acquired on the agro-food situation and its trends in the countries in the Mediterranean region available to as wide a public as possible – students, journalists, entrepreneurs and political leaders.

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