development and agri-food policies in the mediterranean region

As it is the case each year, the present new edition of CIHEAM annual report offers a detailed panorama of the most recent developments in the agricultural economies and in the agri-food sectors of the Mediterranean states which are members of CIHEAM. It also studies the various scenarios with regard to the economic problems and international trade of those sectors.

The transition to increasingly open economic systems requires that new means be released and new institutions set up as a sine qua non for managing this transition to best advantage. This is all the more necessary since the relations between the European Union and the countries on the southern shore of the Mediterranean are taking shape on a new basis in this new globalised economic context.

All of the economic and social actors in the Mediterranean basin express the obvious fact that appropriate funding must be mobilised in order to launch a wide-ranging programme for sustainable development in the region. The summary of the trends in each country and of the regional problems on hand presented in CIHEAM annual report is an ideal tool and basis for reflection with a view to shedding light on the issues at stake.

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Foreword

This year CIHEAM is publishing its fifth annual report entitled *"Development and agri-food policies in the Mediterranean region"*. Part I of the present 2002 edition analyses agriculture and the Euro-Mediterranean partnership. Mr. José Maria GARCÍA ALVAREZ-COQUE and Mr. Najib AKESBI have prepared this part.

Part II is devoted to the sector and country analyses of the CIHEAM member countries. Its constitutes a synthesis of the country reports provided by a cooperative network of correspondents. Mr. Slimane BEDRANI, Mr. Giulio MALORGIO and Mr. Gérard MICLET have prepared this synthesis. This network of correspondents is composed of Mr. Mahmoud Mansour ABDELFATTAH (Egypt), Mr. Najib AKESBI (Morocco), Mr. Slimane BEDRANI (Algeria), Mr. Adrian CIVICI (Albania), Mr. Luis Bruno DIMAS FERNANDES (Portugal), Mr. José Maria GARCÍA ALVAREZ-COQUE and Mr. Dionisio ORTIZ MIRANDA (Spain), Mr. Philip VON BROCKDORFF (Malta), Mr. Mouïn HAMZÉ and Ms. Abir Abul KHOUDOUD (Lebanon), Mr. Mustapha LASRAM (Tunisia), Mr. Giulio MALORGIO and Mr. Luca CAMANZI (Italy), Mr. Gérard MICLET (France), Mr. Konstantinos GALANOPOULOS and Mr. Panayiotis E. KALDIS (Greece), and Ms. Berna TÜRKEKUL (Turkey).

Part III discusses the Mediterranean fisheries. It has been prepared by Mr. Pere OLIVER (Instituto Espanol de Oceanografia, Palma de Mallorca, Spain).

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

The CIHEAM annual report is drawn up under the supervision of the CIHEAM Secretary General, Mr. Enzo CHIOCCIOLI. The editorial team of the 2002 edition, coordinated by Mr. Mahmoud ALLAYA, was composed of Mr. Najib AKESBI (Hassan II Institute of Agronomy and Veterinary Medicine, Rabat, Morocco), Mr. Mahmoud ALLAYA (Mediterranean Agronomic Institute of Montpellier, France) Mr. Slimane BEDRANI (National Institute of Agronomy, Algiers, Algeria), Mr. Roberto CAPONE (CIHEAM General Secretariat, Paris, France), Mr. José Maria GARCÍA ALVAREZ-COQUE (University of Valencia, Spain), Mr. Giulio MALORGIO (University of Bologna, Italy), Mr. Gérard MICLET (National College of Agronomic Studies, Montpellier, France), Mr. Pere OLIVER (Instituto Espanol de Oceanografia, Palma de Mallorca, Spain) and Mr. Albert Simantov (Delegate representing Greece on the CIHEAM Governing Board).

The translation from French into English has been carried out by Ms. Carolyn G. LOANE and Ms. Anne CLOUGH and the translation from English into French by Ms. Thérèse ZAREMBA-MARTIN; the edition has been carried out by Mr. Mahmoud ALLAYA. The compilation has been done by Ms. Fabienne KISS and Ms. Isabelle DEBABI.

Both the full report 2002 and the country reports will be published in electronic format on a CD Rom. For more information please see the CIHEAM websites:

http://www.ciheam.org
&
http://www.medobs.org

Preface

I - The fifth CIHEAM annual report (2002), which is now being published at the beginning of 2003, honours the Centre's commitment to those who assume various responsibilities (in the political, scientific, administrative, economic or social field) in intra- Mediterranean relations concerning more specifically agriculture, the agro-food sector and the rural world.

These are the fields in which the reputation of our report has now been consolidated as a source from which the Ministers of Agriculture of the CIHEAM member countries, who meet regularly every year, draw the main elements for their discussions with a view to arriving at common approaches on such sensitive subjects as agricultural trade relations between the countries on either side of the Mediterranean and multilateral agricultural negotiations.

The fact that the importance of our report, which the Ministers of Agriculture regard as a reference document, was clearly confirmed at the last ministerial meeting held in Beirut in September 2002 encourages the CIHEAM to pursue its efforts to improve its content, consolidate cooperation with the national correspondents, strengthen the spirit of collegiality on the Editing Committee, and forward data to the CIHEAM Mediterranean Observatory, which bases the major part of its work (economic indicators, annual report and national contributions, country profiles) precisely on the wealth of information supplied in this annual report.

It should be pointed out in this context that the other – equally essential – part of the CIHEAM Mediterranean Observatory is devoted to the "themes" column, which presents the results of the annual meetings of the Ministers of Agriculture as well as appropriate commentaries on those meetings; it also contains a series of fact files, for the elaboration of which the CIHEAM's Mediterranean Agronomic Institutes and other partner institutions operating in the Mediterranean region are mobilised in particular.

Rural development is a major focus of the Observatory's "themes" column, due to the special attention the CIHEAM devotes to this subject.

The link between the annual report and the Mediterranean Observatory – which we have been anxious to develop from the outset – has thus gradually become established, and will be evident to readers who wish to visit the CIHEAM web site (http://www.ciheam.org) or to access the Observatory direct (it now has its own address (http://www.medobs.org). They will perceive all the ensuing interactions which enable the CIHEAM to monitor agricultural and agro-food policies and rural

development in the Mediterranean region in accordance with the mandate it has received from the Ministers of Agriculture.

As was already pointed out in previous reports, our annual report falls under the "decision support" chapter of the 4-year cooperation programme established with the Commission of the European Union and as such has received co-financing from the Commission. The present edition – the fifth in the series – is no longer part of the above-mentioned 4-year programme, however, despite the fact that the Commission has extended the programme by one year so that the training and research activities for which it makes provision can be completed.

It is consequently entirely the responsibility of the CIHEAM to finance this fifth edition of the report, and, with the agreement of the Governing Board, we are determined to do so in view of the interest that has been shown in our publication and its benefit to the Mediterranean region.

We hope that it will be possible to re-include this form of decision support, which has proved its worth, in the future programme of cooperation with the European Commission, which we hope to draw up in the near future.

II - Our readers are familiar with the structure of our report, which is mentioned again briefly in the foreword of the present edition.

- **Part I** : the theme developed in this section is **agriculture and the Euro-Mediterranean partnership.** After presenting pertinent analyses of agro-food trade in the region and the instruments governing the Euro-Mediterranean agreements and their impact on agricultural trade relations, this part of the report outlines scenarios to which all those who carry responsibility for the future of the Mediterranean agricultural sectors are called upon to devote thought.

- **Part II** is, as usual, devoted to sectoral and national analyses, and the main trends in agricultural activities are placed in the context of the development observed in the national economies of the member countries.

- **Part III**, which focuses on a different subject each year, is a **completely new departure** in the present edition, dealing for the first time with the topic of **Mediterranean fisheries**, at the urgent request of the CIHEAM Governing Board.

  It presents an in-depth analysis of the main aspects characterising fisheries in this region of the world, concluding with considerations on the governance

of this activity, which mobilises so many men and women, means and vital interests in the countries bordering the Mediterranean.

The recent initiatives of the European Commission aiming to introduce new disciplines for the Mediterranean within the framework of the common fisheries policy are discussed. This is an issue which is bound to have political repercussions for all countries engaging in fishing activities in the Mediterranean, and one where strong cooperation must be developed between the countries on either shore; the CIHEAM can contribute analyses for that purpose.

It has been agreed that the main data on Mediterranean fisheries (production, consumption, trade) will be included in the future editions of the report – in Part II, which focuses on sectoral and national analyses. We also plan to extend the analysis to fish farming in view of the considerable development of this activity, devoting due attention to the aspects of product quality and food safety.

- **Part IV** is devoted to the main indicators of agro-food development, and here again we have endeavoured to improve the quality of the information provided and to broaden its scope.

III - We are convinced that our report will continue to fulfil its functon as an effective instrument for analysis but also as a "pilot" for orienting development towards strengthened cooperation in the region.

On the occasion of the forthcoming major events which will mark 2003 – the fifth meeting of the Ministers of Agriculture of the CIHEAM member countries, which will be held in France; the first Euro-Mediterranean conference of the Ministers of Agriculture, which Minister Giovanni Alemanno has undertaken to convene in the course of the Italian Presidency in the second half of the year – our report will be made available to the policy-makers as further input for their debates as they prepare to take their decisions.

IV - With the publication of our fifth annual report I wish to express my profound thanks to the CIHEAM Governing Board, the national correspondents, the members of the Editing Committee and Mr Mahmoud Allaya of the IAM-Montpellier, who has been in charge of the general coordination of the present edition within the Editing Committee.

Enzo CHIOCCIOLI

CIHEAM Secretary General

ACRONYMS AND INITIALS

AAs	Association Agreements
AAU	Agricultural Area in Use
AEC	Savings and Credit Associations
AGDP	Agricultural Gross Domestic Product
ALF	Agricultural Labour Force
AFI	Agri-Food Industries
CAP	Commun Agricultural Policy
CDOA	Departmental Farm Organisation Committee
CFP	Common Fisheries Policy
CGE	Computable General Equilibrium
CMO	Common Market Organisations
CNCA	Caisse Nationale de Crédit Agricole
CNMA	Caisse Nationale de crédit Mutuel Agricole
CSE	Consumer Subsidy Equivalent
EAGGF	European Agricultural Garantee and Farm Guidance Fund
EC	European Council Regulation
ECEC	Eastern and Central European Countries
EIA	Environmental Impact Assessment
EMA	Euro Mediterranean Agreements
EMFTA	Euro-Mediterranean Free Trade Area
EU	European Union
FCV	Village Credit Fund
FDI	Foreign Direct Investment
FLDDPS	Fund for Combating Desertification and Developing Pasture Lands in Steppe Areas
FNMVTC	National Fund for Land Development via Concessions
FNRDA	National Fund for Agricultural Regulation and Development
FPZs	Fisheries Protection Zones
FTA	Free Trade Area
GDP	Gross Domestic Product
GFCM	General Fisheries Commission for the Mediterranean
ICAMAS/ CIHEAM	International Centre for Advanced Mediterranean Agronomic Studies
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICSEM	International Council for the Scientific Exploration of the Mediterranean
IUU	Illegal, Unreported and Unregulated fisheries
IRD	Integrated Rural Development
MAP	Mediterranean Action Plan
MARD	Ministry for Agriculture and Rural Development
MCs	Mediterranean Countries
MENA	Middle East and North Africa

NGOs	Non-Governmental Organisations
PBDAC	Principal Bank for Development and Agricultural Credit
PDO	Protected Designation of Origin
PDRN	National Rural Development Plan
PNAE-DD	National Plan of Action for the Environment and Sustainable Development
PNDA	Plan National de Développement Agricole
PO	Producer Organisations
PSE	Producer Subsidy Equivalent
RDO	Registered Designation of Origin
RDP	Rural Development Plan
RDR	Rural Development Rules
RFC	Regional Farming Contract
SAC	Scientific Advisory Committee
SAP	Structural Adjustment Policies
SEMCs	South East Mediterranean Countries
SMAP	Short and Medium Term Priority Environment Action Plan
SME	Small and Medium Enterprises
STCEF	Scientific, Technical and Economic Committee for Fisheries
TNCs	Transnational Companies
TRQ	Tariff Quota
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environment Programme
WTO	World Trade Organisation

Introduction

Trade plays an essential role in Mediterranean integration as an instrument for development. This is the underlying idea in regional process that was launched in Barcelona in 1995 and led to the negotiation and signature of the Association Agreements (AAs), which point to a Euro-Mediterranean Free Trade Area (EMFTA) by 2010. There is hoped that the integration process will bring (i) greater efficiency in Mediterranean economies, (ii) a push for modernisation of the public sector and regulation, and (iii) enhanced incentives for investment, as the result of an enlarged market. All of these influences can be observed both as a precondition for economic development and as a result of Euro-Mediterranean integration. Trade could furthermore lead to stronger intercultural and social links across Mediterranean countries. There is thus no doubt as to the potential advantages of the growing commercial integration of Mediterranean economies. However, there are several factors which cast a shadow on the process and which could eventually reduce the credibility of Euro-Mediterranean integration.

In particular, there is the question of whether the current treatment of agricultural trade in the Euro-Mediterranean process is what is needed for the success of the integration process. Dissatisfaction over how agricultural trade has been managed in the Barcelona process has become a constant during the negotiations and the reviews of the trade arrangements between the EU and the Southern and Eastern Mediterranean Countries (SEMCs). Such dissatisfaction has appeared on both sides of the Mediterranean basin and is reflected in: (i) the claim of Southern Mediterranean exporters for wider EU market access and (ii) the EU producers' fear of increased competition resulting from the loss of Community preference.

The Barcelona process has called for the progressive liberalisation of agricultural trade based on traditional flows. As a result of this 'controlled' approach, agriculture has been given a low profile in the definition and implementation of the Association Agreements. Agricultural negotiations have usually been left to the final stage of the negotiations between the EU and the Mediterranean partners. The treatment of agriculture under the EMFTA provisions has been largely ad hoc, and commercial concessions have varied depending on the sensitivity of the product on EU markets and on the export competitiveness of each individual partner. Top-level meetings such as Ministerial Conferences have failed to undertake in-depth discussions of the pros and cons of a common approach to agricultural trade and rural development in the Mediterranean region.

The present chapter discusses the need for such a common approach not only by asking whether agricultural trade should be more liberal, but by investigating the possibilities for a common framework that could enable agricultural markets to contribute to rural development in the Mediterranean region. The discussion will draw, firstly, on the examination of the agricultural trade patterns currently observed across the Mediterranean area. Since the Association Agreements are

heavily based on the traditional trade flows between the EU and the Mediterranean partners, the review of current trade flows will help to assess the future, still rather static, prospects for agricultural trade under the EMFTA. Starting with this static picture, we shall then assess the experience of trade integration between the EU and the SEMCs with a view to understanding the current status of the Euro-Mediterranean process. Thirdly, we shall discuss the possible impact of the liberalisation of agricultural trade (full inclusion of agriculture) within the EMFTA. Fourthly, we shall mention the influence of EU policies on trade flows and the need to intensify the reform of the CAP as a precondition for a successful EMFTA. And finally, we shall broaden the picture of Euro-Mediterranean integration to consider the role of FDI as one of the desirable results expected of the EMFTA.

As has been the case in past CIHEAM reports, this chapter argues that the EMFTA could bring about a win-win process by undertaking further steps in favour of a comprehensive approach to Mediterranean integration including market access, capital and labour flows, technical and economic cooperation, and economic reforms. Agriculture and rural development remain crucial elements of this approach.

1 Analysis of Euro-Mediterranean agro-food trade

What are the main characteristics of Euro-Mediterranean agricultural trade? Euro-Mediterranean trade relations are marked by asymmetry, which is reflected in ten facts that are readily observed in the statistics on bilateral trade between the EU and the SEMCs. Where data in the tables are not broken down by country and it is not otherwise specified, the Mediterranean group includes the 12 countries that have signed or are negotiating trade agreements with the EU[1].

Although most of the facts apply to total trade, we shall pay special attention to the case of agriculture.

1.1 - Trading asymmetry

The EU is a more important trading partner for the SEMCs than the SEMCs are for the EU. In 2000 the EU was the destination of 47.2% of the SEMCs' agricultural exports (47.6 in 1995) and the source of almost 37.7% of their agricultural imports (35.7 in 1995)[2]. However, only 10.2% of total extra-EU agricultural exports go to SEMCs (10.6 in 1995) and only 7.1% of total extra-EU agricultural imports originate in SEMCs (7.6 in 1995). In theory, one of the basic aims of international trade negotiations is to achieve an adequate balance of concessions between the negotiating partners. This asymmetry provides part of the explanation as to why Mediterranean partners are not at the top of the EU agenda as far as trade negotiations are concerned.

[1] This group includes Morocco, Tunisia, Algeria, Egypt, Syria, Jordan, Lebanon, Turkey, Israel, Malta, Cyprus, and the Palestinian Territory under the PLO administration.

[2] Dependence on the EU is higher when total trade is considered. Over 50% of the total exports and imports of this group of countries are traded with the EU.

Table 1.1 - EU and SMCs' agricultural trade

	billion euro	1995	2000
	EU imports		
a	from extra-EU (total)	50044	58344
b	from SMCs	3787	4132
	b/a x 100	7.6	7.1
	EU exports		
c	to extra-EU (total)	44872	58194
d	to SMCs	4744	5908
	d/c x 100	10.6	10.2
	SMCs' imports		
e	total	14661	16512
f	from the EU	5233	6226
	f/e x 100	35.7	37.7
	SMCs' exports		
g	Total	7560	8752
h	to the EU	3598	4131
	h/g x 100	47.6	47.2

Source: Comext, PC-TAS International Trade Center, UNCTAD/WTO , Institut de la Méditerranée; own calculations.

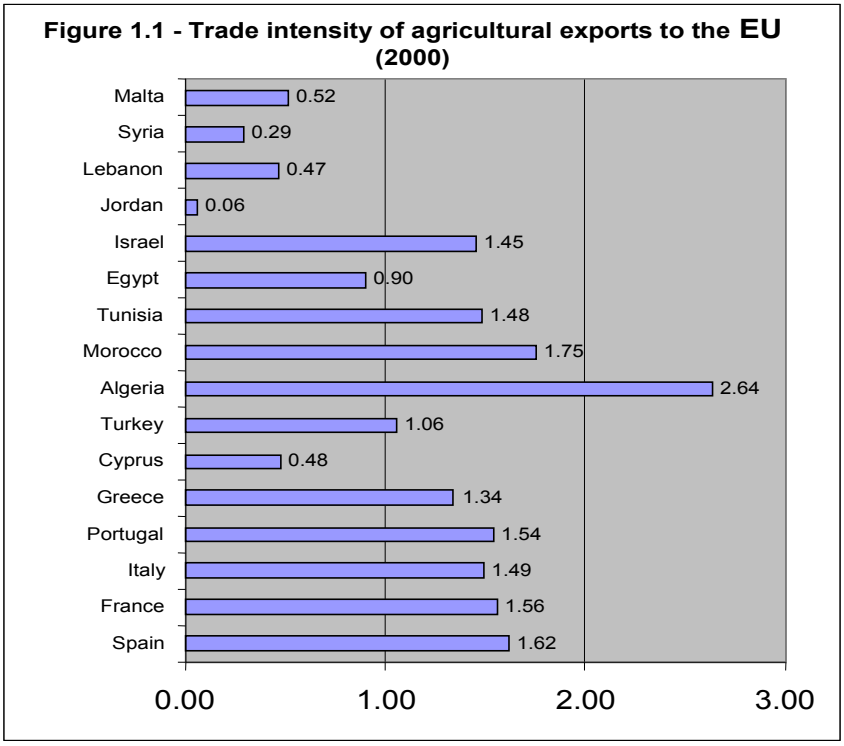
1.2 – SEMCs trade dependence on EU

SEMCs are highly dependent on their trade with the EU. This dependence is a consequence not only of the strong historical and trading links between the two, but also of the lack of South-South integration. While intra-regional integration has recently been stimulated in the course of the Agadir process and other regional initiatives, intra-regional trade among SEMCs remains fairly marginal. In 2000, total intra-regional exports among SEMCs were 7 times lower than their total exports to Europe, and intra-regional SEMC imports were 12.6 times lower than their total imports from the EU.

Although the SEMCs have long been calling for wider EU market access, breaking the strong bilateral EU-Mediterranean link (by developing a regional market) remains a challenge for them. However, the importance of intra-regional trade varies from one country to another. For some countries such as Jordan, Lebanon and Syria, the share of exports to the Arab countries in total exports is significant (47%, 45% and 20% respectively).

Not all Mediterranean countries show the same dependence on the EU as far as agricultural trade is concerned. We have calculated a trade intensity index for various SEMCs. Trade intensity, or degree of specialisation of a given country's

exports on the EU market, is measured by $I_{ij} = (X_{ij}/X_i)/(M_j/M_w)$, X_{ij} being the exports from country i to the EU, X_i the country i's total exports, M_j total EU imports, and M_w total world trade. If $I_{ij} > 1$, country i's trade intensity with the EU is higher than what could be theoretically expected if country i accounted for a similar share of EU imports as country i's share in world exports. Other things being equal, the measure of intensity can be expected to be higher for countries and products which enjoy concessions in the EU.



Sources: Comext for Euromediterranean trade, MEDAGRI for total trade; own calculations.

As is shown in figure 1.1, trade intensity with the EU is higher for some SEMCs than for others. However, strictly speaking, differences in trade intensity cannot be attributed solely to trade preferences. Determining factors of trade intensity include geographical proximity, historical links, business practices, market channels, and compliance on quality standards for products sent to the EU. Active trade with European trading companies has depended on tariff preferences but also on links related to accident of history, political relations and, of course, the business environment in the exporting country. Figure 1.1 reflects the varying nature of interests that the different Mediterranean countries could show with regard to their integration strategy with the EU. On the one hand, high intensity

indexes might reflect an interest in maintaining strong trade preferences on the EU market. Low intensity indexes, on the other hand, might suggest that the association with the EU could become an opportunity to diversify exports towards high-value markets. Obviously, Southern European countries (EUMED hereafter[3]) show trade intensities higher than 1 as a result of their EU membership. However, some SEMCs, such as Morocco and Algeria, present even higher trade intensities, and others (Tunisia, Israel) also show high trade intensities. Seen from this aspect, the Maghreb area would be more dependent on EU agricultural markets than are the Middle East and Turkey.

A wider intra-regional market, more dynamic competition, increasing economies of scale and a higher degree of specialisation based on quality and technological innovation could hold favourable prospects for "South-South" intra-regional trade. Different regional strategies, such as association with the EU and intra-Arab integration are perfectly compatible. While (North-South) Euro-Mediterranean integration becomes an incentive to modernise production structures, (South-South) intra-Arab integration could effectively create a regional trade pattern, which could help to attract European investment interested in serving the Middle East region. However there are several caveats regarding intra-Arab integration within the AFTA framework, in particular (i) its almost exclusive focus on tariff elimination, which allows little scope for a deeper integration scheme that goes beyond tariffs; and (ii) the fact that temporal exceptions allow agricultural products to be exempted from the tariff reduction scheme during the peak production seasons – a fact which reduces the ability of the Arab FTA to realise its full potential for regional trade expansion. Negotiations for the AFTA agreement have been difficult, and by 1999 member countries were allowed to draw up a list of products excluded from the tariff reduction scheme for a three-year period. However, in May 2001 four Arab countries (Morocco, Tunisia, Egypt and Jordan) expressed their intention to create a free trade area amongst themselves (the Agadir process) and to open this area to other signatories of AAs.

1.3 – Negative bilateral agricultural trade balance between the SEMCs and the EU

The bilateral agricultural trade balance between the EU and SEMCs is clearly favourable for the EU. In the 1998-2000 period, the average value of EU agricultural exports to SEMCs was 1.3 billion euros greater than the average value of EU agricultural imports from SEMCs[4]. The agricultural trade deficit of SEMCs against the EU has increased from an average value of 0.97 billion euros in 1996-

[3] Greece, Italy, Portugal and Spain.

[4] All in all, the total trade deficit of SEMCs against the EU was maintained at about 14 billion euros for the year 2000.

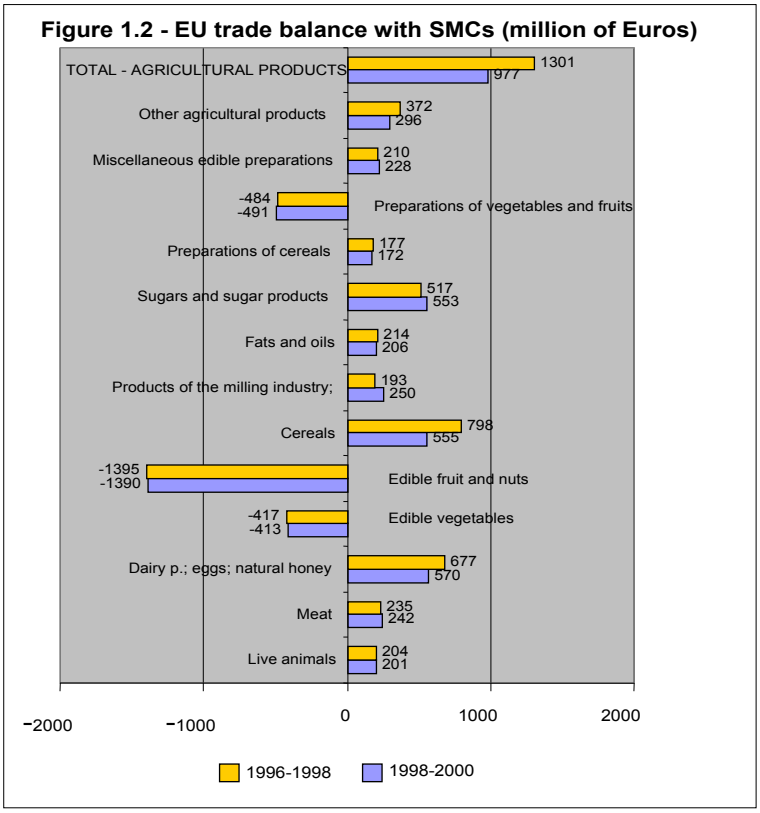
1998. While the opening of the EU market is still an issue of Euro-Mediterranean integration, the SEMCs actually supply a larger market for EU agricultural exports than the EU does for those of the SEMCs. The overall positive balance for the EU is significant in the case of cereals, dairy products, sugar, and meats, and it is worth mentioning that that balance increased significantly for the first two products between 1996-1998 and 1998-2000 (figure 1.2). The trade balance is only favourable for SEMCs in the case of fresh fruits, fresh vegetables and preparations of fruit and vegetables, without any significant change between 1996-1998 and 1998-2000. However, the situation again is not the same for all SEMCs. The standardised bilateral balances for agricultural trade shown in the table 1.2 suggest that SEMCs could be subdivided into two subgroups, at least regarding export performance on the EU markets. The first group, consisting of the major exporters in the region, Turkey, Israel, Morocco and Tunisia, shows a relatively high and improving standardised bilateral trade balance with the EU, while the second group, formed by Egypt, Algeria, Libya, Lebanon, Syria and Malta, shows a negative standardised trade balance.

Table 1.2 – Standardised bilateral agricultural trade balances between Mediterranean countries and the EU

	1995	1996	1997	1998	1999
Syria	-0,07	-0,09	-0,10	-0,25	-0,33
Lebanon	-0,89	-0,87	-0,90	-0,89	-0,89
Egypt	-0,40	-0,47	-0,55	-0,53	-0,47
Tunisia	0,04	0,13	0,03	0,03	0,27
Morocco	0,25	0,46	0,46	0,37	0,39
Algeria	-0,94	-0,90	-0,94	-0,94	-0,94
Libya	-0,93	-0,95	-0,95	-0,99	-0,98
Cyprus	-0,01	-0,05	-0,40	-0,32	-0,30
Malta	-0,90	-0,86	-0,91	-0,90	-0,88
Turkey	0,33	0,33	0,36	0,43	0,51
Israel	0,16	0,25	0,16	0,21	0,24

Standardised trade balances: (X-M)/(X+M), being X : agricultural exports to the EU; M : agricultural imports from the EU

Source: Comext Database and own calculations.



Source: COMEXT. Own calculations.

1.4 - Inter-industry specialisation

Euro-Mediterranean agricultural trade flows are characterised by marked inter-industry specialisation**.** Bilateral trade balances have been calculated for each 4-digit trade position of the Combined Nomenclature (CN) and are shown in table 1.3, with the corresponding Grubel-Lloyd (GL) indexes of intra-industrial trade[5]. There is bilateral trading between the EU and the SEMCs in a number of fields of trade. However, when GL indexes for SEMCs and for total extra-EU trade are compared, Euro-Mediterranean trade shows a marked pattern of inter-industry specialisation with respect to total extra-EU trade. Thus, of the 27 trade positions considered in table 1.3, only in 5 positions was the GL index higher for SEMCs than for total extra-EU trade. The result could suggest a certain degree of

[5] The GL index formula is as follows: (1- |x-m|/(x+ m)). The values lie between 0 (one-way trade: x = 0 or m = 0) and 1 (two-way trade; x = m).

complementarity between the EU and the SEMCs, which is consistent with a classical North-South trade pattern based on factor endowments (see box 1.1 for an example of this pattern referred to as Euro-Syrian agricultural trade). One-way trade in agricultural products is a common feature of EU-Mediterranean trade relations[6], and one which is also consistent with the pattern observed for total trade between the North and the South of the region. Chevallier and Freudenberg (2001) calculate, for instance, that two-way trade amounts to about 4% for Egypt, 9% for Morocco, 16% for Turkey and 19% for Tunisia, as against one-third for Portugal, and over half for Spain. High levels of intra-industrial trade reflect product differentiation within similar product systems, which send a positive signal. Intra-industry differentiation is a sign that the economy will not suffer high adjustment costs from strong negative competitive shocks resulting from trade liberalisation. However, the SEMC economies do not seem to be in such an optimistic position. Moreover, the trade environment in the Mediterranean regions is still constrained by weak infrastructures, small incentives for FDI, and overvaluation of the real exchange rate. Furthermore, actual trade does not necessarily reflect comparative advantages because of the existing trade policies, which severely distort agricultural trade in the region. Consequently, adjustments to production after bilateral liberalisation could be substantial.

[6] Euro-Mediterranean agricultural trade showed a GL index higher than 0.5 only in 8 positions.

Table 1.3 - Composition of Mediterranean countries' agricultural export value to the EU (*)

Products	% of average value 1997 - 1999
Live animals	0.1
Meat and edible meat offal	0.0
Fish and sea food	10.1
Dairy products and eggs	0.4
Other products of animal origin	2.4
Live trees and other plants	0.7
Edible vegetables and roots	11.5
Edible fruit and nuts	31.2
Coffee, tea, and spices	0.9
Cereals	0.5
Products of the milling industry	0.5
Oil seeds and oleaginous fruits	2.1
Gums, resins	0.6
Vegetable planting materials	0.4
Animal or vegetable fats and oils	7.7
Preparations of meat and fish	4.2
Sugars and sugar confectionery	0.8
Cocoa and cocoa preparations	0.1
Preparations of cereals, flours	0.3
Preparations of vegetables	12.9
Miscellaneous edible preparations	0.6
Beverages, spirits and vinegars	1.3
Residues and waste from the food industry	0.5
Tobacco and manufactured tobacco	3.1
Hides and skins	0.9
Wool, neither carded nor combed	0.3
Cotton, not carded	4.7
Cotton waste	1.1
Total Agricultural Trade	**100.0**

(*) Algeria, Moroco, Tunisia, Syria, Lebanon, Egypt, Turkey, Cyprus, Palestine, Lybia.

Source: Comext database and author's calculations.

Box 1.1 - Euro-Syrian trade as an example of the North-South pattern

The pattern of bilateral trade between Syria and the EU is quite consistent with a "North-South" pattern of exchanges. Thus, the share of processed products in total Syrian agro-food exports to the EU remains relatively low (3.6% as the 1997-1999 average, which is lower than the average level for 1995-1997). At the same time, the share of processed products in total Syrian agro-food imports from EU sources remained high (85.3% for the same period). The total agricultural bilateral trade balance of Syria against the EU dropped from –22.5 million ecu in 1995-1997 to –64.8 million ecu in 1997-1999. The EU therefore sells more agricultural products to Syria than it buys from Syria, and this imbalance has increased over the last few years.

The deterioration in the bilateral trade balance has been the result of a drop in both the balance for staple agricultural commodities (falling from 134 million ecu in 1995-1997 to 99 million ecu in 1997-1999) and the balance for processed products (falling from a negative level of –156 million ecu to –164 million ecu over the same period).

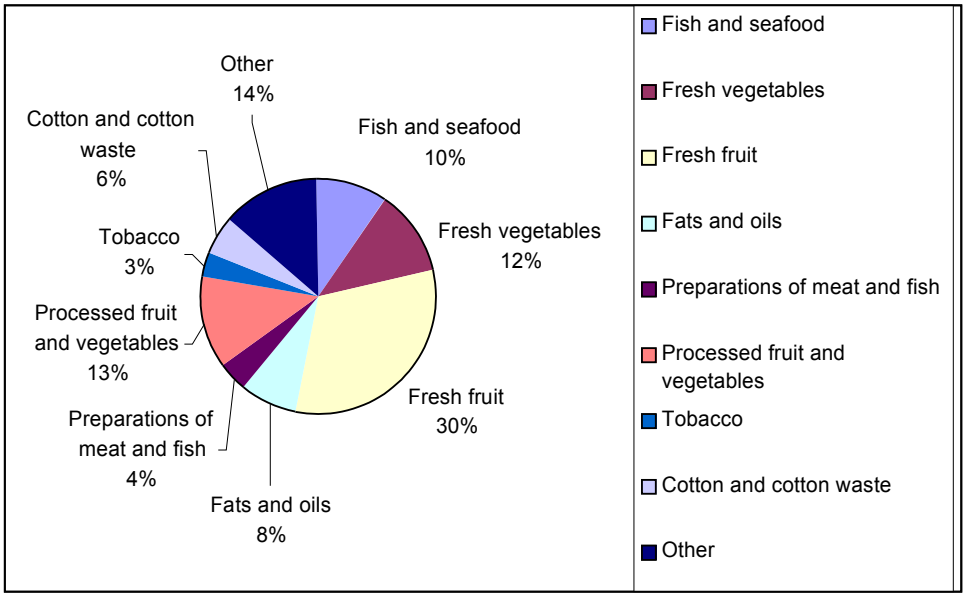
Of course, the sharp drop in Syria's bilateral trade balance with the EU for staple agricultural commodities reflects the impact of the drought suffered by Syrian agriculture in 1999. However, the Association Agreement between Syria and the EU should take account of the persistency of the bilateral trade deficit with the EU and Syria's traditional specialisation as an importer of (high-value) agri-foodstuffs and exporter of (low-value) bulk commodities.

Source: Garcia-Alvarez-Coque (2001).

1.5 - Concentration of exports

SEMC exports to the EU show a marked concentration on Mediterranean products. In the 1997-1999 period, 42.7% of Mediterranean countries' exports to the EU consisted of fresh fruit and vegetables, 12.9% processed horticultural products, 7.7% fats and oils, and cotton exports accounted for 5.8% (see figure 1.3). In fact, several Mediterranean countries show a very similar composition of agricultural exports based mainly on "speciality products" such as fresh fruit and vegetables, nuts and preparations of these products. The weight of horticultural products varies from one SEMC to another, but most of them show a similar pattern of specialisation based on a strong presence of fresh fruit, fresh vegetables and processed fruit and vegetables. The contribution of these three products to the total value of exports to the EU is over 40% for Egypt (44.8%), 50.5% for Morocco, 57.1% for Algeria, 69.7% for Cyprus, 70.2% for Turkey and 75 % for Jordan.

Figure 1.3 - Composition of the value of Mediterranean countries' agricultural exports to the EU (*)



(*) Algeria, Moroco, Tunisia, Syria, Lebanon, Egypt, Turkey, Cyprus, Palestine, Libya

Source: Comext database and author's calculations.

1.6 - The significance of intra-EU trade

Agricultural trade in EU Member States is, to a large extent, intra-regional in nature. In the previous paragraphs, remarks on EU trade referred mainly to extra-EU trade. However, in 2000, over 70% of total (intra-EU + extra-EU) imports originated in EU countries. In 1998-2000, EUMED countries accounted for 26.2% of EU total imports while SEMCs accounted for only 2.2% of EU total imports (percentages calculated on average triennial values). In fact, between the 1996-1998 and 1998-2000 periods, EU agricultural imports from the EUMED group proved to be more dynamic than EU agricultural imports from SEMCs (see table 1.4). The table 1.4 reviews the recent evolution of EU imports of potatoes, tomatoes, processed fruit and vegetables, olives, olive oil, citrus fruits, table grapes and apples. Volumes of imports originating in the EU are compared with volumes of imports originating in non-EU countries. It is worth noting that the share of extra-EU imports in total EU imports only tends to grow for mandarins and grapes, while it is stable for potatoes and is decreasing for processed fruits and vegetables, tomatoes, apples and olive oil. Trade diversion may explain the increasing share of EU suppliers in total EU imports. Other developments such as eastern enlargement

would help to change this picture through further widening of the EU market. However, extra-EU volumes are still significant and the SEMCs' position should improve with enhanced access to EU markets.

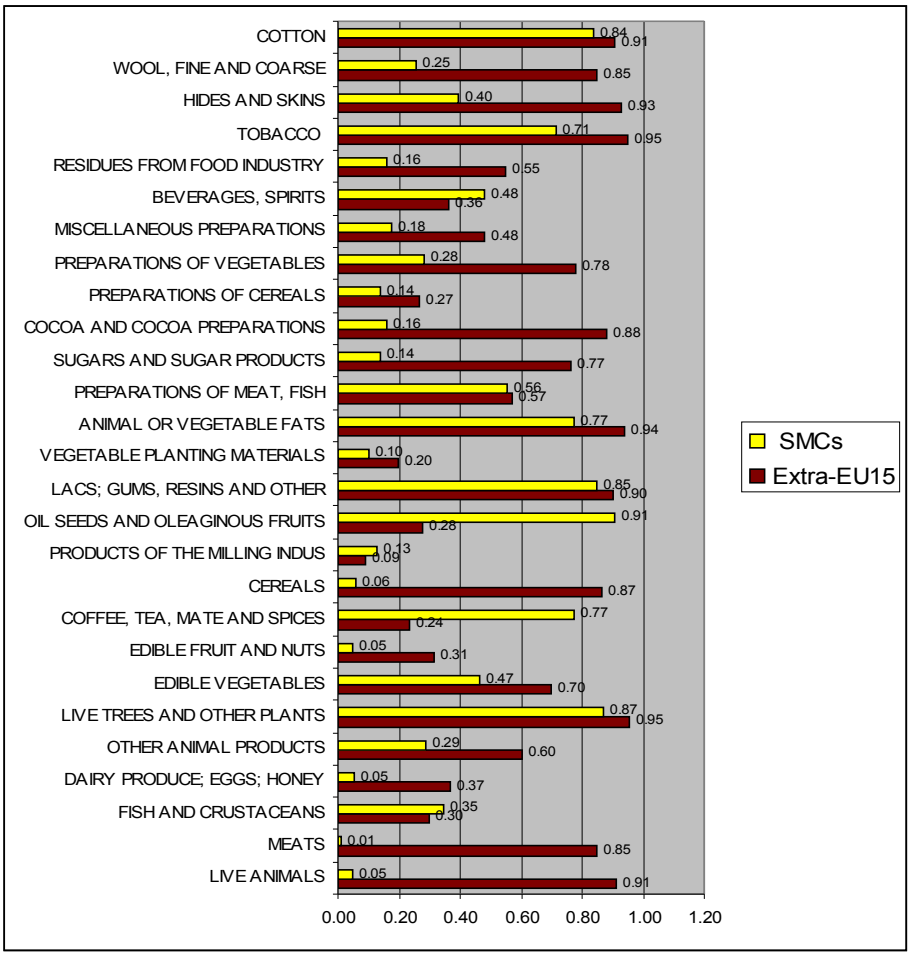
Table 1.4 - EU agricultural imports

Average values	million euros		
	1995-1997	**1998-2000**	**Average annual rate of variation**
Total (intra- + extra-EU)	171 794	191 368	3.7
Originating in:			
Mediterranean countries	48 775	54 370	3.7
EUMED	44 868	50 238	3.8
SEMCs	3 906	4 132	1.9
Percentages of total EU agricultural imports			
	1995-1997	**1998-2000**	
Originating in:			
Mediterranean countries	28.4	28.4	
EUMED	26.1	26.3	
SEMCs	2.3	2.2	

EUMCs: Southern EU Member States: Spain, Greece, Portugal and Italy
SEMCs: Mediterranean Partners in the Barcelona process
Mediterranean Countries: EUMED + SEMCs

Source: COMEXT; own calculations.

Figure 1.4 - Intra-industrial trade indexes between the EU and extra-EU, and between the EU and SMCs



1.7 - The significance of seasonal trade flows

Seasonal variations still remain an important factor of the horticultural trade. The question for many SEMCs is not just whether total annual demand is growing but also whether there are seasons where exports could access the EU market. Seasonality also has a trade policy implication. EU tariffs vary significantly in the course of the year. Products such as tomatoes and citrus fruits can be cultivated throughout year in some SEMCs, depending on the production method (protected

and field tomatoes), the variety and the producing region. Entry prices for tomatoes peak in April, when a significant level of EU domestic production is available, but are relatively low between May and December. Entry prices for oranges remain stable throughout the year, although a reduction of the entry price is applied in the case of Morocco and Egypt in the earlier months of the season. Watermelons and potatoes are not subject to the entry price system. Although ad valorem tariffs may increase in the period of European production, the tariff peak is under 10%. With regard to table grapes, the entry price does not apply from 20 November to the end of the year; this opens the door to non-EU produce. Of course, seasonality means that there are market windows that could be exploited by SEMC exports (see table 1.5). However, two qualifications can be made. First, market windows are, to some extent, a consequence of EU trade policies (e.g. periods of lower tariffs) and do not reflect the EU demand for imports that would result from a free trade situation. And second, the concentration of exports on short periods could involve increased competition and lower prices, especially for perishable goods.

Table 1.5 - Seasonal distribution of EU imports by import source for selected fruits and vegetables

	Import source										
Products	GRC	PRT	SPA	ITA	Other EU	TUR	MOR	TUN	EGY	CYP	Other non-EU
Potatoes	(in percent of total imports)*										
New p. 1 Jan - 15 may	0,4	0,8	5,1	7,3	42,8	0,0	8,2	0,2	24,5	3,7	7,0
New p. 16 may - 30 July	0,6	0,9	9,8	27,0	54,5	0,2	0,8	0,0	1,0	3,3	2,0
Old potatoes	0,1	0,4	4,7	2,7	91,8	0,0	0,0	0,0	0,0	0,0	0,2
Tomatoes											
1jan - 31 mar	0,0	0,1	61,9	3,4	19,7	0,1	13,9	0,1	0,0	0,0	0,8
1 - 30 Apr	0,0	0,1	59,1	7,1	30,2	0,1	2,6	0,1	0,0	0,0	0,5
1 - 14 may	0,0	0,0	41,0	9,7	47,3	0,0	1,6	0,1	0,0	0,0	0,3
15 - 31 may	0,0	0,6	43,0	8,0	47,7	0,0	0,2	0,0	0,0	0,0	0,4
1 Jun – 30 Sept	0,0	0,2	26,9	11,5	61,0	0,0	0,0	0,0	0,0	0,0	0,3
1 - 31 Oct	0,0	0,1	44,4	5,6	45,3	0,0	4,4	0,0	0,0	0,0	0,2
1 Nov – 20 Dec	0,0	0,1	52,9	3,7	28,4	0,0	14,2	0,0	0,0	0,0	0,6
20 Dec - 31 Dec	0,0	0,0	64,0	1,3	15,5	0,2	17,6	0,1	0,1	0,0	1,2
Navel oranges											
1jan - 31 march	4,0	0,0	55,3	2,8	8,3	1,7	12,9	1,3	0,5	0,7	12,6
1- 30 Apr	3,2	0,0	49,2	1,6	10,0	0,6	20,8	0,7	0,6	2,3	10,9
1 - 15 may	4,9	0,0	45,7	2,5	10,1	0,2	22,1	0,1	1,0	2,0	11,4
16 - 31 may	2,3	0,0	34,5	0,7	10,4	0,0	33,9	0,0	0,9	5,0	12,4
1 Jun - 30 Sep	0,7	0,0	14,1	0,4	16,2	0,1	3,4	0,0	0,1	0,7	64,2
1 - 15 Oct	0,0	0,0	10,9	0,3	18,3	0,0	0,0	0,0	0,0	0,0	70,5
16 Oct- 30 Nov	1,3	0,0	77,2	1,4	14,3	0,1	0,9	0,0	0,0	0,0	4,9
1-31 Dec	5,0	0,0	77,0	3,4	7,6	0,3	5,3	0,0	0,1	0,0	1,3
Clementines	1,1	0,0	76,0	2,2	7,4	0,0	13,2	0,0	0,0	0,0	0,0
	0,3	0,0	76,1	0,9	9,8	0,0	1,6	0,2	0,0	0,0	11,1
	0,9	0,0	76,9	1,1	6,3	0,2	14,4	0,0	0,0	0,0	0,2

Table 1.5 (contd.)

Products	Import source										
	GRC	PRT	SPA	ITA	Other EU	TUR	MOR	TUN	EGY	CYP	Other non-EU
Lemons											
1jan-31may	1,8	0,0	70,3	8,8	9,2	3,7	0,0	0,0	0,0	2,4	3,8
1jun-31^{o}ct	0,1	0,0	36,8	2,6	18,3	0,4	0,0	0,0	0,0	0,0	41,7
1nov-31dec	1,7	0,0	74,6	3,0	12,1	3,4	0,0	0,0	0,0	4,4	0,8
Table grapes											
1jan-14jul	0,6	0,0	8,4	8,6	23,4	0,0	0,0	0,0	0,4	0,1	58,5
15 - Jul 20jul	0,2	0,0	22,5	54,8	13,1	0,9	0,0	0,0	1,5	4,1	3,0
21jul - 31oct	11,8	0,0	8,4	65,7	5,5	6,4	0,0	0,0	0,0	0,5	1,8
1-20 Nov	6,2	0,0	10,0	70,3	7,1	2,5	0,0	0,0	0,0	0,0	3,9
21nov - 31dec	1,8	0,0	23,8	43,8	9,1	2,0	0,0	0,0	0,0	0,0	19,5
Apples (Golden delicious)											
1jan-31marc	0,1	0,0	4,8	23,2	70,4	0,0	0,0	0,0	0,0	0,0	1,5
1apr-30jun	0,0	0,0	3,5	27,6	46,2	0,0	0,0	0,0	0,0	0,0	22,6
1jul - 31jul	0,0	0,0	3,4	22,8	43,7	0,0	0,0	0,0	0,0	0,0	30,1
1aug-31dec	0,1	0,5	2,1	22,6	72,7	0,0	0,0	0,0	0,0	0,0	2,1
Apricots											
1jan-31may	1,1	0,0	70,4	1,6	17,0	0,0	0,0	0,5	0,0	0,0	9,4
1-20 Jun	2,1	0,0	54,2	10,2	32,4	0,0	0,0	0,0	0,0	0,0	1,0
21 - 30 Jun	10,3	0,0	25,5	12,9	51,2	0,0	0,0	0,0	0,0	0,0	0,1
1 -31 Jul	4,7	0,0	15,6	17,3	59,9	0,5	0,0	0,0	0,0	0,0	1,9
1 Aug - 31dec	2,0	0,0	9,6	13,4	63,1	0,2	0,0	0,0	0,0	0,0	11,5
Cherries											
1jan-30apr	4,5	0,1	35,5	10,1	34,1	0,0	0,0	0,0	0,0	0,0	15,7
1 -20may	0,1	0,1	54,6	3,9	37,4	0,0	0,0	0,0	0,0	0,0	3,9
21-31 may	0,2	0,0	44,2	17,3	30,4	0,0	0,0	0,0	0,0	0,0	7,9
1jun - 15jul	13,7	0,0	10,0	20,9	20,2	21,8	0,0	0,0	0,0	0,0	13,6
16jul - 31jul	20,9	0,0	1,1	3,7	16,6	37,4	0,0	0,0	0,0	0,0	20,3
11-10 Aug	25,1	0,0	9,6	11,4	21,3	10,1	0,0	0,0	0,0	0,0	22,5
10 aug-31 Dec	28,7	0,1	4,5	13,5	33,2	0,9	0,0	0,0	0,0	0,0	19,1

* The sum of the column percentages must be equal to 100

GRC: Greece ; PRT: Portugal ; SPA: Spain ; ITA: Italy ; TUR: Turkey ; MOR: Morocco ; TUN: Tunisia ; EGY: Egypt ; CYP: Cyprus

Source: Eurostat - Comext Database. Own calculations.

1.8 - Comparative advantages for SEMCs

However, agro-food products enjoy comparative advantages in SEMCs. Recent work carried out by Haddad (2000) provides some indication of products where such advantages are enjoyed. Thus, using the Revealed Comparative Advantage index (RCA), comparative advantages are found in food and live animals for non-

major oil exporters such as Jordan, Morocco, Syria, Turkey, and Egypt[7]. Agricultural commodities and foodstuffs are found within the group of products with an RCA higher than 1 (see table 1.6).

Table 1.6 - Agro-food and forestry products with Revealed Comparative Advantage (RCA) > 1 (1997)*

Country	Product	RCA index
Algeria	244 Cork, natural, raw and waste	6
	633 Cork manufactures	1
Jordan	431 Animal and vegetable oils, fats, and waxes	114
	001 Live animals chiefly for food	38
	025 Eggs, birds & egg yolks	21
	054 Vegetables, fresh, chilled, roots, tubers	14
Morocco	244 Cork, natural, raw and waste	53
	036 Crustaceans & mollusks	30
	056 Vegetables, roots and tubers	22
	037 Fish, crustaceans & mollusks	22
	057 Fruit & nuts, fresh or dried	11
	054 Vegetables, fresh, chilled, roots, tubers	10
Syria	263 Cotton	54
	045 Cereals, umilled	36
	075 Spices	13
	054 Vegetables, fresh, chilled, roots, tubers	13
	223 Oilseeds and oleaginous fruit, for fixed oils	10
	041 Wheat (including spelt) & maslin, unmilled	8
	001 Live animals, chiefly for food	8
	057 Fruit & nuts, fresh or dried	6
Tunisia	047 Other cereal meals and flours	26
	423 Fixed vegetable oils, soft, crude, refined	21
	244 Cork, natural, raw and waste	10
Turkey	046 Meal and flour of wheat and maslin	19
	121 Tobacco, unmanufactured, tobacco refuse	17
	057 Fruit & nuts, fresh or dried	9
	062 Sugar confectionery	9
Egypt	263 Cotton	23
	265 Vegetable textile fibers	18
	941 Animals, live (including zoo animals)	15
	042 Rice	14
	651 Textile yarn	11

* RCA is measured as the ratio between the share of the product in world exports and the share of the product in the country's exports. Products are displayed as listed in the SITC at the 3-digit level.

Source: Haddad (2000); Own elaboration.

[7] The RCA of country "i" for product "j" is measured by the product's share in the country's exports in relation to its share in world trade.

1.9 - Lack of highly skilled specialisation in the SEMCs

Despite an RCA of more than 1 for a number of agricultural products, the South shows a virtual absence of comparative advantage in high-skill-intensive products and, instead, a concentration of exports on primary products. A challenge for Mediterranean countries would be to move to a more diversified export structure based on high-value-added products. This diversification will require technology and labour skills. Low labour costs are not a guarantee for export success against countries which manage to increase labour productivity while keeping labour costs relatively low. Moreover, the FEMISE report (Hamdousa and Reiffers, 2002) noted that SEMC exports in food, livestock, fats and beverages (CTCI: 1-digit level) has recently grown less than their respective share in world trade, which means that SEMCs gain less from the growth of global demand than other regions of the world[8]. Freer EU market access will probably help to create incentives for SEMC exports. However, it is unlikely that fully open market access for SEMCs will significantly boost their exports to the EU, at least in the short term. As indicated in previous CIHEAM reports, quality specifications and high marketing costs (including logistics, post-harvest operations, transport, etc.) still hinder export competitiveness in SEMCs. Distribution firms in Europe are establishing certification and control procedures that represent a significant challenge for horticultural exports, even in the absence of traditional trade barriers. Only a few countries, and not necessarily those most endowed with favourable climatic conditions and abundant labour, are able to export the quality products demanded by high-income consumers. Many of the constraints on SEMC exports are related to supply. Thus, market access becomes a necessary, but seemingly insufficient, condition for improving export performance.

1.10 - Weak European direct investment in the SEMCs

Since FDI is considered to be a positive factor for productivity, an increase in these investments would be a desirable effect of Euro-Mediterranean integration. FDI flows to SEMCs have been disappointing to date. In 2000, the Mediterranean countries' share of global European Direct Investment outside the EU was 0.55%, which is much lower than the average levels reached in the course of the 1990s. In fact, the attractiveness of SEMCs for FDI actually declined in the nineties: the region's share in global FDI directed to developing countries dropped from 5.9% in 1990 to 3.7% in 2000[9]. Marked asymmetries between the North and the South of the Mediterranean region are reflected by the fact that the Northern countries are the destination of 94% of total foreign direct investment (FDI) flowing to the

[8] Petri (1997) refers to a "quality gap" in SEMC exports compared to more dynamic developing areas.

[9] By contrast, foreign investments in the CEE area have significantly gained in importance, with an average of 8.3% in the last five years and a peak of 10.7% in 1995 (Alessandrini, 2000).

Mediterranean region (Bencharif et. alia, 2002). As far as the agro-food system is concerned, the authors quoted point to the weakness of capital flows from transnational corporations (TNCs) to the Mediterranean region. Only 8% of the total number of subsidiaries of the top 100 TNCs were opened in Mediterranean countries between 1988 and 1999, and 4 of every 5 were opened in Southern Europe. Consequently, the Mediterranean region shows a very small degree of integration of agro-food FDI. In the next chapter we examine the reasons for this situation as well as the extent to which the EMFTA could increase FDI in the Mediterranean agro-food system. Until the early 1990s the State was present as an active investor in the agro-food system in many SEMCs. Economic reforms during the 1990s may have provided enhanced incentives for attracting FDI, but not enough to become a significant development, as we shall show below.

In summary, these ten facts concerning Euro-Mediterranean trade suggest disappointment at the current situation for SEMCs. However, given the potential gains for SEMC agricultural exports, their positive contribution to the success of the Barcelona process should not be neglected. A precondition for exploiting such potential gains is to obtain greater access within the EMFTA framework. This would send a signal of confidence to trading agents in SEMCs, which would encourage efforts to improve quality and to adapt to European market demands. If this signal is understood and backed by the EU with appropriate support for structural reforms, potential gains could become a reality. Complementary South-South integration becomes a precondition for attracting FDI, as argued below.

2 *The Euro-Mediterranean partnership*

2.1 – A review of the Euro-Mediterranean agreements

Europe's will to engage in fruitful relations with Mediterranean third countries dates back to the Treaty of Rome itself. It was in fact France - the principal colonial power amongst the founding countries of the "common market" at the time - that wished to maintain its preferential relations with African countries and with those bordering on the Mediterranean in particular, which were gaining independence. It had thus insisted on applying preferential treatment through which trade relations and cooperation could be developed with those countries. The very idea of a preferential scheme of that nature was in principle against the rules of the customs union that was about to be established amongst the six signatory members of the Treaty. But France nevertheless a attained an annex to the treaty maintaining a system of trade with Morocco and Tunisia which would preserve their conditions of preferential access to the French market.

The fledgling "European Economic Community" subsequently came to realise that it was necessary to forge a Mediterranean policy, commensurate with geostrategic realities and its regional ambitions. Many Southern and Eastern Mediterranean countries (SEMCs) had also embarked on policies for modernising their agricultural sectors with special emphasis on promoting a number of export products for which they considered they had certain comparative advantages (citrus, fresh fruit and vegetables, wines, olive oil, etc.). They were thus just as interested in establishing preferential trade relations with the European Economic Community (EEC) which would guarantee them access to its markets - a precondition for developing their exports.

It was not until the 1970s, however, that an overall policy was formulated at this level. The EEC meanwhile began to sign agreements of a different scope with many SEMCs as of 1962: association agreements accompanied by a plan for a customs union with Greece (1962), Turkey (1963), Cyprus and Malta (1969 and 1970); partial association agreements with Tunisia and Morocco (1969) with free access to the Community market for industrial products and special treatment for agricultural products, and preferential trade agreements replacing other non-preferential agreements with Israel (1964 and 1969), Lebanon (1965 and 1969), Spain (1970), and Egypt (1972).

2.1.1 - The general Mediterranean policy and first-generation Euro-Mediterranean agreements

By the beginning of the 1970s with the first enlargement of the Community to include countries in the north of Europe (United Kingdom, Ireland, Denmark), the EEC felt it necessary to vest itself with an overall orientation regarding its southern neighbours around the Mediterranean and at the same time to define the framework of its trade relations with them, in particular in the agricultural field. The Summit of Heads of State held in Paris in October 1972 thus decided to adopt a "balanced comprehensive" policy with regard to countries bordering the Mediterranean. That policy was based on two pillars: the first concerned trade and the second technical and financial issues.

The trade component aimed to develop SEMC exports to Community markets under preferential conditions. Industrial products thus had virtually free access to those markets, only a few "sensitive" products - mainly in the textile and garment sector - being the subject of voluntary restraint agreements. Agricultural products, on the other hand, enjoyed tariff reductions ranging from 20% to 100% depending on the degree of self-sufficiency for each product in the European Community. But various non-tariff protection mechanisms began to be developed for the most sensitive of these products: reference prices accompanied by countervailing charges, import schedules, tariff quotas, safeguard clauses, etc. The second component, which concerned technical and financial cooperation, enabled Europe as a body to contribute to the development of the Mediterranean countries. This contribution took concrete form mainly in the signing of "financial protocols" covering 5-year periods with amounts of aid distributed in donations and loans of the European Investment Bank.

Compared to the agreements signed in the 1960s, which were of limited and strictly commercial scope, the comprehensive approach was reflected here in the measures to extend the scope of cooperation to new fields such as economics and finance, training, scientific and technical research, social protection, etc. It was also reflected in the fact that this policy subsequently materialised in multiple agreements which had the same source of inspiration and comprised a largely homogeneous structure with similar "parts" and "chapters" and common provisions. Yet these agreements were not based on a regional or multilateral approach as was already the case with the "Yaoundé Convention" signed with the countries of sub-Saharan Africa, the Caribbean and the Pacific, which was subsequently extended through the "Lome Convention". Although they are fairly similar, the "first-generation" Euro-Mediterranean agreements were negotiated bilaterally between the European Community and each of the individual countries concerned.

Three types of agreements were signed within the framework of this comprehensive policy. First, there were the "association agreements" with countries which had in

fact already applied for accession: Cyprus, Malta and Turkey (1972 and 1976-1977). Then there were the "cooperation agreements" with third countries in the Maghreb in 1976 (Tunisia, Morocco, Algeria), countries in the Mashraq in 1977 (Egypt, Syria, Lebanon and Jordan), and Yugoslavia in 1980. And finally, there were the virtual free trade agreements concluded with Portugal in 1972 and with Israel in 1975 (the latter being limited to industrial products).

Although these agreements concluded in the course of the 1970s were ambitious, they soon became "outmoded" due to two essential factors. First, contrary to the first enlargement, the EEC enlargements carried out during the 1980s were "southist" in orientation: Greece in 1981, followed by Spain and Portugal in 1986. Whereas the 1972 enlargement involving countries that imported Mediterranean agricultural commodities had the effect of enlarging the Community market for the SEMCs exporting the commodities in question, the accession of new countries in the 1980s which themselves produced and exported those products had a very different impact. With the accession of Greece, Portugal and, in particular Spain, the EEC achieved a high level of self-sufficiency for the main Mediterranean agricultural commodities and even produced surpluses in the case of certain products[10]. This caused concern in most Mediterranean third countries as to the future of their agricultural exports on Community markets. And secondly, as a result of the economic crisis, the Community began to limit its financial contributions, a fact which was bound to disappoint the high hopes of the SEMCs, which themselves were having to cope with even more serious economic and financial difficulties and, what is more, to accept the fact that the agreements they had signed were having little effect on the development of their exports.

Two types of solution were found in this situation, the first concerning the SEMCs and the second the EEC.

2.1.2 - The changes of the 1980s and efforts to adapt

The first solution had to be found by the SEMCs themselves. The Community strongly recommended that they adapt their production cycles, particularly in the case of early fruit and vegetables, in order to shift production to the autumn and winter seasons, during which their exports were unlikely to meet with much competition from European production, which was concentrated more on spring and summer. This recommendation was followed to a large extent, since many countries effected investments and implemented various measures aiming to renew orchards, build protective greenhouses, adopt new irrigation techniques and production methods (new seed varieties, new fertigation techniques, etc.), and to modernise canning and packaging plants, transport facilities, etc. As a result, within a few years the bulk of demand for many products had indeed shifted to the

[10] A study conducted in 1980 on the basis of the statistics of the European Commission already revealed that the Europe of the 12 was achieving self-sufficiency rates ranging from 83% for tomatoes to 102% for potatoes. Cf Akesbi, 1980.

autumn and winter seasons, while product quality had improved appreciably (Akesbi, 2001).

The second solution concerned the European Community, which had to formulate proposals for its Mediterranean partners that would help them to adapt to the new Community order by enabling them in particular to maintain their exports, which had been more or less challenged by the new accessions. This was to be the role of the so-called additional economic protocols that were negotiated in 1987 the 1988 on the basis of horizontal directives comprising a common core for all of the Mediterranean countries concerned and specific provisions for some of those countries[11]. In general, the Community was only anxious to maintain traditional trade flows. With regard to agricultural products, "traditional quantities" of Community imports from each Mediterranean third country had been laid down for the various products concerned (citrus, tomatoes, potatoes, olive oil, wine etc.) and calculated on the basis of the average quantities realised during the period from 1982 to 1984. In order to achieve the objective that had been set the idea was to try to bring the concessions that had been granted to the SEMCs into line with the transitional scheme applicable to Spain and Portugal with a view to integrating those two countries into the Community. The customs tariffs on the products concerned had thus been adjusted and progressively reduced in tandem with the dismantling of tariffs which the two new members enjoyed. The same applied to reference prices but of course within the limit of the quotas so that the traditional quantities could be maintained and within the limit of the existing schedules, which were thus confirmed.

Was this adaptation effort on either side of the Mediterranean sufficient to remedy the situation and open up new prospects for Euro-Mediterranean trade? The fact is that most SEMCs continued to struggle with arduous economic and financial difficulties without any results of trade with the European Community sufficiently convincing to boost their failing optimism. The results of various evaluation studies converged in a rather disappointing assessment (Aloui, 1994; Akesbi, 1995). It was observed in particular that, with very few exceptions, the preferential regimes for market access had scarcely brought any real development in SEMC exports or even prevented their relative positions on Community markets from deteriorating. The SEMC market share in the total agricultural imports of the European Union decreased by 20% in 1970 to 7% in 1980, for example, and to under 5% by the beginning of the 1990s (Boudiche, 2001). The trade deficits with the European Union increased steadily (15.2 million euros in 1993 as against 6.1 million in 1980 and 1.1 million in 1970). Due to the persistent weakness of the manufacturing industries (with the exception of the textile and garment industry in certain countries) and the lack of diversification of traditional agricultural exports, there was practically no significant development in the structure of SEMC exports. In

[11] Between 1987 the 1988, agreements of this nature were signed with seven Mediterranean third countries: Morocco, Algeria, Tunisia, Egypt, Israel, Jordan, and Lebanon.

summary, the theory of growth "triggered" by foreign trade, which itself would be sustained by preferential relations, remained to be proved.

2.1.3 - The "renewed" Mediterranean policy and the "European offer to GATT/WTO"

As of 1989, the Community began to assess the Mediterranean policy it had been pursuing since the 1970s. Since the results of that policy were viewed as mixed, the Commission proposed a new policy in June 1990, which it described as "renewed" (EEC, 1990). This policy, which brought the innovation of emphasising the concept of partnership (involving the concepts of civil societies, mutual commitments, etc.), was to comprise 6 components: measures to accompany the economic adjustment process, measures to encourage private investment, action to increase bilateral and Community financing, measures to maintain or improve access to the Community markets, closer involvement in the development of the Community towards the single market, and measures to strengthen economic and political dialogue. It was in fact the financial protocols - concluded for the period from 1991 to 1996 - that were the most effective instrument of this policy. The overall budget constituted a considerable increase compared to the previous protocols, amounting to almost 4.4 billion ecus, with the completely new phenomenon that almost half of it was allocated to programmes of common interest to several Mediterranean third countries which were part of the horizontal cooperation measures and were not included in financial protocols (regional cooperation in the fields of the environment, transport, telecommunications, the media, research, etc.), or programmes supporting economic reforms and structural adjustment. A further new dimension then developed rapidly through the concept of decentralised cooperation actively involving civil societies on either side of the Mediterranean, which took the form of a new generation of "Med programmes": Med-Campus, Med-Urbs, Med-Media, etc.

But various criticisms were soon levelled at the renewed Mediterranean policy: it was criticised as lacking global vision encompassing the entire Euro-Mediterranean region; it was accused of failing to provide an answer to the crucial problems of the SEMCs such as debt, the impact of structural adjustment policies, international migratory flows, etc.; the fact that the Community authorities were adopting the same conditionality requirements as those stipulated by the Bretton Woods institutions for the granting of financial contributions was deplored, and so on.

At all events, the SEMCs' optimism was already waning since, with the turning point of the 1990s they were confronted with new changes in their external environment and consequently with new challenges. On the one hand, the opening of the Community to the Central and Eastern European countries after the fall of the Berlin Wall made them feel that they had been "abandoned" for the benefit of new partners, which were already European and were seen as future accession candidates. In addition to receiving a considerable amount of aid, those countries

concluded a whole series of trade agreements with the European Union aiming to build up free trade zones, which would, furthermore, accentuate the watering down of the market access advantages previously obtained by the Mediterranean third countries.

On the other hand, the completion of the single market and the end of the transition period for the accession of Spain and Portugal two years ahead of schedule created a new situation, particularly in agricultural trade, in what was then to become the European Union (EU). The Mediterranean products of these new members (fruit, vegetables, olive oil, etc.) were now freed from the restrictive mechanisms governing access to the other Community markets just as import certificates and other more binding provisions were being introduced for similar products from the Mediterranean third countries concerned. What is more, Spain and Portugal could now benefit from the export refunds provided by the common agricultural policy, which was actually a factor of unfair competition for SEMC exporters of the same products[12].

Furthermore, the trend in the multilateral agricultural negotiations in the context of the Uruguay Round where the major powers were being allowed to predominate more and more, was certainly worrying for countries which feared that "summit" arrangements would be at their expense. Indeed this concern proved to be justified, at least in the case of certain SEMCs whose exports were competing directly with those of the new EU Member States. The subsequent "European offer to GATT/WTO", for instance, comprised inter alia a very special system of "tariffication" for fruit and vegetables providing a means of maintaining the entry price mechanism, which basically was no different to the previously widely decried reference price system. The result was that, whereas what many SEMCs were expecting of the Marrakesh agreement was precisely an end of non-tariff barriers, which were such an obstacle to the development of their agricultural exports on Community markets (even if they were converted into "tariff equivalents"), when all was said and done they found themselves having to contend with a protectionist mechanism that differed little from the previous one. At all events, in the case of so-called "sensitive" products[13], which often account for a large share of SEMC agricultural exports, the mechanism became daunting: high entry prices combined

[12] Shortly afterwards - in 1994 -, for example, on the occasion of an "exchange of letters" between the Community authorities and their Moroccan counterparts concerning transitional rules for tomatoes and courgettes, the Community authorities were going to introduce a provision allowing the said import certificates to be introduced where necessary along with an actual "monthly calculation" of the quota, which had previously been granted for an entire farm year.

[13] The 14 products currently considered sensitive are: tomatoes, onions, olive oil, almonds, oranges, mandarins, lemons, grapes, melons, strawberries, flowers, potatoes, rice and wine. Cf COM 97, 477 final, 1/10/1997.

with heavy penalties in the form of excessive tariff equivalents[14], quotas, schedules, import certificates, safeguard clauses, etc.

It was in this context marked by growing concerns expressed here and there in southern Europe and the Mediterranean region in view of a "Community pendulum" which was clearly leaning more towards the east than the south that the European authorities began to take renewed interest in the Mediterranean dimension. The Corfu European Council in 1994 requested the European Commission to present a draft policy for "strengthening" relations between the EU and the Mediterranean partners. The communications which the Commission presented to the Council and Parliament in October 1994 and March 1995 for "implementing a Euro-Mediterranean partnership" (EEC, 1995b) were approved by the European Council in Cannes in June 1995, thus opening the way for the "Barcelona process".

2.1.4 - The "Barcelona process" and the new vision of the Euro-Mediterranean partnership

The Barcelona Conference which was held on 27 and 28 November 1995 brought together the representatives of the Member States of the European Union - which had just been enlarged to 15 States through the accession of Austria, Finland and Sweden - and those of their 12 Mediterranean partners[15]. This conference was to mark a new beginning for EU Mediterranean policy as part of a wider-ranging strategy than that which had previously determined their relations and one which went far beyond the traditional fields of trade and cooperation. In addition to the bilateral dimension which was to be embodied in new association agreements, this policy sought to focus on the regional level with a view to promoting a multi-purpose collective dialogue that was intended to embrace the political, economic, social, and cultural fields at once.

The Barcelona Declaration adopted at the conclusion of the Conference underlined the participants' will to establish amongst themselves "a comprehensive partnership - the Euro-Mediterranean partnership - through strengthened political dialogue on a regular basis, the development of economic and financial cooperation and greater emphasis on the social, cultural and human dimension" (GERM, 1996). The economic and financial component of the new partnership was particularly ambitious, setting itself the objective of building up an "area of shared prosperity" around the Mediterranean in particular by gradually introducing a free trade area by 2010.

[14] In some respects the new mechanism resulted in a tougher protectionist mechanism for three reasons: the entry prices proved to be higher than the reference prices; they applied continuously throughout the year (instead of during limited periods); and the penalty imposed in the event of infringement was heavier than in the past.

[15] Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Syria, Tunisia, Turkey, Palestinian Authority.

With regard to manufactured products, free trade was to be gradually brought about by progressively eliminating tariff and non-tariff barriers according to a timetable to be negotiated amongst the partners. The Declaration was more cautious with regard to agricultural commodities on the other hand, stating that trade in these goods would be "progressively liberalised through reciprocal preferential access among the parties", but was careful to specify that this would be done "taking as a starting point traditional trade flows and as far as the various agricultural policies allow and with due respect to the results achieved within the GATT negotiations".

The free trade area was to be built up through new Euro-Mediterranean agreements and free trade agreements between the partners of the European Union. It was also to be supported by ambitious financial cooperation which would be qualitatively different from the systems previously laid down in the financial protocols. The MEDA regulations - which would henceforth constitute the new financial framework for Community intervention – were indeed vested with substantial amounts and, in particular, were given two separate but complementary purposes; the first would develop through the "national indicative programmes" with a view to supporting projects in the fields of economic transition and improvement of socio-economic balances; the second, which is horizontal in nature, was intended to support projects of common interest that are launched by the Euro-Mediterranean partners and are of regional scope.

Since the first Euro-Mediterranean Conference in 1995, others have been held as part of the same "Barcelona process": in Malta in 1997, in Stuttgart in 1999, in Marseilles in 2000, and in Valencia in 2002. Although each meeting provided an opportunity for the partners to reaffirm their attachment to the spirits and purpose of "Barcelona 1", the fact remains that, seven years on, there is still a long way to go to achieve the objectives that have been set. The efforts made in the context of the first component of the partnership, which is referred to as the "policy and security" component, have as yet barely achieved agreement on the "Euro-Mediterranean charter for peace and security". Progress has indeed been made with the plans for creating a free trade area between the EU and its Mediterranean partners that have been drawn up as part of the second - economic and financial - component, since most of the association agreements - which outline the framework for these plans - have now been concluded after what was often a laborious negotiation process (see 3.5 below). But on the whole there has been little response to the repeated appeals for a significant increase in foreign - particularly European - investments in SEMCs, and the MEDA programme, which was intended in particular to promote economic transition and the transition to the free trade area by helping to finance part of the costs involved, still falls short of the expectations it has been raising since 1996[16]. The third component, which comprises the social, cultural and human

[16] When the MEDA 1 programme was implemented, for example, the funding that had been promised was only deployed very partially. The appropriations for payments only amounted to 26%

dimensions, generated several initiatives which were praiseworthy but often more symbolic than practical (fora of civil society, "Euromed Heritage" and "Euromed Audiovisual" programmes, Euromed Foundation for Dialogue Between Cultures and Civilisations, etc.).

2.1.5 - The second-generation Euro-Mediterranean Association Agreements

The association agreements concluded between the EU and the SEMCs in the context of the "Barcelona process" can be described as second-generation agreements in that they replace the first-generation agreements of the 1970s, which were known as "cooperation" agreements at the time. By 2002, the EU had concluded the latter type of bilateral association agreements with practically all of the Mediterranean countries concerned. The first agreements were concluded with Tunisia, Israel and Morocco even before the Barcelona Conference was held (in June, September and November 1995 respectively). These countries were then followed by the Palestinian Authority, with which the EU signed an agreement in February 1997, and the trade provisions of that agreement were applied on an interim basis as of July that year. A fifth agreement was signed the same year with Jordan (November 1997), following which it was not until June 2001 that the negotiations with Egypt were concluded with the signing of a new agreement. And finally, two further agreements were concluded in 2002 with Algeria and Lebanon (in April and June respectively). The latter three agreements have still to be ratified by the parliaments concerned in order to enter into force. Furthermore, the three countries which are either negotiating accession to the European Union (Cyprus and Malta) or are candidate countries (Turkey) are already bound by association agreements establishing customs unions with Europe. And finally, of the 12 partner countries in the Barcelona process Syria is the only country - in the last quarter of 2002 - that is still engaged in negotiations, but these negotiations are in their final phase and an agreement could be signed with that country fairly soon.

of the credits in the fulfilment of obligations for the 1996-1999 period on average for all of the countries concerned (EEC, 2000).

Table 2.1 - Status of the Euro-Mediterranean Association Agreements (November 2002)

Partner countries	Initialled	Signed	Entered into force
Algeria	December 2001	22 April 2002	-
Cyprus	February 1997	in force	
Egypt	-	25 June 2001	-
Israel	September 1995	November 1995	in force since 2000
Jordan	April 1997	24 November 1997	1 May 2002
Lebanon	10 January 2002	17 June 2002	-
Malta	in force		
Morocco	15 November 1995	26 February 1996	March 2000
Palestinian Authority	December 1996	February 1997	Interim cooperation agreement July 1997
Syria	negotiations underway		
Tunisia	June 1995	July 1995	March 1998
Turkey	April 1997	Customs Union in effect	

Source: Delegation of the European Commission to the Kingdom of Moroco, Newsletter no. 171, Rabat, July 2002 (data updated by the authors).

With the exception of the agreements concluded with the candidate member countries, all of the association agreements concluded since 1995 make provision for the establishment of a free trade area for goods between each of the countries concerned and the EU as well as the progressive opening of agricultural markets in addition to provisions concerning the liberalisation of trade in services and capital movements and competition. These agreements are in fact all built on the same model, although of course each agreement then contains provisions and features specific to the relations between the particular Mediterranean third country concerned and the EU. The same general structure is to be found in all of the agreements of this nature, with the same "pillars" modelled directly on the Barcelona Declaration, the same preambles, parts and chapters setting out the fundamental principles, political dialogue, free movement of goods, economic cooperation, cooperation in social and cultural affairs, financial cooperation, and various institutional and organisational arrangements.

The part of the agreements relating to the free movement of goods is without doubt the part involving the most laborious negotiations. Aiming to build up the free trade area, it is based on the principle of reciprocity, which marks a change in the type of trade relations which the EU wishes to build up henceforth with its Mediterranean partners. For whereas in previous agreements the EC formerly granted access to most industrial products from SEMCs without customs duties, it wanted to build up a new regional structure for the future on the basis of preferences and reciprocal commitments. The new generation of agreements thus comprises actual programming - generally over a period of 12 years - for the

dismantling of tariff and other barriers which may still impede the free access of industrial Community products on the markets of the signatory Mediterranean third countries.

This programming is of course modulated according to the specific situation of each individual country, generally depending on the nature of the products concerned, the state of the branches of industry concerned, and the projected impact of liberalisation on local production. Whereas the pace of liberalisation for capital goods, raw materials and intermediary goods that are not manufactured locally is often fairly rapid (less than 5 years from the date on which the agreements enter into force), more or less sensitive products and/or products which are manufactured locally benefit from longer protection dismantling processes with periods of grace at the beginning of the term - generally terms of 3 to 5 years and rarely more than 12 years.

When it comes to agricultural trade, however, the approach is quite different.

2.2 - The agricultural exception: the agricultural components of the association agreements

It must be stated first and foremost that one can hardly speak of a free trade area by the specific date in the future with clearly identified modalities as is the case with industrial trade. The logic that prevails is evidently still that of a certain "agricultural exception". It is thus, at most, a question of liberalising agricultural trade between the EU and the SEMCs on the basis of the principle of reciprocity. Both parties will thus have to agree on mutual concessions on the road to the "progressive liberalisation" of trade "as far as the various agricultural policies allow, as was already clearly stated in the Barcelona Declaration.

Box 2.1 - The Barcelona Declaration (1995)

"Taking as a starting point traditional trade flows, and as far as the various agricultural policies allow and with due respect to the results achieved within the GATT negotiations, trade in agricultural products will be progressively liberalised through reciprocal preferential access among parties,..."

Barcelona Declaration, November 1995.

When one examines the agricultural components of the various agreements concluded since 1995, the guideline common to all of them becomes quite clear: the more sensitive the products in question are and the greater the likelihood that trade in these products will compete dangerously with local products, the more limited are the concessions. The EU has thus generally granted broad concessions to its

Mediterranean third country partners in the form of free access with exemption from customs duties for exports which present no threat whatever for the Community products concerned. The tariff mechanism, on the other hand, and the non-tariff mechanism even more so, seems to be all the more protectionist where sensitive products are concerned for which the impact of foreign competition can have serious consequences. This is the case, for example, with tomatoes or citrus from Morocco, olive oil from Tunisia, potatoes from Egypt, or certain agro-food products from Lebanon. In the case of this type of product category the arsenal of protectionist measures is based mainly on daunting non-tariff barriers: high entry prices, monthly quotas, restrictive schedules, and/or safeguard clauses. The result is that the imports in question are in fact contained within limits which essentially take the interests of Community producers into consideration and take little account of the real export possibilities of the Mediterranean third countries concerned by such restrictions.

The SEMCs, for their part, generally import large quantities of staple commodities and certain agro-industrial products from the EU. In the case of the first category of products at least, one can understand that commodities such as cereals, sugar, edible oil or animal products are highly sensitive for countries where agriculture still plays an important role both in the economy and in society. Due to the poor performance of their staple-food agricultural sectors, these countries are all the more inclined to expose them to foreign competition since, over and above its economic and social aspects, such liberalisation would comprise a political dimension, mainly a food security dimension, which it is difficult to reduce to a simple partnership equation, however ambitious it may be. The SEMCs have thus also stated clearly that they are reluctant to embark rapidly upon a liberalisation process which could jeopardise complex internal balances within a fairly short period. The concessions which they have been able to grant the EU in this field have thus proved to be more modest since they have generally consisted of simple tariff preferences within the limits of relatively small quotas.

In fact in most of the agreements that have been concluded both parties have avoided entering fully into discussions on the delicate agricultural issue, preferring to postpone negotiations on fundamental questions and consequently any real commitments on the liberalisation of the relevant areas of trade until later - generally for 5 years. Of course, in the case of products whose imports into the EU do not cause any particular problem for local production, Community concessions have often been both feasible and considerable, since they have opened the road to free access to the markets in question and exemption from customs duties. But in the case of sensitive products, the main concern, particularly in the case of the first agreements signed shortly after the Marrakesh Agricultural Agreement, was to attenuate and adjust the provisions contained in the European offer to GATT/WTO which were considered to be excessively protectionist and which, unless a preferential bilateral agreement was concluded, were going to apply to SEMCs as they did to any other member country of the WTO. Where the "WTO entry prices"

had been set at levels that were obviously very high, for example, "mutually agreed" entry prices were negotiated and brought down to more or less acceptable levels. Quotas that were considered to be very insufficient were also increased, and schedules that were too tight were stretched to some extent. Although there has been basically no change in the protection mechanism established by the EU, it has at least been relaxed to take account of the dual need for measures to maintain trade flows and for the "preferential treatment" specific to any association agreement.

Whereas the negotiations were generally opened from the onset of the Barcelona process, only 2 of the 5 non-candidate SEMCs that are members of the CIHEAM (Tunisia and Morocco) managed to conclude their association agreements with the EU as early as 1995. A fairly long period then ensued during which the parties concerned continued to negotiate but failed to reach agreement on the conditions for their success. It was not until 2001 and 2002 that the negotiations were brought to a successful conclusion in the signing of association agreements with Algeria, Lebanon and Egypt. Although none of the latter agreements has as yet entered into force[17], there is no doubt that the signing of these agreements marks a decisive stage in the consolidation of the Barcelona process. In order to give a better illustration of the general guidelines which prevailed in the above-mentioned Euro-Mediterranean agricultural negotiations, we shall briefly present the main results obtained in the agricultural components of the association agreements concluded with the 5 SEMC members of CIHEAM, devoting more attention to the last 3 agreements which were signed recently.

The first agreement, which was signed between the EU and **Tunisia** in June 1995, enabled both parties to find middle ground on several sensitive issues (Zaafrane, 1999). It had been agreed in particular that the system provided for Tunisian exports of olive oil on the Community market (with a quota of 46,000 tonnes) would simply be renewed for 4 years and that a quota of 1000 tonnes would be granted for 4 years for cut flowers. Concessions had been obtained for several less sensitive products such as concentrated tomatoes, fruit salads, citrus, etc., but in particular a periodic review clause had meant that negotiations were announced for the year 2000. These negotiations were indeed held as planned and led to an agreement in December of the same year, which made provisions for "improved concessions" for Tunisian exports of olive oil to the EU on the one hand and, on the other hand, for EU exports of cereals and vegetable oils to Tunisia.

In the case of **Morocco**, the 1995 agreement had also postponed the opening of real negotiations on the liberalisation of agricultural trade "on the basis of reciprocity" to the year 2000 (EEC, 1995a). But in order to "maintain the level of traditional Moroccan exports to the Community and to avoid disturbances on Community markets" the tariff concessions formerly acquired were meanwhile preserved in the main and several measures were introduced to attenuate the

[17] Though it was agreed that the trade component of the agreement with Lebanon would be applied immediately on the basis of an interim agreement

severity of the restrictions introduced in 1994 in the European offer to GATT/WTO in the field. The entry prices of 5 sensitive products (fresh tomatoes, artichokes, cucumbers, clementines, oranges) were thus reduced within the limits of fairly restrictive quotas and schedules[18], and the customs duties on a number of other products were reduced or abolished - but again, where applicable, within the limits of fixed quotas and/or schedules.

In return, Morocco granted several tariff concessions combined with quotas for a number of important staple commodities (meats, milk, butter, cereals, oil, sugar, etc.), but these concessions were so minor that their effect was purely symbolic: they in fact established the acceptance of the principle of reciprocity with a view to future negotiations, which were to lead to the granting of real preferential treatment for Community products imported into Morocco. It was not until the beginning of 2002 that these negotiations were finally opened. After 4 bargaining rounds held in the first 6 months of the year, the two parties succeeded in exchanging their respective "requests". But now that the year is drawing to a close it would seem that it will not be until some time in 2003 that any agreement will be reached.

Box 2.2 - The new negotiations between the European Union and Morocco on the agricultural components of the Association Agreement

The association agreement signed in Brussels between the European Union and Morocco in February 1996 postponed negotiations on the agricultural component of the partnership to be built up between the two parties until January 2000. That review clause specified that as of 1 January 2000 the European Community and Morocco would examine the situation with a view to determining the liberalisation measures to be applied by both parties from 1 January 2001 onwards.

Due to delay in the ratification of the agreement it did not enter into effect until 1 March 2000, and it was not until the beginning of 2002 that the negotiations on the agricultural component were actually opened. Now that the first 4 rounds of negotiations have been concluded, the "requests" of the two parties, which will serve as a basis for the following stages in the negotiations, can be identified or at least outlined.

Taking the principle of reciprocity which must henceforth form the basis of the liberalisation of trade between Morocco and the EU as the point of departure, the EU is insisting that its North African partner must open its market to European products under preferential conditions and in substantial proportions. In practical terms, and judging by the information published in the press, the European negotiators are requesting duty-free access, or relatively low customs duties, for quantities amounting to 30% of Community agricultural exports to Morocco.

[18] The entry price for tomatoes, for example, was brought down from levels ranging between 700 and 900 ecus per tonne to 500 ecus per tonne, and the duty-free quota was raised from 130,000 tonnes to 156,676 tonnes in the period from 1 October to 31 March; and this quota was again itself strictly divided into monthly quotas.

Box 2.2 (contd.)

In view of the structure of these flows, a concession of this nature should concern what are known as "strategic" staple commodities in particular, such as cereals, meats, milk products, oils and oilseeds, and sugar.

The Moroccan negotiators, on the other hand, consider first and foremost that the first step must be to evaluate the experience gained with the current agreement which is still in effect in order to clarify certain aspects and "tidy it up". The first point concerns mainly the difference in interpretation of the provisions of the association agreement concerning the mutually agreed entry price quota for tomatoes. Basing its argument on Article 2 of Protocol no. 1 of the association agreement, the Moroccan party considers that the quota that has been laid down for this product concerns only the quantities that are marketed at the preferential entry price but that the quantities which can enter the market at the WTO entry price must not be counted in the quota in question. The EU contests this approach, however, considering that the quota that has been laid down for tomatoes is the single valid quota which must not be exceeded irrespective of the market access conditions in which it is realised. The second question concerns certain Moroccan products which were more or less "omitted" in the previous negotiations and whose access to European markets has thus been placed at a disadvantage even compared to the conditions they enjoyed before the 1995 agreement (this is the case, for example, with gherkins, dehydrated vegetables, concentrated tomatoes, etc.).

Morocco considers that once these two issues have been settled the two parties can open negotiations for the reciprocal and progressive liberalisation of agricultural trade in a more favourable climate. With this in view, the Moroccan party formulates a number of requests for improving the concessions relating to fresh and processed fruit and vegetables, olive oil, flower products, and animal products. These requests do not call the various instruments for protecting Community markets in question but merely amend them, essentially by increasing duty-free or mutually agreed entry price quotas, extending schedules and exempting products from customs duties without quantitative restrictions, where this is not yet the case.

* National Federation of Agro-Food Industries of Morocco
** Federation of the Agricultural Product Canning Industries of Morocco

Source: Fenagri*/Ficopam** President M. Chraibi pieces together the puzzle of the EU-Morocco negotiations, comments reported by M. Kabli, L'Economiste (economic daily), Casablanca, 14 March 2002.

The agreement concluded with **Algeria** in December 2001 enabled that country to consolidate the advantages of the 1976 agreement, as far as agricultural commodity exports to EU markets are concerned, and to extend them to new products (Bedrani, 2002). The concessions which Algeria obtained seem to be wide-ranging, covering 123 agricultural commodities which will be admitted with 100% reduction of customs duties as soon as the agreement enters into force. However, there is a limited list of 21 products which are considered sensitive and are subject to quantitative restrictions (tariff quotas or reference quantities). In return, the EU succeeded in obtaining substantial reductions in customs duties on its agricultural

exports to Algeria. These tariff concessions should concern one-third of the quantities traditionally imported by Algeria from the EU. As was the case with Morocco, the commodities concerned are mass consumption products which Algeria imports in view of the structures of its agricultural sector.

The two parties agreed furthermore to reduce a whole series of rates applicable to agro-food and fishery products. Algeria also succeeded in having agro-foodstuffs integrated in the same logic as agricultural commodities so as not to be subject to the programmed dismantling of tariffs, as is the case in the neighbouring countries. This precaution should enable the agro-food industry to upgrade, at least in the medium term. And finally, the association agreement also comprises a periodic review clause, making provision for new negotiations for wider-ranging liberalisation in the course of its sixth year of implementation, a fact which offers a certain degree of visibility and enables the various parties concerned to begin to prepare here and now for this new stage.

The negotiations with **Lebanon** were not easy either, but they were finally brought to a successful conclusion in January 2002 in conditions considered acceptable by the two parties. With regard to the agricultural component of the agreement, the EU granted free access to Community markets for Lebanese agricultural commodities as soon as the agreement enters into force. There is of course one "exception", which concerns a limited number of sensitive products, which are, however, duty-free but still subject to quotas. With regard to agro-foodstuffs, the two parties agreed on a whole series of mutual tariff reductions which for Lebanon are entirely free of the quota constraints that are generally contained in the other agreements, a fact which seems to constitute a form of "preferential treatment" which no other Mediterranean partner has as yet been able to enjoy. In addition to total exemption on the industrial element of all agro-foodstuffs exported, Lebanon has been favoured with exemption from the agricultural element on 77 similar products.

Lebanon, on the other hand, will wait for 5 years following the entry into force of the trade provisions of the agreement before beginning to grant tariff reductions on its agricultural commodity imports from the EU (these reductions should amount to 100% for products which are subject to a 5% tariff and a maximum reduction of 30% should be made on other products). And it is also at the end of this 5-year period of grace that Lebanon should begin to gradually reduce its customs tariffs on the European agro-foodstuffs that it imports over a period of 12 years. The duties will be completely dismantled in the case of products subject to a 5% tariff, and the reduction will be limited to 30% for all other products. And finally, the agreement makes provision for the opening of negotiations on the agricultural component within five years with a view to continuing the process and achieving full liberalisation of trade in agro-food products.

Box 2.3 - The Association Agreement with Lebanon

The negotiations for concluding an association agreement with Lebanon, which continued for several years, were stepped up at the end of 2000 and throughout 2001. They were brought to a successful conclusion with the signing of the agreement in Luxembourg on 17 June 2002. As part of the Euro-Mediterranean partnership launched by the Barcelona conference, this agreement will contribute to peace and security in the region and will stimulate trade and closer economic relations between Lebanon, its Mediterranean partners and the European Union.

The association agreement makes provision for:
- political dialogue on all subjects of common interest, and in particular on peace and security;
- economic cooperation covering all fields of economic and trade policy, the progressive establishment of a free trade area as an instrument for strengthening competitiveness, and substantial financial and technical support for economic transition programmes;
- in the social field, action considered to be of priority importance such as measures to promote the role of women. The aim of cultural cooperation is to promote better understanding of the respective cultures.

An interim agreement was also signed in Luxembourg allowing the trade and economic provisions of the association agreement to enter into force virtually immediately and commencing the 12-year period of transition to a free trade area.

The association agreement is intended to induce the two parties to liberalise their bilateral trade to a greater extent. With regard to industrial products, for example, whereas Lebanon already enjoys unlimited duty-free access to EU markets, the agreement makes provision for gradually abolishing the customs duties imposed on industrial products from the EU over a period of 12 years. This period will begin as soon as the trade provisions of the agreement enter into force and will comprise a 5-year period of grace. Customs tariffs will thus gradually be reduced from the 6th year onwards and will have been completely abolished by the end of the 12th year.

With regard to agricultural products, the EU has opted for a policy of immediate and complete liberalisation (neither duties nor quotas) for all Lebanese agricultural commodities as soon as the trade provisions of the agreement enter into force with the exception of a limited number of sensitive products, which will be duty-free but subject to quotas. Lebanon, on the other hand, will grant tariff reductions on the import of agricultural products from the European Union 5 years after the trade provisions of the agreement enter into force. The tariffs will be reduced 100% for products subject to a 5% duty and a maximum of 30% reduction will be made on other products. The agreement makes provision for the re-opening of negotiations on the agricultural component within 5 years with a view to achieving full liberalisation of trade in these commodities.

Box 2.3 (contd.)

With regard to agro-foodstuffs, the two parties agreed on a whole series of tariff reductions. Lebanon will enjoy full exemption, for example, on the industrial element of all of the agro-foodstuffs it exports as well as total exemption of the agricultural element on 77 similar products. Furthermore, the quota system has not been applied to Lebanese agro-food exports to the European Union, as is the case in the other association agreements. Lebanon seems to be the only Mediterranean partner to date to have obtained treatment of this nature. In return, after enjoying a 5-year period of grace, Lebanon should gradually reduce its customs tariffs on the European agro-foodstuffs it imports over a period of 12 years. Tariffs will be completely dismantled in the case of products subject to a 5% duty, and the dismantling will be limited to a 30% reduction in the case of all other products.

Sources: Commission of the European Communities (web sites):
http://europa.eu.int/comm/external_relations/lebanon/intro/index.htm
http://europa.eu.int/comm/trade/bilateral/leb.htm

The negotiations with **Egypt** have probably been amongst the lengthiest and most laborious negotiations undertaken by the European Union with a Mediterranean third country. They were difficult in particular because the Egyptian party distinguished itself by its intention to link the results of the negotiations to the development of trade - especially agricultural trade - which might result and, consequently, to a certain degree of balance of trade between the two associated partners. It would seem that this concern was more or less taken into consideration in the compromise which was finally arrived at and meant that an agreement could be signed on 25 June 2001. The contracting parties decided that the agreement would enter into effect 2 years after that signing but that it should take 16 years to implement it completely.

The agricultural component of the agreement provided a means of extending the current preferential system of trade to a large number of new Egyptian agricultural commodities (Mansour Abd El-Fattah, 2002). Where necessary, entry prices that were considered to be excessively high were reduced and the export schedules for certain products (grapes and melons, for example) were extended. It was agreed that the advantages granted would be reviewed every 3 years. The quotas to which certain commodities (potatoes, onions, garlic, oranges, etc.) are subject were increased considerably and this increase should continue at a rate of 3% per year. The duties applicable in the event that tariff quotas are exceeded were also lowered. It has been estimated that the value of Egypt's agricultural exports could increase as a result by 252% to 652% compared to their current value.

The parties decided to liberalise trade in agro-foodstuffs, and this liberalisation was programmed and modulated according to the levels of the customs duties in effect and to the structure of their content (divided into industrial and agricultural components). They were classed in 3 lists. The first list comprises products subject to import duties below 10%, which should now be dismantled by both parties. The

second list comprises products that are subject to tariffs of between 10% and 30%: whereas the European Union must abolish the customs duties applicable to their industrial component, Egypt has undertaken to reduce its customs duties by 15% to bring them down to a maximum of 25.5% - 30%. And finally, the third list comprises products subject to tariffs of over 30%: the European Union is to abolish customs duties on the industrial component of these products and increase the tariffs applicable to the agricultural component by 30%, whereas Egypt is to reduce the customs duties it imposes on the products in this list by 25%, bringing them down from a maximum of 40% to 30%.

Box 2.4 - The Euro-Egyptian Partnership

One of the major international developments that have taken place since 1995 has been the establishment of the Euro-Egyptian Partnership. This partnership involves a series of discussions conducted between Egypt and the European Union, the aim being to reach an agreement which will replace the Corporation Convention in effect since 1977 by expanding partnership bases, including all governmental institutions and private enterprise, where Egypt's negotiating position can be crystallised. The final agreement, which was signed in Luxembourg on 25 June 2001, takes aspects of national interest into consideration within the framework of the general strategy pursued by the government.

According to this agreement, international trade between Egypt and EU countries will be liberalised and measures will be taken to increase Egypt's exports and develop Egyptian industry. The agreement will enter into effect 2 years after the date on which it was signed, but it will take 16 years to fully implement all of the stages planned. The signing of this agreement demonstrates Egypt's commitment to the Economic and Social Reform Programme and also reflects Europe's commitment to help Egypt in this respect. It furthermore provides a positive signal encouraging potential foreign investors to invest in Egypt.

The Euro-Egyptian partnership provides a basis for extending the existing preferential system of trade to include all of Egypt's agricultural commodities, adding new products to the system for the first time. Egypt's agricultural exports are thus likely to benefit as follows:

* an increase in the list of agricultural exports to over 100 commodities and/or quotas for exporting new products for which there have been no quotas or preferential trading arrangements hitherto. These products include sugar cane, molasses, flowers, strawberries, mangoes, guavas, dates, onions, dried garlic, green peas, eggplants, juices, vegetable oils, sweet potatoes and peanuts;
* reduction of the entry prices for certain products (since they represent the minimum level for the selling prices);
* extension of the export seasons for certain Egyptian agricultural commodities such as grapes and watermelons;
* revision of the advantages provided for Egypt's agricultural exports every 3 years.
* an increase in, or doubling of, the quotas for kidney beans, onions, garlic, strawberries, oranges, potatoes and other crops;
* an automatic 3% increase in most of the agreed export quotas;

Box 2.4 (contd.)

* an increase in the value of Egypt's agricultural exports by 252-652% compared to the current value. This percentage may be multiplied by 80 for flowers, by 2.5 for potatoes, and by 8 for oranges, with new quotas for grapefruit, mandarines, lemons, watermelons, grapes, tomatoes, artichokes, marrows, asparagus and peanuts;
* reduction of the customs duties imposed on quantities exceeding the quota so that Egyptian agricultural exports can penetrate markets more effectively compared to the current situation.

* With regard to processed products, the European Union levies customs duties on its agricultural imports, and in particular on the industrial component of the good. It also levies other duties on certain agricultural components, particularly those containing commodities which can have an adverse effect on the EU domestic market, such as sugar, flour and milk.

* It has been agreed that trade in agro-foodstuffs will be liberalised. This is to be achieved on the basis of 3 lists which classify products according to the level of the customs tariffs imposed and product composition.

The first list covers several products that are essential for industry and consumption in Egypt.The duties on these goods have been under 10% hitherto and have now been abolished by both parties.

The second list comprises products subject to tariffs of between 10% and 30%. The EU has agreed to abolish all duties on the manufactured component of these products. In return, Egypt has agreed to reduce its import duties on products such as yeast, margarine, galrul and ketchup by 15% to 25.5% or 30%.

The third list includes staple commodities that are subject to a customs tariff of over 30%. The EU is to abolish customs duties on the manufactured component of these products and, furthermore, it will add 30% to the tariff imposed on the agricultural component. In return, Egypt is to reduce tariffs by 25%, bringing them down from 40% to 30%. (Egypt has granted a considerable advantage here.)

Source: Mansour Abd El-Fattah, 2002 (Egyptian National Report).

All in all, as will be seen, the process of liberalising agricultural trade between the European Union and its Mediterranean third-country partners is still at a stage where the logic of the "exception" takes precedence over that of standardisation. Appreciable progress has, of course, been made, more in the case of agro-foodstuffs than with fresh products, and this progress has been more marked in the recent agreements, particularly those signed with Lebanon and Egypt. But as regards fresh products, which are still nevertheless predominant in SEMC exports, the rule remains unchanged: as extensive concessions as possible for products "that do not pose a problem" and, in the case of other products, protection commensurate with their degree of "sensitivity". The result is that the feeling which has prevailed and still prevails in the eastern and southern Mediterranean is that of a certain amount

of dissatisfaction which is fostered both by a fairly disappointing development in trade and by the conviction that the export potential of the countries in question is still underexploited because it is still being contained within limits which are imposed precisely by the various Community protection mechanisms.

At all events, a decade after the assessment made at the beginning of the 1990s - and one which was qualified, to say the least - the fact remains that the "policy of agreements", which has been adapted to some extent in the course of the last three decades, still has not succeeded in creating any real export and, consequently, production, dynamic in SCMCs which could draw the growth of their economies into a virtuous development spiral. As was seen in the first part of the present report, both the total and the agro-food exports of the SCMCs to the EU are continuing to develop more slowly than their imports from the EU, with the result that these countries still have balance of trade deficits that are on the increase rather than decreasing towards less imbalance.

It has to be said, however, that the SCMCs do not seem to be much inclined to change their attitude to imports of products which they regard as sensitive either, even though these imports come from their European partner. The type of products and the issues at stake are admittedly hardly the same, since on the one hand it is merely a matter of "fruit and vegetables", whereas on the other hand staple foodstuffs which have a high political and strategic charge are concerned. The fact remains, however, that, where the negotiations on this difficult issue have not been postponed until later, the concessions which it would seem possible to grant at the present time barely go beyond a tariff preference that is resolutely restricted by fairly realistic quotas...

From the point of view of the Mediterranean third countries, the questions that are raised with regard to the future of their relations with the EU sometimes take on a special note, particularly when these countries realise that, whereas they were the "pioneers" in the European policy of "preferential agreements", the gradual multiplication of agreements of this nature with various groups of countries in various regions of the world has resulted - and will in future result even more - in a certain watering-down of their initial preferential position and consequently of the relative advantages they enjoyed in the past.

Box 2.5 - EU: preferential trade agreements and free trade areas

The EU grants preferential access to most of its trading partners for some or all imports: in 2002, nine WTO Members are subject to exclusively MFN treatment in all product categories: Australia, Canada, Chinese Taipei, Hong Kong, China, Japan, Republic of Korea, New Zealand, Singapore, and the United States. These countries accounted for 45.2% of EU's total merchandise imports in 2001. For other trading partners, the most beneficial treatment is granted to LDCs and the Overseas Countries and Territories (OCTs), followed by the ACP and countries that have concluded free-trade agreements with the EU, and then GSP-only countries.

The EU has expanded its free-trade agreement with **Switzerland** through the completion of seven bilateral agreements, on land-based transport, air transport, free movement of people, agriculture, research, procurement, and technical barriers to trade, which should enter into force in 2002.

The EU has been bound to the ten **Central and Eastern European countries** (CEECs) by European agreements since 1999. As a result, industrial goods have enjoyed freedom of movement between the signatories and the EU since the beginning of 2001. The remaining restrictions concern only a few sectors, notably agriculture (although 75% of CEEC agricultural exports to the EU and 61% of EU exports of agricultural commodities to the CEECs are now duty-free). The European agreements also contain provisions on the free movement of services, payments and capital connected with trade and investment, the free movement of workers, and cooperation in the environment, transport and customs fields. They also make provision for approximating their legislation with Community law, particularly in fields of relevance for the internal market such as competition and protection of intellectual, industrial and commercial property.

The association agreements concluded with **Cyprus and Malta** cover the same fields. The EU has established a customs union for industrial products with Turkey. There is freedom of movement for iron and steel products and coal, and the two parties have exchanged concessions in the agricultural sector. New negotiations were opened in 2000 with a view to liberalising trade in the services and public markets.

The EU has concluded bilateral association agreements with eight Mediterranean countries. These agreements have a political component, a trade component, and a cooperation component. The agreements concluded with Tunisia, Morocco and Jordan entered into effect in March 1998, March 2000 and May 2002 respectively. The trade provisions of the agreements concluded with the Palestinian Authority (signed in February 1997) are being applied on an interim basis. With regard to Israel, a new Euro-Mediterranean association agreement entered into force on 1 June 2000. Agreements have been signed with Egypt and Algeria but have not yet been ratified. The agreement with Lebanon has been initialled and the two parties plan to apply its trade component on the basis of an interim agreement. Negotiations with Syria are underway. The various agreements make provision for establishing a free trade area for goods between each of the countries concerned and the EU and for gradually opening agricultural markets. They

furthermore contain provisions pertaining to the liberalisation of trade in services and capital movements and to competition.

Box 2.5 (contd.)

Free-trade agreements are also being used as an instrument to integrate the **Western Balkans**. Stabilisation and association agreements (SAA) have been concluded with the Former Yugoslav Republic of Macedonia (FYROM) and Croatia. Albania and certain countries and territories of the former Yugoslavia – Bosnia-Herzegovina, the Federal Republic of Yugoslavia, including Kosovo – remain under the regime of Autonomous Trade Measures (ATM), which runs until the end of 2005.

The negotiations between the EU and the **Gulf Cooperation Council** (GCC) have resumed seriously now that the GCC has decided to apply a common customs tariff as of the end of 2005 at the latest and that the initial negotiation mandate of the EU, which dated from 1991, has been adapted.

The free trade agreements concluded between the EU and **Mexico** entered into force on 1 July 2000. In order to facilitate the use of the market access opportunities offered by gradually eliminating import duties, the parties have undertaken to strengthen cooperation in the field of non-tariff barriers. Most of the provisions pertaining to trade in goods must be implemented by the end of 2003, and Mexico has been given longer transition periods for industrial products (2007) and agricultural products (2010).

The negotiations for the conclusion of an association agreement between the EU and **Chile** were concluded on 26 April 2002. This agreement comprises three components: political dialogue, cooperation and trade. With regard to trade, in addition to the establishment of a free trade area for trade in goods and services and public procurement this component will comprise provisions on investments, customs and trade facilitation, intellectual property rights, competition and the settlement of disputes.

Negotiations were opened in April 2000 with a view to concluding an interregional association agreement with **Mercosur**. These negotiations are being held at the biregional level between one customs union and another. The second stage in the negotiations was launched in July 2001. Most of the texts proposed for the various negotiation subjects have already been exchanged and the parties have also exchanged their tariff offers. The third stage of the negotiations is under preparation.

After the conclusion of an agreement on trade, development and cooperation with **South Africa** in 1999, other agreements on trade in wine and alcohol were signed on 28 January 2002 and have been applied provisionally since that date. The negotiations on fisheries have not yet been concluded.

A new Council decision on the association agreements with OCTs was adopted in November 2001 in order to maintain the system until the end of 2011. A modified GSP scheme is being applied for the period from 2002 to 2004, whereas the LACs and countries which are fighting drug production and trafficking can take advantage of an improved GSP scheme under the "Everything but arms" initiative, as can countries for which this initiative is intended as an incentive to comply with fundamental labour standards or environmental standards.

Source: WTO, Report of the Trade Policy Review Body on the European Union, July 2002.

Thus, in a context where the globalisation logic is bound to develop further, it will be of crucial importance to devote very special attention to the conditions of the liberalisation of agricultural trade in the Mediterranean region.

2.3 - Agricultural trade liberalisation

Past experience and current realities with regard to the Euro-Mediterranean agreements suggest that the impact of the agreements on agricultural trade will be limited. One question is whether the deepening of agricultural trade liberalisation would be of advantage for SEMCs. This leads to the issue of the impacts of trade liberalisation in the region.

Despite the promised modernisation entailed in the Barcelona process, the relatively high adjustment costs with which the industrial sector in SEMCs is likely to be faced will inevitably be weighed up against the efficiency gains in the long term. Past CIHEAM reports have stressed the enormous efforts which the EMFTA will entail for SEMC economies. The manufacturing industry will be affected significantly by the increasing openness of SEMC economies in view of the progressive elimination of tariffs. Moreover, the EMFTA will bring a fall in import tariff revenues for SEMCs, particularly for those countries with higher import dependence on EU products. And finally, the "hub and spoke" system in the Mediterranean region may divert Foreign Direct Investment from SEMCs to other countries, mainly the candidates for the Eastern enlargement. These facts imply that the EMFTA could have strong impacts on the industrial sector, without offering much gain for the agro-food system in SEMCs.

How will the agro-food system be affected by the EMFTA? Let us consider the current situation established in the AAs, where free trade in manufactures is expected, but agricultural flows are still constrained. Within a framework of general equilibrium we can identify the various factors that will affect the SEMC agro-food economies. We can perform a simplified analysis that can help us to identify the main influences on the agricultural economies, taking account of the considerable heterogeneity of the agricultural sector in SEMCs, where relatively rich irrigated zones are combined with poor rain-fed areas with irregular weather conditions. Let us start with a positive effect. Tariff removals on manufactures and capital goods imports will probably increase the effective protection of some agricultural and agro-industrial activities. However, the competitive pressures facing SEMCs will probably increase, with a push to modernise the economy, but also with a risk for the most vulnerable sectors. In particular, two sectors in the SEMCs appear to be particularly sensitive to the liberalisation of trade with the EU. One is the agro-food industry, which will be affected most by the increasing

openness of the SEMC economies, given the fact that it is one of the sectors with the highest tariffs (Augier and Gasoriek, 2000). The other is the extensive rain-fed agricultural system, which in many regions in the SEMCs cannot compete with EU exports. While Most Favoured Nation (MFN) tariffs on agricultural imports are still significant in most SEMCs, market access for EU agricultural exports to SEMCs is being improved through preferential tariffs without limits (Jordan) or through tariff-rate quotas (TRQs) (e.g. Morocco and Tunisia). Given the high degree of agricultural protection in many SEMCs, the impact of trade liberalisation on rural welfare causes particular concern. The EU could request a further opening of Mediterranean import markets for EU grains and other food products (livestock, beef, dairy products, sugar and processed products). However, the pattern of specialisation in many agricultural regions means that the economic impact of agricultural trade liberalisation is concentrated locally in specific regions. Consequently, any liberalisation of agricultural trade that is carried out without a compensatory or accompanying policy targeting rural economies could have negative welfare implications for rural areas, especially for those where farming is very different to the scale and methods which prevail in the most advanced economies.

Several alternative policy strategies could be examined here. Of course, the unilateral reduction of border protection against EU imports has to be discarded because of its dramatic effect on rural communities in the South.

One alternative strategy would be the possibility to obtain reciprocal agricultural concessions from the EU, which could eventually lead to the full inclusion of the agricultural sector into the FTA regime. As suggested by quantitative research based on Computable General Equilibrium (CGE) modelling, any scenario of liberalisation of agriculture without reciprocal concessions from the EU would prevent SEMCs from generating sufficient gains. Moreover, domestic demand for agricultural products will probably increase (due inter alia to population growth), and this will boost cereal and other staple foodstuff imports. Food security is a reasonable concern of food-importing countries in this context, especially in the South. However, poverty is a major factor of food insecurity and it is poverty alleviation, and not self-sufficiency, which appears to be an ultimate goal of agricultural policies. International trade will therefore have to play a role to meet the growing demand as well as to enhance economic growth. However, a scheme to promote rural economies in SEMCs should include the widening access to the EU market, which is still constrained (see box 2.6). According to results obtained by Lorca (2000)[19], the elimination of EU border measures on SEMC agricultural exports, over a 5-year period, would yield significant gains for SEMCs. Estimated gains include an increase of SEMC exports in terms of GDP of around 1.4% for Morocco, 2.3% for Turkey, 3.3% for Egypt and 0.4% for Tunisia. These figures may

[19] The results are based on a quantitative model which makes use of assumed estimates of equivalent rates of protection (including the effect of non-trade barriers) and export-price elasticities.

be modest, but when compared with the net official development aid they are high and would justify the political stance that "trade" would be better than "aid" as a tool for Euro-Mediterranean partnership.

However, non-price competition and market concentration on horticultural markets could impede the most optimistic prospects. Many of the constraints on SEMC exports are supply-related and concern quality, logistics and human skills. Market access thus becomes a necessary, but seemingly insufficient, condition for improving export performance. It consequently is not clear to what extent full access to EU markets would offset the negative effects of liberalisation on agriculture, despite the push to improve productivity that is entailed in trade liberalisation.

Box 2.6 - Market access issues

All of the EMAs include preferential agricultural trade in the form of tariff concessions, with or without quantitative limits. Agricultural preferences granted by the EU are generally limited to fruit and vegetables, flowers, spices, wine, olive oil, durum wheat, fish and some meats, and certain processed products. In the case of continental products such as meat, dairy products and cereals, the EU applies Most Favoured Nation (MFN) tariffs, which are in many cases prohibitive. Current concessions are still far from full liberalisation due to the impact of certain measures, most of which are non-tariff measures: (i) administration of tariff-rate quotas (TRQs), (ii) entry price system and (iii) other trade barriers.

Quantitative constraints and TRQs. Tariff concessions are usually limited to negotiated quantities for a number of "sensitive" products*. Concessions tend to be more generous for products and seasons in which EU imports do not compete directly with domestic production. When TRQs are established, their administration becomes a problem. Tariff concessions create a quota rent, whose distribution between the exporter and the importer depends on the method adopted for granting import licenses within a TRQ. If the licences are issued to European importers, as is normally the case, the exporting country can lose part of the economic rent, although for some products, the issuing of import licences to manage TRQs has been prevented by an agreement in the form of an Exchange of Letters. Due to the danger of licence issuing, the predictability of trade rules cannot be guaranteed.

Entry prices. A fruitful area of study by agricultural economists has been the entry price system and its comparison with its antecedent, the reference price. The entry price applies to a group of fruits and vegetables considered particularly sensitive in the EU. It guarantees that imports are not sold on EU markets below a "minimum" entry price. According to Swinbank and Ritson (1995), the system is in conflict with the spirit of "tariffication", being the "lesser of two evils" offered to the EU's trading partners. On the other hand, the entry price system seems to provide some opportunities for circumvention by importers, either legal or illegal (De Gorter and Martin, 1998). In practice, importers may tend to declare a CIF price above the entry price, intending not to pay any additional charge. Much of the fruit and vegetable trade is on consignment and no agreed CIF price exists when the import is carried out. To simplify the system, import prices are usually monitored on the wholesale EU markets, where prices can be registered by origin. All of these elements are contributing

factors which increase the administrative burden of the system. Significant reductions of entry prices for limited quantities of some products have been negotiated and agreed with Morocco, Cyprus, Egypt and Israel, creating again a quota rent.

Box 2.6 (contd.)

Rules of origin and agricultural component. Other EMA trade issues concern rules of origin and tariffs on food products. Published research has underestimated both areas, although these measures surely affect trade in textiles and in certain agro-food products (cereal derivatives and dairy products) and imply constraints on the vertical diversification of exports by SEMCs. Rules of origin have, of course, their logic, which is to avoid arbitrage, i.e. to prevent the preferred country from re-exporting an imported commodity to the country granting the preference. However, the EU has very strict rules of origin that define degrees of "sufficient transformation" which must be met in order for a product to be declared as "originated in country X". The cumulation of rules of origin allows some processing operations carried out in any given country of the region to be counted as local content. Full regional cumulation in SEMCs is conditional on the conclusion of the free trade area amongst these countries (CGP, 2000). As far as food products are concerned, the EMAs maintain the so-called "agricultural component" of the tariff for processed products, and most of the tariff concessions are granted only for the industrial component. There are virtually no "staple agricultural commodities" that receive preferential treatment, because these goods are sensitive products in the EU (dairy products, cereals, rice and sugar). Consequently, a considerable basic component of the tariff is imposed on processed imports and it is not clear to what extent this estimated component generates tariff escalation, although it is perceived by SEMCs as a real obstacle to export diversification towards food-processing. Consequently, agricultural exports from SEMCs to the EU are still constrained by barriers other than tariffs. The trade preferences involved in the EMA tend to freeze market shares consistently in line with traditional trade flows, and there is no leeway for any real exploitation of the export potential in key products such as citrus, tomatoes and olive oil.

Source: Garcia-Alvarez-Coque (2001 and 2002).

Land productivity and cost differences between the EU and the SEMCs for continental products (CIHEAM, 2001) suggest that the improvement of market access for EU exports to SEMCs should be managed with care by the latter countries. Under the EMA, some preferences are granted by SEMCs for imports of temperate zone products originating in the EU. These preferences are quite considerable in some countries: for example, TRQs agreed with Israel, Morocco and Tunisia for wheat add up to 835,000 tonnes – which is equivalent to about 10% of total EU wheat exports. The EMAs now constitute a way of fulfilling the market access commitments under the WTO. However, the possible extension of these commitments in the future is a cause of particular concern. SEMCs have limited resources for agricultural production.

To address such weakness, particularly in SEMC rain-fed areas, three strategies might be discussed, all of which assume that the EU grants wider market access.

1. The first strategy could be to help to mitigate the transition costs with a gradual approach to trade liberalisation, which could include relatively long transition periods for the elimination of tariffs on EU agricultural imports. Long

transition periods should not provide an argument for slowing down the pace of policy reforms in SEMCs. It is clear that measures to reform trade practices in line with the WTO rules would be needed to ease regional integration amongst Arab countries, and between those countries and the EU, and to introduce transparency in agricultural trade. Action could be undertaken to reform policy instruments leading to full tariffication of border measures and the elimination of non-tariff barriers. Tariff reductions might be a second priority, as far as agricultural imports are concerned. The opening of agricultural import markets should be accompanied with a number of domestic reforms aiming to bring more flexibility to domestic pricing systems in SEMCs, in line with the market economy.

2. A second strategy could envisage possible compensation for rain-fed areas, which may suffer from competitive pressures resulting from reciprocal liberalisation. However, given the tax losses that many SEMCs will suffer because of the elimination of tariffs on EU manufactures, it seems doubtful that the resources for such compensation would come from the SEMCs themselves without additional support from the EU. While the direct payment approach introduced by Agenda 2000 has supplied means of compensating EU producers for the pressure resulting from the liberalisation of trade in cereals and oilseeds, SEMCs lack a similar compensation scheme. Furthermore, structural adjustment has been promoted in the EU agro-food industry through the FEOGA Guidance Section credits. Under downward fiscal stress and limited foreign financial support, SEMCs may not have adequate resources to manage industrial restructuring. Regnault (1997) and Akesbi (1999) point to an agricultural policy beyond the limits of the EU borders and propose the setting up of a Euro-Mediterranean agricultural equalisation fund. Löfgren, El-Said and Robinson. (2001) suggest a sort of PROCAMPO programme, similar to the programme implemented in Mexico to offset the NAFTA adjustment costs, based on direct payments, although given the size of the budget required they recommend that a programme be designed that is targeted on the most vulnerable territories or social groups. At their third meeting (June 2001), the Ministers of Agriculture in the CIHEAM Member States proposed a Mediterranean rural development programme similar to the Leader programme, to be implemented in EU and non-EU Mediterranean countries (CIHEAM, 2001). Any of these policies would take the form of "non-distorting" policies (rural development, in fact) and would become a complement to the Euro-Mediterranean economic area. Moreover, the existing co-operation facility within the Barcelona Process, the MEDA programme, is not designed to fulfil the role of a structural fund, and its quantitative significance competes with other financial priorities such as Eastern Enlargement.

3. A third strategy for SEMCs would be to pursue trade liberalisation with partners other than the EU. This would call not only for the acceleration of the intra-Arab integration process, but also for the establishment of a freer multilateral framework for agricultural trade. This scenario is presented in several quantitative studies (Dessus, Devlin, and Safadi, 2001) as the most profitable for SEMCs. In this scenario, imports from different partners would take a significantly greater share of

the SEMCs' markets, although EU exports would certainly benefit from growth in SEMCs. Greater integration amongst Arab economies would also be the most appealing scenario for FDI, as we argue below. Of course, multilateral reform would provide further benefits since the comprehensive multilateral reform of agricultural trade will also benefit Mediterranean exporters, given the greater transparency in trade administration and the possible dismantling of non-tariff barriers and the entry price system. Erosion of preferences could be another factor influencing SEMCs that is determined by bilateral concessions granted by the EU to other regions, such as the Generalized System of Preferences and the Lome/Cotonou Agreement. This gives more weight to those in SEMCs who argue in favour of comprehensive multilateral liberalisation. Furthermore, the WTO negotiations could involve the reform and progressive phasing-out of export subsidies and probably also of the "blue box" direct payments by the EU, as the result of WTO talks. This would supply an adequate market environment for promoting the diversification of rural economies in SEMCs towards the production of staple foodstuffs and would further favour tariff liberalisation.

The trade picture drawn in this chapter could easily change due to several developments. First, as the result of a move in the Common Agricultural Policy, which will be discussed later. Secondly, through an increase in intra-industrial trade flows resulting from Euro-Mediterranean integration as well as from the intra-Arab process. Experience in the EU has shown that intra-industrial trade has actually increased between the Southern and the Northern EU Member States. In agriculture, for example, recent evidence for Portugal and Spain suggests that European integration is correlated with a rapid increase in intra-industrial trade in agricultural products (Canali, 1996). Moreover, intra-Arab integration could help to increase intra-industrial flows, given the significant concentration of non-traditional goods such as fruit and vegetables and agro-food products in intra-regional trade in most Arab countries (Zarrouk, 2001; Devlin and Page, 2001). Even for those sectors where comparative advantages suggest the potential for inter-industrial specialisation, such as fruit and vegetables in the South, two-way trade flows exist between Northern and Southern EU Member States. In fact, the EU exported around 51,000 tonnes of fresh fruits and 35,000 tonnes of fresh vegetables to SEMCs in 2000 (García Azcárate and Mastrostefano, 2002).

A third fact that could change the static picture that has been drawn could be the possible expansion of the domestic EU market for horticultural products which would probably result from EU enlargement to Central and Eastern European countries (CEECs). Poland, for example, is now one of the main destinations for Spanish citrus exports and is becoming an outlet for some of the most price-sensitive varieties and grades. By 2000, EU horticultural exports to CEECs amounted to 609 million euros for fresh fruits and 269 million euros for fresh vegetables. Between 1997 and 2000, exports of these two products from the EU to CEECs increased at an average annual rate of 10.1% and 7.2% respectively. An

enlarged EU market might reduce the objections of those who today oppose wider market access for SEMC horticultural exports.
The fourth development would be the liberalisation of services, which could benefit both sides of the Mediterranean. The Association Agreements do not entail explicit commitments on this matter, although it is implicit that economic reform and WTO negotiations will improve the regulatory environment in order to encourage FDI and competition. Trade liberalisation may have positive effects on the entire agro-food system, including logistics and transport in such areas as Almeria and Valencia, which are most affected by competition.

2.4 - CAP reform

Apparently, the Mediterranean integration game has few "win-win" solutions. Although EU market access for olive oil and horticultural products remains constrained, Southern European farmers blame the CAP for granting much more direct support to Northern European producers. Horticultural products, which account for 16% of final agricultural production, receive only 3.5% of total CAP expenditure. Cereals, by contrast, make up 12% of final agricultural production and receive almost 40% of the total budget. This overall imbalance has been a constant of the CAP, and one that has not been corrected by the Agenda 2000 package. Not including agriculture in the EMFTA would mean for SEMCs that the uncertain benefits would be a promise depending on economic reforms which will only bring results in the long term. On the other hand, Southern European farmers fear Mediterranean competition and find it difficult to understand why they receive less support than Northern European farmers.

Reforming the CAP could help to change the picture. But is this possible? It depends on (i) the prospects for agricultural markets, and (ii) the political viability of reform proposals.

As regards the market outlook, any projection is hampered by the same uncertainties created by agricultural policies in industrial economies. One example is given by the new US farm bill, which through higher loan rates and target prices for US cereals implies downward pressure on the level of world prices. Within the EU, the implementation of Agenda 2000 has helped to correct some of the historical imbalances of the CAP. In any of the possible future scenarios, the EU would continue to be a significant net exporter of cereals, beef and dairy products. However, the prospects for EU agriculture reflect the need for further reforms, as recently argued in the Mid-Term Review (MTR) proposals submitted by the European Commission in July 2002 (European Commission, 2002).

As regards to the political viability of the reform process, the CAP experience does not suggest that the changes will speed up in the next few years. It is thus unlikely that dramatic CAP changes will take place over the Agenda 2000 time span (until 2006).

The outlook for the coming CAP is that reforms will be inevitable but gradual. The reform process will be inevitable for the following two reasons. First, the standard protectionist CAP no longer supplies what European society needs. There is increasing social pressure for measures to transform the CAP into a policy targeted at environmental concerns and rural development. Secondly, the dynamics of globalisation will oblige the CAP to move to a pattern of agricultural support which will make the policy consistent with trade liberalisation. International developments include EU enlargement, the WTO negotiations, the EBA initiative[20], and the bilateral agreements, including the EMAs. The market opening for which provision is made in the free trade agreements will have important implications for European markets, the CAP regulations and the budget (Garcia-Azcarate, Mastrostefano, 2002b). Sugar and rice regimes, for instance, will have to be reformed by 2008 when the EBA agreement is fully implemented.

The reform will be gradual because European society will not accept any scenario including the "radical" elimination of the CAP. Moreover, it seems unquestionable that a CAP reform will have distributive effects amongst groups of farmers, territories and EU Member States. This makes CAP reform even more difficult. Some groups of farmers, in particular bigger farmers, are still reluctant to accept "modulation", that is to say, the transfer of direct aids to the "second pillar" of the CAP (rural development).

However, the CAP will probably undergo substantial reforms in the course of the next few decades. This will help to enhance the role that the EU already plays in granting access to developing countries. And for SEMCs in particular, it will help to confer significance on the Barcelona Process, as the EU will have to liberalise its agricultural sector. Thus, the CAP of the future will face the challenge of making support for EU rural areas consistent with rural development in developing countries. Consequently, the question now is not whether EU agricultural markets will be opened in the coming years, but how and when this will happen.

The CAP should aim to break the North-South conflict of interests between groups of farmers and rural territories within the EU. Acceleration of CAP reform with a view to enhancing rural development in a manner compatible with freer trade could be a desirable path. Southern European farmers may be in favour of CAP reform if the reform had the indirect effect of re-balancing support between the North and the South of the EU. At all events, it seems clear that a new approach is needed in agricultural policies throughout the EU in order to concentrate funds in the less favoured areas, which are precisely those where the risk of erosion and depopulation is higher.

[20] See details about the "Everything But Arms" in http://europa.eu.int/comm/trade/pdf.eba_ias.pdf.

In summary, something needs to be done with the CAP. Firstly, for the sake of equity and coherence, and, secondly, because the existing system may become uncontrollable with greater imbalances resulting from EU enlargement. Moreover, CAP reform might favour Mediterranean farmers if the new support measures are based less on production references and more on territorial and human factors such as employment on farms and the contribution of agriculture to preserving the environment and the rural landscape.

The current WTO negotiations will probably involve new pressure to transform the CAP. One significant part of EU support is still classed as "blue box" support, which was excluded from the reduction commitments following the Uruguay Round. Pressure to phase this box out is growing, and the EU will have to undertake further steps to decouple its payment schemes from production incentives. By March 2003 a consensus must be reached on the modalities for a new agricultural agreement in the WTO. By the next Ministerial Conference - to be held in Cancun in November 2003 - national commitments will be regarded as part of the single undertaking leading to an overall agreement in the Doha Round. Failure to reach agreement on agriculture would expose the EU to new panels in the WTO. This means that the WTO's Difference Solutions Body may possibly be given an unexpected role in which it will be in charge of producing reports that will ultimately affect the future CAP. Time is running out for CAP reform.

2.5 - Mediterranean integration and investment

One of the aims of the Barcelona process, if successfully implemented, is to create an appropriate environment for boosting FDI. It would make sense for agro-food activities where SEMCs are supposed to enjoy comparative advantages to be one of the priority choices for global investors in the region.

FDI is considered to be a major factor of growth, positively combined with knowledge flows or familiarity with the foreign economy (Grossman and Helpman, 1991; Goodfriend and McDermott, 1998; Soto 2002). Foreign investment can contribute to the modernisation of SEMCs in an integrated world, where technology diffusion plays an essential role in the increasingly competitive agro-food markets. Chapter 1.10 has referred to the present weakness of the Southern and Eastern shores of the Mediterranean in attracting foreign investment. This brings the question of the chances of the EMFTA enhancing FDI in SEMCs. Most of these countries are considered as "potential countries", which are almost ready to join the global investors' short list, especially if they improve certain aspects of their investment climate (Michalet, 2000). However, several authors have expressed doubts about the actual capability of SEMCs to compete with other geographical areas, such as the CEECs, in attracting FDI. In fact, TNCs, which pursue a global strategy, are no longer prepared to consider all countries as places for investment. At present most TNCs do not consider the SEMC group to be a valid alternative to the CEEC group for FDI. Besides, the anticipated accession of many

CEECs to the EU will increase competition from those countries for an FDI location. This will further restrict the possibilities for SEMCs to attract FDI, at least in the short term.
The literature on FDI underlines two main factors motivating TNC decisions to invest in developing countries. On the one hand there is the "vertical" or "outsourcing strategy", through which the TNCs try to minimise their costs by producing in countries with lower labour and other factor costs. With reference to the EMFTA, this strategy is consistent with the development of a “hub and spoke” system, where the EU would be the “hub” and the SEMCs would be the “spokes”[21]. There are two crucial assumptions which are needed for this strategy to work. The first is that tariff barriers must be low in the FDI host country; this is needed in order to increase the efficiency of production activities. The second is that there must be markets for products. Of course, one possibility for guaranteeing such an assumption would be wide EU market access for SEMC agricultural exports. Until now such a strategy has been severely limited by the existing constraints on trade flows resulting from the present treatment of agriculture in the Barcelona process.

There would be another way to provide a market, which leads to the second strategy for investment decisions. Such strategy would be the "horizontal" or "market-seeking" strategy. The main motivation for TNCs would be to have access to big domestic consumer markets. In the past, one basic assumption for this strategy was high tariff barriers in the host country, which led TNCs to invest in developing countries in order to overcome border controls and serve domestic markets. However, this strategy has contradicted the recent trend towards the liberalisation of agricultural trade, especially after the implementation of the WTO provisions. Moreover, individual domestic markets in most SEMCs are not large enough to justify significant investment decisions on the part of TNCs. The aggregate GDP of all 12 SEMCs is similar in size to total GDP in Spain, and is less than 40% of GDP in the United Kingdom and less than one-third of GDP in Germany. GDP in Morocco is approximately 6% of GDP in Spain and is less than one-tenth of the GDP in the Netherlands.

The picture would be different if the SEMCs integrateed to form an intra-regional market. This integration process could become a reality through the elimination of South-South barriers to trade and the easing of other constraints such as transport costs and varying standards.

There is no clear-cut dichotomy between vertical and horizontal strategies, and TNCs usually combine both in an investment decision. However, as far as the agro-food system is concerned, both strategies seem to be constrained by the lack of integration of Mediterranean agricultural markets. The first strategy is thus promoted by lower labour costs as well as the elimination of tariffs on

[21] The system is reinforced by the economic fragmentation of the Mediterranean regions, as argued below.

manufactured imports in SEMCs, but unless EU market access is guaranteed, it would be difficult for the South to become an attractive base for global investors.

The second strategy could only work through an enlarged market, which could be facilitated by South-South integration. The higher segmentation of regional markets in the SEMCs, also in terms of non-tariff barriers, could be responsible for the lower attraction capacity of the Mediterranean area when competing on equal grounds with the CEECs.

Furthermore, in order to include a country in their short list global investors consider various domestic factors. The first group consists of what might be called the institutional background of an attractive investment climate. Domestic constraints on FDI include restrictive policies regarding foreign capital and transaction costs related to financial services, transport and administrative burdens (Reiffers and Tourret, 2000; Alessandrini, 2000).

A second group of factors is more directly related to doing business with a country's endowment of human resources. While until very recently cheap labour played a decisive role in investment decisions, skilled labour has become a major attractive advantage for global investors, particularly with regard to middle-ranking and senior technical positions. Most of the subsidiaries of TNCs are using the same sophisticated technology as that employed in the home country units. The presence of specialised engineers and scientists in key sectors can be cited as a major locational advantage of CEECs over SEMCs.

A third factor is the presence of efficient local firms, which could contribute to meeting the needs of subsidiaries in terms of technical specification, product quality, and delivery time. Moreover, local actors have a command of the language and understand the cultural links with the domestic markets, and this reduces the risk of foreign investment, mainly with regard to trading activities. Local demand for agro-foodstuffs is still met in many SEMCs by a network of small and medium enterprises (SMEs), which are basically family-based enterprises with a low ratio of capital investment. These constitute not only a production structure but also a social system in which production is based on the fragile interconnection of social practices, cultural values, and power structures. In both vertical and horizontal investment strategies, one of the challenges facing Mediterranean integration is how to integrate the network of local SMEs (including, of course, small farms). This is of major concern not only for domestic policies but also for Euro-Mediterranean cooperation. The problem is how to create a sound domestic basis for the national economy that is able to achieve the quality, human skills and productivity levels that could enable local firms and populations to avoid exclusion from the benefits of agricultural trade.

A fourth factor concerns the fiscal incentives (tax holidays or subsidies) which have already been implemented by a number of SEMCs. Tax incentives cannot, however,

be a substitute for a country's lack of attractiveness, except for investors who put financial profitability above economic profitability.

Moreover, not all types of capital flows have been proved to have the same effect on income growth. According to the available evidence (see Soto, 2000), investment and portfolio equity flows exhibit a robust positive correlation with growth. Equity-related inflows contribute to domestic capital accumulation or indirectly to technology diffusion and increased market liquidity. In fact, according to Bencharif, Ghersi, Rastoin and Tozanli (2002), the strategy pursued by TNCs for penetrating SEMCs during the 1990s was to amalgamate with or to absorb local enterprises which had a domestic distribution network and sufficient knowledge of domestic markets. The authors quoted mention the case of Danone, which has taken control of dairy industries in Tunisia, Morocco and Israel. In Turkey, TNCs form alliances or partnerships with leader holdings such as Sabanci Holding, Koç Holding or Tefken. In Morocco, Danone, Bongrain and Auchan have undertaken similar partnerships with local groups such as ONA.

While investment and portfolio equity flows present a positive and significant correlation with income growth, Soto (2000) found a negative correlation between debt inflows and growth. Bank-related credits may have negative effects on growth if the domestic banking system is poorly capitalised (McKinnon and Pill, 1997). But bank inflows do not represent the only source of threat in financial integration. FDI may send wrong signals about the social rates of return on domestic capital. In some circumstances, there is a "bad signalling" effect, which can lead to overinvestment or a form of investment that can become a disguised form of consumption. In general, one of the roots of overinvestment is moral hazard. If financial intermediaries are poorly supervised, some investment projects may find the financing that they would not receive in a well-supervised financial system, in which case increased investment will not necessarily lead to faster income growth. In fact, many SEMCs suffer from the slow development of financial intermediation and lack of efficiency and competition in the local banking sector. Capital markets are underdeveloped in most countries in the region and do not offer a significant alternative to the lack of long-term bank lending. The Euro-Mediterranean Conference held in Valencia in April 2002 discussed the possibility of setting up a Euro-Mediterranean Development Bank, although the proposal was reduced to the creation of a new risk capital facility of the European Investment Bank (EIB).

Furthermore, there is also the question of the ability of recipient countries to absorb structural and other cooperation funds. Where it is true that complicated administrative procedures for implementing projects have led to a low disbursement rate under the MEDA programme, this should not, however, be used as an excuse for allocating an unreasonably low amount of resources to the 12 Mediterranean countries (5.35 billion euros for 2000-2006), particularly if we

compare it with the amount of funds foreseen for eastern enlargement[22]. Additional resources for the Mediterranean agricultural package could possibly be made conditional on the rate of absorption of previous funds and on the direction and rate of economic reforms. This can be facilitated if the programming, administration and implementation of MEDA assistance are finally improved, in accordance with the recent qualitative amendments (see box 2.7).

Box 2.7 - Refocusing MEDA on strategic objectives

"Following a revision of the MEDA Regulation in 2000 a qualitative change has been made in the programming and delivery of MEDA. A major programming exercise has just been completed. Country strategy papers and indicative programmes, designed in close consultation with Mediterranean partners and the Member States, focus MEDA for the 2002-2006 period on key priority areas within the framework of the Association Agreement including support for structural adjustment. As part of this drive to enhance the impact of MEDA assistance, this qualitative improvement in programming has been accompanied by a complete overhaul in implementation. The provisional figures for MEDA payments for 2001 show a doubling of the ratio of payments to commitments relative to the 1995-99 period. This reflects both the increase in structural adjustment support noted above, and improved implementation. This improvement will get a further boost when decisions on implementation of programmes are taken on the ground and devolved to EC Delegations. The process of devolution started in January 2002 with Morocco, Tunisia and Egypt and will be completed for the remaining countries by the end of 2002".

Source: European Commission (2002), p. 4.

Concluding remarks

Seven years after the Barcelona declaration, it is still too soon to assess the impact of the Barcelona process on Mediterranean economies, at least on an ex post basis. This is because there have been considerable delays in the negotiation and entry in force of these agreements. Delays in the negotiation of the Barcelona process reflect the existing difficulties and serious disputes concerning certain specific chapters, in particular agriculture. The issue of the extent of the quantitative limits on certain agricultural exports from SEMCs to the EU is what is now at stake, for instance, as Morocco and the EU review the agricultural provisions of the EMA, with fierce opposition from Southern European farmers. This issue illustrates how market access for SEMC exports of horticultural products depends to a very large extent on political decisions in Europe.

[22] Around 28 billion euros for 10 countries between 2004 and 2006, according to the Commission proposal of January 2002.

Agricultural trade continues to be an exception in Euro-Mediterranean association. The current treatment of agriculture in the Association Agreements presents little change compared to that of 1995. The EMAs have consolidated the previous arrangements, in some cases with changes in size of Tariff-Rate Quotas and Reference Quantities. The only important change with respect to the past arrangements (former cooperation protocols and their reviews) is that the Association Agreements involve some locking-in of the existing market access and make it sustainable. However, agricultural trade continues to be excluded from the free trade provisions. Under the Association Agreements, the EU still has the right to apply non-tariff barriers on SEMC agricultural exports. By contrast, at the end of a fixed schedule for phasing out tariffs on EU manufactured products, the latter will benefit from duty-free access to Mediterranean markets. Consequently, while agricultural trade is still constrained, trade liberalisation for manufactured products will be reciprocal. The question of the impact of the full liberalisation of agricultural trade in the Mediterranean region thus remains relevant. It is important here to stress that the liberalisation of agricultural trade is in the spirit of the Barcelona declaration. While key words in the declaration are “traditional” and “progressively”, gradual steps towards bilateral trade liberalisation are still possible in the context of regular reviews of the agricultural protocols in the Association Agreements. What is constantly subject to debate is the speed of the process.

3 Agriculture and the economy

3.1 - Development of the national economies

Contrary to the year 2000, there was a slowdown in growth in 2001, and this trend was accentuated by the events of 11 September in the United States. This situation brought a decrease in the prices of staple commodities, and particularly oil prices, falloff in demand and, consequently, a decrease in the output of the various branches of industry, resulting in turn in rising unemployment in the industrialised countries (5.8% and 5.5% in the United States and Japan respectively, as against 3.7% and 4.4% of unemployment registered in those countries in 2000). According to the estimate of the International Monetary Fund, the global economic growth rate was 2.4% in 2001 as against 4.75% in 2000 and 3.3% in 1999. The United States registered an economic growth rate of only 1% in 2001 compared to 4.1% in 2000. The trend was the same in the euro zone, where the economic growth rate fell from 3.4% in 2000 to 1.5% in 2001, and in Japan, which registered a negative growth rate in 2001 (- 0.4%) as against 2.2% in 2000. The volume of world trade dropped off considerably, since a growth rate of only 2.2% was registered compared to compared to 12% in 2000.

The poor global economic situation had of course repercussions on Mediterranean economies, although results differ slightly from one country to another depending on its level of integration into the world economy.

In the Maghreb countries the results achieved in the agricultural sector continued to have a major influence on overall growth.

In **Morocco**, the results of the 2001 farm year showed an increase of 27% and, although the level remained very average, they boosted the growth rate from around 1% to 6.5%. Growth also benefited from the recovery in other sectors such as energy, mining and construction and public works (where production increased by 8.1%, 7.5% and 5.8% respectively). The processing industries increased their production by 4.2%, the agro-food industries doing slightly better than the others in this group, since they achieved an increase of 4.5%. And finally, the development in the commerce and services sectors was mediocre (3% for the former and 1% for the latter).

Paradoxically, the appreciable growth in GDP achieved in 2001 was accompanied by a decrease in investment rate of 1½ percentage points from 24% to 23.5% of GDP. However, this level, which was the same as that registered during the period from 1998 to 2001 (23.3%), is still higher than the level registered in the period from 1994 to 1997 (20.6%). This is to be explained by the decline in private investment, which was not sufficiently offset by the 10% increase in public investments. However, despite the fact that the servicing of the national debt absorbed one-third of state revenue, the State increased its ordinary expenditure by

11% and managed to contain the budget deficit within 2.7% of GDP. The events which enabled the State to cope with all of this expenditure was the sale of 35% of the capital of Maroc-Telecom to Vivendi Universal for 2.3 billion dollars (6.1% of GDP). Thanks to this windfall - but also thanks to an exceptional influx of transfers of funds by Moroccans living abroad (amounting to 36.2 billion dirhams, a 57.5% increase over the previous year), the balance of payments on current account showed a surplus of 4.9% of GDP (whereas it had only been balanced once since the end of the 1980s) and the country's foreign exchange reserve reached a historic record level of almost 10 billion euros, i.e. the equivalent of 11 months of imports (compared to an average of slightly less than 6 months in the period from 1998 to 2000).

But the Moroccan economy nevertheless remains fragile. A primary sign of this weakness is the trend on the Casablanca Stock Exchange, where the general index fell considerably in 2001 registering a decline of 7.4% (after decreases of 3.3% and 15.3% in 1999 and 2000 respectively), which brought it back down to its 1997 level. Stock market capitalisation was further eroded by 11% and, at 104 billion dirhams, it confirmed the loss of almost 40 billion dirhams since 1998[23]. The volume of transactions dropped to 24 billion dirhams and was thus 4 times less than the levels achieved four years ago.

Without privatisation the budget deficit might have been two or three times as high and is bound to increase further in the future in view of the fact that ordinary resources are less and less adequate for covering ordinary expenses, which cannot be cut down and are steadily increasing. The negative trade balance was almost the same as the level recorded the previous year; at 11.5% of GDP it produced an import-export ratio of 64.8%, which was 3 percentage points below the average for the 1998-2000 period[24]. The marked decrease in purchases of capital goods is also worrying for the future. The appreciable decrease in the country's foreign debt (from 19.3 to 14.2 billion dollars between 1998 and 2001 or from 52% to 43% of GDP) was the best performance achieved over the past few years. It was counterbalanced, however, by the increase in the domestic debt, which grew from 131 to 176 billion dirhams and from 38% to 46% of GDP during the same period)[25];

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23 O. Drissi El Bouzaidi: 2001: Année de tous les espoirs et de toutes les déceptions *(Year of all hopes and disappointments)*, La Vie Economique, 4.1.2002.

24 Since the figures quoted here have been issued by the Ministry of Economic Affairs and Finance they are different to those presented in Appendix 5, which have been published by the Ministry of Agriculture. This is probably to be explained essentially by the fact that the statistics published by the latter Ministry do not always take account of the "temporary entries without payment", whereas the Ministry of Economic Affairs and Finance now integrates them into its calculations and has thus rectified its long-term series.

25 O. Drissi El Bouzaidi: Dette : la Stratégie des vases communicants *(Debt: the strategy of communicating vessels),* La Vie Economique, 8.3.2002.

the result of all of these developments was that the overall debt decreased by scarcely one percentage point, dropping from 90% to 89% of GDP. Inflation rate was no doubt a further positive aspect, slowing down even further compared to the previous year despite the upswing in growth.

The cost-of-living index rose by an annual average of 0.6% as against 1.9% in 2000. Over the period from 1998 to 2001 the annual average rate was 1.7%, which was less than half of the equivalent rate registered during the 1994-1997 period. The performance registered in 2001 is to be explained essentially by food prices, which were the only prices which dropped - by 1% (compared to a rise of 1.6% in 2000).

The unemployment rate is reported to have been brought down from 13.6% to 12.7% between the last quarter of 2000 and the last quarter of 2001, decreasing both in urban zones (21.5% and 19.9%) and rural areas (5% and 4.6%), although the figures for the rural areas are highly questionable since only persons who have registered as unemployed and are seeking employment are counted as unemployed.

With a per capita income of only slightly more than 1180 dollars in 2000, Morocco is classed in the 128th position on the World Bank list of 204 countries, behind all of its neighbours in North Africa (1580 $ for Algeria, 2100 $ for Tunisia, and 1490 $ for Egypt)[26]. Considered on the basis of the UNDP Human Development Indicator - which synthesises per indicators of capita income, life expectancy and level of education - Morocco dropped back to in the 2002 report from 112th position to 123rd position (on a list of 173 countries), i.e. to practically the same level as it was in 1998 and at all events behind all of its neighbours in the region (rank 64 for Libya, 97 for Tunisia, 106 for Algeria, 115 for Egypt...)[27].

In **Algeria**, 2001 was the third year in succession where the GDP growth rate (in volume) was lower than in the previous year (1.5% as against 2.5% in 2000)[28]. But this time the decrease was not due to poor performance in the agricultural sector. It was hydrocarbon prices that slumped resulting in a negative growth rate in the hydrocarbons sector (-1.6% in volume and -6.3% in price), which in turn brought the GDP growth rate down. All of the sectors achieved a positive growth rate except for hydrocarbons and construction and public works (-2.3%); the positive variation in growth rate was very slight in industry (+0.9%) and very moderate in the services (+1.7%). The agricultural sector "retrieved" the situation with a variation of +15.4% between 2000 and 2001. Thanks to the results achieved in this sector the

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26 Word Bank: World Development Indicators 2002, cf. website: http://www.worldbank.org/data/wdi2002/tables/table1-1.pdf.

27 UNDP: Human Development Report 2002 (website: www.undp.org)

28 The National Economic Council argues that a growth rate of approximately 6% for ten years in succession is needed in order to hope to be able to reduce unemployment substantially (Mesbah, 2002).

gross domestic product excluding hydrocarbons achieved a higher growth rate than in the previous year (4.6% as against 1%).

In order to improve the functioning of the economy the government decided to launch an economic recovery plan in 2001 (525 billion DA - approximately 6.5 billion US$ - to run for four years from 2001 to 2004) consisting of measures to boost public investments and provide support for the investments of certain private operators (farmers, young investors, etc.). It was no doubt due to this plan that final consumption (and in particular household consumption) expenditure was increased, whereas, strangely enough, gross fixed assets accumulation registered a positive growth rate, which was however lower than that achieved the previous year (variation of -0.2%).

After the negative rate recorded in 2000 (-0.6%), inflation returned in 2001 at a rate of 3.5%. This phenomenon no doubt also explains the growth in (the volume of) imports (-0.9% in 2000 and 3.9% in 2001), whereas negative growth of -2.2% was registered in the volume of exports (exports excluding hydrocarbons decreased even more sharply at a rate of -12.8%; this figure does not include exports of services, which grew by 2.4%). In order to ensure cautious management of banking liquidities and to mitigate the potential inflationary effect, the Bank of Algeria reactivated the reserve requirement instrument as the main indirect instrument of monetary policy.

Despite a drop in the average oil price (22.4 US$ per barrel in 2001 compared to 26.8 US$ in 2000) the foreign exchange reserve improved considerably in 2001 reaching a level of 17.9 billion dollars (11.9 billion dollars in 2000). As a result, the exchange rates were virtually stabilised in 2001 - the dinar lost only two points on average. It was thanks to this reserve, which had been severely criticised because it was not being used to boost the economy, that it was possible to launch the recovery programme mentioned above.

The favourable balance of payments decreased by 21% due to the drop in oil prices. Imports increased slightly in volume (3.9%) but even more in price (5.1%). Contrary to the situation in 2000, exports dropped both in volume and in price in 2001 (-2.2% and -8.2% respectively). There was a marked decrease in the volume of goods exports excluding hydrocarbons (-12.8%) but their prices improved slightly (3.5%). Exports of services improved in terms of both price and volume.

With regard to the foreign debt, debt servicing in relation to exports of goods and services increased from 20.75% to 22.61% due to the decrease in exports. However, the consolidated stock decreased by 11% between 2000 and 2001. The foreign debt benefited from 2 conversions into investments through the creation of the Kuwaiti investment fund and the transformation of part of the Libyan deposits with the Bank of Algeria into investments. Spain converted 40 million dollars of Algeria's debt to Spain into investments and is planning to reach the 100 million dollar

mark, i.e. 10% of the Algerian debt. Italy and France have submitted applications with a view to carrying out similar operations (Sakhri, 2001).

As regards the social field, the unemployment rate is reported to have increased from 29% to 29.8% and the economic recovery programme is said to have achieved impressive results. According to the authorities concerned, that programme provided for the creation of 230,000 jobs, over three-quarters of which are permanent jobs; 56% were created through agriculture and 19% in the housing sector[29]. At all events, it must be noted that the unemployment level based on the statements of individuals is highly overestimated. A survey conducted across the country by the departments of the Labour Inspectorate in collaboration with the departments of the National Social Insurances Fund - involving 7,679 employer organisations employing a labour force of 42,310 wage and salary earners - showed that only 24,772 (58.5%) of these workers are legally declared.

The Algerian banking system is often accused of inefficiency and overcautiousness with regard to risk. In order to mitigate these criticisms the government adopted a modernisation programme financed by the European Commission, which provides support for the Treasury and Central Bank of Algeria as well as for the Algerian banks in the public sector, insurance companies and other actors in the finance sector.

Although **Tunisia** achieved a growth rate of 4.9% in 2001 as against 4.7% in 2000, this rate was still lower than the forecast of 6.2% of the economic budget. The annual average growth rate throughout the Ninth Plan (concluded in 2001) thus works out at 5.5% compared to a forecast of 6%.

This rate was achieved despite the fairly poor farm year and the difficulties encountered in the air transport and tourism sectors following the events of 11 September in the United States. It was realised essentially as the result of the sustained rate of exports of the manufacturing industries (excluding foodstuffs), which grew by 24% compared to the previous year. These products accounted for 82% in value of total exports in 2001.

The indebtedness rate was around 52% in 2001 - practically the same level as the previous year - and debt servicing amounted to 15% of current re ceipts, whereas it represented 19.4% in 2000.

In inflation rate in reference to the average price index was lower in 2001 than in 2000 (1.9% and 2.3% respectively) due in particular to the low rise in foodstuffs prices: +1.7% compared to 4.5% and 2.5% in 2000 in 1999 respectively. The rise in prices excluding foodstuffs was around 2%, i.e. the the same level as in 1999 (1.9%).

[29] Note the incoherence of the data: on the one hand, the national accountants announce negative growth in the value added of the construction and public works sector, whereas other government sources report a high growth rate in employment in the same sector!

The volume of total investments increased by 10.4% in 2001 compared to the previous year, thus amounting to almost 26% of GDP. The share of the private sector in investments amounted to 56% of total investments. In the agricultural sector and fisheries investments were lower than forecast, amounting to approximately 930 million dinars, which was an increase of only 4.5% compared to the previous year. They amounted to 12.2% of total investments as against 13% in 2000.

Exports increased by 14.5% (at current prices) in 2001 compared to a growth rate of 12.5% the previous year. The increase in the value of exports in 2001 was due mainly to the mechanical and electrical products sector (+27.7%) and the textiles sector (+19%). After the decrease registered the previous year in agro-food exports (-11%) a significant improvement was achieved with a growth rate of 6.7%. Agricultural exports accounted for 6% of total exports, whereas the percentages in 2000 and 1999 were 7.5% and 10.2% respectively.

Total imports also increased by almost 16% in 2001.

All in all, in the foreign trade sector Tunisia achieved an overall import-export ratio of only 70% in 2001 as against 68% in 2000. The agro-food import-export ratio deteriorated on the other hand with a rate of 75% in 2001 compared to 81% in 2000.

In **Egypt**, the GDP growth rate dropped slightly in 2001 compared to 2000 (4.9% as against 5.1%) due essentially to the crisis in the tourist industry, although the level maintained was higher than the average of the 1990s (4.4%). The trade balance improved, the deficit decreasing from 11.5 billion US$ in 1999-2000 to 9.3 billion US$ in 2000-2001. The balance of payments deficit consequently decreased in the same period from 3 billion to 853 million US$.

In as is the case with the other Arab countries in the Southern Mediterranean, Egypt does not attract much foreign investment: only 1 billion US$ in most years, despite the various incentives offered by the State.

The **Lebanese** economy is suffering from a huge foreign debt (which is growing at a pace of 207% and is absorbing 93% of state revenue), large budget deficits and worrying inflation and unemployment rates. All of this is due to the political situation in the region, which is adversely affecting business and the attitude of foreign investors. The GDP growth rate was only 1.5% in 2001. As regards foreign trade, the negative trade balance is growing annually by 16.15%, despite the 24.5% increase in the value of exports between 2000 in 2001. But imports also increased in value by 17.1%.

The economic situation in **Turkey** deteriorated considerably in 2001 compared to 2000. There was negative growth in real GDP of -6.1% at constant prices, whereas a

growth rate of 7.2% had been registered in 2000. This is to be explained by the poor performance in all sectors: agriculture (-5.8% compared to 4.1% in 2000), industry (-5.7% compared to 5.6% in 2000), construction and public works and services (-6.5% compared to 8.7%). The inflation rate in 2001 was as high as it had been in 2000 (54.9% and 54.5% respectively). The exchange rate of the Turkish lira against the US$ depreciated by 114% on average between 2000 in 2001. Exports were consequently encouraged, and the export-import ratio was 115% in 2000 and 132% in 2001.

In **Greece**, since the last elections in 2000 the government has been pursuing an economic policy which aims to achieve more rapid growth, to combat unemployment, to continue the measures to restructure the economy (including the privatisation of several large public enterprises), to introduce a more flexible employment system, and to improve the quality of life. In addition to local public and private investments, these efforts are benefiting from the resources provided by the third *"Community Support Framework"* (CSF, 2000-2006) amounting to approximately 51,357.3 million euros. Despite the availability of this financial support and despite the 8.5% growth rate in gross fixed capital formation achieved in 2001 - a higher rate than the rate achieved in 2000 (7.8%) - the GDP growth rate was only 4.1% in 2001, whereas a rate 4.3% was registered in 2000. This growth recession is no doubt to be explained by the decline in the growth of both private consumption (from 3.2% to 3.1%) and in particular public consumption (from 2.3% to 1.8%). The inflation rate rose, on the contrary, from 3.2% in 2000 to 3.4% in 2001, due in part to the fact that wages in Greece increased at twice the rate of the wage increase registered in the European Union.

There were several favourable developments in the Greek economy, however. The unemployment rate dropped, for example, from 11.2% in 2000 to 10.4% in 2001, whereas the state budget registered a surplus of 0.1% of GDP in 2001, replacing a deficit of 1.1% in 2000. In as a result, the budget surplus rose from 6.2% in 2000 to 6.6% in 2001. Furthermore, the national debt also decreased, amounting to 99.6% of GDP in 2001, whereas it amounted to 102.7% of GDP in 2000.

In **Italy,** the gross domestic product evaluated at constant prices increased by 1.8% in 2001 compared to the previous year, which was a marked slowdown compared to 1999, when a growth rate of 2.9% was registered. The value added for the economy as a whole increased by 1.7% in real terms. Growth was sustained in particular in the services sector, with an increase in value added of 2.6% in real terms. Industry registered a decrease of 0.9% in real terms, whereas the contribution of the agricultural sector was negative, with a loss of 1%.

The drop in GDP growth rate was the result of a steep decline in overall demand, which only increased by barely 1.4%, after the 4.3% growth registered the previous year. The decrease in demand growth rate itself was due to the slowdown in world demand, which registered a growth rate of only 0.8% (whereas domestic demand increased by 1.6% in real terms).

Inflation rose slightly from 2.5% in 2000 to 2.7% in 2001, a fact which is to be attributed to certain supply factors (the weakness of the euro and the upswing in the agro-food sector due to the meat market).

The marked decline in investments compared to the previous years - the growth rate was 2.4% in real terms - is to be explained by the decrease in demand. However, there was an upward trend in private investments in agriculture. Goods exports showed an improvement compared to the previous year (+3.6%), whereas goods imports remained at practically the same level (+0.6%). This is to be explained by two factors: *i)* the depreciation of the euro, which promoted exports by making them less expensive, and *ii)* the change in the composition of world trade in terms of products, which was a consequence of the drop in demand for high-technology products which promoted the performance of Italian exports geared to traditional sectors and sectors with a moderate level of technology.

The improvement achieved in 2001 also concerned employment: there was a further decrease in unemployment level from 10.6% in 2000 to 9.5% in 2001.

In **France**, after two satisfactory years the growth rate was maintained in the first six months of 2001 but, taken as a whole, the year was marked by growth recession due to the effects of the rise in hydrocarbon prices and to the disappointments in the high-technology sector, whose effects were felt in the US economy and, in turn, in the world economy from the first quarter of 2001, and this trend was of course accentuated after 11 September, when the recession affected all services. There was an overall downward trend in world trade in 2001 after a decade of high growth, and this had significant effects on the European and French economies.

The only indicator which remained favourable throughout the year was household consumption, where an increase of 2.6% was registered. On the other hand, the general trend in exports and investments - the mainspring of growth - was unfavourable. The average increase in investments calculated for the year as a whole was in fact the result of an increase in the first six months comparable to the increase achieved in 2000 (+6%) and of the decline in the course of the second six months.

The most remarkable development was registered in foreign trade; after the 2-digit growth rates registered in previous years, the volume of both exports and imports stagnated in 2001 (in particular, intermediate goods and capital goods imports decreased as the result of the slowdown in domestic activity), which meant that a slightly favourable trade balance was maintained again this year. In the services sector there was of course the drop in tourist revenue, a very important item in France, following the events in New York.

The general price trend in 2001 was on average close to the trends registered in

previous years (+1.7% for the consumer price index, +1.4% in for the GDP price index), but this average stability also conceals a difference in trend between the first and last six months of the year: after developments in the first six months which pointed to a return to inflationary trends, particularly as regards foodstuffs, prices dropped slightly in the third quarter - a trend which is to be explained essentially by the downward trend in oil product prices.

Contrary to the situation in 2000, the increase in household incomes was due more to an increase in earned incomes than to any improvement in the employment situation. An increase in hourly wages of 5.1% was registered, to be explained essentially by the mechanical effects of the reduction in working time (following the application of the laws on the 35-hour week), but also by the priority upgrading of the lower wage brackets. Despite the growth recession, jobs were created in 2001 but to a much lesser extent than in previous years; the effects of the voluntarist policies to promote employment seemed to be wearing off, and the steady decrease in unemployment which had been observed since 1997 was interrupted, the lowest unemployment rate being recorded in June at 8.6% of the working population. Although there was a decrease on average compared to 2000, the increase in the second half of the year was not due solely to the economic cycle, and the trend observed at the beginning of 2002 confirms this rise.

In **Spain**, the crisis in the world economy was reflected by a decrease in the GDP growth rate from 4% (or more) in the course of the 4 previous years to 2.8% in 2001.

This GDP growth rate was due to the subdued growth in private consumption (2.8%) and in gross fixed capital formation (2.5%). The negative contribution of net exports to GDP (-0.1%) is to be explained by the steep decline in exports compared to imports in a global environment marked by crisis.

In the inflation field Spain distinguished itself with a 3.6% rise in prices, which was higher than in 2000 (3.4%) and is above the European average of 1.5%.

As regards unemployment, the situation continued to improve in 2001 but at a much less sustained rate than was the case over the past few years: unemployment rate dropped from 14.1% in 2000 to 13% in 2001.

And finally, despite a low growth rate (2.8%) compared to the forecast (3.6%), the budget was balanced for the first time since 1975.

In **Portugal**, the economic growth rate was 1.7% or 1.9% depending on the estimate. It was approximately equivalent to the average rate registered in the European Community and is said to be explained by a slowdown in consumption and investments on the one hand and by the decrease in the export growth rate (2.9%) compared to the government's forecast (8.4%) on the other.

The adjustments in household consumption and business investments also resulted in a marked slowdown in imports (0.9% of growth observed compared to 7.1% in the government's forecasts). This led to a decrease in the trade deficit for the first time since 1995.

On the supply side, although the construction and services sectors were still the most dynamic in 2001, they nevertheless registered decreases - from 4.9% to 2.9% and from 4.5% to 3.4% respectively. Industry maintained its growth rate of 2%, and the falloff registered in the primary sector (agriculture-forestry-fisheries) was -1.5%.

Despite the trend in consumption, inflation rate rose from 2.8% in 2000 to 4.4% in 2001 (only 2.5% in the euro zone) and was the highest rate achieved in the period from 1995 to 2001. According to the IMF this is to be explained by the rise in wage costs, and according to the European Commission experts it is due to the rise in the prices of oil and certain foodstuffs (which increased by 6.7%) and to the fact that prices in Portugal have caught up with European prices.

The same variation in employment was registered in 2001 as was registered in the working population. The annual variation in employment decreased slightly (from 1.7% to 1.6%). The unemployment rate has remained very low over the past few years (4.1%), one of the lowest rates in Europe.

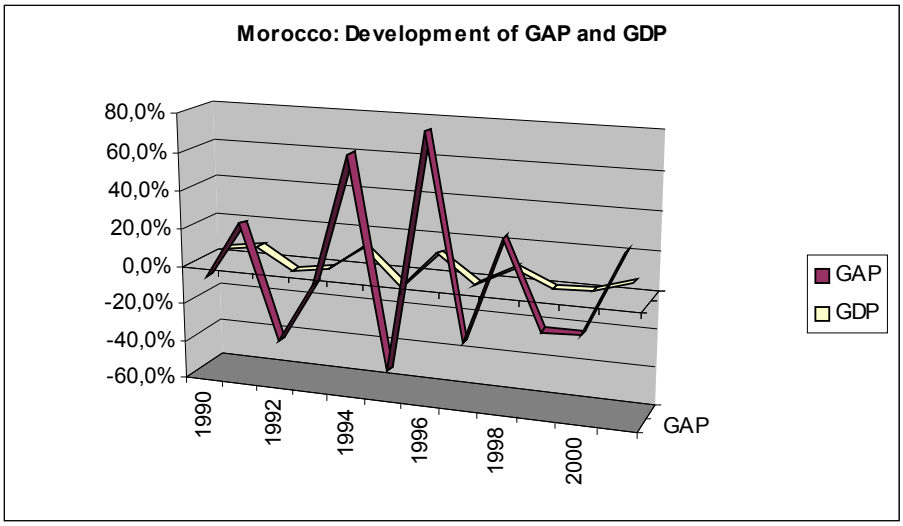
3.2 - Agriculture and food in the national economies

In all of the southern Mediterranean countries agriculture plays a fundamental role in the general economy, although that role is declining in the longer term**.**

In **Morocco**, the high correlation between the level of agricultural production and the level of production in the economy as a whole is constantly confirmed and is significantly expressed in the diagram below. Of course the variations in gross agricultural product from one year to another are particularly marked (+78.2% in 1996; -26.5% in 1997; +27.9% in 1998; -16.7% in 1999 and -14.7% again in 2000, then +27.3% in 2001), but the variations in total GDP are so affected by these results that they follow them closely as they fluctuate up and down (+12.2% in 1996, -2.2% in 1997, +7.7% in 1998, -0.1% in 1999, +1.0% in 2000 and +6.5% in 2001). Observed over a long period, however, this trend of strongly contrasting levels cannot conceal the essential factor: the persistent stagnation in agricultural output. For in the period from 1998 to 1999 Morocco's gross agricultural output showed an "average annual growth rate" which was simply zero[30].

[30] Directory of the agro-food economies of Mediterranean and Arab countries, Médagri 2002, CIHEAM-IAMM, p.19.

Figure 3.1 - Development of GAP and GDP in constant terms, 1990-2001



The share of agricultural production in GDP was still below 15%, although, after dropping to 11.5% in 2000, it went up again to 13.8% in 2001. This level, which is incidentally virtually identical to the average level for the period from 1998 to 2001, is almost 3 percentage points behind the average rate recorded at the beginning of the 1990s (16.6% in the period from 1990 to 1993). This shows that over and above the annual variations related to changes in weather there is still a marked, although slow, downward trend in the share of agriculture in the total gross product of the economy. This being so, it is known that the impact of agriculture on the Moroccan economy can be explained more plausibly by the spillover effects generated by agricultural activity in the other sectors, and these effects themselves can be better understood when one knows that 47% of the Moroccan population still live in rural areas and that over 80% of incomes are still from agriculture[31].

With regard to foreign trade, the Moroccan agricultural sector seems to tend to serve the local market better than export markets. For agricultural imports actually dropped from 22% of total imports in 1997-1998 to 17% in 2000-2001. In the same period agricultural exports dropped from 20% of total exports to 10%. But this still did not prevent the agricultural import-export ratio from dropping from 53% to 40% over the same period. This is due to the fact that agricultural exports decreased by 11.3% between 2000 and 2001, whereas imports increased by 13.4%.

In **Algeria**, due to a higher production rate in 2001 compared to 2000 and to the decrease registered in the value of hydrocarbon production there was a relative

[31] Ministry of Agriculture, Rural Development and Maritime Fisheries, General Agricultural Census, Preliminary Results, Rabat, September 1998.

increase of 1 point in the value added by the agricultural sector, but with a share of 8.9% agriculture still ranks last but one (before the industrial sector) as regards contribution to GDP, sharing that position with the construction and public works sector but behind the services provided by the public administrations (12.7%) and market services (19.4%).

With regard to employment, according to a survey conducted by the National Statistical Office of Algeria, agriculture absorbs 21% of the working population and ranks after the commercial sector and the services, which employ 54.6% of the working population; the remainder is distributed between industry (13.8%) and construction and public works (10.4%). The Ministry of Agriculture reports that employment in agriculture increased in 2001 by 171,000 permanent or equivalent jobs. This is to be explained by the substantial subsidisation of foreign investments, which involved a total of 147,500 projects in 2001.

As regards foreign trade, the agricultural sector achieved a slight increase in exports in 2001 (67.6 million US$ compared to 64 million in 2000), despite the decrease in date exports, by doubling its exports of hides and leathers. But the level of agricultural exports is still very low (approximately 0.3% of total exports). And agro-food imports continue to account for a large share of total imports (30.4% in 2001 as against 30.3% in 2000) despite the decrease in value of cereal and grain-mill imports.

In **Tunisia**, the share of gross agricultural product in GDP has decreased steadily over the last three years. It was 12.7% in 2001 as against 13.4% and 14.1% in 2000 and 1999 respectively. The AFI value added was practically the same as the value recorded last year, whereas the forecasts were relying on a positive growth of 2%. This stagnation is due essentially to the poor oil olive harvest. Taken as a whole agriculture contributed negatively to GDP growth in 2001.

Investments in the agriculture and fisheries sector were lower than forecast, amounting to around 930 million dinars, which was an increase of only 4.5% compared to last year. They accounted for 12.2% of total investments as against 13% in 2000.

With regard to agro-food exports, after the decrease registered last year (-11%) a significant improvement was achieved with a growth rate of 6.7% for a value of 670 million dinars compared to 628 million dinars in 2000. Although agricultural exports increased by 6.7%, they only accounted for 7% of total exports, whereas the percentages achieved in 2000 and 1999 were 7.5% and 10.2% respectively. On the other hand, agro-food imports increased by 14.9% and accounted for approximately the same share of total imports in 2001 as they did in 2000 (6.5% and 6.6%).

In **Egypt**, there were slight fluctuations in the share of agriculture in GDP in the period from 1995 to 1999 (17.3% and 17.4% respectively increasing to 17.7% in

1996). It then dropped to 16.6% and 16.4% in 2000 and 2001 respectively, although it is impossible to know whether this trend will continue. Yet there was a remarkable increase in the share of agricultural investments in total investments from 8.5% in 1995-1996 to 14.4% in 2001. This apparent contradiction is no doubt to be explained by the higher growth in the other sectors of the Egyptian economy.

In the employment field the Egyptian agricultural sector continues to be one of the main job suppliers in the country, since it absorbed 28.1% of the total available labour force in 2001. This share is slowly but steadily declining, however, since it was 30.6% in 1995 and 29.5% in 1997. This decrease is to be explained in part by the substitution of capital for labour, which is indicated by the increase in the share of agriculture in total investments. This share actually grew from 8.5% in 1995 to 12% in 1998 and 14.4% in 2001.

As is the case in the other North African countries, Egypt imports a large share of the food consumed by its population. Agro-food imports accounted for 20.2% of total imports in 2000 (20.6% in 1999), and the agricultural import-export ratio was only 14%.

In **Lebanon**, agriculture's contribution to GDP has been 8% to 12% depending on the year and lags behind that of the industrial sector, which contributes approximately 18%. The share of agro-food exports in total exports was 18.5% in 2001 (as against 18.8% in 2000), a fact which is quite surprising for a small country which is also quite mountainous. But agro-food imports still represented 17.4% of total imports, a slight decrease compared to the previous year (18.2%). Yet despite this, the agro-food import-export ratio increased from 11.8% in 2000 to 13% in 2001.

In **Turkey**, agriculture still holds a relatively important place in the economy despite the progressive decline that has been observed for several years. With a contribution to GDP of 13.5% in 2001 (the same as in 2000), the sector lags behind industry (28.5%) and the services sector (58.1%). But it plays a much more important role in the employment field: 36% in 2001 and 34.9% in 2000. These figures reflect the lower level of labour productivity in the sector, as is the case in the countries of the Southern Mediterranean. But despite this, the Turkish agricultural sector achieved an agro-food import-export ratio of 93% in 2000. The poor farm year in 2001 resulted in a decrease in that ratio (31%) on the one hand and an increase in the share of agro-food imports in total imports on the other: 15.2% in 2001 compared to 4.4% in 2000.

In **Greece**, agriculture still also plays a relatively important role compared to the other countries in the European Union, although the situation has changed considerably since the 1960s.

In the employment field the agricultural sector still used 17% of the total labour force employed in the country in 2000 (22.5% in industry and 60.5% in the

services), whereas the European average (EU-15) was only 4.3%. This proportion was 41% in 1970 and still 24% in 1990.

The agricultural sector still ranks high in the export field compared to EU countries: 22.9% in 2000, after achieving 28% and 29% in 1998 and 1999 respectively. This is to be explained primarily by the low volume of non-agricultural exports. The large volume of exports explains the high import-export ratio in the agro-food sector (81% in 2000).

In **Italy**, agriculture maintained its relatively important position in the economy in 2001, accounting for 2.4% of the total value added and 2.8% in real terms.

As regards employment, agriculture employs 5.7% of the working population. A new factor - and one which is extremely rare in a developed country - is the increase in the number of persons employed in agriculture in 2001 (+0.7%).

The share of agriculture in total trade in commodities was 8%, with no change between 2000 and 2001 (accounting for 9.6% of total imports and 6.6% of total exports).

In **France**, there has been a downward trend in the proportion of agriculture in GDP over the last 20 years: 3.8% in 1988, 3.1% in 1990 and 2.3% in 2000 and 2001. The same applies to the AFI sector: 3.2% in 1980 and 2.4% in 2001. All in all, agriculture and the AFIs together account for only 4.7% of GDP in France. As regards employment, the agricultural sector used approximately 3.4% of the working population in 2000, and there was probably little change in 2001. This share has decreased considerably since 1980, when it was 7.6%.

In **Spain**, the share of agriculture in total value added was practically the same in 2001 (3.57%) as it was in 2000 (3.68%). But its share in the employed working population is steadily decreasing (from 8% in 1998 to 6.8% in 2000 and 6% in 2001), whereas its share in the working population decreased from 7.1% to 6.3%, with the result that the proportion of agricultural unemployed in the total number of unemployed persons decreased slightly in 2001 (8.4% compared to 8.8% in 2000).

The share of agriculture in foreign trade increased from 12.5% to a total of 13.3% with an almost identical increase in the share of the agro-food sector in exports (from 14.7% to 15.6%) and in imports (from 10.8% to 11.5%).

In **Portugal**, the share of agriculture in the product of the Portuguese economy has remained stable over the past few years (2.9% and 3.1% of the value added in 2000 and 2001) after the sharp decline registered in the period from 1990 to 1997 (6.1% and 3% respectively). Although the agricultural sector shows a long-term trend of more moderate growth than in the economy as a whole, the sharper or

more moderate decreases in the importance of agriculture are to be explained essentially by the various cycles of price variation.

With regard to employment, a much larger proportion of the working population is employed in agriculture than is the case in the other EU countries (11% and 10.6% in 2000 and 2001 respectively).

As for the AFIs, their share of value added has been decreasing slightly over the past few years: 6% in 1990; 5.7% in 1995; 5% in 2002. Their share in total employment remained stable in 2000 and 2001 (2.3%).

As regards foreign trade, agriculture plays a very minor role in total exports: 1% in 2001 and 0.9% in 2000. The AFI share of total exports decreased slightly in 2001 compared to 2000 (3% and 3.2% respectively), although it is still larger than that of agriculture. The respective shares of agriculture and the AFIs in total Portuguese imports are fairly similar - 3.9% and 4.9% in 2001 - and there is little change compared to 2000. Portugal is more dependent than the other European Mediterranean countries. Its import-export ratio is only 20% and its AFI import-export ratio is only 47%. The overall import-export ratio for agriculture +AFIs is 35%.

4 Agro-food production, consumption and foreign trade

4.1 – Land use and agricultural structures

Development in agricultural structures is of course very slow in most countries, and in particular in countries where agricultural production is carried out by private farms, most of which are family farms, and where the land market is free and organised. The only exception are countries were major institutional changes have recently come about, involving in particular the privatisation of agricultural land (Algeria, Albania and, to a lesser extent, Tunisia). These are also the countries where the effects of specific policies for adapting agricultural production structures have been most marked.

On the whole, the data for 2001 do not present any major changes compared to the figures for the previous years. It must be pointed out, however, in the case of the European Union countries that more detailed, or more specific, results have been published following the general agricultural censuses conducted in 2000 or 2001; the methodology of these censuses, which was common to all EU countries, and the initial conclusions to be drawn were already presented in the CIHEAM annual report for 2001. Agricultural censuses were carried out in two further countries - Algeria and Turkey in 2001, and the initial results can be presented here.

As regards land use, a distinction must always be made between long-term developments - urbanisation, the abandonment of marginal land or traditional crops or, conversely, the development of irrigation - and more cyclical developments which concern mainly annual crops and are connected with weather conditions, price movements or the effects of economic policies (changes in the systems for subsidising products or inputs). These short-term changes will be all the more evident in the economic data presented here, but the analyses presented in the individual country reports also reveal trends which are slower but more significant over a longer period.

In **Morocco**, the 2000-2001 farm year was marked by drought of varying intensity and, at all events, a sharp decrease in water resources. Weather conditions were initially marked by an early drought, which had both agronomic and hydrological consequences and was, moreover, virtually general throughout the country, the October and November rainfall affecting essentially the northern part of the country. However, it was primarily from the beginning of March until the end of April - a very sensitive period, since this is when cereal seeds are formed - that there was the severest lack of rainfall, a shortage which was compounded by an appreciable rise in temperatures throughout the country.

Irrigated zones also suffered from the very variable dam filling rates. As a result, the rate at which irrigation water needs were met was also very variable from one area to another depending on dam storage levels and the rainfall recorded: it varied

from 4% in the regions of Tafilalet and Ziz in the south to 100% in the northern regions (Gharb, Loukkos and Moyen Sebou).

The cereal acreage reached a level of slightly over 5.1 million ha in the 2000-2001 farm year, which was a 7% decrease compared to the previous year; the three main cereals alone covered 4.8 million ha (a 6% decrease), and 42% of that area was under barley, 38% under common wheat and 20% under durum wheat. The main spring cereal, maize, covered 254,200 ha, a 10% increase compared to the previous year.

It proved impossible to carry out the initial sugar beet planting programme, particularly in the Tadla region, where the shortage of dam water was combined with reluctance on the part of farmers due to the decrease in the profitability of this crop. Thus, of the 66,000 ha originally planned only 54,100 ha were actually planted and 52,800 ha harvested, i.e. acreages more or less equivalent to those of the previous farm year.

Sunflower plantings, on the other hand, increased by half to 56,400 ha, but this was still a long way from what had been hoped for this crop.

With regard to permanent crops, although there was a slight increase (of approximately 10,000 ha, i.e. + 2%) in olive planting - the main crop in terms of acreage -, a worrying trend is beginning to emerge for other tree crops: there was a significant decrease in acreage of fruit-bearing rosaceous plants, which seem to have lost approximately 1700 ha in 2001 (apple orchards alone lost 1,000 ha). The situation regarding citrus orchards is also worrying in this respect, since it would seem that the commitments undertaken in the context of the plan for renewing the national orchard, which is necessary if production capacity is to be maintained, have not even been honoured. (In 1998, that plan made provision for planting approximately 4000 ha a year over a period of 10 years.)

In **Algeria**, the first results (based on a 1-in-10 sample) of the general agricultural census carried out in 2001 have at last been published and thus provide an initial picture of farm structures. As regards number, there are almost 1 million farms (997,769), whereas there were 653,000 in 1960 and 899,545 in the 1972-1973 period (last general agricultural census). The farm concentration which could logically have been expected if Algeria had achieved coherent economic development thus has not taken place.

As regards status, 86.9% of farms are individual farms (3.7% of which are individual holdings established on public land). Collective farms account for 12.5% of the total number of farms (11% are collective farms and 1.5% are "corporate family farms"). It seems that members of collective farms who set up individual

farms informally by withdrawing from the parent collective farm were not declared as such and thus have not been counted as individual operators. Nor is it known how the members of these farms who have sold their usufruct to various owners of capital declared themselves.

As regards farm size, the general agricultural census shows that small farms still predominate to a large extent: 72% of farms are smaller than 10 ha (and 55.7% of these have less than 5 ha!), not counting stock breeders who have no land and who account for 6% of farms. This small-scale farming employs a large labour force of approximately 1.285 million people, 400,000 of whom are women (!), 112,000 are permanent workers, and there are no seasonal workers (a fact which is also surprising!). Despite this farm structure agriculture is highly mechanised. There is one tractor for 45 ha of arable acreage and one combine harvester for 300 000 ha of cereals. The area in use is also highly concentrated.

In **Tunisia**, the last farm census was carried out in 1995. The number of farms is estimated at 471,000. In 2000-2001 a survey was carried out on small social family farms, and it was found that 409,000 farms were to be classed in this category, i.e. 87% of the total number of farms. Social family farms were defined as such if the net annual income did not exceed 6,000 DT (i.e. approximately 4,400 euros). It must be pointed out that although 184,000 farms were identified in the survey as eligible for various types of credit (with or without guarantees); the remainder, i.e. 225,000 farms (50% of the total number of farms in Tunisia) have a net annual income of less than 2,000 DT (1470 euros) and need support in the form of microcredit or aids in kind. Following this survey a pilot credit project adapted to the circumstances was launched in 2001 and will run for 3 years.

No significant change has been reported with regard to the use of farmland, an area of 4.8 million ha in Tunisia or 30% of the entire territory; 320,000 ha (6.6%) are irrigated (and in addition to this there is an equivalent area of rangeland and woodland). It must be pointed out, however, that the on-going policy to mobilise water resources is resulting in a steady growth of irrigated area. A 10-year water mobilisation plan was launched in 1990 and 71% of the objectives were achieved, with the result that the irrigable acreage has been increased from 256,000 to 365,000 ha.

In **Egypt**, the entire acreage is irrigated, and tremendous efforts have been made in the last 50 years to develop new land outside the traditional zones in the valley and the Delta. There are now 2.54 million *feddans* of such areas (approximately 1.1 million ha), 68% of which are now actually being cultivated. At the same time, however, urbanisation takes some 25,000 ha from agriculture each year, and the per capita area is steadily shrinking just as the effects of new problems are beginning to be felt such as the salinisation of land due to inadequate drainage or the penetration of salt into the groundwater of the Delta. The average size of farms is also shrinking, and it is reckoned that the great majority of these farms (85%) are not economically viable with their steadily growing surplus of agricultural labour.

Lebanon is a small agricultural country with an acreage of under 250,000 ha (a 3% decrease compared to the previous year). The greater part of this acreage (57%) is under permanent crops, and cereals account for 21% of the latter. The main development in 2001 was the marked decrease in sugar beet cultivation as the result of the abolition of the subsidies on that crop.

According to the initial results of the agricultural census conducted in **Turkey** in 2001, there are 4.1 million farms for an area of 22.1 million hectares, i.e. 33% of the total area of the country; 17% of this acreage is fallow land, 12% is under perennial crops, 2.6% is under vegetables, and 69% is under arable crops.

In **Greece** there are currently 800,000 farms on 3.5 million hectares that are actually being cultivated. The 2001 farm year was marked by poor weather conditions, and there was a decrease in acreage in the case of most arable crops: cereals (-4%), fibre plants (-2.5%), oil crops (-1%, but this figure includes olive trees, which account for 70% of the total acreage and do not vary), and vegetables (-5%).

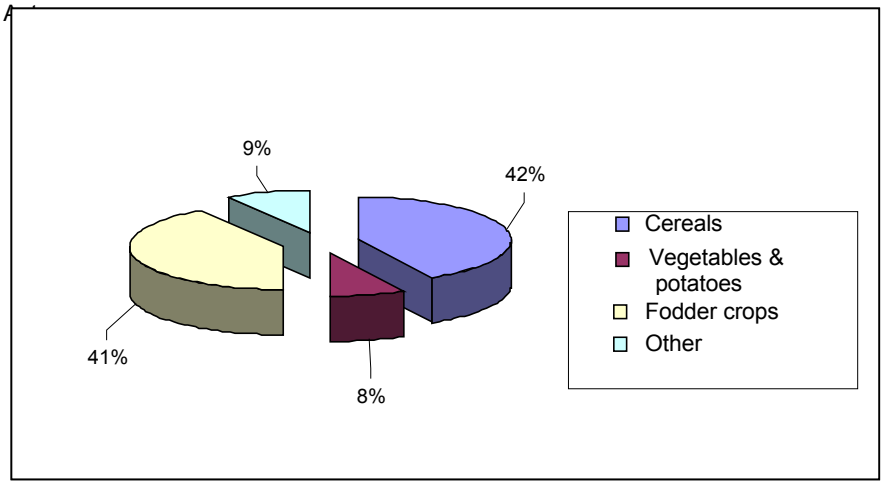
Another indicator confirms that the economic situation of farms is deteriorating as is the attractiveness of the agricultural sector: land prices have been falling steadily since 1990 despite a slight upswing in 2000. In real terms, there has been a decrease of 4.6% per annum in the case of irrigated land and of 5.4% per annum for other land. The average price of land is nevertheless still high when one compares it to productivity: 12,000 euros per hectare of irrigated land and 5000 euros in the case of dryland farming.

As the result of the privatisation process in **Albania**, farms are too small (1.1 ha on average per family) and too fragmented to create profitable production conditions; rural infrastructures are rudimentary, and the private sector has failed to fill the gap inherited from the former State structures in the processing and commercial sectors. No effort whatever has been made to date to guide the rural population to non-agricultural activities, and a large proportion of that population is consequently living in poverty.

During the 2000-2001 period there was a slight downward trend in acreage under arable crops, the major decrease being observed in wheat and maize: the area under wheat decreased from 136,000 ha in 1998 to 100,000 ha in 2001 (a decrease of 26.5%); the area under maize decreased from 61,000 ha in 1998 to 51,000 ha in 2001 (a decrease of 20%). The same trend was observed in the area planted with potatoes, white kidney beans, tobacco, sugar beet, etc. There was a considerable increase on the other hand in the production of vegetables (+11%), sunflowers (+17%), soya beans (+50%), and fodder plants (+5.1%).

As the result of competition from imported products that are cheaper and better quality than those produced in Albania, cereals such as wheat and maize are grown only for on-farm consumption; the small acreage of Albanian farms and the absence of mechanisation have reduced the cost-effectiveness of these crops; the agricultural market is not organised, and there are few links between dealers and producers. The situation regarding traditionally important commodities such as potatoes, pulses and tobacco is particularly difficult in this respect.

Figure 4.1 - Albania: Distribution of arable land by crop (%) in 2001



Source : MAA, Statistiques, 2001.

Tree farming has become one of the most dynamic sectors of Albanian agriculture over the past 2 or 3 years. After massive damage followed by abandonment during the first few years of the transition period (1991-1994), the figures now show a very favourable trend. Prompted by market demands, favourable prices, the stability of land tenure status and a favourable policy pursued by the government, Albanian farmers are going back to the traditional fruit-tree crops, in particular citrus, fresh grapes and olives. The number of fruit trees thus increased by 3% in the period from 2000 to 2001 alone; olive production increased by 9.4%, citrus (new plantations) by 31,000 trees, grape production by 7.3% and vineyard area by 7.8%.

In **Italy**, the results of the fifth national agricultural census carried out by ISTAT in 2000 that are currently available are still provisional. According to these results, there were 2,611,580 farms in Italy in 2000, which was a decrease by 411,764 units (13.6%) compared to the previous agricultural census in 1990. The data collected confirm that Italian farms are by and large family farms: over 2.5 million farms (i.e. 97.6% of the total number of farms in the country) are actually owner-operated, and 81.7% of the total number of farms use only family labour. Compared to the

1990 figures, the number of owner-operated farms has decreased by 13.5% and the number of these farms relying solely on family labour has dropped by 8.2%.

The most common form of land tenure rights is still operator ownership, involving 84.4% of Italian farms (over 2.2 million units). There is little variation in the number of mixed-tenure farms – owner-operated farms and leaseholds, part-owned and part-tenanted holdings; the number of such farms has increased by 3.1% over the last 10 years.

As regards land use, of the 22,328,000 ha of agricultural land and forest area 36% is arable land, 12.8% is devoted to tree crops, 2.3% is fallow land, 0.4% is used for family vegetable gardens, 19.8% is permanent grassland and pasture, and 28.6% is forest are. The agricultural area in use, i.e. 15.036 million ha, amounts to 49.9% of the total area.

Box 4.1 - The agricultural censuses carried out in the European Union in 1999 and 2000

A general agricultural census was carried out in all of the countries of the European Union in 1999 or 2000 on the basis of identical methodologies and definitions. This was a decision taken at the level of the Union with a view to effecting an accurate comparison of the agricultural sectors in all of the countries and of how they were developing and also to comparing the effects of the Common Agricultural Policy. All of the countries had hitherto been conducting censuses of this nature every 10 years on average, but this was the first time that the exercise was coordinated.

An exhaustive census is a costly and ponderous operation but one which, compared to surveys, has the advantage of providing a basis for analysis at all geographical levels - even the most intricate, and even when a very wide range of samples is involved. It covers the entire agricultural population, even small farms or those of a very specific nature, which can play an important role in rural areas. Furthermore, a census provides a means of renewing the sampling framework in order to build up the samples for subsequent surveys. All of the countries had thus carried out major "structural" surveys in 1997, the results of which provided a basis for the data published by Eurostat. However, the disparity of the sampling frames used made it difficult to compare the data between the various countries.

It is the countries themselves which publish the results; Eurostat has not yet published the synthesised statistics at the time of writing.

In **France**, the publication of the detailed results of the general agricultural census conducted in the winter of 2000-2001 is still continuing. The main result is of course the fact that the number of farms is continuing to decrease and that that is decrease is even accelerating. There is actually a total of 664,000 farms, i.e. 35% less than in 1988, or -3.6% per year between the two censuses (as against -2.4% per year in the period from 1979 to 1998). This rate of decrease in the total number of farms changes very little from one region to another, and in the Mediterranean regions there is little difference between the rate of decrease and the national average. Since there is little variation in the total AAU of farms (it dropped from 28.6 million ha to 27.9 million, i.e. -2.6%), the average farm size is increasing and is about 42 ha and 65 ha in the case of "professional" farms.

Analyses of this phenomenon of farm size increase generally refer to the effects of the 1992 reform of the CAP, which encouraged farmers to expand their farms in order to offset the drop in the prices of major agricultural commodities and compulsory set-aside and strengthened the early retirement scheme, thus enabling a larger number of small farmers to stop farming.

Since the publication of the report for 2000, the SCEES (the statistical service of the Ministry of Agriculture) has published additional results. These figures concern the production of services and farm diversification as well as farmer participation in product quality policies (see box).

Box 4.2 - Diversification of agricultural activities and quality products in France: the results of the 2000-2001 census show contradictory trends

One of the new features in the 2000-2001 agricultural census is that attention was devoted to diversification activities on farms and to quality policies.

The first result shows the importance of quality products which are recognised as such by an official indication. The main quality mark is the "Registered Designation of Origin" or, in line with European terminology, the Protected Designation of Origin (PDO), which involves a total of 93,500 producers. The majority of these producers (65,000) are winegrowers, who produce almost half of the country's wine and account for 85% of the "economic size" of wine-growing in France (expressed in Economic Size Units). The other important production sector is milk production (essentially cheese production, but there are also registered designations of origin for butter in France), which involves 12,400 producers.

The other quality marks recognised by the public authorities, such as "red labels", or purely private marks, such as the quality certification labels organised by the large-scale food retail trade, are developing rapidly and involve a total number of farms comparable to the number of farms with PDO labels.

There are fewer organic farmers (a total of 8,700, 1,700 of whom are currently converting their farming system), and the area which they farm (370,000 ha) thus only amounts to 1.3% of the total AAU. It must be pointed out, however, that this is a rapidly expanding category. It is estimated, for example, that the organic farming acreage was under 100,000

ha in 1995.

Direct farm-to-consumer sales are declining to a large extent, on the other hand, when one considers the number of farms involved, which in 12 years has dropped from 275,000 (27% of the total number) to just over 100,000 (15%), some 40,000 of which are wine farms. One must bear in mind the weight of the regulations in force, which has eliminated many small-scale traditional sales on local markets, whereas more specialised producers are remaining in business.

Box 4.2 (contd.)

A more surprising development a priori is the fairly marked decrease in the number of farmers involved in agro-tourism (bed and board) in the period from 1988 to 2000, whereas there were already very few such farmers and "green" tourism is steadily developing.

This decrease, which concerns all regions including those where tourism is most developed, can be seen as the effect of a certain amount of disappointment on the part of farmers in view of economic results that are uncertain and vary from one region to another. It is also the effect of the retirement of the first farmers to carry out this activity and of the steady development of off-farm (particularly wage-earning) activities carried out by farmers' wives, since it is generally the women who look after farm guest accommodation and catering.

Table 4.1 - Diversification on French farms

	1988	2000	% of farms concerned (2000)
Organic farming	n.a.	8,754	1.3
• of which undergoing conversion	n.a.	1,697	0.25
Other products with quality marks	n.a.	182,468	27.4
• of which Registered Designation of Origin	n.a.	93,559	14.1
Processing of farm produce	n.d.	61,384	9.2
Direct sale of agricultural products	275,469	101,988	15.2
Catering	3,077	2,973	0.45
Overnight accommodation	15,080	12,795	1.9
Contracted agricultural work	14,555	13,976	2.1

Source: SCEES – General Agricultural Census 2000.

There was little development in land use in France this year: the significant decrease (-3%) in the area under cereals was due essentially to weather conditions. Large areas - particularly in the northern half of the country - could not be sown because the soil was too wet. The area under oil and high-protein crops continued to decrease as a direct result of the Agenda 2000 reform but at a slower rate than in 2000, and the area sown decreased again slightly in the autumn despite the fact that prices remained very high. All in all, there was very little variation in acreage. The very slow decrease in the agricultural area in use continued to the advantage of forest area and land used by urbanisation. The 2001 figures confirm the trend that was already observed in 1999 and 2000 in the wine-growing sector, where the acreage remained constant, whereas orchard acreage continued to decrease. It is to be feared, however, that grubbing-up will start again in the years that lie ahead in view of the stagnation on wine markets.

Retrospective data on the period from 1992 to 2001 were also published this year, recalculated on the basis of the definitions used in 2001. No appreciable developments were observed over this 1992-2001 period; several factors which were already pointed out in the reports on previous years are mentioned again and are to be explained in most cases by the effects of the changes in the CAP, and in particular of the 1992 reform, whose effects were felt as of 1993: the return of fallowing, the area involved depending to a very large extent on the rate of compulsory set-aside, the development of oil crops, particularly rapeseed, which increased by almost 500,000 ha during this period partially replacing sunflowers (although this development was brought to a halt in 2000 by the Agenda 2000 reform), and a decrease in fodder crops and permanent grassland. All in all, the agricultural area decreased, falling from 30.08 to 29.33 million ha[32].

France also publishes detailed statistics every year on the price of agricultural land. Prices continued to rise on average in 2000, but this rise was slower compared to the previous years. In the case of grapevine other than vines with designation of origin, prices remained constant, a fact which amounts to a slight drop in real terms, after rising for about 10 years. This is clearly the effect of the crisis on wine markets, from which quality wines were still spared in 2001.

Several contradictory effects are to be observed with regard to other land: the result of the positive effects of the reduction of death duties introduced in 2000 and of the increase in direct agricultural subsidies as well as the tendency for farms to expand due to the two consecutive reforms of the CAP.

Analysts attribute the falloff in price increases to the uncertainty as to the plans for a new reforms (the first information on the "mid-term review" plans of the Agenda 2000 reform were published in the course of the year) and no doubt also as to the conditions of European Union enlargement.

All in all, the prices of arable land and grassland are still amongst the lowest in Europe, with an average of 3,400 euros per hectare (no distinction being made in this calculation between irrigated and non-irrigated land); viticultural land on the other hand can reach peaks of 65,000 euros per hectare on average and of approximately 30,000 euros in Mediterranean regions, where the "vintage" designations are not located.

In **Spain**, the agricultural census was carried out in 1999, but more detailed figures are not yet available. The overall results revealed that the number of farms dropped

[32] It should be noted that this figure is different to the AAU (27.8 million ha in 2000 according to the Aeneral Agricultural Census). The difference corresponds to land which is farmed collectively or, without appropriation, by one single farm - mainly extensive mountain pastureland.

by 500,000 in the period from 1989 to 1999 (from 2.28 million to 1.79 million), i.e. a relatively moderate decrease of 21.7% similar to the trend in Italy. As is the case with Italy, this figure is to be explained by the fact that the large number of small retirement or secondary farms remained constant. The average farm size increased from 10.8 to 14.7 ha during this period, but this figure is of limited significance due to the dual structure of agriculture. Moreover, the first detailed results show that farms are tending to specialise and that the number of farms of mixed technical orientation is decreasing faster.

In **Portugal**, the census statistics which were presented in the report for 2001 revealed major differences in development from one region to another, particularly in terms of land use. We would point out furthermore that there were 380,000 farms in Portugal in 1999, which was a 31% decrease compared to the 1989 figure. The average farm area is 9.8 ha, and the proportion of "professional" farms is much greater than in the Mediterranean zones of the other EU countries.

4.2 - Agricultural production

Output level, particularly as regards arable production, was again very dependent on weather conditions this year, which influenced both acreage and yield. Animal husbandry is generally more stable than crop husbandry. The drought continued in the Maghreb in 2001 for the third year in succession, whereas there were floods in France, Spain, and the north of Italy (the south of the country being affected by drought).

Output also depends to a large extent on the - positive or negative - incentives created by policies for orienting production. The effects of the Agenda 2000 reform in the countries of the European Union, which were already observed in 2000, thus continued. Other countries in the south and east continued to pursue their policies for liberalising products and markets: abolition of the State planning of acreage and of compulsory supply in Egypt, limitation or abolition of product subsidies in Lebanon and Turkey. In Morocco, this policy seems to have been curbed on the other hand, in particular through an increase in State aid for the use of certain inputs.

And finally, it must be noted that the countries of the European Union are continuing to suffer the effects of the Bovine Spongiform Encephalopathy (ESB) epidemic on meat markets; in France, another health crisis also affected the sector in the first half of 2001 with the return of foot-and-mouth disease for the first time in 20 years.

In **Morocco**, the results of the 2001 farm year are very different to those achieved in 2000. On the one hand, the drought continued, with rainfall 10% below the normal level on average throughout the country but a more critical situation in the south, where irrigation water could only be supplied very partially. And on the

other hand, economic results were satisfactory, particularly in the case of crops, whose value added increased by 60% this year, regaining the average level of the 1990s. This was due both to the general increase in yields and to higher prices.

Yields had been exceptionally low in 2000 and thus showed a sharp increase this year although they were still quite inadequate. Despite a similar growth rate for the three main cereals of between 160% and 170%, output was still only 5.4, 13.2 and 10.6 quintals per hectare in the case of barley, common wheat and durum wheat respectively. Despite the decrease in acreage, there was a sharp increase in production in these circumstances (from 18.5 to 44.7 million quintals for the three main cereals), although it was still below the average of the last 5 years (1995-1999).

Sugar beet yields remained constant between 53 and 54 tonnes per hectare (this has been the case for several years now); in the final analysis, output remained at virtually the same level, i.e. almost 2.8 million tonnes, in view of the stability in acreage mentioned above.

Olive output also increased, with a marked increase in planted area and a considerable increase in the production of horticultural crops (+9.6%) despite the steady decrease in tomato production.

Animal product output also remained constant, thus making up for the poor previous years to a large extent, but production is tending to stagnate in general over the longer term. In view of the population increase, the quantity available per capita is decreasing in the case of the main products compared to the previous decade. The following table compares the current figures with those for the 1993-1997 period, which were already unfavourable; a comparison based on a longer period would produce even more worrying figures.

Table 4.2 - Per capita output of main agricultural products in Morocco (kg per capita, averages of the 1993-1997 and 1998-2001 periods)

Commodities	1993-1997	1998-2001	Variations
Cereals (3 main)	203	149	-26.6
Legumes	7.0	5.4	-22.9
Sugar beet	109	105	-3.7
Horticultural crops	163	162	-0.6
Olives	19.4	19.7	1.5
Citrus	48.7	46.3	-5.0
Red meats	10.4	11.5	1.1
Milk (litres per capita)	32	39	21.9
White meats	7.1	8.2	15.5

Eggs (units per capita)	101	106	5.0

Source: Results of the 1998-1999 farm year, Ministry of Agriculture, Rabat, Morocco, December 1999.

Algeria did not suffer from drought particularly severely this year. The 2000-2001 farm year was marked by fairly good rainfall from September to February. Despite the shortage of rainfall in April and May the cereal-producing provinces registered average rainfalls ranging from 200 mm to 350 mm, the west of the country being more fortunate than the east.

The 2000-2001 farm year was better than the previous year, which was mediocre on the whole but particularly bad in the case of cereals, dried beans, olives and bulk tomatoes. Cereal and dried bean output increased sharply (+185% and +76% respectively). Compared to the average output for the period from 1991 to 2000, cereal output in 2001 was 13% higher and dried bean output was 17% lower. Fodder crop output regained its 1999 level, almost doubling compared to 2000.

Horticultural production virtually stagnated from 2000 to 2001 but nevertheless exceeded the 9% average output for the 1991-2000 decade. Bulk tomato production continued to decrease by 4% after the 20% decrease in 2000; this was no doubt due to the fact that producers have lost interest to some extent because of the difficulties they encounter in selling their products to processing plants (difficulties which generally concern prices). Output was nevertheless approximately the same as the 1991-2000 average.

Good results were achieved in tree-farming, particularly with regard to dates (+20%) and citrus (+9%); stoned and seed fruit production increased by only 4%. Olive and olive oil production decreased, however, for the second time in succession (-40% in 2000 and -4% again in 2001).

The growth in animal product output was moderate (4% for red meats, 2% for white meats) and was far from offsetting the sharp drops in production registered the previous year (-40% and -42% respectively). Milk output increased slightly (by 4%) after decreasing by 1% in 2000.

In **Tunisia**, on the other hand, the weather conditions during the 2000-2001 farm year were marked by a lack of rainfall for the third year in succession. The widespread drought affected the centre and south of the country in particular. In view of the importance of rain-fed agriculture in Tunisia -93% of the usable farm area -, the lack of rainfall and the prolonged drought had an adverse effect on all sectors and in particular on arable production, animal husbandry and oil crop farming. This prompted the public authorities to promulgate a decree in July 2001 declaring several regions of the country disasters areas. Irrigated crops, on the other hand, achieved satisfactory results.

The major concern for farmers is how to start off the next 2001-2002 farm year,

and in particular how to finance their activities given the fact that there was not a great deal of rain during the autumn-winter period either.

The area under cereal crops during the 2000-2001 farm year thus decreased by 20% compared to the previous year, amounting to 1.260 million ha as against 1.588 million ha during the 1999-2000 farm year, and the harvested area was limited to 760,000 ha, which was barely 60% of the grain-sown area. The total cereal harvest was only 13.5 million quintals as against a projection of 18 million quintals and 10.9 million quintals the previous year. The average yield was better than the previous year but was still fairly low: 10.7 q/ha for common wheat (compared to 10.2 the previous year), 15.5 q/ha for durum wheat(compared to 8.2 for the previous year, and 5.4 q/ha for barley (compared to 4.1 for the previous year).

The area under food legumes decreased from 65,500 ha in 2000 to 53,500 ha in 2001. Legume output was approximately 30,600 tonnes as against 42,000 tonnes and 58,000 tonnes in the previous two farm years.

Oil olive output was 115,000 tonnes, i.e. 20% less than projected. This harvest was just over half of the previous harvest of 225,000 tonnes. Oil production is always related to rainfall and is strongly marked by biennial bearing. An increase of almost 7% was registered in the citrus harvest, which amounted to 240,000 tonnes. The wine grape harvest suffered from drought showing an 18% decrease compared to the previous farm year, with 44,000 tonnes of grapes as against 54,000 tonnes in 2000. Wine production, which is in decline, was thus estimated at 325,000 hectolitres. The output of fresh grapes, on the other hand, which are generally grown under irrigation or are given supplementary irrigation, was around the same level as that achieved the previous year: 80,000 tonnes.

With regard to the other fruit products, in particular stoned and seed fruit, it must be pointed out that a marked in decrease in production was registered for almonds (30,000 tonnes of dried unshelled almonds as against 60,000 tonnes in 2000), apricots and pomegranates. Apple and pear output, where production is irrigated, was practically the same as the level achieved the previous year, i.e. 108,000 tonnes and 55,000 tonnes respectively. Despite a slight downward trend of 5% in 2001 compared to the output achieved the previous year, the fruit sector covers domestic demand and supplies large quantities for export, particularly in the case of citrus and and dates, and smaller quantities of apricots and pomegranates.

With regard to horticultural crops, potato output registered an increase of 14% compared to the previous year, at 330,000 tonnes. The planted area increased from 20,000 to 21,600 ha. The area under tomatoes, on the other hand, was only 23,000 ha, which was a decrease of 6,500 ha. The tomato output was around 835,000 tonnes, as against a bumper crop of 1,117,000 tonnes in 2000.

In the animal husbandry sector, milk production slowed down to some extent in 2001, increasing by only 6% compared to the 19.4% increase achieved in 2000. The output was estimated at 939 million litres as against 887 million litres in 2000. The quantities of milk collected amounted to 418 million litres, i.e. 8% more than the previous year, as against a 15% increase achieved in 2000. This growth recession in milk production combined with the start-up of the powdered milk production plant made it possible to reduce the level of stocks.

Red meat output, which meets local demand, increased by almost 4% compared to the previous year. Poultrymeat output, on the other hand, which progressed by 11.4% and 19.5% in 1999 and 2000 respectively, only registered a growth rate of barely 3% in 2001. Due to this regression it was possible to adjust production level to the level of domestic and foreign demand.

The overall value of agricultural production is thus very stable, estimated at 2.747 billion dinars in 2001 (in 1990 constant prices) as against 2.7675 billion dinars in 2000. The gross agricultural product (also estimated in 1990 constant prices) decreased slightly from 2.297 billion dinars in 2000 to 2.286 billion dinars in 2001, i.e. -0.5%. This decrease was due essentially to the sharp drop (-6%) registered in crop output, particularly in cereals and oil olives.

Since agricultural production in **Egypt** is 100% irrigated, weather conditions have little influence on the overall output. The general trend is towards a steady increase in yields and a fairly appreciable development in acreage. The data presented in the report concerned the variations in area and yield for the 1996-2001 period. A slight increase was observed in that period in the area under wheat, which more or less offset the decrease in the area under rice, and there was an increase in yield for both of these commodities. Cotton production, the country's traditional strong point, is declining steadily; the increase in yield does not compensate for the drastic decrease in acreage (-20% in the period from 1996 to 2001). New products are developing considerably on the other hand, such as sugar production, groundnuts, fodder crops, and certain fruit crops, in particular mango. These changes are the result of the liberalisation of production; cotton is a typical case: the rise in prices, which come close to the world prices following the liberalisation of the market, did not suffice to offset the effect of the abolition of the compulsory supply system.

In **Lebanon**, crops account for 70% of total production. There was an increase in cereal and fruit output in 2001, but the abolition of subsidies for the production of legumes and sugar brought an appreciable drop in output.

Animal products are developing, in particular milk production (+8.5%), which now covers 60% of local consumption (only 56% in 2000); milk exports are on the increase as the result of the development of several modern processing plants which produce for the entire region. Taken as a whole, agricultural production in Lebanon decreased slightly in value this year (approximately -4.5%).

There was a slight decrease in agricultural production in **Turkey** in 2001 both in value and in value added. The drop in production thus affected the main products: cereals and other arable crops and fruit; vegetable and legume increased on the other hand.

Table 4.3 - Turkey: Value added (at 1987 prices, in billion TL)

	2000	2001
Agricultural production	8 566	8 186
Forestry	188	145
Fisheries	78	79
Entire agricultural sector	8 832	8 410

Table 4.4 - Turkey: Main crop output (1000 tonnes)

	2000	2001
Cereals	30 149	27 650
Food legumes	1 311	1 518
Other arable crops	35 830	29 439
Fruit	14 156	13 104
Vegetables	14 156	15 916

Source : SPO, Developments in Economic and Social Sectors, Ankara, 2000, p. 19.

With regard to animal products, the consumption of imported poultrymeat, which is less expensive than the traditional sheepmeat and goatmeat products, is increasing to the detriment of the latter but also to the detriment of local poultry production.

Table 4.5 - Turkey: Animal products

	2000	2001
Milk (1000 tonnes)	9 350	9 500
Red meats (1000 tonnes)	864	850
Poultrymeat (1000 tonnes)	725	660
Eggs (millions)	635	600

Source: SPO, Developments in Economic and Social Sectors, Ankara, 2000, p. 23.

In **Greece**, agricultural production decreased compared to the previous year, and development which is mainly to be explained by poor weather conditions. The most marked decrease was observed in crop production (-19%), with a decrease of 4% in the area harvested as well as a decrease in yield; there was also an appreciable drop in milk and olive production. The production of the other major commodities remained stable.

On the whole, Greece is thus far from achieving self-sufficiency, except in the case of fruit and vegetables, since beef and veal, pigmeat and egg demand is only covered to very limited extent.

Table 4.6 - Greece: Self-sufficiency rate

Commodities			%
Cereals	All cereals together (except rice)		75
	Including:	- All wheat	81
		- Rye	97
		- Barley	60
		- Grain maize	74
Potatoes			84
Sugar			63
Fresh vegetables			107
Fresh fruit (except citrus)			120
		- Citrus	125
Wine			116
Milk products (1999)		- Fresh products	93
		- Butter	131
Eggs			96
Meat	Including:	- All beef and veal	25
		- Pigmeat	41
		- Poultrymeat	79
		- Mutton and lamb and goatmeat	82

Source: Eurostat.

Agricultural prices rose slightly this year as they did in most countries in the European Union, and this rise was accompanied by a slight increase in farm incomes measured in terms of farm income per labour unit, which is the main indicator published at the European level each year.

In **Albania**, there was a drastic decrease in acreage in 2001 in the case of certain crops such as wheat (-27%) and maize (-16%); the area under potatoes, pulses, tobacco, and sugar beet also decreased. Yields increased, however, in the case of most crops. The investments in horticultural production already mentioned in previous reports brought results: total vegetable output (produced in plastic greenhouses) developed as follows: tomatoes: +7,000 tonnes (+22.4%); cucumbers: +1,537 tonnes (+27.8%); sweet peppers: +158 tonnes (+403%). In view of this situation the experts estimate that by 2004 greenhouse production could virtually cover the total demand of Albanian consumers.

The development of the animal husbandry sector is of particular interest in the activities of the rural population in Albania. This sector accounts for over half of the total value of the country's total agricultural production and is of particular

importance in the mountainous regions in the south, although yields are still very low in those parts. In Albania, 30% of land is currently used as pastureland, and over 60% of the rural population raise animals, mainly sheep and goats. Animal husbandry can be carried out on a very small scale and is adapted to the production structures of Albania's small private farms. Furthermore, this product also serves as a social guarantee for the income of the rural population. In most cases these products are intended for family consumption and only the surplus is sold on the local market or sent for processing.

During the period from 1998 to 2000 there was an upward trend in livestock numbers (pig headage increased by 27%, sheep headage by 3.2%, poultry headage by 15.8%, cow headage by 1% - i.e. by over 3000 heads, beehives increased by 43.8%, etc.). This phenomenon was observed with all animal products: cow's milk output increased by 16.3%, goat's milk by 7.5%, eggs by 53.1%, honey by 47%, beef and veal by 6.8%, and mutton and lamb by 12.1%.

This growth has enabled Albania to increase its self-sufficiency ratio considerably over the last three years for the main staple foodstuffs such as meat, milk and eggs. As a result, livestock product imports have decreased, market prices have dropped, and the structure of food consumption, particularly that of the rural population, has improved. The growth has also influenced the stability of the domestic supply and the rise in Albanian farmers' incomes as well as the creation and development of a small agro-food processing industry in rural zones (facilities producing traditional cheeses and prepared meat products).

In **Italy**, the 2001 farm year will remain a bad year in many ways in terms of both production and weather conditions. The extreme variability of the latter - heavy rainfall and spring frosts in the north and long periods of drought in the south – adversely affected the harvests of many crops throughout the country.

Arable crops registered a substantial decrease in quantity on the whole, due mainly to the reduction of cereal crops caused by the decrease in acreage and yield of common wheat, durum wheat and barley. Maize was the only exception, despite the reduction in per-hectare aids; with the increase in acreage (+3.2%) maize output progressed by 2.3%. There was also an upward trend in rice production as a result of the improvement of yields, despite the reduction in acreage. A decrease was registered in oil crops on the other hand, due essentially to the reduction of acreage following the decrease in CAP subsidies.

In the horticultural field, which is one of the main production sectors accounting for 15% of production value, there was a marked fall-off in production as regards both acreage and yields. This concerned tomatoes and potatoes in particular (-15% and -4.1%), which were particularly affected by unfavourable weather conditions.

Tree crops registered a slight drop in overall output (-1%), the trend differing from one product to another. There was an upward trend in apple, pear, orange and

fresh grape output, whereas peach, lemon, almond and wine grape production decreased, due mainly to the reduction in acreage. And finally, there was an increase in olive production (+1.4%) and the crop was furthermore of excellent quality.

The year 2001 also proved to be a difficult one for the entire meat sector. During the first months there was an appreciable fall-off (-32%) in the headage of cattle slaughtered compared to the figure for the same period the previous year; this decrease is to be attributed again to the BSE crisis. The headage slaughtered levelled off over the rest of the year. All in all, there was a moderate decrease in slaughtering of 4.1% in the cattle sector in 2001 compared to the previous year. There was also a slight decrease in livestock compared to the figure for the same date the previous year. On the other hand, there was an increase in the headage of pigs, sheep and goats slaughtered.

In the milk sector production increased by 1% compared to the previous year with a total output of 10.2 million tonnes.

It is important to underline the rapid development of recognised quality products over the past few years: 317 (of the European total of 500), 79 of which have a PDO (Protected Designation of Origin) label and 38 have a PGI (Protected Geographical Indication) label, not to mention some 100 products that are awaiting recognition. Organic farming is also a fast-expanding sector; if one includes the number of farms which are undergoing conversion, the total number increased from 4,000 in 1993 to 54,000 in 2001 with an acreage of over 1 million hectares.

In **France**, a country which has a wide variety of products, environments and climate zones, there are rarely any major variations in agricultural production from one year to the next. This year was an exception, however: the very bad weather conditions (persistent rainfall and flooding) in the northern half of the country at the end of 2000 and beginning of 2001 actually prevented the normal sowing of annual crops in many regions, and the cereal and oil crop acreages and yields thus decreased (oil crops suffering again from the effects of the reduction of subsidies, as was the case in 2000 and was also observed in the other countries of the EU); there was also a decrease in potato and beetroot yields as indeed in all fruit and vegetable yields. This was compounded by the continuing crisis in the cattle sector - Bovine Spongiform Encephalopathy (BSE) was still to the fore, and there was a further outbreak of foot-and-mouth disease at the beginning of the year, which also affected pig and sheep output, resulting in a freeze on the marketing of products from certain regions.

All in all, the volume of agricultural production dropped by 3.3% - admittedly only a slight decrease but an unusual trend for this country. This decrease affected most

of the countries in the European Union and was inevitably accompanied by a rise in prices on the European market for most of the products concerned, which meant that production value could be maintained.

The biggest decreases thus concerned cereals; acreage decreased by a total of 400,000 ha despite the fact that some of the area under small-grain cereals was used for maize (and sugar beet was also grown on a small proportion in regions where it is possible to grow this crop since there are sugar mills in the area offering potential production contracts.) What is more, the weather conditions were also unfavourable for standing crops, resulting in a decrease in yield. Wheat output dropped by 15%, barley output remained constant, and there was a slight increase in maize production.

Oil crop acreage, which had already decreased in 2000, continued to diminish (-130,000 ha in the case of rapeseed), and yields were also low except in the case of sunflowers, where yield decreased slightly but was nevertheless excellent compared to 2000. The same applies to high-protein crops, where output decreased by 17%. In the case of beetroot, the slight increase in acreage was far from offsetting the decrease in yield, and output thus dropped by 9%.

The area out of crop increased by 120,000 ha in 2001 as a logical consequence of these difficulties, a CAP subsidy being paid as a voluntary set-aside grant for the area in excess of the compulsory set-aside percentage.

The Mediterranean regions were less affected by bad weather in comparison, the output of the commodities produced in these regions remaining close to the average of the previous years, despite a very late summer; the late arrival of certain products (such as melons, cherries and peaches) on the market also meant that they fetched particularly high prices. And vegetable production remained constant, whereas fruit production decreased by 14%. Wine output also decreased due to the drought in the southern regions at the end of the summer, but the quality of the wine produced was otherwise satisfactory on the whole. All in all, output was lower than that achieved in 2000 (this applies mainly to quality wines produced in specified regions and table wines).

The volume of animal production remained stable on the whole. Adult bovine animal output decreased - still as the result of low demand (the crisis in consumer confidence following the new outbreak of BSE, and then the effects of the freeze on exports following the outbreak of foot-and-mouth disease). The upward trend observed towards the end of the year was insufficient to avoid a marked drop in annual production as a whole (-1.9% in the weight of meat produced and, in particular, -25% in live animal exports, with the overall result of a decrease in output of almost 10% (and a decrease in consumption of 8%). The other products benefited from this decline on the whole, including veal (were production increased by 2.5% in volume). Sheep output (+3.7%) also benefited from the freeze on British exports due to the foot-and-mouth epizootic in the UK. Pig and poultry products

also progressed, boosted by the rise in consumption, but there was a marked decrease in the exports of these two products as the result of both restrictive measures taken by certain importing countries and of the increasing competition from new producer countries where production costs are lower.

Despite the crises, the trend in agricultural prices in France was very positive on the whole in 2001 (+4% on average). This is of course in part due to the low output of plant products but also to a certain recovery in consumption resulting from an increase in purchasing power. This trend varied widely from one product to another, as is often the case. There was an appreciable increase in practically all plant products, the biggest increases concerning fruit and vegetables, which progressed by 15% on average. Cereal prices progressed slightly on average compared to the prices in 2000, which were already favourable; the increase was higher in the case of common wheat, due in part to the particularly good quality produced this year.

Wine was the only plant product in difficulty this year; despite the decrease in production and the launching of support distillation measures by the European Union, the drop in exports and the persistent level of stocks had a marked effect on prices, and in particular on table wine prices, although table wine output was low in 2001. Quality wines fared much better.

Agricultural production costs increased again despite the fact that oil product prices dropped this year. The gross agricultural product nevertheless increased by 1.9% in value, and, as was the case in most EU countries, good results were achieved with regard to farm income per worker, which increased by 3.4% in real terms.

This average increase conceals trends which vary widely from one product to another. The products whose prices marked to the highest increase are of course those where there was a considerable rise in incomes: fruit and vegetables, off-land products, sheep, dairy cattle, and oil protein plants. In the case of beef cattle, the damage suffered was limited by the effect of aids[33].

Wine growers were the only producers to record a second year of very poor results in succession despite the low output in terms of quantity and the good quality of the product. European aids do not suffice to offset the drop in prices or, in particular, the low volume of sales (as is the case in the cattle sector, the statistics underestimate the deterioration in the situation of producers), which concerns mainly wine farmers who produce table wines and quality wines produced in a

[33] Despite the fact that there is still livestock that has not been sold, as was noted in the report for 2000, with the result that the income actually received by breeders is lower than what is calculated by the national accountants.

specified region.

In **Spain**, the excessive rainfall also caused major losses in arable crop production; wheat, potatoes and sugar beet output was particularly low. It must be noted, however, that, as was the case in the rest of Europe, the wheat market was particularly favourable this year with prices well above the intervention price. The fruit and vegetable subsector, which is the most important subsector accounting for approximately 30% of production value, registered strongly contrasting trends due both to weather conditions and to the producers' reactions to the variations in prices. The upward trend observed in citrus plantings suggests, however, that this sector, which was previously slowly declining, is now recovering.

Wine grape output was particularly poor in 2001, with production dropping by almost 20% while prices plummeted; the overall result was a decrease of almost 50 % in the total turnover of the sector.

As was the case in the rest of Mediterranean Europe, 2001 was a good year for olive oil production with an upward trend in both output and prices.

And finally, 2001 was an exceptional year for pig production, which has been one of Spain's strong points for the last decade; after the poor results recorded in 1999 and 2000, output rose further and prices were particularly high.

As was the case in previous years, there was a slight growth in the economic results recorded due in particular to animal production, where both prices and volume rose significantly. The turnover in plant products fell off slightly on the other hand (-0.9%) as a result of the decrease in output, despite the average rise in the prices of these products. The share of plant products in total production thus continued to drop and is now under 60%. The moderate rise in intermediate consumption, which grew at a slower rate than in 2000, and the increase in producer subsidies brought an overall increase in farm income per worker of just under 5%.

In **Portugal**, finally, cereals and bulk crops suffered from weather conditions (wheat output was only half of the output achieved in 2000), but these are not important products in Portugal. Good results were achieved with plant products on the other hand; wine did particularly well, especially quality wines, which had an exceptional year. Since fruit and vegetable prices rose sharply this year, there was an overall increase in plant production turnover. Animal product output stagnated again this year on the other hand, and beef and veal and milk production decreased. Despite the considerable rise in pigmeat prices and the increase in poultry output, there was a slight decrease in the turnover of the animal husbandry sector.

2001 was nevertheless a good year for Portugal on the whole in terms of value added and farm income: according to Eurostat, the farm income per worker increased by 12%. It must be pointed out that the share of the agricultural sector in

GDP even increased this year from 2.9% to 3.1%.

4.3 - Agro-industrial production

The results of the agro-food industries varied widely from one Mediterranean country to another in 2001. In real terms there was moderate growth in turnover in the EU Mediterranean countries and more marked growth in the SEMCs. This can be explained by the different structural situations, the favourable results of the farming year, particularly in the southern Mediterranean countries, and the cyclical trend in domestic household demand in the developed countries. The agro-food industries (AFIs) have been registering a constant high growth rate in all Mediterranean countries in the past few years to the extent that they are beginning to hold a pivotal position in agriculture and in the economy as a whole.

In **France**, the agro-food industries maintained growth in volume this year (+1%) despite a slowdown and sharply rising prices (4.4%), achieving a significant increase in turnover (+4.4%) compared to last year. The turnover of the agro-food industry amounted to 119 million euros. All of the sectors progressed with the exception of sugar production, which is very dependent on sugar beet production, and the grain-milling industry (-0.7%). The best growth rates were recorded in the meat industry (+1.6%), where results were very poor at the end of 2000, the fish industry (+2.5%), the fruit and vegetable industry (+2.6%) and the milk industry, where there was a sharp increase in the demand for fresh products. A further notable growth rate was registered in the beverage industry after the sharp decline in 2000; this was due essentially to the growth in the demand for refreshing beverages.

All in all, it was domestic demand which brought this progression, with household food expenditure increasing by approximately 1%; exports decreased on the other hand, particularly in the meat sector.

The increase in prices concerned all sectors, particularly meat and dairy products; the beverages sector progressed at a much slower rate (+1%) due to the new decrease in wine prices.

Employment in this sector rose slightly, although the general business activity was not particularly buoyant. The AFIs are one of the rare industrial sectors where employment still progressed in 2001 - by a total of 8,200 jobs, i.e. +2%. All of these results expressed as annual averages must be seen in perspective, however, given the marked fluctuations registered in the economic trend in the course of the year. In fact, economic surveys revealed rather pessimistic projections by industrialists towards the end of the year.

As regards structural data, there were 3,016 firms with more than 20 employees in 2000, with a total labour force of 382,800 workers.

In **Italy**, the food sector registered a 0.5% increase in 2001 compared to the previous year. This slowdown is to be attributed to a lower contribution by the

domestic market and the acceleration of sales on foreign markets in the EU countries (the primary outlet for the exports of food business operators).

The value added of the food industry amounted to almost 30,700 million EUR with an increase of 3.6% in current values and 0.3% in real terms. This increase is due essentially to the performance of prices, which rose by 3.3% compared to the previous year. The increase in current value achieved by the agro-food industry in 2001 was at all events higher than the increase registered for the industrial sector as a whole (+2.6%).

The Italian food industry maintained its economic importance with a certain degree of stability, accounting for approximately 10.3% of the value added of the manufacturing industry. With regard to jobs, a 2.2% increase was registered in the total number of wage earners, which amounted to 504,000 units; 327,000 of these employees represent approximately 7.3% of the total labour force of Italian industry as a whole.

There were 88,900 firms - generally small and medium-sized enterprises (6 wage earners per enterprise on average); approximately 10% of the total number of agro-food firms employ more than 10 wage earners.

In terms of turnover, it was the milk and cheese sector which registered an all-time high of 13 billion EUR, followed by the confectionary industry with a turnover of 8.56 billion EUR, the pigmeat processing industry with 7.82 billion EUR, and the wine-producing sector with 6.82 billion EUR. As regards exports, the wine-producing sector achieved the overall record, accounting for 21% of the exports of the Italian agro-food industry, i.e. over 41% of total wine output.

The development of production varied widely from one subsector to another: the slaughtering and meat-processing sector registered a sharp decrease in the production of processed beef and veal (-4.1%) due to the mad cow disease (BSE) crisis; this decrease was offset by the growth in alternative meats, particularly poultrymeat. Fairly considerable increases were recorded in the production of animal feed, mineral waters, carbonated beverages, seafood products, macaroni, spaghetti and similar products, and deep-frozen foods. There was a drop in production on the other hand in the olive oil, food cereal and sugar sectors as well as in the milk and cheese sector.

The significance of the AFIs in the **Portuguese** economy has decreased slightly over the past few years - from 5.7% of GDP in 1995 to 5% in 2002. There is marked variability in production: after a positive variation of 3% in 2000 it dropped by 3.9% in 2001, whereas a growth rate of 2.3% is projected for 2002. The value added amounts to approximately 5.238 billion euros, accounting for 22.5% of the total

value added of the processing industry. As regards employment, the slow downward trend in agriculture is continuing, and the AFIs have registered the same percentage (2.3%) over the past three years. Employees (112,700 units) account for 11% of the total labour force in the processing industry.

The **Spanish** agro-food industry suffered a decline in 2001 or stagnation in its main results. Thus, a drop of 2% in volume was registered in gross production compared to 2000, which meant a stagnation of production in terms of value. It was the worst result of this industry in the last few years.

According to the Food and Beverages Spanish Federation (FIAB) – which is composed of the firms in this sector –, these negative figures are only to be explained by a decrease in product consumption, an argument that is also supported by the data from the Ministry of Agriculture. In the opinion of the FIAB, this could be due to the impact of the recent food crisis on consumers' confidence regarding product quality (BSE, second-pressing olive oil). In order to address these problems, the Spanish Food Security Agency was created by Act n°11/2001 of 5 July 2001.

The food industry occupies an important position in Spanish industry, since it represents 16.1% of total product turnover and 18.9% of expenditure on raw materials. In 2000, the AFI value added, at 13.511 million euros, amounted to 12% of the total industrial value added.

The main subsectors are the meat industries, the bread, pastry and biscuits, and dairy industries, accounting for 38% of value added.

Although the decrease in the number of companies and industrial establishments in the past few years (a drop of 15% in the period from 1995 to 2000), the sector is still highly atomised. At the present time, 83% of Spanish food enterprises are very small (under 10 employees); 13.8% are small (between 10 and 50 employees); 2.5% are medium-sized (over 50 and under 200 employees) and 0.7% are large companies (more than 200 employees). Global figures show that the average number of employees is only 10.9.

Another important aspect of the developments in the agro-food industry is the employment trend. The number of employees in the sector in 2001 was 393,033. This reflects a decline in unemployment rate within the sector, from 16.1% in 1995 to 9.5% in 2000 –4.6 percentage points below the unemployment rate in the national economy (14.1%).

The food-processing industry in **Greece** constitutes a significant part of the domestic industrial sector and the economy as a whole. The food and beverage sector, the most important subsector of the manufacturing sector, accounts for roughly 23% of its GDP and 2.6% of the national GDP. Almost 60,000 people are employed in the sector, a figure which represents around 23% of total employment

in the manufacturing sector. Typically, the industry is characterised by small firms (less than 10 employees), but there also large companies. In 2001, of the 50 largest Greek companies ranked according to profits, 11 were operating in the food-processing industry; 12 of them were amongst the 50 largest ranked according to sales, and 15 were in the 50 largest ranked according to the number of employees.

The marketing of Greek agricultural products is not always up to the standard expected by present-day consumers. Deficiencies are observed in packaging, standardisation and conformity with quality criteria. The share of cooperatives is low and is concentrated on certain products and in certain areas such as Crete, Northern Greece, etc. The involvement of various intermediates adds to costs without offering the corresponding services, often resulting in unreasonable discrepancies between producer and consumer prices. For certain products such as milk and dairy products, sugar, processed tomatoes, some wine-making, etc. there is a well organised marketing system based on contract farming and vertical integration. As regards the processed vegetables sector in Greece in particular, it should be stressed that tomato products (especially tomato concentrates) are highly export-oriented, as around 70% of domestic production is directed abroad and mainly to the EU. Apart from tomato products, the processing of other vegetables is low, and only small quantities are exported.

Peaches constitute an important part of the domestic fruit-processing industry. Greek industries processing peaches account for around 65% of the world market and prospects could be favorable, when one considers that competition from other countries is not a major threat.

The milk and dairy product processing industry, the most important subsector with 18% of the total industrial value added, is characterised by a large number of firms, typically small in size and operating on local markets. Only a very small number of firms (5) hold almost 90% of the market share in Greece, and there is intensive competition amongst these firms.

In olive oil processing, there are two large companies that hold 45% of the standardised olive oil market, while the rest is owned by a large number of small, mainly cooperative firms, which operate on a local scale. In the sugar beet sector, one single company (Hellenic Sugar Industry) gathers all output and produces sugar, while in the cotton industry there were 89 processing units in 1997, 65 of them being private firms and the rest cooperatives. As regards wheat, it should be noted that there are a large number of firms operating in the flour sector, most of them quite small and only 30 accounting for an overwhelming percentage of the market. The situation is similar on the macaroni, spaghetti and similar products market, where 8 firms account for more than 90% of the market and the remaining

10% is divided amongst a large number of small firms, which operate on niche markets.

Information on the AFI value added for the total sector and main subsectors in **Lebanon** is only available for 1998, for which the last census was carried out.

Examination of the 1998 census data reveals that, at the output level, food-product subsectors are: manufacture of grain-mill products, manufacture of bakery products, and manufacture of soft drinks and mineral waters.

However, the following agro-food products show good potential: wine production, oil olives, dairy products, and vegetable and fruit-processing such as canning. There has been considerable growth in these industries lately. The Ministry of Agriculture is considering developing a "designation of origin" programme for indicating the geographical origin of certain Lebanese products of comparative advantage; the following products have been identified: wine including "Arak", olive oil, and certain dairy products.

According to the results of the 1998 survey, the food industries are the largest industry in the economy, accounting for around 23% of industrial enterprises, almost 26% of total industrial output, and over 25% of the industrial value added. On the other hand, almost half of the enterprises in the sector are bakeries and are generally small units.

In **Egypt,** food industry output increased by 13% from 1999 to 2000, accounting for 31.4% of the value of total industrial production.

Examination of the development of production in the food industries has revealed that an increase has been achieved for certain commodities such as full-cream cheese, cooked cheese and margarine. There has been a decrease, on the other hand, in other commodities such as preserved vegetables, tomato paste, refined sugar, glucose, starch, yeast, and pasteurised milk and edible oil.

In **Turkey** there was an upward trend in general in both production and sales values in the 1999-2000 period. AFI production accounted for 16,2% of total production in the manufacturing industry. The private sector had a higher share of total production (82%). Employment level in the agro-food industries is also high. The number of firms increased to 582 in 2000, and employment also increased to 95,660 units.

The Turkish agro-food industry brings together producers of varying status and size, which range from small individual units, large and small cooperatives, to multi-national organisations that run their own research and development activities. Also important are the small to moderate-sized specialist and craft businesses, which offer limited but high-quality products, often using traditional methods and recipes.

There was an upward trend in overall production, with the exception of slaughterhouse products, vegetable oils, sugar and sugar products, and feedstuff during the period under review and, in connection with this, an upward trend in the output of major enterprises such as dairies and macaroni and tomato paste manufacturers was also observed in 2002 compared to 2000. There was a downward trend in red meat and poultrymeat, rice, sugar, and olive oil.

The nature of Turkey's fruit and vegetable production is such that an extensive range of fruits - such as grapes, figs, olives, apricots, sour cherries and strawberries - and vegetables - such as potatoes, tomatoes, leeks, peppers and onions - can be preserved by different methods and presented in a variety of ways. One AFI sector in Turkey which is still in its infancy but is rapidly growing is the frozen fruit and vegetable industry, which has existed for some 25 years. Over 90% of production in this sector is exported. One of the most developed AFI branches in Turkey is the fruit juice and concentrates industry. It is the tomato paste subsector, however, which has the largest share in the exports of processed vegetables and fruits, and all importers worldwide now recognise the quality of this product.

The sugar confectionary, chocolate and cocoa products industry has recently become one of the most developed food sectors in Turkey as the result of modernisation in production plants and new investments made in the sector. Products are widely diversified.

Due to the large volume of raw material, pastry and grain-mill products account for approximately half of agro-industrial output in terms of value. The major products of this sector are wheat flour, semolina, cracked wheat, bread, macaroni and biscuits.

Parallel with world developments, organic agricultural activities began in Turkey in 1985 in response to demand in importing countries. Some 30 types of agricultural product are produced organically in Turkey and shipped abroad sultanas, apricots and dried figs being the pioneer products.

In 1998, the most recent year for which official data are available, **Malta's** food and beverages subsector represented 13% of the total output of the manufacturing sector. According to the 1998 Industry Statistics, 423 enterprises employing 4,300 people were engaged in this sector. The beer and wine industries are the main food industry subsectors, accounting for 32% of total gross output and 40% of total employment. The canning industry is the second largest subsector.

A large number of firms are micro enterprises, and there are only 4 enterprises with more than 150 employees. It is estimated that during the period from 1995 to

1998 an increase of 17.8% per annum was registered in output, largely due to expansion in local sales.

Exports - primarily to markets outside the EU - went up by an average of 4.8% per annum. Output increased, despite the gradual liberalisation of food imports, but this increase has been accompanied by a decline in value added per employee due primarily to more competitive prices of improved food items. But the food industry nevertheless continued to register an average value added per employee which was higher than the average for the manufacturing sector as a whole.

Malta's agro-industrial sector faces primarily the limitations normally associated with a micro state. Such limitations can be of particular significance in a world of global (or interrelated) markets and can be summed up as follows:

- *A small natural and agricultural resource base:*

The food sector depends on agricultural inputs. The constraints on agricultural production in a micro state tend to make its agro-industry dependent on imported inputs which in many cases can be obtained at lower prices on world markets at highly competitive international prices.

- *A small domestic market:*

A small domestic market has important implications from the viewpoint of the efficient scale level of production. Scale considerations have a direct bearing on product costs where low volume production entails high fixed and variable costs.

Output may therefore result in higher unit costs, which are translated into higher prices. This reduces the potential for export penetration and therefore reduces the dynamic effects that can result from potentially higher export earnings.

Industrial production in **Morocco** developed favourably in 2001, although it did not contribute to GDP growth to the same extent as agricultural production. The production index of the manufacturing industries thus increased by 3.2%, which was a slightly lower rate than that achieved the previous year (3.5%). Within the processing industries those connected with agro-food production progressed at an even higher rate, registering 4.5% growth. However, this performance seems to be due less to that of the food industries (2.2%) than to that of the beverages and tobacco industry (11.7%).

There were 1,643 establishments in the AFI sector in 2000, i.e. 25% of the total number of industrial units in the country. This number has been steadily decreasing since 1998however, when there were 1,714 units. The AFI labour force of 106,626 workers showed a decrease compared to 1998, but an increase of 10% compared to 1999. Both production and the value added of the sector also seem to have developed by 10% between 1999 and 2000. With a production figure of 5.690 billion euros and a value added of 1.943 billion euros the AFI sector accounts for 35% of all of the processing industries and has long held a dominant position in the economy as a whole.

The main problems of the agro-food industries concerned the sector's low degree of integration with the agro-support and downstream industries, the ups and downs in supplies, the low degree of utilisation of production capacities and the poor "economic environment" (no coherent strategy, energy costs, credit costs, etc.).

In **Algeria**, the agro-food industry registered a decrease in production in 2001. This regression concerned the following sectors in order of importance: carbonated beverages, yeasts, edible oils, cattle feed, refined sugars, mineral waters, macaroni, spaghetti and similar products, and couscous. The private sector invested heavily in all of these subsectors, taking market shares from the public sector.

As is the case with the industrial sector as a whole, the AFI sector is still suffering from the fact that the quality of its products is not internationally recognised. Only 30 firms in the entire industrial sector are certified as meeting ISO standards. The government expects to have 150 firms certified in 2002 with the assistance of the UNOID. With the State covering 50% of the expenditure incurred by firms in the ISO 9000 certification process, an agreement was signed between the the Minister for Industry and 15 enterprises in December 2001, and a further agreement involving 67 firms was signed in February 2002.

The AFI sector is beginning to attract foreign firms, mainly through partnership schemes. This has been the case with La Bavaroise (German beer), which has been running a partnership project with an Algerian investor for the production and export of beer. Furthermore, Stella Artois is officially launching the manufacturing of the Stella Artois brand of Belgian beer by Tango, a limited liability company established in the industrial zone of Rouiba. And finally, it has been announced that DANONE has acquired a majority interest in the Algeria group DJURDJURA and began to sell products under its trademark in 2002.

In **Tunisia** the agro-food industries achieved a value added equivalent to the figure achieved last year (449 million euros) despite the decrease in output of the firms in the oil-producing sector. It must be pointed out that the AFI value added had increased by 8% in 2000 and by 13% in 1999.

During the period of the Ninth Plan, an average annual growth rate of 8.6% was registered in the AFI value added, compared to a projection of 7.9%. The oils and fats industries achieved the highest average annual growth rate: +24%.

Some 13 new agro-industrial units were set up during the Ninth Plan, including 8 dairies with the result that the volume of milk processed was doubled. There are now 14 such dairies with a processing capacity of 1.75 million litres per day. Only 66% of this capacity is utilised, however. Milk output exceeds consumption. The

surplus was estimated at 65 million litres in 2001, 35 million of which were intended for the milk-drying plant which manufactures powdered milk, and 30 million litres were used to build up a stock of sterilised milk with which demand can be met during the low yield period. There are now it 18 industrial units manufacturing yoghurt.

The AFI value added amounts to 18% of the value added of all of the manufacturing industries and is expected to decrease in 2002 due to the considerable falloff expected in the olive sector.

In **Albania**, only a small share of the output of crop and animal husbandry is processed by the agro-food industry, which accounts for it 8% of GDP and employs 5% of the labour force. The Albanian agro-food industry covers only 25% of domestic demand. In 2001 there were almost 200 agro-food enterprises with important investments in the fresh beverages production sector, the milling industry, the bread and pasta industry, the olive oil, milk and meat processing sectors, etc., and almost 1900 completely private workshops or small businesses geared essentially to producing cheeses, alcoholic beverages, canned fruit and vegetables,etc.

According to the observations of the ministry of agriculture in 2001, the number of such firms had dropped by 3% compared to the figure for 2000, but their output had increased considerably. This phenomenon is to be explained by the reduced production or bankruptcy of small craft firms and at the same time by the expansion of big companies with modern technology which produce a large range of food products.

Although the Ministry of Agriculture has made considerable efforts to stimulate and develop agro-food potential, the processing industry in Albania is currently dominated by small scattered industries, whose output cannot meet market demand in terms of quantity or quality and which cannot cope with foreign competition. The main difficulties encountered in the agro-food industry in the last two or three years are connected with:

- the poor quality of raw materials
- poor technical conditions and hygiene
- the low occupational skills of employees, particularly in small craft workshops
- the inadequate legal framework and the weaknesses which still exist in the structures for organising licences and monitoring activities
- the lack of cooperation in the foodstuff collection, processing and marketing processes
- the lack of contract relationships between producers and wholesale and retail dealers

4.4 - Food consumption

The level of food expenditure in household budgets varies from one country to another - from 15% in countries such as France and Italy to almost 40% in Turkey and Egypt and even more in Albania. It must be noted that self-sufficiency levels have improved in most countries, although per capita foodstuff consumption is still relatively low in the countries in the South. That is to say, even if production increases, efficient demand is not high enough to raise food levels in terms of quality and quantity.

No annual data are produced in **Morocco** on the status and development of food consumption in the country. Consumer surveys providing such information are only conducted once every 10 or 12 years. The consumer survey carried out in 1998-1999 by the Directorate for Statistics of the Ministry of Economic Forecasting and the Plan revealed that on the basis of a poverty line of 3,922 dirhams per person per year (1 dirham = 0.1 euro) in urban zones and of 3,037 dirhams in rural zones the percentage of poor persons increased from 13.1% in 1990-1991 to 19% in 1998-1999 (i.e. 5.3 million persons). This poverty is registered mainly in rural zones, since 66% of the poor identified live in rural areas and 27.2% of the rural population are poor as against 12% of the urban population. Food expenditure is still by far the main consumption item, accounting for 43.1% of the budget as against 45.5% in 1991. This average actually conceals a considerable difference between urban and rural zones, since the proportion in question drops to 38.4% in the former and increases to 54.2% in the latter.

The 1998-1999 survey revealed that at the national level the household food budget is devoted mainly to red and white meats (24.5%), "cereals and cereal products" (19.4%), fresh vegetables (9.4%), fats and oils (7.2%) and "milk, milk products and eggs" (6.7%). "Meals taken outside the home", a fairly new item, account for a share whichat 5.5%, becoming significant.

The structure of this food budget seems to vary in several ways depending on the place of residence. Whereas the rural population seems to consume a larger volume of cereals, fatsand oils and sugar than that consumed in urban zones (23.5% as against 16.9%, 9% as against 6.1%, and 4.8% as against 2.7% respectively), in urban areas larger shares of the budget are expended on meat (25.6% as against 22.6%), milk products and eggs (7.8% as against 4.8%), fruit (5.3% as against 3.9%), and fish (3.1% as against 1.6%).

The authors of the survey thus conclude that any increase in household income should be reflected in an improvement of food demand as regards both quality and quantity and that this improvement should take place much more rapidly in rural areas than in urban zones. This is at all events indicated by the income elasticities

of household demand, which differ according to groups of product and place of residence: an increase in average income of 1% would bring an increase of 0.98% in the food budget of the rural population as against 0.90% in urban zones. The ratio of production to local demand, which had steadily deteriorated throughout the year 2000, improved in 2001 in the case of most of the products concerned. This applies in particular to cereals and sugar, for which the self-sufficiency rates improved from 23% to 54% and from 53% to 55% respectively. It also applies to meats and eggs, although the situation of these products is different since the ratios for these products tend to show that production exceeds efficient demand. The situation in the oil sector deteriorated slightly (from 13% to 12%), whereas milk self-sufficiency seems to be constant (around 98%).

Of course it must be pointed out here again that the low level of efficient demand - due to inadequate purchasing power - is such that even when production fails to cover demand this does not necessarily leads to an increase in imports or any serious tensions on the market. Red meats are a perfect illustration of this phenomenon: although an output of 270,000 tonnes was achieved in beef and veal and mutton and lamb production in 2001, this still amounts to a supply of barely 10 kilos per capita.

Table 4.7 - Income elasticities and budget coefficients (in %) of groups of foodstuffs in Morocco

Groups of products	Urban		Rural		National	
	Income elasticity	Budget coefficient	Income elasticity	Budget coefficient	Income elasticity	Budget coefficient
Cereals and cereal products	0.65	16.9	0.86	23.5	0.63	19.4
Milk, milk products, eggs	1.02	7.8	1.19	4.8	1.11	6.7
Fats and oils	0.82	6.1	0.98	9.0	0.75	7.2
Red and white meats	1.02	25.6	1.12	22.6	1.03	24.5
Fish	1.10	3.1	1.03	1.6	1.11	2.6
Fresh vegetables	0.79	9.3	0.91	9.6	0.79	9.4
Dried beans & canned vegetables	0.72	3.1	0.97	3.3	0.79	3.2
Fruit	1.10	5.3	1.09	3.9	1.08	4.7
Sugar	0.63	2.7	0.82	4.8	0.54	3.4
Sweetened products	1.21	1.0	1.28	0.6	1.22	0.8
Tea, coffee and other herbs	0.76	3.5	0.90	4.7	0.71	4.0
Other foodstuffs	0.70	1.8	0.93	2.4	0.67	2.0
Beverages	1.38	1.7	1.50	0.5	1.51	1.2
Food and meals taken outside the home	1.05	6.2	1.10	4.2	1.09	5.5
Tobacco and cigarettes	0.89	5.9	0.94	4.5	0.92	5.4
Food total	**0.90**	**100.0**	**0.98**	**100.0**	**0.88**	**100.0**

Source: Directorate for Statistics, 2001.

The fact is that although this level is disappointing it produces a situation of

"surplus" since market demand only reached the level of 262,000 tonnes, i.e. an average consumption of 9 kilos per capita. The same argument applies to milk, where local production only covers a considerable share of efficient demand precisely because that demand is again the result of a very low level of consumption (39.5 litres per capita per year).

In **Italy**, food consumption was characterised on the whole by an annual growth in current values of 3.8% compared to the previous year, with an increase in consumption outside the home barely higher than that of domestic household consumption. Consumption volume on the other hand did not change between 2000 and 2001. The share of the food budget in total household expenditure decreased from 14.8% in 2000 to 14.6% in 2001. It was meat combinations and derivatives, fruit and vegetables, milk and milk products which predominated on the whole in household food consumption, accounting for almost 60% of the food budget. Seafood products and beverages accounted for only 8% each.

The crisis which shook the beef and veal market following the BSE epidemic had considerable repercussions on demand and thus on the various links in the meat chain; in other food sectors such as the fish industry demand fluctuated in the 2000-2001 period due to the suspected health risks, since consumers proved to be much more aware of problems concerning the healthiness of food and more attentive than in the past. Although demand turned to alternative meats (pigmeat, poultry and rabbit), there was a sharp decrease in demand for meat as a whole measured on an annual basis (-10%), a decrease which confirmed the transfer to seafood products in particular. Within the meat sector, beef and veal demand dropped by approximately 20% on average, whereas the consumption of pigmeat on the one hand and poultry and rabbit on the other rose steeply - by 12% and 10% respectively compared to the previous year. The other sectors concerned by negative variations in quantity were the sugar, bread and pasta industries as well as the oils and fats sector. Underlying stability was recorded in the fruit and vegetables sector, whereas the consumption of beverages, seafood products and wine showed an upward trend.

The share of household consumption expenditure devoted to food, beverages and tobacco in **Greece** was around 21% in 1999, higher than the EU average (17%). After increasing rapidly in the period from 1996 to 1998, consumer prices for foodstuffs and beverages showed a decelerating rate of increase thereafter; they rose again in 2001, however, due to inflationary pressures.

Human per capita consumption for certain agricultural products in Greece in 1999/2000 was as follows (the corresponding figures for the EU are given in parentheses): total cereals (without rice and in flour equivalent) 154.7 kg (88.7 kg) of which wheat (flour equivalent) 150.7 kg (78.2 kg), grain/maize (flour equivalent)

2.4 kg (5.6 kg) and total milled rice (expressed in product weight) 6.2 kg (4.6 kg), potatoes 93.1 kg (73.5 kg), sugar (white sugar equivalent) 30.2 kg (32.7 kg), wine 27.4 litres (34.1 litres), total meat 90.8 kg (96.7 kg) of which beef/veal 19.2 kg (19.9kg), pigmeat 32.3 kg (43.4 kg), poultrymeat 18.5 kg (21.4 kg), and sheepmeat and goatmeat 13.8 kg (3.7 kg).

Whilst for most crops self-sufficiency ranges around 70%-80% and for fruit and vegetables it is well over 100%, domestic meat production covers only 54% of domestic consumption, total cereals (excluding rice) 75%, and, in particular, beef/veal production can meet only 25% of domestic consumption.

Food consumption data are still lacking in **Lebanon**. The gap between domestic food production and consumption requirements is covered mainly by imports.

The food deficit is manifested primarily in cereals. The share of milk and meat production in total requirements remains low. Red meats cover only 15% of domestic consumption, whereas milk and dairy products provide 62% of total domestic consumption, against 56% in 2000.

The components of **Egyptian** foodstuffs have been improved over the years. There was a large increase in the consumption of energy and body-building foods (meat, fish, milk, vegetables and fruits) compared to the relatively stable consumption of cereals, sugar and potatoes.

The self-sufficiency rate in Egypt has increased for most agricultural goods and products. The increase in the self-sufficiency rate with regard to wheat and cereals is one of the most evident achievements of the agricultural liberalisation policy pursued by the government. Egypt used to depend on exports to meet 75%-80% of its wheat requirements at the beginning of the 1980s. By the early 1990s, this percentage had been reduced to 52.8%. The self-sufficiency rate for wheat continued to rise until it reached over 61% in 1999/2000. Naturally, Egypt is considered to be one of the pure exporters of many crops such as vegetables, fruits, and potatoes. The weak point in this regard may be that the existing policies have failed to increase the self-sufficiency rates for edible oil and sugar, since Egypt still depends on the outside world to meet more than half of its needs.

In **Turkey**, there was a surplus for all foods in the period from 2000 to 2002. Human per capita consumption of the main agricultural products in Turkey has not changed over the last 2 years. Per capita consumption was as follows in 2000: wheat 25 kg, citrus 2 kg, vegetables 24 kg, meat 2 kg, milk 14 kg very low values when compared with the corresponding figures for the EU Mediterranean countries.

4.5 - Foreign trade

Most of the Mediterranean countries with the exception of France, Spain and Turkey registered a balance of trade deficit with regard to agro-foodstuffs, and it was agricultural commodities - mainly cereals and meats - which weighed heavily in that deficit. It must be pointed out that in the medium term the performance of the external market of the Southern Mediterranean countries has been good as the result of the growth in exports, whose volume exceeds that of imports. The situation is less favourable with regard to economic activity because of stagnation in production and external demand which is becoming increasingly demanding with regard to quality standards.

As was the case in previous years, the agro-food trade balance in **France** was very favourable at 7.8 billion euros, although a slight downturn was observed. Exports remained more or less stable, but imports increased by over 5%.

There was little variation in trade with the other countries in the European Union, and the positive trade balance with these countries remained very close to the balance recorded in 2000 (6.4 billion euros). The unfavourable trend is to be explained essentially by trade with third countries, where the balance was still positive but was almost halved. In the case of agricultural commodities, imports of fruit, presscake and oilseeds account for the greater part of the increase, which is why the deficit with Brazil is becoming significant.

In the export field, the most important decrease concerned beef and veal due to the embargo imposed by many countries, which was then followed by health measures because of the foot-and-mouth epidemic. Sugar exports, which normally amount to over one-third of production, also decreased as did table wine and champagne exports (whereas wines with a designation of origin still registered a slight increase). There was a significant increase in milk product exports on the other hand.

Poultrymeat imports increased at the same time due to competition from countries where production costs are very low, such as Brazil; the low domestic output of fruit and vegetables and the rise in prices also created considerable demand for imported products.

However, prepared foods and fish, two sectors where purchases progressed again this year, remain the two most important imports.

In as was the case in 2000, the agro-food trade balance was again higher than the overall balance of trade in goods. Thus the balance was still negative for goods other than agricultural commodities, despite a slight improvement this year.

When one looks at France's trading partners, it is observed that the countries of the

European Union continue to predominate, accounting for approximately 70% of exports; the most marked development was the deterioration of trade with Italy, which is again to be explained by the BSE crisis. Outside the EU, the role played by Brazil is increasing; this country is by far the most important supplier of animal feed outside the European Union but also of poultry, a product for which Brazil is proving to be a formidable competitor on a market where France used to import very little and was hitherto a very strong exporter.

The general development of trade in goods between **Italy** and other countries in 2001 indicated an appreciable increase in exports compared to the previous year (+3.6% in value) and a less marked increase in imports (+0.6%). As a result, after the decrease registered between 1999 and 2000 the trade balance has become positive on the whole, increasing from 1.9 billion to over 9.5 billion euros.

The trend towards improvement of foreign accounts can also be seen in comparison with the national agro-food balance, where there has long been a persistent deficit; this deficit was reduced by 13.5% between 2000 and 2001, decreasing to approximately 7 billion euros. This recovery is the fruit of the favourable trend in the exports of the processing industry but also in agricultural commodity exports. It is to be observed, however, that the change in the trade balance of the primary sector still predominates compared to the trade balance of the agro-food industry both in terms of absolute value (726 million euros compared to 1998) and in relative terms (-13.5%).

The appreciable reduction of agricultural imports, which decreased by more than four percentage points, constituted the best performance in the primary sector.

With regard to the geographical zones constituting the origin and destination of the main Italian trade flows, trade with the countries of the European Union continued to predominate clearly in 2001, accounting for approximately two-thirds of total trade. The role played by the trade in goods with more distant markets must be underlined, however, in particular with the US markets, which are now the regular destination of 10% of total exports. An increase in imports from South America, in particular Argentina and Brazil, is to be observed at the same time; these progressed by 14% and 4% respectively in one year.

As regards the product structure of Italian agro-food trade, both fresh and processed fruit and vegetables developed favourably, the flows entering and leaving the country exceeding 10.1 million tonnes with a value of 7.7 billion euros. Net exports of fresh and processed vegetables generated a considerable improvement in the trade balance (+40% and +17% in value, and +52% and +15% in quantity respectively); these exports are developing particularly favourably.

There was a positive balance of 2.546 billion euros in the national wine-growing balance in 2001, which was an increase of 6.7% in value compared to 2000. This demonstrates the favourable status of Italian commodities abroad, particularly

when one takes account of the fact that the balance decreased in volume by 9.3%.

The development of exports of milled, baked and flour-confectionery products was very positive, all these categories increasing by over 10 points and amply achieving positive balances exceeding those achieved the previous year (almost 1.2 billion euros in the case of macaroni, spaghetti and similar products alone).

The deficit of the animal husbandry sector, one of the burdensome items in the foreign accounts, was resorbed by 13% compared to the figure for 2000, amounting to approximately 3.2 billion euros, and the milk and cheese product deficit dropped by 2.7% to 1.58 billion euros.

The development of the seafood product sector deteriorated, the deficit increasing by over 10 points and now amounting to over 2.5 billion euros. This result was due essentially to the sharp increase in imports of processed products, which progressed by 6% in quantity and by 11% in value.

With regard to raw materials, the trend in net cereal imports should be pointed out, increasing by 5% in both value and quantity, and these imports brought the trade deficit of the sector up to 1.345 billion euros.

Portugal's agro-food trade balance was negative at –2.916 billion euros, which was an increase of 6% compared to the previous year. Imports increased by 7%, whereas exports remained stable compared to 2000. The EU is the most important market for agro-food trade, accounting for 74% of Portuguese exports and 68% of imports. Agro-food imports accounted for 9% of total imports and 4% of exports.

In April 2002 the Planning Office of the Ministry of Agriculture published a study[34] on the effects of EU accession on Portugal's international trade. The following conclusions are drawn in that study:

With the elimination of protection measures at the end of the transition period, the agro-food market was actively opened to all countries of the European Union, and in particular to Spain. Agro-food exports and imports increased considerably, and both an increase in and diversification of consumption was observed.

The self-sufficiency rate dropped for several products, particularly meat and cereals, but also fruit and vegetables.

The situation differs from one sector to another, however: some sectors produce mainly for the domestic market, but imports are necessary in order to satisfy

[34] "Development of International Agri-Forestry Trade in Portugal", Susanna Barrados, GPPAA, MADRP, 2002.

demand; this applies in particular to cereals and meat, which account for 21% of agro-food imports. Then there are exporting sectors where there are also numerous imports: milk, fruit, vegetables, olive oil. The wine sector is a net exporter (particularly due to port), and imports are low. Wine exports account for approximately 33% of total agro-food exports.

In **Spain** while both total imports and total exports have risen slightly (4.5% and 3.3% respectively in current prices), both agro-food imports and exports show a growth of approximately 10%. As a result, there was an export-import ratio of almost 110%.

The aggregate figures for Spanish foreign trade change when one considers food and (animal and plant) raw materials separately. The food subsector comprises products for human and animal consumption, excluding products such as timber, leather, hides and textile fibres, which make up the raw materials for industry and constitute the non-food sector. There is thus a marked difference in the export import ratio between food (export-import ratio of 110%) and raw materials (import-export ratio of 47%), although the latter account for only 6.5% of agro-food exports and 13.8% of imports.

With regard to agro-food exports, the fruit and vegetable subsectors remain the most important components of Spain's agro-food foreign trade (one-third of total agro-food exports), followed by beverages (9.7%). Cereal products (including preparations) come second, with a growth in the export of oilseeds and dairy products, although these products are not significant items in agro-food exports.

On the imports side, there was a marked increase in grain-mill products, tobacco and leather, whereas there was a sharp decrease in the import of live animals – a fact that could be explained by animal diseases. Another important variation is the rise in fish and crustacean imports (16.2%), which account for 20% of agro-food imports.

Agro-food exports are of great importance for the **Greek** economy – accounting for 22.9% of total exports - despite the fact that the competitiveness of Greek products and their shares in international markets are poor. The percentage for Greece is the highest among the EU Member States, but this can also be attributed to the fact that Greece exports relatively few non-agricultural products.

The intra-EU trade balance (EU-15) for agricultural products from Greece was negative in 2000. The value of imports amounted to 2,890 million euros and of exports to 1,304 million euros. However, Greece's balance of trade in agricultural products with non EU-15 countries was positive in 2000 with an imports value of 624 million euros and a corresponding exports value of 1,372 million euros. The overall trade balance of Greek agricultural products was negative, showing the low level of competitiveness of the Greek agricultural sector. The total imports value

was 3,514 million euros, and the corresponding figure for exports was 2,676 million euros.

The following agricultural products are the principal causes for Greece's negative balance of trade in agricultural commodities for the year 2000: meat, milk, dairy products, eggs, fish, cereals, sugar, coffee, tea, feeding stuff, oilseeds, live animals etc. The trade balance in 2000 was positive in the case of products such as fruit and vegetables, tobacco, olive oil, wool and cotton.

The EU is the primary export destination for most Greek agricultural products. Nearly two-thirds of all exports are directed to the European market, while for certain products - such as vegetables - it is the only outlet, more than 90% being absorbed by the European countries.

Projections for the future of the agricultural sector in Greece are unfavourable in general. Hindered by endogenous structural deficiencies, insufficient infrastructures and the absence of a well-planned marketing strategy for exporting markets, the sector is having to face increased competition as the on-going trade liberalisation results in increased trade in terms of volume and value. In order to enhance the competitiveness of the agricultural sector, it is vital to implement policy measures that will reduce production costs, accelerate adaptation to changes in consumer patterns, encourage integration, cooperation and links between the production and the commercial sectors, and promote the improvement of the transportation infrastructure.

The agricultural trade balance in **Lebanon** showed an increase in the deficit of around 11% amounting to US$ 1.103 million in 2001, as against US$ 997.4 million in 2000. This is further reflected in the import-export ratio of 7.6% and 8.44% for 2001 and 2000 respectively.

The total value of food and agro-industrial exports amounted to US$ 164.89 million showing an increase of 23% (US$ 134.0 million in 2000).

The share of food and agricultural products in total exports was 18.9% in 2001. The largest component in this category are prepared foodstuffs, beverages and tobacco, accounting for 60% of the total exported agro-food commodities (as against 10.15% for the previous year), followed by plant products (30%), fats, grease and oils (6%), and live animals and animal products (4%).

Most of the exported plant products are fruits, which account for 18% of the total exported plant products and amount to US$ 29 million (206,500 tonnes), followed by prepared vegetables and fruits, which account for 12% (US$ 19 million – 24,000 tonnes) and vegetable products accounting for 9%.

Exported fruits amounting to US$ 24 million are citrus (49% of total fruit exports), followed by apples, pears and quinces, and then grapes.

Saudi Arabia has long been the largest market for Lebanese agro-foodstuffs taking up 11% of Lebanese prepared foodstuff exports, 42 % of its citrus exports (followed by the United Arab Emirates and Syria) and around 48% of grape exports (followed by the United Arab Emirates). As for apples, 50% of Lebanese exports go to Egypt, followed by Jordan and Saudi Arabia.

On the other hand, agro-food imports accounted for 17% of the total imports in 2001 (US$ 1,268.22 million) as against 18% in 2000 (US$ 1,131.43 million). Agro-food imports are mainly live animals (12%), dairy produce and bird's eggs (11%), and cereals (9%).

Most of the cereals are imported from the United States (41% of total cereals), Australia (11%) and Germany (8%). Live animals and animal products are imported mainly from France, Turkey and Germany.

Since January 1999, Lebanon has started to implement several free trade agreements and has signed many bilateral agreements, namely with Syria, Kuwait, Egypt and the United Arab Emirates.

Lebanon is also a party to the Arab Free Trade Agreement (joined in 1998), pursuant to which tariffs between 14 Arab countries are being reduced by 10% annually to be fully effective by 2008.

Lebanon has applied for membership in the World Trade Organization and was granted observer status in April 1999 and it already submitted its Memorandum on its foreign trade regime to the WTO Secretary-General on 15 May 2001. The Republic is currently preparing its replies to the questions put by member countries and is in the preparatory phase for accession.

The agricultural balance of trade deficit in **Egypt** increased from approximately US$ 2.828 billion in 1995 to approximately US$ 3.112 billion in 2000 (+10%), and the agricultural import-export ratio, on the other hand, decreased from approximately 15.9% in 1995 to approximately 13.8% in 2000.

The value of agricultural exports decreased by 7%, whereas the value of agricultural imports increased by 7.3% in the same period.

The main products imported are wheat, corn, sugar and meat, and together they account for 50% of agro-food imports.

The main products exported are cotton, rice, potatoes, onions and oranges, accounting for 60% of total agro-food exports.

With regard to the main export, cotton, there were two major factors which contributed to the decrease in Egyptian exports. The first was the collapse of the Eastern European and Soviet markets, where there were formerly several agreements on mutual trade in commodities with Egypt with little emphasis on quality and timing. And the second factor was the fact that a major proportion of customers switched from wearing traditional clothes to more informal wear. Furthermore, there are currently several problems in the producing and export of cotton; the minimum local price of cotton, for example, was set higher than the international price.

The positive surplus trend in **Turkey** continued in the period under review in the case of crop products, with imports decreasing from 2000 to 2002. In the case of livestock, exports did not exceed imports in 2000, but in the last 2 years the export-import ratio has been over 100%. There was also an export-import ration of over 100% in the fisheries sector in the period under review.

When one analyses foreign trade in major plant commodities in further detail, one observes a decrease in barley, chickpea, potato and onion exports and a marked increase in lentil, citrus and tomato exports for the same period.

The EU and US, which are Turkey's main destination markets, have a share of almost 69% of total exports, the EU share being around 50%. The export performance of Turkey is therefore directly related to the economic performance of the EU and the trade relations of the region with other trading blocs. It can be observed that exports to the Middle East and to American countries have decreased by 9.8% and 15.2% respectively in the past year.

The same situation occurs with regard to imports; OECD and EU countries rank first in Turkish imports, although the share of EU countries in imports has decreased from 45.2 % to 42.5 %. The share of non-OECD Asian countries, CIS countries, the Middle East, and African countries decreased over the same period, whereas the share of other OECD countries increased.

Trade in agro-food products in **Malta** is one of the most delicate aspects of international trade.

However, there are product lines in Malta's agro-industry with growth potential, such as canning products, and these warrant strengthening as do products which are also of importance for agricultural production in Malta, such as processed meat and dairy products.

Self-sufficiency levels have been sustained in fresh vegetables, fresh milk, pork and

poultrymeat, and eggs. Imports, amounting to around 8% of the total import bill, in fact balance the domestic food production deficit.

In **Morocco**, agro-food trade accounts for 14% of overall trade, but this share has dropped considerably over the past few years. It is primarily the share of agro-food exports in total exports which has decreased steadily over the past four years, dropping from 20% in 1998 to 16% and then to 12% and finally to barely 10% in 2001. The share of agro-food imports in total imports also decreased during the same period, from 20% in 1998 to 16% in 2000, and then seemed to recover again to 17% in 2001. The fact remains, however, that the deficits are increasing in both absolute and relative terms and their weight is felt in the overall deficit. In 2001, for example, the deficit in the agro-food trade balance increased by 38% compared to the previous year, amounting to 1.23 billion euros, which is 30% of the overall trade deficit. The import-export ratio thus virtually plummeted from 51% to barely 40%.

While agro-food exports decreased by almost 11% in absolute value, agro-food imports increased by 13%. The poor performance in the agro-food exports is due essentially to citrus exports (which plummeted by 36.5%) and to a lesser extent to early and canned fruit and vegetables (which also decreased by 11% and 9% respectively). The increase in the agro-food imports was due mainly to cereals, which increased by 20% in volume (despite the increase in output compared to 2000), whereas the cost price rose by 40%.

Incidentally, the structure of agro-food imports confirms Morocco's chronic dependance with regard to staple commodities, for which domestic demand is still higher than local output. These commodities are cereals - mainly common wheat and to a lesser extent durum wheat and maize -, oil seeds and vegetable oils, sugar, and milk products. In 2001, cereals alone accounted for 42% of total agro-food imports. If the share of oils (7%), sugar (7%) and milk products (4%) are added to this share the result is a total of almost 60%.

Agro-food exports were again dominated by three groups of products in 2001: citrus and early and canned fruit and vegetables, which accounted for 20%, 17% and 17% of those exports respectively. Although the share of citrus decreased compared to the previous year (when it was 30%), the shares of early fruit and vegetables and canned fruit and vegetables each progressed by 2 or 3 percentage points. With regard to early fruit and vegetables, tomato exports continued to decrease dangerously, dropping again in 2001 to 183,000 tonnes after reaching a level of 216,000 tonnes in 2000 and 233,000 tonnes in 1999. Potato exports also continued to decline, dropping from 63,000 to 42,000 tonnes. Potatoes accounted for less than 10% of the value of early fruit and vegetable exports. The result is that tomatoes and potatoes together accounted for less than 60% of the total, which is a completely new development and reveals that other products are developing and gaining appreciable shares of the export market. This is probably already the case with string beans, melons, courgettes, and sweet peppers, a total of almost 82,000 tonnes being exported in 2001 - 24% of the total early fruit and vegetables

exported. If this trend is confirmed it could be a sign of a more diversified structure of early fruit and vegetable exports with reduced preponderance of tomatoes and the consequences this entails particularly in agricultural trade with the European Union.

The non-food component of agro-food trade was quite considerable, since it amounted to between 25 and 30% depending on the year. It comprises a fairly large variety of products, mainly wood in the import field (wood accounts for 10% of agro-food imports), and, in the export field, cork, hides and leathers.

Despite a better year with regard to output, the negative agro-food trade balance in **Algeria** increased by 8% in 2001 compared to 2000.

It must be pointed out that Algeria still devotes a large part of its resources to food imports, which accounted for 30.4% of total imports (as against 30.3% in 2000 and an average of 33.3% during the period from 1991 to 2000).

As was the case in 2000, the structure of imports in 2001 was dominated by cereals for human consumption, milk and derivatives, sugar, cereals for animal feed and, finally, oils and fats. These groups of products accounted for 24.3%, 17.5%, 9.9%, 8.5% and 7.8% of imports in value respectively, i.e. a total of 68.3%. It can be said that the overall self-sufficiency rate improved slightly in 2001 due to a moderately good cereal harvest. This output (approximately 2.6 million tonnes) was still far from covering needs, however, estimated at 7 million tonnes by the Ministry of Agriculture.

Agricultural and agro-food exports were again as marginal in 2001 as they were in 2000: 0.3% of total exports, with a value of 67.5 million US$.

The import-export ratio was still very low: 2.2% as against 2.3% the previous year. Dates were no longer the main exports, which was the case in 2000; raw material hides and leathers (37%) and cork (37%) were the primary commodities exported; dates ranked third, accounting for 15.6% of agricultural exports in value.

The food balance in **Tunisia** showed a deficit of 160 million euros after registering a deficit of 106 million euros in 2000 and a surplus of 26 million euros in the course of 1999. Whereas the export-import ratio was 105.4% in 1999 it then deteriorated, dropping to 81.3% in 2000 to 75% in 2001.

With regard to agricultural and agro-food exports, after the decrease registered last year (-11%), an improvement is to be underlined with a growth rate of 6.7% and a value of 492 million euros. Agricultural exports contributed 6% to total exports, whereas this share was 7.5% in 2000 and is 10.2% in 1999.

The sharp decrease in the value of olive oil exports compared to last year (-24%) and in that of prepared cereal exports (-80% in quantity and -47% in value) was offset by the fact that the quantity of dates exported almost doubled and the value of these exports also doubled compared to the previous year, increasing to 78 million euros in 2001. Seafood product and citrus exports also increased in quantity and value (+12% in volume and +6% in value in the case of seafood products, and +10% in volume and +30% in value in the case of citrus).

It must be noted that export prices were virtually the same as those of the previous year except in the case of prepared cereals. The value of exports thus followed the quantities exported, contrary to the previous year, when the value of certain products (seafood is to the products) rose considerably.

Agro-food imports increased by 14.9% and accounted for 6.5% of total imports.

There was a sharp increase in the quantities of cereals imported in 2001 compared to the previous year: +48% (increasing from 2.1 to 3.1 million tonnes). This was due to the very low barley yields during the last two years following the drought which affected the barley-growing regions in the centre and south of the country in particular.

In the case of edible oils, the quantities imported decreased in 2001 by 34% compared to 2000, whereas the value of these imports dropped by 40%.

It must be underlined that no red meats were imported in 2001. Self-sufficiency can be considered to have been achieved for meat after vegetables, fruit and milk.

Agricultural production is expected to decrease in 2002 due to the low rainfall registered practically throughout the country at the beginning of the farm year; this decrease will affect cereals and olive oil in particular. The import-export ratio is thus liable to decrease in the course of the year.

Albania continued to register a negative agro-food trade balance of -247 million US$. The import-export ratio was around 12%. The main products imported were wheat and flour, beef and veal and pork (essentially for the prepared meat product industry), vegetable oils, hens, sugar, beer, fruit, etc. Over 82% of Albanian agro-food imports come from EU countries, particularly Italy, Greece and Germany. Albania's main exports are medicinal plants, spices, unprocessed tobacco, canned fish, fresh vegetables and mineral water. The EU is the destination of almost 86% of exports, and a small portion goes to Macedonia, Turkey and Bulgaria.

5 *Agriculture and agri-food policies*

5.1 – Structural and investment aid policies

Given the scale of the infrastructures and the investment required in agricultural holdings, public involvement is required in all countries. Two factors in the Mediterranean countries make such public involvement even more indispensable: the climate, and hence the extent of irrigation, and the small size of the majority of farms which gives rise to structural inefficiencies.

A majority of infrastructures everywhere relies on public investment. This is clearly the case for irrigation and drainage equipment which accounts for most of the loans granted by states for farm investment in the countries of the South. Moreover, the scale of these loans often tends to substantially reduce the proportion of public funding allocated to other types of investment

In some countries, the liberalisation of the internal markets and foreign trade also result in priority being given to investments in infrastructures for bringing products on to the market and for monitoring their quality in addition to the support given to the agri-food industry sector

Improving farm structures forms the second focus of these structural aid policies. This policy, which goes back a long way in European Union terms (it was first drawn up at European level in the 70s), now comes under rural development policy since Agenda 2000, thereby reflecting the priority given to including agricultural activities in the rural framework, together with concern for the environment and the natural habitat. This structural policy is also of fundamental importance in those countries where the transition to an economic system based on priority for private initiative is reflected in a large number of holdings whose long-term survival in terms of employment must be guaranteed and whose efficiency must also be improved.

In the countries of the South, this support for structural measures and farm investment is often dependent on rationalisation of the financial sector. Two issues need to be dealt with simultaneously:

- The liberalisation and stabilisation of farm credit institutions and transforming the public bodies operating in this sector into proper financial institutions that also attract private savings.
- The recurring problem of repayment rates on loans to farmers, resulting from both the economic and financial situation of the farms and a certain degree of prior laxity. The Northern countries are still experiencing these problems; France and Italy are still pursuing policies providing aid to over-indebted farmers. However, they do not threaten the very survival of the banks in

question in these countries, as is the case, for example, in Algeria or Morocco, countries in which correcting this situation is an essential condition for continuing with farm investment.

Agricultural policy in **Morocco** in 2001 was once more dominated by the programme for combating drought. Faced with repeated water shortages, the public authorities have continued to focus since 1998 on the conditions for mobilising the various agriculture policy instruments in order to minimise the effects of the drought. This culminated in the « 2000-2001 anti-drought programme », which subsequently became the « 2000-2002 programme », which included both a water investment programme and support for farm earnings through job-creation schemes.

Box 5.1 - Programme for combating the effects of the drought in Morocco

With a budget of 6.5 billion dirhams (1 dirham = 1/10 euro), the programme to combat the effects of the drought in 2000-2001 differed from its predecessor as regards the specific interest paid to maintaining farmers' incomes : nearly two-thirds of the overall envelope was devoted to creating income generating jobs

As regards its content, the programme was focused on the following 7 main points:

* the provision of drinking water in rural areas with shortages (610 Mdh, 9.4% of the overall envelope);
* conserving and protecting livestock (1,255 Mdh, 19.4%);
* supplying the country with cereals with a special operation for the rural souks (300 Mdh, 4.6%);
* supporting farm earnings through job creation (3,966 Mdh, 60.5%);
* carrying over due dates for farmers' loans for the current year (120 Mdh, 1.8%).

An additional amount of 1.5 billion dirhams for 2001-2002 was added to the original sum of 6.5 billion. A number of interim assessments have been carried out on this programme and they have highlighted both the progress made and the difficulties of implementing certain measures or « malfunctions » which have been identified here and there at various stages. Involvement on the part of the Prime Minister and a Parliamentary report, as yet not published, have made it possible to paint a fuller picture of the programme as a whole. The authorities are now seeking to make the anti-drought programme less cyclical in nature, more durable in order to deal with a phenomenon that has become structural and more focused on an overall view of rural development.

At the same time, a programme for making cereal production more secure was also launched in 1999 to cover the period 1999-2000. It was based on the notion that it is possible to achieve a minimum cereal production in the region of 60 million quintals if care were taken to ensure that plants in certain carefully selected regions were given the additional water needed for their development at a decisive stage in their growth. In addition to water, the programme proposed acting on the main factors for improving productivity : appropriate technical itineraries with control over input costs; improved access to financing for farmers combined with the introduction of a new insurance scheme; and a guarantee for disposing of national production at remunerative prices. In addition to the « traditional » measures for promoting certain technical itineraries and encouraging the use of production-boosting factors (selected seeds, fertilisers, mechanisation, etc.) through subsidies in 2001, a new measure was announced for implementation as of 2002 in order to promote supplementary irrigation. A subsidy may thus be granted for 30% of the cost of the preparatory work and purchasing the necessary equipment. However, there is a ceiling of 10,000 dh per hectare developed (but this ceiling may be increased to 20,000 dh if new lakes for collecting and storing water have to be built).

Still in the same domain, the drought risk insurance scheme, which was actually launched in 1994 but reformed for the 1999-2000 farming year, only began to become more widespread as of the 1999-2000 farming year when it became compulsory for all the cereal producing areas financed by the Crédit Agricole... Despite being compulsory, the areas covered still totalled less than 250,000 ha in 2001, or 83% of the target of 300,000 ha already set for the first year of the programme, and accounted for less than 5% of the country's cereal producing area.

More generally speaking, public expenditure in the agricultural sector is trapped between the restraints of financial orthodoxy and the very limited manoeuvring room imposed by secular choices in favour of large-scale irrigation schemes and has shown little change over the years in the way it allocates the resources in question ; investment in irrigation and drainage still accounted for 53% of the Ministry's investment budget (with 43% going to large-scale irrigation projects) in 2001, whilst expenditure earmarked for the development of rainfed agriculture amounted to only 14% and support for farming development totalled 21% of an investment budget which has been pegged at a fairly modest amount (2.1 billion dh in 2001) for several years.

The issue of financing agriculture in Morocco has been monopolised for several years by the crisis of farmers' over-indebtedness and the necessary reform of the statutes of the Caisse Nationale du Crédit Agricole.

The 2001 report set out some of the efforts made by the public authorities to solve the problem of farmers' overindebtedness. By June 2000, some 140,000 farmers had seen 611 billion dirhams of their debt written off. Subsequently, the rationalisation of the farmers' financial situation again formed a major feature of

the 2000-2001 plan for combating the effects of drought. The due dates for the debts from the 1999-2000 farming years were thus rescheduled over a 7-year period and interest rates were subsidised on a sliding scale of 1 to 5 points depending on the amount to be rescheduled.

The new plan for « reconverting farm debts » - promised to be « the last of its kind » - was the subject of an agreement between the State and the CNCA signed on 21 June 2001. It claimed to offer « an overall solution for the problem of farmers' over-indebtedness » whilst at the same time enabling the CNCA to cut its outstanding claims by a third and help re-capitalise it so that it might gradually recover its operating capabilities. This plan should affect 120,000 customers and involve a total of some 9 billion dirhams. Two options were envisaged for two target groups. The first involved holders of accounts frozen since 31 December 1995 and who were offered the option of « full settlement ». The second offered rescheduling to customers still active in the rainfed agriculture areas but outside the areas under the jurisdiction of the Offices de mise en valeur agriicole.

The last bulletin from the Ministry of Agriculture, Rural Development and Water and Forestry Resources pointed out that the number of farmers benefiting from the « debt re-scheduling scheme » stood at 88,825 on 31 March 2002, or 77.4% of the total number of farmers affected. The outstanding debts dealt with stand at 4.8 billion dirhams, or some 61% of the total figure covered by this scheme and 95% of the beneficiaries are small farmers whose liabilities are under 200,000 dh.

A number of significant measures were adopted in 2001 in **Algeria** affecting loans and subsidies for farm modernisation : the continued improvement in the situation regarding loans granted to farms, the implementation of a leasing credit scheme for young farmers, greater uptake of the Fonds National de Régulation et de Développement de l'Agriculture (FNRDA) (National Fund for Agricultural Regulation and Development) and the Fonds National de Mise en Valeur des Terres par la Concession (National Fund for Land Development via Concessions), the involvement of the Banque de l'Agriculture et du Développement Rural in the FNRDA mechanism and the writing off of a proportion of farmers' debts.

The number of current accounts and chequeing accounts with the Caisse Nationale de crédit Mutuel Agricole (CNMA) and its regional branches reflects the significant progress bank credit has made. The number of accounts rose from approximately 15,000 in September 2000 to 26,000 accounts at the end of December 2000 and 144,000 accounts at the end of December 2001 (CNMA, 2002). This rather extraordinary development is due *a)* to the fact that credit granted is zero-rated for the beneficiary (the CNMA receives interest of 3% paid by the FNRDA for amounts loaned to farmers), *b)* to the fact that the loans granted are linked to subsidies from the FNRDA which rose very substantially in 2001.

2001 was a good year for farm subsidies, partly because the amounts allocated for investments and income support reached levels unparalleled since the liberalisation of the economy, but also because farmers' debts were written off. The FNRDA provided 14.1 billion of effective expenditure for a whole range of subsidies in 2001 (approximately 176 million US dollars). This is 2.5 times the annual average (expressed in 1989 constant DA) of what it provided for the previous five years (1996-2000). The same year, the FNMVTC provided 4.7 billion DA in effective expenditure (around 59 million US dollars) or 3.5 times the annual average (expressed in 1989 constant DA) of what it provided over the previous three years. Nevertheless, this support for agriculture amounted to no more than 5.1% of added agricultural value in 2001 and it is well below the levels of support given in the developed countries of the west.

The subsidies granted by the FNRDA and the FNMVTC have different effects in terms of social balance. The FNRDA seems to have the implicit goal of strengthening the technical and economic standing of « modern » farms (operating essentially for the market, using techniques that attempt to mirror those used in developed farming systems) and creating new holdings. It is easier for wealthier farmers to access the fund's resources intended for farm investment since the procedure calls for the pre-financing of subsidised investment work and equipment. Moreover, this type of farmer is better informed and in contact with the agricultural services as a result of greater involvement in chambers of agriculture, service co-operatives and local or regional administrative and political bodies. As regards the resources spent on income support, the share allocated to small and medium-sized farmers is minimal. For example, the cereal collecting premium – the greatest use of the FNRDA (39% of expenditure for 2001) – is paid in proportion to the quantities produced and delivered to the cereals co-operatives.

FNRDA and FNMVTC spending has an important effect on employment. It has been calculated that the investments subsidised by the former resulted in the creation of 64,0000 permanent jobs in farming between 1995 and the end of 2001, 31,000 of which were in the year 2001 alone, not including the 28,000 jobs created as a result of investment expenditure itself (drilling, building lakes and irrigation networks,...), 13,500 of which were created in 2001. The FNMVTC has created 114,000 permanent jobs in farming in three years (1999-2001), to which should be added the jobs created through investment (Bedrani, 2002). Furthermore, it is debatable whether the amounts devoted to income support might not be more useful in terms of job and wealth creation if they were used to reinforce support for farm investment.

The other major event of 2001-2002 was the repurchasing by the Treasury of 15 billion DA's worth of « old » farming debts. These debts amounted to 40.3 billion DA at the end of 2000, of which 17.6 and 22.6 billion DA represented claims on farmers by the BADR and Treasury respectively. This is not the first operation of its kind in the last twenty years and it raises two classic problems. The first is the fact that not repaying their debts but waiting for the State to step in has become a habit

for certain farmers and complicates the work of the banks whilst perverting the economic function of credit; the second is the inequality thus engendered between good and bad payers and between the generally wealthy farmers with much easier access to credit and those less well-off or the poor who have only very limited access to credit. Objectively, public resources are thus financing the wealthiest at the expense of the poorest and the more unscrupulous at the expense of those who honour their commitments.

The programme for stimulating the economy decided by the Government in 2001 gave the farming sector 65 billion DA (813 million US $) over four years (2001-2004) in addition to the usual programmes under way (Ministry of Agriculture, 2002, 2). This programme focuses mainly on farm modernisation, revitalising the Steppe areas and dealing with watershed land (forests).

All in all, State spending on agriculture and forestry (capital and operating budget + expenditure on FNRDA and FNMVTC) have increased by 39%. This is a record never achieved in previous years.

In **Tunisia**, support for agricultural development has long been a priority for government action and food security is a major strategic objective. For some ten years now, the range of measures adopted for the sector have regularly been reflected in practical action that has succeeded in significantly changing the face of the farming landscape and making it possible to create an infrastructure capable of helping to attain the national goal. Examples of this are the numerous dams and small lakes that have been built in hill areas, the development of new irrigated areas and the building of farm roads and tracks in all regions of the country.

The strategies pursued to date have focused on strengthening the country's food security, improving productivity and the quality of agricultural and agri-food products with a view to enhancing their competitiveness on the national and international market, on increasing farmers' earnings to ensure that they can continue to operate and on preserving natural resources in order to guarantee sustainable agricultural development.

The range of measures adopted in favour of the agricultural sector by the authorities in 2001 in order to minimise the consequences of several years of drought and difficult weather conditions affecting all of the regions of the country have made it possible to save a number of sectors and limit the damage observed in others. In particular, livestock rearing and tree-farming have managed to overcome the risks that were threatening them. As a result, a million endangered trees were all saved in the centre and south of the country. A programme to extend the cultivation of fodder crops was launched to regulate the price of fodder which had increased substantially over the year as a result of the reduction in supplies of these products.

Coping with drought and achieving water security is a priority in Tunisia. Strategies and plans for mobilising water from different sources have been introduced to be able to draw on a maximum of water resources and to cope with the harmful effects of a prolonged drought. These plans basically have two components: the first involves developing the resources available from nature (groundwater, dams, drainage, rain, etc.) and the second involves controlling the use of these resources.

Combating the fragmentation of land is the major concern of the programme for modernising agricultural land. No re-parcelling action was taken in the past, except in the case of public irrigated areas which account for only 4% of the farm land in use. An ambitious re-parcelling programme has been entrusted to the Agence Foncière Agricole (Agricultural Land Agency). This programme involves promoting land restructuring projects in public irrigated areas, but also in irrigated areas developed by private individuals (around 150 thousand hectares) and above all in dry-farmed areas with great agricultural potential (2 million hectares). A target of 30,000 re-parcelled hectares by 2006 has been set. A first tranche of 10 000 hectares was achieved in 2001.

In parallel with these measures and bearing in mind the large number of small family-type holdings *(see hereafter the results of the study on small holdings),* Tunisia has launched a programme aimed at identifying specific measures for promoting these structures, particularly by improving their access to farm credit by adapting current procedures to their characteristics and by harmonising the conditions governing the numerous existing sources of financing. The total number of farms involved is put at 184,000. The pilot scheme launched in 2001 will affect 20,000 farms.

In **Egypt,** the main decisions reached in this sphere relate to credit policy and form part of the general economic liberalisation policy.

The « Principal Bank for Development and Agricultural Credit » PBDA, with its subsidiaries in the Governorats, represents the main source of the various types of credit for farmers. Within the framework of this liberalisation policy, it has seen its role of allocating loans to farmers limited and has begun to operate like a normal commercial bank, accepting deposits and implementing a commercial policy ; moreover, it has been obliged to change a number of its operating principles to meet the new government priorities:

- Increasing development-oriented credit for rural women and increasing the number of graduates and young farmers benefiting from credits and providing various types of credits, especially credit for small businesses.
- The PBDAC has played the role of mediator disbursing some loans provided by the Social Fund for Development (SFD).

The **Albanian** government has also made financing investments in agriculture and rural activities in general a priority this year. The permanent lack of funding for

rural investment continues to be a basic stumbling block for developing the rural sector in Albania. Over the period 2000-2002, less than 5% of farms had access to the various credits and the most optimistic targets of the Ministry of Agriculture or the World Bank do not put this figure above 10% over the next three years.

The main factors holding back the development of rural financial markets are: (**a**) the high cost of transactions and the high risks involved in this type of rural financing, (**b**) the lack of information on potential clients and the possibilities of loans in rural areas and (**c**) the inadequate legal and institutional framework. As a result, the commercial banks focus almost exclusively on urban financing and do not develop services or branches in the rural areas.

Whilst progress concerning the development of these rural financial services may have been slow, there have been some encouraging trends in this area over the period 2001-2002. A number of initiatives financed by the World Bank, the EU, the IFAD, IFC, IFDC/USAID, FEFAD BANK, FFR and some international NGOs have laid the foundations for extending a stable rural financing system that favours micro-credits. The first loans to farmers and rural entrepreneurs granted by the Fonds de Crédits pour les Villages (FCV) (Village Credit Fund), have been carried out via the national structure of the Associations d'Epargne et de Crédits (AEC) (Savings and Credit Associations) which will enable the inhabitants of rural areas to deposit their savings and will thus make it possible to grant loans.

The AEC are official financial institutions and their operations are thus regulated by the appropriate legislation for savings and credits adopted recently by the Albanian Parliament and they will be monitored by the Bank of Albania. The aim is thus to set up a national network of rural financial institutions to extend financial services to the rural areas of Albania. Another positive factor noted during the period 2000–2002 is the appearance in rural areas of branches of commercial banks which are co-existing with the previous institutions.

In **Lebanon**, the main decision taken regarding agricultural structures has been the introduction of an amendment to the Act on foreign ownership which opens up the possibility of purchasing land to foreign investors.

In the countries of the **European Union**, the agricultural structures policy has come under the Rural Development policy since Agenda 2000 and more details on this will be provided hereafter. Nevertheless, on limited aspects, the Member States have a number of possibilities for taking action or for making public investments from national funds.

Italy has continued to implement the legislative Decree on « the limitation of production costs and strengthening company competitiveness » that was adopted in 1999. The specific aim is to set up aid schemes to rescue and restructure companies in financial difficulty, to encourage the production of renewable energy

in the farming sector and for forms of transport with minimum environmental impact. The aim is also to simplify and remove the red tape from the administrative procedures used by the Italian institutions in question for granting community aid. For its part, **Spain** pursued its national programme of investing in water projects for agriculture which forms a traditional priority within the country's agricultural budget and introduced the Farm Insurance Plan, managed by a public establishment, ENESA, which aims to guarantee a minimum income for farmers affected by freak weather conditions. The budget allocated for this plan increased by 7.36% in 2001 compared with 2000, thus reflecting how important the Ministry of Agriculture considers it.

It should also be noted that the **Maltese** government has just drawn up a Rural Development Strategy covering the period 2004-2006 in order to implement measures under the Rural Development Regulation as soon as the country becomes a member of the EU. This plan contains measures, in particular, for aid for farm investments to diversify agricultural production and agri-tourism.

5.2 – Price and market policies

The differences between North and South are always very pronounced in this area. The general trend towards liberalisation is continuing in the South, marked by a long tradition of support for production and prices and subsidies for inputs. Of particular note has been the privatisation of a number of public monopolies dealing with the marketing of agricultural produce and a reduction in direct aids for production. Nevertheless, this trend is not linear and in some countries there have been reversals in the light of specific economic conditions or demands from certain categories of farmers.

In the European Union, 2001 was the second year in which the Agenda 2000 reform was implemented and was thus marked by a continuation in the reduction of guaranteed prices for the major products affected by this reform. This reduction was partly offset by an increase in the « direct aids paid to producers ». A number of less fundamental reforms of the Common Market Organisations were also implemented during this period and a major debate was launched by the European Commission concerning the « mid-way revision of the CAP » which culminated in July 2002 with a proposal for real in-depth reform. The Mediterranean countries are presenting a more or less united front vis-à-vis these plans.

Box 5.2 – Support for agricultural production and multifonctionality

The multifunctionality aspect of European agriculture is one of the Union's battle horses in its negotiations with the WTO. This concept had previously been given prominence in the discussions on Agenda 2000 as an argument for legitimising the maintenance of support for farm production to European taxpayers. It is quoted at length in the implementing texts of this reform and, in particular, in the Rural Development Regulation of which it forms a major pillar.

In spite of that, the concept is still rather vague and its limits are poorly defined. The term multifunctionality generally brings together first and foremost the whole range of positive effects that agricultural activity has on the environment, external effects or public goods such as the countryside, bio-diversity, protection against erosion or flooding. It also extends to the role of agriculture in rural development , maintaining and developing employment or rural public services and, in this respect, the non-agricultural activities carried out by farmers in conjunction with their main productive activity are also taken into account: processing of products, direct selling, agri-tourism, etc.

The multifunctional nature of agriculture was highlighted by the European Union in the negotiations with the WTO as an argument in defence of « direct forms of aid » which have made up the « blue box » since the Marrakech agreement and which will thus be called into question again as of 2003. This position was supported by other countries, such as Norway and Japan, that wish to keep high levels of support for their farmers, but also by Southern countries that support the idea that food security also forms part of multifunctionality.

The importance of what is at stake has led to attempts to clarify the concept, particularly in the wake of the OECD work. The main idea to emerge has been that the aid targeted on the environment and rural development that already comes under the « green box » at the WTO should continue to be the main tool for encouraging the non-productive aspects of agriculture. The high cost of administering this aid may justify the use of « indirect » aid for multifunctionality in the form of support for certain types of agricultural production, provided that there is clearly « jointness » between the agricultural production and the other types of production, i.e. a direct link between the level of production of agricultural goods and the level of other goods and services that are being encouraged.

Several common market organisation schemes that were coming to an end were reformed in 2001.

In the case of **sheepmeat**, the regulation adopted by the Council on 19 December alters the spirit of the aid system, since the Sheepmeat Compensatory Premium, for which the amount per ewe had hitherto been fixed on the basis of the average amounts for the previous 10 years, are now 21 euros per sheep for the « heavy lamb » systems i.e. specialising in meat, and 16.8 euros for « light lambs » (generally milk-producing ewes) and goats, to which is added an « additional premium » of 7 euros per head for the mountain and less-favoured areas (which

applies to around 80% of the flock in the Mediterranean countries of the EU). Each countries also has «national flexibility envelopes» proportional to the flock (about 1 euro per sheep or goat) which can be freely managed by the country.

2001 was an important year for **fruit and vegetables** as it was the first time that the CMO was radically amended since 1996. The Regulation adopted provides for a higher ceiling on aid for the operational funds of Producer Organisations (POs) as of January 1, 2001. The rest of the Regulations' provisions apply from the 2001/02 marketing year. The key elements of the new Regulation are the following:

a) Community aid for the operational funds of POs are set at 4.5% of the value of the marketed produce of the PO up to a limit of 2.5% of the total turnover of all POs. This measure is expected to simplify the whole procedure and will increase Community spending to 75 million euros. The introduction of the reform in Italy proved more patchy than in the other European countries because only 30% of production is currently marketed by the Producer Organisations. In Portugal, 51% of vegetables and 49% of fruits were marketed by the 87 Producer Organisations in 2001.
b) Tomato processing: quotas for three product groups are replaced by a Community threshold divided into individual thresholds by Member States. Countries that exceed this threshold will receive reduced aid the following marketing year. The second change affects the new method for allocating aid. Aid was hitherto paid to the industry; under the reform, aid will be paid directly to farmers with the price for tomatoes being determined on the market by the laws of supply and demand. The aid is set at 34.5 euros per tonne of fresh tomatoes.
c) Peach and pear processing: The minimum price is abolished and the other provisions are similar to those for tomatoes, as aid (47.7 and 161.7 euros per tonne for peaches and pears respectively) is linked to the raw material.
d) Citrus fruit processing: The threshold is increased for oranges (by 26.2%), lemons (15%) and small citrus fruits (20%) but the payments remain unchanged. Furthermore, withdrawals for 2001/02 are reduced to 10% of the marketed quantity and to 5% from 2002/03.

The maximum guaranteed quantity (MGQ) for **olive oil** was increased by 31.6% to 1,777,261 tonnes during the 2000/01 marketing year and distributed nationally. On the other hand, as of November 1st, production aid can only be granted for oil obtained from olive groves planted before May 1, 1998 (with certain exemptions). Three further measures have been abolished, namely specific aid for small producers, consumption aid and the system of intervention buying-in.

Tobacco is an important product for Greek agriculture. During 2001 and the first half of 2002, negotiations continued between the Commission and Member States in order to reach an agreement on modifying the CMO for tobacco. Greece, together with Spain and Italy, opposed most of the Commission's proposals to reduce subsidies and other accompanying instruments and managed to retain most of the

existing measures. Average prices in 2001 were 10% higher than the previous years and the Ministry's projection for 2002 is that they will increase by a further 5-25%. Furthermore, the programme for restructuring tobacco varieties in Greece in favour of those most popular on the market was completed during 2001. As a result of its implementation, 53% of the least popular varieties (Mavra, Tsempelia) and 23% of K.K. Klassika were abandoned in favour of Virginia, Basma and Katerini.

The problem of **milk** quotas in Italy, that is to say, complying with the Community system of milk production quotas, has still not been settled although it is fast approaching a satisfactory conclusion. The systems for monitoring production and the procedures for distributing the milk quotas have been improved and rationalised with a view to stabilising the milk sector, although the quantities of milk produced still exceed the national guaranteed quantity set by the European Union and this has resulted in a raft of sanctions for Italian producers. As regards the previous situation, which still sees Italian producers owing the EU more than a billion euros, attempts are being made to find a solution through a number of proposals put forward by the Italian Ministry, such as increasing the quota to reach a balance between the assigned quota and the milk marketed. In the meantime, the system for allocating production quotas has been rationalised by transferring quotas between production areas, standardising the A and B type quotas and introducing the temporary leasing of quotas.

The problem of the traceability of foodstuffs throughout the food chain, from production to processing, via the final distribution stage and the consumer has for some time been at the heart of discussions within the framework of policies for improving quality. Traceability goes towards meeting the ever-growing needs of consumers as regards guarantees and the transparency of the various routes and processing that products undergo on the route from one end of the food chain to the other.

Following the two major developments in **Morocco** which marked the year 2000, i.e. the adoption by Parliament of the law on the freedom of prices and of competition (a law which only came into force in July 2001 however) and the liberalisation of the oil seed sector, there were no such spectacular measures in 2001 or the first half of 2002.

Nevertheless, the arrangements for previously introduced subsidies were extended during this period and other new subsidies were created, thereby confirming a certain trend towards a return to subsidies.

Thus, in addition to the payments distributed as part of the programme to combat the effects of drought, various subsidies were renewed under arrangements for the 2001 farming year. In the case of agricultural inputs, a reduction in production costs was introduced through support for the prices of certified wheat and barley seeds. There were also plans to support the import prices for these products to

encourage farming co-operatives to collect common barley and guarantee normal supply to the market during sowing periods.
A reduction in fertiliser prices was approved for 2001 and 2002 and provision has been made for a premium for purchases of equipment.

50% of the membership fee for the system providing insurance against drought is paid by the State which thereby pays an equivalent subsidy to the relevant fund managed by a Moroccan mutual insurance organisation.

Special attention was given to the main export products this year, including a rather unusual type of aid. In response to a long-standing claim from exporters of fresh vegetables and citrus fruit, the authorities finally granted financial aid at the beginning of the 2001-2002 farming year to support their attempts to diversify their exports of citrus fruits and tomatoes outside the markets of the European Union[35]. The subsidy in question is intended either for encouraging market diversification or supporting exports that are difficult to dispose of during certain specific periods (although the two kinds of aid may not be combined for the same product during the same farming year). The subsidy for tomatoes, which was granted for the period from the first of October to 30 November 2001, was fixed at 1 dirham[36] per kilo exported to markets outside the European Union for the « additional quantities » compared with the previous marketing year (running from 1.9.2000 to 31.8.2001, the so-called « reference marketing year »). The subsidy for fresh citrus fruit was fixed at 200 dirhams per tonne exported to markets outside the European Union for the marketing year commencing on the first of September 2001 and for the additional quantities compared with the reference marketing year. Nevertheless, one exemption was made in favour of the Russian market, for which all exported quantities – not just the « additional » quantities– receive the subsidy.

Finally, one last subsidy should be mentioned. In the light of the damage caused in recent years by « white fly », particularly with respect to tomatoes, the public authorities have granted financial aid to help acquire the appropriate protective equipment.

Algeria has carried out studies enabling it to handle the negotiations on questions relating to access to markets (tariff offer), domestic support for agriculture and export subsidies. These studies have made it possible to highlight the weakness in the level of agricultural support (4,5% of the value of agricultural production, whereas support in the OECD countries is between 30% and 70% (Japan: 65%, EU: 49%, USA: 25%, Canada: 20%). They have also made it possible to direct agricultural support towards farm investment and protecting farmers' incomes, all measures which are not subject to World Trade Organisation (WTO) cut-back commitments.

35 See O.B. No 4988 of 21 .03.2002.

36 Approximately one tenth of a euro.

In order to comply with the terms of agreements with the EU and the WTO, Algeria has simplified its customs tariffs by cutting rates. The finance law of 2001 provided for a maximum customs rate of 30% for agricultural and food products, whereas 458 products (i.e. 56% of imported agricultural and food products) were subject to a customs duty of 45% under the previous tariff.

Box 5.3 - Partnership agreement signed between the EU and Algeria

On 22 April 2002, following long negotiations, Algeria and the EU finally signed the agreement which will eventually (it will only come into force once it has been initialled by the Algerian Parliament, the European Parliament and other regional parliaments) bring Algeria into the Euro-Mediterranean Free Trade Zone. The main results of the agreement are *a)* for exports of agricultural produce to the EU: a consolidation of the advantages of the 1976 agreement and their extension to include other products. The concessions obtained from the EU at this level are broad and grant a 100% reduction in customs duties to 123 agricultural products, 21 of which are subject to restricted quantities (tariff quotas or reference quantities) ; *b)* for imports of agricultural products from the EU, there will be gradual liberalisation through tariff concessions on a third of the quantities traditionally imported from the EU. These are widely consumed products which Algeria imports and on which customs duties are at most 5% (wheat) ; moreover, Algeria has ensured that processed agricultural products are included under the same heading as agricultural products so as not to undergo a programmed tariff dismantling process as was the case for neighbouring countries. This precaution will enable the agri-food industry to come up to standard in the medium term ; *c)* Finally, the agreement provides for fresh negotiations in its 6th year for greater liberalisation, which will give economic operators five years to come up to standard.

With the exception of a few agricultural products deemed strategic for food security (common wheat, durum wheat, olive oil and milk) and whose prices are regulated by the public authorities by fixing the intervention prices, all the other agricultural products are governed by market mechanisms in **Tunisia.**

Nevertheless, if prices for some of these products collapse, the inter-professional groupings step in to regulate the market by storing certain quantities in order to restrict supply. The cost of these storage operations is borne in full by the profession.

Agriculture has become an important element of world trade, particularly since the setting up of the WTO and, in Tunisia's case, since the signature of the free trade agreement with the European Union and the Tunisian farming sector continues to feel the effects of these two developments.

The question arises as to whether Tunisian agriculture has gained a sufficient level of maturity to find a place on a world market that requires greater competitiveness

and performance. Most Tunisian agri-food exports are intended for the European market where greater competition is making it difficult to maintain a stable share of this market. As a result, Tunisian exporters are not only attempting to hold on to their outlets, but to seek out new markets, principally in North America and Asia.

Some sectors, such as sugar, cereals and tobacco, are regulated by the government in **Lebanon**. Under current government policy, the state ensures that all wheat produce is purchased from local farmers 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 General Directorate for Cereals and Sugar Beet obtains wheat produce from farmers as well as from imports and sells this wheat to the 11 operating mills in Lebanon. Mills import three quarters of the local market needs each year (300, 000 tons) after securing a visa from the Ministry of Economic Affairs and Trade (MET), provided that the Ministry enforces a ratio of 1 ton for every 3 tons of imported wheat to be purchased from the Ministry. The ratio is currently set at 1 to 4.

Each year, the Ministry reviews the value of the subsidy per ton in line with international wheat prices. In 2001, the government decided to cut official subsidies for sugar beet. Support is now restricted to the production of tobacco and wheat.

For 2002, the government issued a decision on measures to increase the efficiency of this program including the carrying out of field surveys on the plots actually cultivated and on the production of wheat in order to check the figures submitted by producers. Moreover, the wheat seeds are to be provided by the Lebanese Agricultural Research Institute (LARI), which reproduces and sterilises it and sells it to the General Directorate for Cereals and Sugar Beet at cost price.

The National Board for tobacco and Tombac (NBTT) at the Ministry of Finance (MOF) has a monopoly on tobacco and tombac production in the country. It is estimated that this production benefits some 20,000 households, being a family-run activity in rural areas that are still under-served. Tobacco cultivation commands great social and political respect. It requires a permit from the National Board for Tobacco and Tombac which designates areas authorised for tobacco cultivation and sets the purchase price in conjunction with the Ministry of Finance. In 2001, the total subsidy was estimated at approximately US$ 32 million for some 8,282.7 tons of licensed Tobacco and Tombac.

In April 2001, a new programme aimed at supporting Lebanese agricultural exports was drawn up. It involved making a financial contribution to reduce the cost of transporting agricultural produce to the importing country. This programme was considered to be one that could boost and revitalise the productive sectors in Lebanon.

Direct payments were made to farmers on condition that they met certain standards. The amount depends on the cost of transporting the produce to its intended market, the type of agricultural production and when the item is produced.

This program helped to improve the quality of Lebanese produce and increase agricultural exports. However, exporters complain about the export subsidy being based on weight rather than volume which affects certain potential crops such as cut flowers. Moreover, the programme still needs a set of mandatory complementary packages, such as setting and determining international standards and rules for the different products that are to be exported, and transfers of technology and training for the key actors in this programme, essentially the farmers. For example, produce is not inspected for pesticide residues, but only in terms of grading, packaging and sizing. Similarly, market information and access has to be set out in greater detail and disseminated to farmers, and this calls for co-operation from other ministries and related institutions.

Price policy in **Egypt** plays an important role in achieving the objectives of agricultural policies, as it is linked to many aspects such as determining the pattern of resource allocation, income distribution, consumption, investment, domestic and foreign trade.

The Agricultural Sector requires two types of reforms with respect to pricing policy. These relate to food subsidies and the pricing policy for agricultural products and agricultural inputs. In the case of reforms to the food subsidy policy, subsidies for non-basic commodities such as meat, fish and poultry have been abolished. However, the policy has been continued for some food commodities such as bread, since subsidies for bread and flour have been raised.

In the case of farm pricing policy with respect to agricultural products and inputs, reforms have been undertaken on two levels:

1. The Sectoral Level:
   - The system of compulsory supply related to compulsory pricing was abolished and replaced by a system of basic prices for purchasing yields from farmers, in case market prices are less than production costs and supply outlets continue to be opened for those who want to supply the Government.
   - Raising cotton prices to 2/3 of the world market price, fully liberalising the domestic cotton market since 1994/1995 and starting work of the outstanding cotton stock market beside the agricultural stock market.
   - Abolishing subsidies for agricultural inputs and enabling the private sector to compete for distributing them.
   - Decreasing the protection given to animal products, especially red meat.

2. The National Level:
   - Realistic interest rates have been set.
   - The exchange rate for imports of agricultural inputs was abolished. In addition, the exchange rate of the Egyptian Pound has been adjusted to reflect its real value in terms of importing and exporting.
   - In the light of inflation, rationalising consumption, increasing exports, cutting imports, and minimising loss in marketing operations.

The Ministry of Agriculture is doing everything possible to encourage farmers to extend areas under wheat cultivation. These efforts are not at odds with the Fund for Green Policies, which was established after the final agreement of the Uruguay Round. The Ministry placed emphasis on constituting a stock for food insurance by exempting rice from the requirements of reducing costs or subsidy. In addition, Egypt receives wheat aid from the United States of America under the Program of Marketing American Exports to the value of 30 Dollar/Ton.

In **Turkey,** current support policies were unable to restore stability in producers' incomes. Furthermore, intervention prices that are higher than world market prices have led to an excessive increase in arable land for certain crops and hence surplus production. This has led, in turn, to excessive purchases by the government with consequent high storage costs. Therefore, with the exception of cereals, sugar beet and tobacco, most crops have not been included in the price support purchase program since 1994. This situation continued in 2001. Consequently, the crops, which are purchased by Agricultural Sales Co-operatives and Unions (ASCU), are excluded from price support purchase. The financing of the ASCU is met from the Support Price Stability Fund. Support prices increased by 28.4% in 2000 and are expected to increase by 52.8% in 2001. The support price for wheat in 2001 was increased by around 60.8% compared with the previous year. Support prices for tobacco increased by 25.7%. Support prices for the products bought by the Agricultural Sales Co-operatives (ASCUs) are 36.4% for hazelnuts, 78.9% for cotton (excluding the premium), and 97% for sunflowers.

The object of the Macroeconomic Program is to replace the existing system, based on government subsidies for inputs, credits and price supports for major crops, with a programme of direct income support which would be increasingly targeted on smaller farmers over time. A pilot project on Direct Income Support was launched in 2000 as a new agricultural support tool. The implementation of this project will continue together with price support purchases in the transitional period. Support, as measured by the percentage PSE, decreased from 24 to 15% in 2001.

Under Law N°2001/2218, a decision has been taken to identify hazelnut growing areas and support farmers who stop producing hazelnuts and produce an alternative crop instead. According to this decision, an amount will be paid to those farmers who plant the proposed crop instead of hazelnuts.

Under the Law N°2001/2705, a decision has been taken to support farmers who stop producing tobacco and produce an alternative crop in its place. Under the terms of this decision, input and income support payments will be given to those farmers who stop producing tobacco and choose an alternative crop for one year in the East and South-eastern Regions.

In addition, studies for restructuring and incorporating TEKEL's tobacco and alcohol entities and working out a strategy for privatising SEKER (State Sugar company) are underway. Parliament has approved the Tobacco Law. A restructuring study is being undertaken to provide the basis for a privatisation plan. Work is underway to privatise SEKER, the first step being the adoption of a privatisation plan by May 2002.

52 inspection units called "Inspectorates for the Standardization of Foreign Trade", within the 8 Regional Directorates were set up in 2001 to issue "Inspection Certificates" for certain agricultural products to be exported/imported in accordance with standards set for exports/imports. As regards exports, the agricultural products covered by the 70 standards are subject to inspection. Previously, this inspection was only carried out when products were exported, whereas the same procedure is now to be carried out when products are imported according to this Regime. The inspection of agricultural products covered by the 70 standards prior to export and import will be carried out by the Inspectors for the Standardization of Foreign Trade. These inspections will be carried out in accordance with the standards, which mirror OECD and ECE standards. The exporters/importers will obtain Inspection Certificate from the Inspectorates for the Standardization for Foreign Trade.

Malta's agricultural sector needs to be organised to maximise the areas of concentrated production and find solutions to the whole range of socio-economic conditions.

On the marketing side, market imperfections and, at times, outright market failure inhibit the efficient functioning of the economy of marketing and distribution in Maltese agriculture.

Above all, the dependency on imports of inputs for Maltese agricultural production and the transport requirements raise a number of issues that cannot be ignored. For this purpose, a number of market policies are being implemented to encourage innovation and investment to achieve added value for Maltese agricultural primary products and to enhance market opportunities. Processing and marketing grants help farmers become more competitive, respond to consumer demand and add more value to their products. Another type of involvement in market policy, to remedy the structural deficiencies affecting the supply and marketing of agricultural products resulting from insufficient producer organisation in Malta are the subsidies to encourage the creation of efficient Marketing Boards.

5.3 – Rural development policies

In **Morocco**, the "2020 Rural Development Strategy" drawn up in 1999 was the subject of an Action Plan intended to be carried out in three phases.

The first phase involves the Interministerial Standing Committee on Rural Development which, following approval of the Strategy, should examine its effects on each sector and ensure that the measures are implemented coherently throughout the country. This first phase should lead to the adoption of integrated programmes, the establishment of investment priorities, the setting up of institutional instruments and mechanisms for mobilising resources and the setting of clear objectives for the results expected by 2020.

The second phase entails submitting this framework for action to the regions so that they can become involved in drawing up the regional and infra-regional master plans for rural development.

Finally, in the third phase, each regional master plan would be the subject of negotiations with the region, leading to a « contract relating to the plan which would set out the areas and types of support provided by the government to the region with a view to implementing the programmes adopted[37] » for which the drafting methodology would have been laid down.

In reality, even though 16 « Regions » were created in 1997, it would have been difficult to begin the first phase programme, particularly as regards the « coherent implementation of the measures throughout the country » considering that a first proposal for a «Regional development plan » has only just been completed and that, in any case, it has reached dead-lock over the agri-rural dimension of regional development (mainly because there are not enough studies on the « suitability of the land for farming » which were launched a few years ago but have still not been completed). Moreover, the Interministerial Standing Committee has still not examined « the effects on each sector » of the strategy in question. Nevertheless, it has been possible to identify three categories of « Integrated Rural Development » programmes (IRD), the first for developing areas of rainfed agriculture, the second for areas where small and medium-sized water projects (SMWP) are being implemented and the third for conserving natural resources. An initial loan for a total of 32.6 million dollars, signed in June 2001, has been obtained from the World Bank to finance the « IRD -SMWP » programme.

It will be noted that the delay in implementing the rural development strategy has not stood in the way of progress in this area. Thus, according to the government's assessment, since 1998, the State has financed 40 integrated projects covering 2.5

[37] See Morocco 2000 and 2001 reports ; and 2020 Rural Development Strategy, Summary document, Ministry of Agriculture, Rural Development and Fisheries, Rabat, 1999.

million hectares in the bours[38] regions, it has implemented 50% of the programme for providing 11,200 km of roads, increased people's access to drinking water (28% in 1997, 43% in 2001 with a projected 62% in 2004), rural electrification is now available to 50% of the rural population (15% previously) with total cover scheduled for 2006[39]. Finally, the rate of school attendance in rural areas now appears to have reached 75%, with a figure of 70% for girls, which represents a 48% increase. The illiteracy rate in rural areas has been reduced from 75% to 60%, compared with a national rate of 47%. The aim would be to bring the last figure down to 35% in 2004 and to 25% by 2010.

In **Algeria**, the main development was the appointment in June 2002 of a Minister Responsible for Rural Development at the Ministry of Agriculture which thus becomes the Ministry for Agriculture and Rural Development (MARD). Rural development in 2001 was massively supported by funding from the Fonds National de Régulation and de Développement Agricole (FNRDA) (National Fund for Agricultural Regulation and Development) and the Fonds National pour la Mise en Valeur des Terres par la Concession (FNMVTC) (National Fund for Land Development via Concessions). In addition to farm equipment, the former's expenditure has been channelled into setting up businesses upstream and downstream of farming (consultancies, agricultural contracting work businesses, cold storage, processing of farm produce). As well as developing land, the latter mainly subsidises rural infrastructures (electrification, tracks, watering places and sometimes even the rural habitat). Moreover, investments subsidised by both funds have greatly helped to create and maintain small businesses in rural areas thanks to the contracts that they have managed to secure within this framework. As a result, 2,070 agricultural service businesses were set up in 2001 and 4,944 km of basic infrastructures (electricity lines, roads and tracks) were built (Ministry of Agriculture, 2002).

Since the beginning of 2002, the Ministry of Agriculture and Rural Development has been preparing a programme of action for rural development which is original in so far as it is co-ordinating – for the first time since independence – the actions of the various ministries in this sphere. Through its decentralised offices, the MARD began by registering rural communities (the levels below the communes: douar, mechta, dechra) that appear to be particularly poor and isolated. Field workers, recruited from members of each community where possible, are given the task of talking to its members and identifying their various needs (economic and social). Working alongside the daïra farm administration and in conjunction with

[38] See. Libération, 5.8.2002, op.cit.

[39] However, we would point out that there may be a big difference between the people able to benefit from electrification (because the infrastructures making this possible have been provided) and those who actually benefit because they are able to meet their subscription and consumption costs... According to the statistics of the Office National d'Electricité, drawn up at the end of March 2001, the subscription rate under the PERG (Programme d'électrification rurale – Rural electrification programme) shows a national average of only 62.6%.

the community, the field worker draws up an integrated medium-term rural development plan. This plan is submitted to the wilaya farm administration which ensures that it is studied and approved by a wilaya committee made up of representatives of the ministries with resources to be spent on rural development : Ministries for Water Resources, Crafts (Funding for Craftsmen), Energy (for rural electrification), the Habitat and Construction and, of course, the Ministry of Agriculture and Rural Development. Once the community's development project has been adopted, each ministry takes charge of implementing those measures for which it is responsible under the supervision of the decentralised offices of the MARD.

In **Lebanon**, the responsibilities for rural development lie with a number of institutions and ministries each acting in their own specific area. Nevertheless, the Council for Development and Reconstruction – a body responsible for planning and co-ordination – has drawn up a document entitled "Rural Development Strategy and Policy State". This document indicates how to draw up and implement a wide range of measures aimed at developing the rural environment. This essentially involves:

- Improving the effectiveness of public expenditure in rural areas,
- improving access to the economic and social infrastructures,
- enhancing the competitiveness of agriculture,
- improving the management of natural resources,
- increasing the contribution rural women make to development,
- adopting a participative approach to rural development.

The rural development strategy – for which the CDR has overall responsibility for co-ordinating and implementing the measures - aims to increase resources for rural areas in order to achieve a balanced development of the various zones. It gives municipal councils in rural areas wide powers for identifying local needs and priorities and involving the members of civil society, with whom they work closely, in implementing rural activities.

The aims of rural development in **Turkey** are ambitious : increasing earnings and living standards in rural areas by encouraging all forms of activity (but with particular emphasis on irrigation) and by seeking the involvement of the local people. More specifically, three rural development projects are still being implemented: the "Bingöl-Mus and Yozgat Rural Development Projects" and the "Ordu-Giresun Rural Development Project". In addition to work on reforestation, training and advisory services and cattle vaccination, the first two programmes managed to provide irrigation for 6,670 ha, supply drinking water for 70 villages and build 125 km of roads and tracks in 2001. The same kinds of objectives were achieved by the second project which provided 75 ha of irrigation, supplied 28 villages with drinking water and built 39 km of roads.

Other rural development projects are currently being prepared : “Sivas-Erzincan” and “Gümühane-Bayburt- Rize” Rural Development Projects.

It is clear that the administrative organisation supporting the advisory services in rural areas falls below the required level. As a result, harmful agricultural practices still persist and these have a negative influence on productivity (ineffective use of chemical products, burning stubble, the practice of leaving land fallow, unsuitable crops ...).

In the **Mediterranean countries of the European Union**, rural development has been considered the « second pillar of the CAP, after the Common Market Organisations » since the « Agenda 2000 » reform. The instruments of this policy, whose broad outlines are laid down by « Rural Development » Regulation 1257/99, aim to improve production conditions on farms and achieve greater diversification of production in the rural environment. This policy is now generally funded through the EAGGF « guarantee », whose role is also to finance the C.M.O.s *(for more details on the application of this regulation and how it fits in with the EU socio-structural policy, see the reports for 2000 and 2001).* New objectives, such as promoting quality food and specific local produce, animal welfare and employment in rural areas, were attributed to this policy during the Agenda 2000 process.

Greece, which is classified as a whole as a so-called « objective 1 » area, i.e. a priority for structural aids in regions lagging behind in development, benefits accordingly from substantial funding for its rural development activities.

The EAGGF awarded Greece 16.4 billion euros between 1996 and 2000 (i.e. 7.5% of total EAGGF expenditure), whilst the Greek contribution to the projects amounted to a mere 2 billion euros.

Greece has drawn up a rural development programme covering the period 2000-2006 which aims to improve the competitiveness of agriculture, safeguard the environment and promote sustainable development in rural areas. Estimated at 2,686 million euros, 993 of which should come from the EAGGF, the programme sets out four priorities :

- Encouraging young people to take over holdings from those taking early retirement (1,150 million euros).
- Encouraging farmers in mountain or less-favoured areas (996 million euros).
- Agri-environmental measures (countryside and bio-diversity, conservation of endangered animal species,...) (400 million euros).
- Reforestation of agricultural land, expansion of holdings and organic farming (164 million euros).

A number of measures were initiated at the beginning of 2002 within the framework of the rural development programme. One of these involves agri-tourism as an essential part of rural development. Agri-tourism will be developed in the context of the Olympic Games to be held in Greece in 2004. 125 programmes will be developed to this end, with priority going to mountain, less-favoured and island areas (approximately 1,174 million euros). In particular, they will recognise products from the various regions as labelled products (guaranteed origin).

Another measure saw the launching in 2002 of the second implementation phase of the investment programme for production and marketing (priority in the Rural Development Plan). It covers a large number of products and provides substantial subsidies to promoters (50 % for projects totalling less than 1.5 million euros, 35 % for those above 6 million euros).

The Rural Development Policy in **France** is still dominated by implementation of the Rural Development Regulation and the Regional Farming Contracts (RFCs), its main tool within the country. Because of the complexity of the procedure described in the 1999 and 2000 reports and the late implementation of the France's own Rural Development Plan, very few contracts were signed in 2000.

One of the Ministry of Agriculture's targets in 2001 was to simplify implementation of the RFCs by introducing national frameworks for each sector based on a limited number of standard measures, such as in the beefmeat, sheepmeat and pigmeat sectors and in the milk sector. These framework RFCs were fairly successful within the sectors and particularly in those « départements » where the representatives of the farming profession had mobilised effectively to promote them. It should be pointed out that the RFCs are mostly managed at the level of each « département », with each individual file having to be approved by the Commission départementale d'organisation agricole (CDOA) (Departmental Farm Organisation Committee) made up of representatives from the Ministry of Agriculture and professional farming organisations, together with representatives from bodies working to protect nature and consumers' interests.

The Government thus hoped to widen the scope of the RFCs by making the securing of investment aid and agri-environmental aid by farmers dependent on signing an RFC of this kind wherever possible. This point was the subject of a major debate: should the simplified RFCs be multiplied to include as many measures as possible, or, as the European Commission and the majority of farming organisations are requesting, should certain types of investment aid be made just as accessible without an RFC, as is the case for aid for young farmers setting up or agri-environmental aids. The outcome was finally mixed : at the end of 2001, 23,000 had been approved by the CDOA, 19,000 of which were actually signed. Furthermore, it should be noted that, as a result, France was unable to spend all of the EAGGF guarantee fund to which it was entitled for rural development and thus had to repay a part of this funding.

The French Plan de Développement Rural National (PDRN) (National Rural Development Plan) was completed in December 2001 in accordance with the procedure common to all countries and made possible the introduction of new types of aid which had not been envisaged when the initial PDRN was drawn up. In addition to a great number of changes made to the details of the agri-environmental measures implemented at regional level, which meant they were better suited to the situation locally, attention should be drawn to:

- the introduction of measures for investment aid for greenhouses, to permit the implementation of techniques that are kinder to the environment in these extremely intensive forms of production,
- the introduction of specific aid for using open woodland (mainly in mountain areas) for tree-growing or grazing,
- the introduction in 7 regions initially of a new agri-environmental measure for diversification where crops are rotated, mainly on holdings producing arable crops. The principle is for these holdings to rotate at least 3 or 4 types of crop depending on the region. The environmental effects of this measure will be assessed before any possible wider application of the measure. Although it was originally intended to be restricted to those farmers signing an RFC, this measure was finally extended to others.

The year 2001 was important in **Spain** for the inclusion of the provisions of Agenda 2000 in national legislation and an internal debate on how certain instruments contained in that Agenda should be used.

The provision concerning the EAGGF's responsibility for rural development was the subject of a number of royal decrees including those:

- regulating compensatory payments in less-favoured zones,
- establishing nine agri-environmental programmes aimed at better agricultural practices:
  - extensification of agricultural production
  - indigenous varieties or strains threatened by genetic erosion
  - environmental techniques for rationalising the use of chemical products
  - controlling erosion in fragile environments
  - protection of the flora and fauna in wetland areas
  - special development systems in sites of great environmental interest
  - the effective use of water
  - protecting the countryside and combating fires
  - integrated management of livestock units
- facilitating early retirement for farmers to encourage young people to take over holdings,
- promoting the reforestation of agricultural land,
- promoting the improvement and modernisation of the structure of farm holdings.

The second important development in 2001 was the keen debate between the supporters (generally speaking, large land owners) and the opponents (generally speaking, the owners of small and medium-sized holdings) of the « modulation » of subsidies – authorised by European regulations - to be granted on the basis of the work force employed on the holding, the general level of prosperity of the holding and the total amount of subsidies received by each holding.

Implementation of the Rural Development Plan (compensatory payments, agri-environmental measures, reforestation) in **Portugal** in 2001 did not reach the levels envisaged in the initial planning. This is mainly due to the agri-environmental measures which were not as widely implemented as in the two preceding years.

The compensatory payments authorised in 2001 were granted to 25% of the holdings which account for 19% of the AAU.

The AAU with agri-environmental contracts accounts for 33% of the total AAU. The contracts concluded in 2001 mainly involved measures aimed at reducing the negative externalities of farming production systems (18,000 ha) and the conservation of the countryside and the traditional characteristics of agricultural land (17,000 ha).

In terms of rural development and the environment, Portugal is negotiating the reform of the CAP with its EU partners for the period beyond 2006 pointing out that it is important to:

- support the reinforcement of measures for rural development, protecting the environment, quality of products and food security,
- support the principle that public aid must be made conditional on observing environmentally-friendly agricultural practices (eco-conditionality),
- support the development of the multifonctionality inherent in farm and forestry holdings,
- oppose the dilution of the CAP and its re-nationalisation.

5.4 – Natural resource management policies

5.4.1 – Water

Efforts to save water have become a priority in all the countries of the Mediterranean, particularly in the Southern countries.

It is immediately clear that water projects continued to secure the majority of the budget resources allocated by the Ministry of Agriculture in 2001 in **Morocco**, as

was the case in previous years : 53% (35% of which was for major water projects) in 2001, the same percentage as in 2000. It should then be stressed that there are two new main measures relating to irrigation[40]. They were the subject of two Ministerial decrees in January 2002, the first concerning « the arrangements for State aid for including farm properties in localised irrigation systems », and the second relating to « the arrangements for State aid for developing farm properties for supplementary irrigation »[41].

The first text basically focuses on the renewal of existing irrigation systems and efforts to save water. It points out that the localised irrigation system may include « structures for mobilising water resources, pumping equipment, lakes for storing water for irrigation, equipment for filtering or adding fertilisers or chemicals to the water, networks of pipelines for bringing in and distributing the water, pipes carrying the watering units and all the equipment for monitoring and regulating the irrigation system ». To be eligible for the subsidy available, the necessary investment must form part of « an overall project capable of saving water for irrigation », offer « the best options » in terms of cost and effectiveness as regards the choice of techniques and technologies and be described in a technical file to be submitted for approval by the relevant departments of the Ministry of Agriculture. A distinction has been made between holdings located in certain water catchment areas considered to be deficient in water and those located elsewhere for the purposes of determining the level of the subsidy. In the case of the former, it involves the catchment areas of Moulouya, Tensift, Oum-Er-Rbia, Souss-Massa, Drâa, Ziz and Gheris and the South. In this case, the subsidy amounts to 40% of the cost of the operations, not including the work of digging wells or drilling, or for water pumping equipment, for which the level is 30%. In the case of holdings located outside the aforementioned catchment areas, the subsidy is fixed at 30% across the board. Nevertheless there is a ceiling of 12,000 dh per hectare developed, although this ceiling may be increased to 23,000 dh if it is necessary to build lakes for storing water for irrigation, in order « not to have a water tower inside the collective irrigated area ». The subsidies are granted after the work has been carried out and checked to ensure that it corresponds to the details in the previously approved technical file.

However, the second text relates more specifically to the programme for making production secure since it proposes encouraging supplementary irrigation which involves « making good rainfall shortages with limited supplies of water during critical phases when the crop yield is being established to make it possible to increase and stabilise output ». Supplementary irrigation systems can include structures for mobilising water resources, pumping equipment, lakes for storing

40 S. Chraibi, Farming year : Measures in favour of irrigation, La Vie Economique, 28.9.2001 ; N. El Asri, Programme for making cereal production secure : Five years, minus three, to step into action, La Gazette du Maroc, weekly, Casablanca, 29.10.2001.

41 See O.B. No. 4970 of 17.1.2002.

irrigation water, water filtering equipment, networks of pipelines for bringing in and distributing water, spraying equipment, together with all the equipment for monitoring and regulating the irrigation system. These investments should form part of an « overall project making it possible to control the use of water and its contribution during the critical phases when crop yields are being established ». The subsidy granted amounts to 30% of the cost of the installation work and purchase of the necessary equipment. Nevertheless, a ceiling of 10,000 dh per hectare developed is placed on the amount of the subsidy (this ceiling may be increased to 20,000 dh where lakes for collecting and storing water have to be built).

It remains to be seen in both cases whether the subsidy granted will be considered sufficient incentive for the producers concerned to trigger a significant move towards developing and installing irrigation systems. This question can only reasonably be answered after a fairly long period if it is to be instructive.

In **Algeria**, the Plan National d'Actions pour l'Environnement et le Développement Durable (PNAE-DD) (the National Plan of Action for the Environment and Sustainable Development) drawn up in 2001 under the aegis of the Ministry of Regional Development and the Environment[42] is primarily concerned with water resources. The lack of water and its poor quality are explained by a policy based exclusively on supply, management that is not helped by properly adjusted tariffs, irrational management of infrastructures leading to serious wastage (50% loss due to leaks) and the virtual non-existence of waste water processing. With regard to water, the PNAE-DD recommends priority short- and medium-term action for the « rational » management of irrigation water through the introduction of an appropriate tariff system and the implementation of a training and awareness-raising programme for the technical and managerial staff of the Agency in charge of irrigation and the staff of the Offices des Périmètres d'Irrigation (OPI) and for farmers. A budget of approximately 1.5 million US dollars has been envisaged.

The chronic water shortages in the major cities have prompted the government to adopt an extremely expensive emergency programme. A contract for building 18 sea-water desalination units (with a capacity of 22,500 to 27,500 m^3/day) has been awarded to a German company working in conjunction with an Algerian public company to supply Algiers, Tipaza, Boumerdès, Skikda et Tlemcen in September 2002[43]. Furthermore, in order to provide Algiers with some 50,000 m^3/day before the end of June 2002, a decision has been taken to interconnect the Ghrib-Bourroumi and Boukerdane dams, the first two being located in the Aïn Defla wilaya and the latter in the Boumerdès wilaya (cost: 90 million US dollars). Finally, in the case of the Arzew industry park, a desalination unit with a production capacity of 100,000 m3 per day, that could be boosted to 160,000 m3 – with a

[42] Thanks to the contribution from the European Union through its EC-LIFE programme and the METZP programme administered by the Workd Bank.

[43] There has even been talk of importing water from Marseilles for Algiers !

completion period of 24 months and an investment of 250 million $ - is to be built by the Kahrama company. It has capital of 4 million $ in which the South African subsidiary of the American firm Black and Veach Africa Limited has an 80% stake (20% held by the Algerian Energy Company, a jointly-owned subsidiary of SONELGAZ and SONATRACH).

The Ministry of Agriculture has definitely had the most effective water resource conservation policy for quite some time. Indeed, since the implementation of the PNDA during the second half of 2000, it has systematically provided 100% subsidies for farmers purchasing water-saving irrigation equipment : drip and sprinkler systems. According to its assessment, more than 60,000 ha equipped with these systems have been subsidised. A quick calculation shows that the irrigation water saved as a result of equipping 60,000 ha has only cost the public purse 1/8th. of what it would cost to produce the same quantity from the desalination units like those to be built at Arzew by the South Africans !

In **Tunisia**, the ten-year water mobilisation plan which began in 1990 set two targets: the first entailed guaranteeing food security through plentiful water supplies for the next generations. The second target involved making available one billion four hundred million m^3 of water. To date, one billion m^3 of water, or 71% of the target set, has been made available. These additional quantities of water have made it possible to expand the irrigated areas from 256 à 365,000 hectares and to increase the supply of drinking water in rural areas from 33% to around 81%. These volumes made available also include 335 million m3 of water from deep groundwater taken from 580 operating wells and 820 test wells. The additional quantities made available as part of the ten-year plan have increased the overall volume of water resources from 2,6 billion m^3 when the strategy was launched in 1990 (or 60% of resources) to 3,6 billion m^3 in 1993 (80% of resources). This volume should rise to 4,1 billion m^3, or 90% of the country's overall water resources by the end of this ten-year plan. Furthermore, the task of making water available has secured an important place in the next five-year development plan that will begin in 2002. This involves:

- identifying 11 new sites suitable for building as many new dams with a total capacity of 350 million m^3,
- linking the dams to an integrated water supply network to make better use of the water collected for irrigation and the supply of drinking water for the population,
- identifying 50 new sites for dams in hill areas ,
- stepping up projects for artificial supplies from deep-lying groundwater,
- creating new irrigated areas to achieve the figure of 400 thousand irrigated hectares, towards the end of the Xth. Plan, 93% of which would be equipped with various water-saving techniques.

A new water law was discussed by Parliament in **France** in 2001, but it's final adoption was postponed because of the elections. The text under discussion provided for an increase in the standing charge paid by farmers with irrigation systems, together with measures for restricting excess nitrates. Be that as it may, a new law will have to be put forward before the end of 2003, the date when the European framework directive will have to be transposed into national law and these two points will have to be included in the new text. Furthermore, the so-called « PMPOA » programme (programme de maîtrise de pollution d'origine agricole – programme for controlling farm-generated pollution) which has enabled farmers to benefit from investment aid since 1996, particularly for livestock rearing buildings that would limit pollution, prompted objections from both the Court of Auditors in France and the European Commission as regards its cost and the terms under which it was financed from the French budget. It was accordingly frozen in December 2000. A new agreement was reached between Paris and Brussels making it possible for a new programme targeted more on the areas most concerned by water quality problems to be re-launched.

5.4.2 – Land and natural vegetation management

Not many initiatives were taken in 2001 as regards land and natural vegetation management in the Mediterranean countries, except in Algeria.

In **Algeria**, the Plan National d'Actions pour l'Environnement et le Développement Durable (PNAE-DD) drawn up in 2001 by the Ministry for Regional Development and the Environment points out that land and groundcover resources are constantly worsening . This would appear to be due not only to cultivation practices and natural factors (wind and water erosion), but also to an agricultural policy that is « unsuited to and disconnected from rural policy », the non-existence of unchallenged property (or usage) rights, the « incoherent nature of land policy » which means that erosion affects 12 million hectares in mountain areas, that the areas covered by forest decreased by one million hectares between 1955 and 1997 and that 8 million hectares of steppe lands are desertified or likely to become desertified.

In order to improve land management and to combat desertification, the following measures are proposed:

- Working out scenarios (options) that could solve the land problems
- Pursuing the policy for opening up the State-owned sector to concessions (fruit tree growing programme).
- Revising the pastoral code.
- Restricting the arrangements for concessions (tree-growing, fodder and cereal crops) exclusively to zones in steppe areas where the land and water conditions are suitable.

- Drawing up a master plan for conserving, protecting and restoring land and for combating desertification (0.4 million USD).
- Drawing up a study showing the links between the productivity of natural resources, the rural exodus and poverty (0.5 million USD).
- Continuing with the rural employment programme under way.

In addition to the Fonds National pour la Régulation et le Développement Agricole (FNRDA) (National Fund for Agricultural Regulation and Development) and the Fonds National pour la Mise en Valeur des Terres par la Concession (FNMVTC) (National Fund for Land Development via Concessions) which finance a great many measures to support investment aimed specifically at better management of land resources (for example, the conversion of cereal producing land – which is on a slope or subject to wind erosion – into fruit tree plantations, planting fodder shrubs on steppe rangelands, protecting rangelands), two new Funds have been set up to finance, inter alia, measures for conserving land and natural vegetation resources. They are : the "Fonds de Lutte contre la Désertification et de développement du Pastoralisme et de la Steppe" (FLDDPS) (Fund for Combating Desertification and Developing Pasture lands in Steppe Areas) and the Fonds National de l'Environnement (National Environment Fund).

The MARD's intention in implementing the FLDDPS appears to be to set up integrated rural development projects for each commune (or group of communes), with the focus on making activities currently pursued separately by several administrations or departments more coherent. The other concern of the integration process is that communal or intra-communal projects might benefit not only from the FLPPDS but also from all the other sources of funding (FNRDA, FNMVTC, Employment Fund,...). Finally, as regards their assessment and monitoring, the projects would use the same procedure as the FNRDA and the FNMVTC but would be approved and co-ordinated by the Haut Commissariat pour le Développement de la Steppe (HCDS) (High Commission for the Steppe Areas). In this way, the latter would finally reclaim part of its primary vocation which is the integrated development of steppe areas. Finally, in order to combat desertification, the MARD has announced the drafting of a text definitively banning ploughing in these areas.

The steppe areas and steppe rangelands have benefited in particular from the FNMVTC which, since the beginning of 1999, has created some 12,000 farm holdings from virtually nothing on more than 220,000 ha of developed land giving permanent employment to more than 56,000 people.

Finally, as regards forests, the administration responsible for this area saw its allocations from the budget increase by more than 44% in 2001 compared with 2000. Its achievements have reflected this, i.e. a marked increase particularly as regards opening up and developing tracks, forestry work and improving pastures. Since the Plan National de Développement Agricole (PNDA) began to be

implemented in 2000, reforestation using woodland trees has tended to give way more to fruit trees (rustic varieties and table wine), which can earn money more quickly for people living close to forests. A second « rural employment » project was being prepared in 2002. Costing 90 million US dollars, it will affect six wilayate in the mountain areas (Chlef, Tiaret, Aïn Defla, Tissemsilt, Médéa, Bouira). Like the first which covered the Western wilayate, its aims are to offer employment to rural populations whilst combating erosion by developing catchment areas (traditional reforestation and switching from the annual crops grown on slopes to tree-growing)

Land resource management in **Egypt** is crucial because farming can only be carried out on irrigated land and because of the still rapidly-growing population. In fact, the surface cultivated per inhabitant has fallen from one feddan in 1800 to 0.4 in 1900 and to 0.13 in 1997 in spite of the addition of 2.54 million feddans of more or less developed areas outside the Valley. Egypt is facing a number of problems in this area:

- Swallowing up of ever-increasing areas of land by non-agricultural infrastructures and housing (sometimes 60, 000 feddans each year).
- Failure to cultivate partially developed land : 32 % of the 2.54 million feddans developed over the last 50 years.
- Insufficient drainage and the increased level of salinity in the soil (particularly to the North of the Valley and in the delta).
- The ever-increasing fragmentation of holdings because of inheritance rules.

In **Lebanon**, the Ministry of Agriculture is working on the Programme National d'Actions pour Combattre la Désertification (National Programme of Measures for Combating Desertification) with two additional projects: one carried out by GTZ (A German development agency) in conjunction with the ACSAD (Arab Center for Scientific and Agricultural Development) and the other by the PNUD. The project should be ready by the end of 2002 to be circulated for discussion to the members of the Comité National de Coordination (National Co-ordination Committee) representing the public and private sectors and civil society. The main points of the programme are: the management of water resources, forests, sustainable agriculture, land conservation, range management, protected sites, planned land use and the legal conditions to be met.

The PNUD project will be based on the previous results in order to make available the necessary resources for implementing the Programme, build institutional capabilities and carry out the pilot schemes in the relevant zones.

Turkey already has a National Plan of Action for the Environment which sets out the priorities in this area. But this Plan needs to be up-dated as regards legislation and should above all be better co-ordinated by the various parties involved in its implementation (institutions). In the same way, the National Plan of Action for

Biological Diversity – which already exists – should be implemented in both its regulatory and practical aspects (drafting of a law on bio-diversity and biological security). In addition to these two plans, Turkey, like other countries, is drawing up a National Plan of Action for Combating Desertification.

In the **Mediterranean countries of the European Union**, agri-environmental measures are now considered to be an important tool in agricultural and rural development. Following the implementation of the agri-environmental regulation (EC Reg 2078/92), these measures apply to more than 20% of the European farming area (nearly 4 million hectares) and account for some 10% of EAGGF spending (Guarantee section). The measures affect various aspects : reduction in the use of certain inputs, change in the way cultivated land is used,... Although the initial target set by the 5th. Environmental Action Programme was exceeded (by 15% in 2000), there are major variations in this area between the different countries of the Union. Some countries have exceeded it by 50% whilst others have achieved only modest levels of coverage. Of the 4 million ha involved, 26.4% are in Italy, 13.8% in Germany and 12.7% in the United Kingdom. This appears to worry the European Commission which points out that if « the level of coverage is not an absolute indicator of the quality of the implementation of the agri-environmental programme, in those member countries where implementation is particularly slow, it is very unlikely that the farming sector in that country has been affected by the agri-environmental policy. This results in less inclusion of environmental problems in the CAP ».

Greece is amongst those countries that have achieved the least in agri-environmental terms with less than 2% of its land used by types of agriculture covered by the programme in 1999. Since Greece objectively has major scope for implementing the agri-environmental programme, the Ministry of Agriculture accordingly drew up the appropriate procedures in 2001 and launched a number of activities in the area, including:

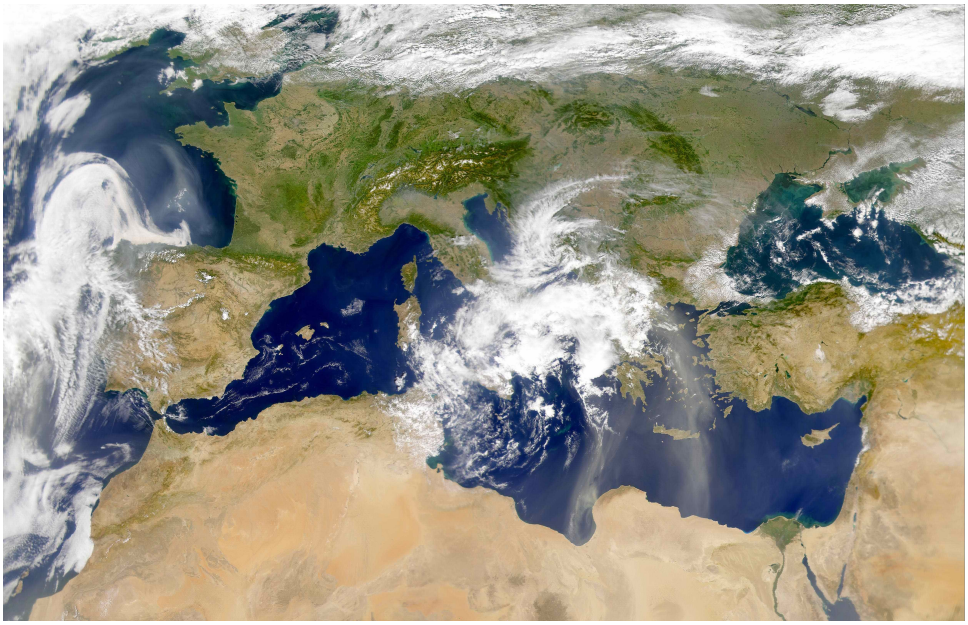
- The implementation by the Ministry of Agriculture of agri-environmental measures from the 2000-2006 Rural Development Programme.
- The implementation of the « organic farming » sub-programme whose primary measures are:
  - organic farming,
  - programme for reducing nitrate pollution,
  - land set-aside programme,
  - the programme for preserving local cattle breeds,
  - the programme for agricultural extensification ,
  - the implementation of an environmental management system,
  - extensification of livestock rearing,
  - managing the programme for six different Natura 2000 regions,
  - programme for combating erosion on slopes.

6 *Mediterranean fisheries issues*

6.1 – The Mediterranean Sea and the ecosystemes

The Mediterranean Sea is an enclosed basin connected to the Atlantic Ocean by the narrow sill of the Strait of Gibraltar (figure 6.1). The Mediterranean Sea occupies an area of about 2·5 million km², is about 3,800 km wide from east to west, and has a maximum north-south distance of around 900 km between France and Algeria.

Figure 6.1 - The Mediterranean region



Source: Provided by the SeaWiFS Project, NASA/Goddard Space Flight Center, and ORBIMAGE.

The population of Mediterranean coastal states was 246 million in 1960, 380 million in 1990 and 450 million in 1997 and one-third of the Mediterranean population is currently concentrated in the Mediterranean coastal regions. The Blue Plan for the Mediterranean Environment and Development, estimates that population is expected to reach approximately 600 million in the year 2020 and possibly as many as 700 million by the end of the 21st century. Furthermore, the distribution of population varies dramatically between northern and southern Mediterranean countries: in 1950, the 'north' represented two-thirds of the total population, while today it is only 50% and may be one-third in 2025, and one-quarter in 2050.

Figure 1. The Mediterranean region.
Provided by the SeaWiFS Project, NASA/Goddard Space Flight Center, and ORBIMAGE

In addition the Mediterranean is the biggest tourist region in the world, with tourism increasingly concentrated on the coasts of the north-western part and heavily seasonal. According to Blue Plan, the number of tourists in the Mediterranean countries will increase from 260 million (135 million of them in the Mediterranean coastal region) in 1990 to 440-655 million (235-355 million of them in the Mediterranean coastal region) in 2025.

6.1.1 - Environment and ecosystems

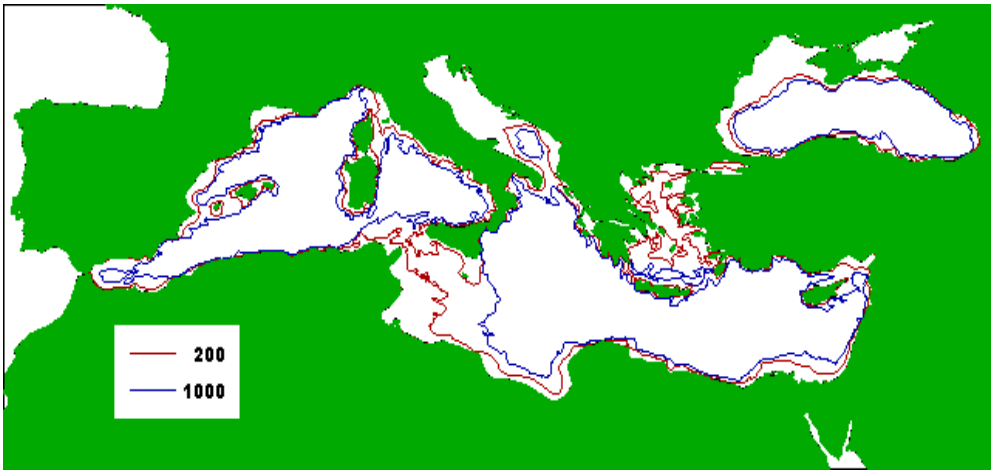
The Strait of Gibraltar is a 15 km wide and 290 m deep sill. The Mediterranean Sea is also connected to the Black Sea by the Strait of Çanakkale (Dardanelles), having a maximum width of only 7 km and an average depth of 55 m. The connection to the Red Sea occurs through the Suez Canal. The Mediterranean is divided into two main basins, the western and the eastern, separated by the Sicily Channel, which is about 150 km wide, reaching a maximum depth of 400 m. The Adriatic Sea can be also considered as a separate area at the north of the stratit of Otranto.

Evaporation in the Mediterranean exceeds precipitation (about 800 km^3/year) and river run-off, giving an estimated freshwater deficit of about 2,500 km^3/year. The deficit is mainly compensated for by the inflow of Atlantic water through the Strait of Gibraltar (1,700 km^3/year) and the water contribution from the Black Sea (164 km^3/year). The major river flowing into the Mediterranean Sea is the Nile, however it could be considered a minor river in terms of discharges. At present, it has a discharge of 89 km^3/year at the level of the Aswan dam, but it diminishes to less than 5 km^3/year as it reaches the Mediterranean Sea.

The total river run-off is estimated at 222 km^3/year. The main discharges are those of the Rhône (48 km^3/year) and the Ebro (10 km^3/year) in the north-western part and the Po (49 km^3/year) and other rivers from the Balkans (three of them over 10 km^3/year each) in the Adriatic Sea. Other rivers discharge between 5 and 10 km^3/year in the Tyrrhenian and Aegean Seas and in the eastern part close to the Gulf of Iskerudun. In the southern part, only the Isser in Algeria can be included in this group. Another 35 rivers discharge more than 1 km^3/year.

The bathymetry of the Mediterranean Sea conditions the distribution of living marine resources and also their abundance. The continental shelf and slope, which constitute the main habitat of these resources are relatively narrow in most areas with some exceptions, like the Gulf of Gabes and the northern part of the Adriatic, where they are larger (figure 6.2).

Figure 6.2 - The Mediterranean has narrow continental shelves

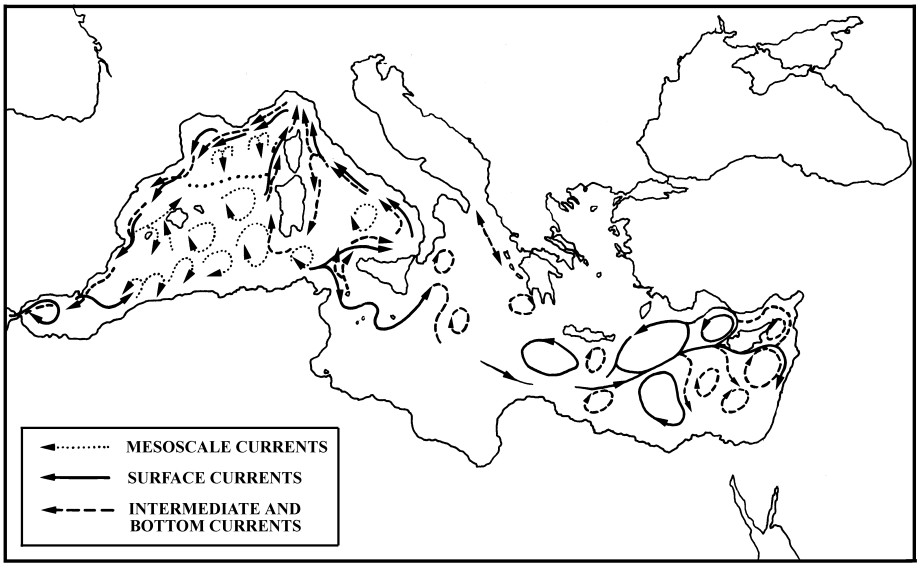


Source: F. Carocci.

Different masses of water can be identified from the surface down to the bottom. The upper one, where most fishery resources live, normally extends from the surface down to a depth of about 150-200 metres and is characterized by a uniform temperature (13-15 C) during winter, extending to the bottom. However during summer it reaches temperatures as high as 20-25 C, which extend down to about 50 metres in late summer.

The high evaporation mentioned, which is not sufficiently compensated by the discharge of rivers, produces a very high salinity. For that reason, colder masses of Atlantic waters, which are less saline and richer in nutrients, enter the Mediterranean and circulate from the Alboran sea along the coast of Africa (figure 6.3). In Sicily the current of water is divided into two branches. The first one goes north along the Tyrrhenian and Ligurian Seas to the Gulf of Lyons and the Spanish coast to return to the Alboran Sea. The second one enters the eastern Mediterranean where several cyclonic and anticyclonic gyres are observed.

Figure 6.3 - Atlantic waters enter the Mediterranean and flow eastward
Picture: D'Antoni

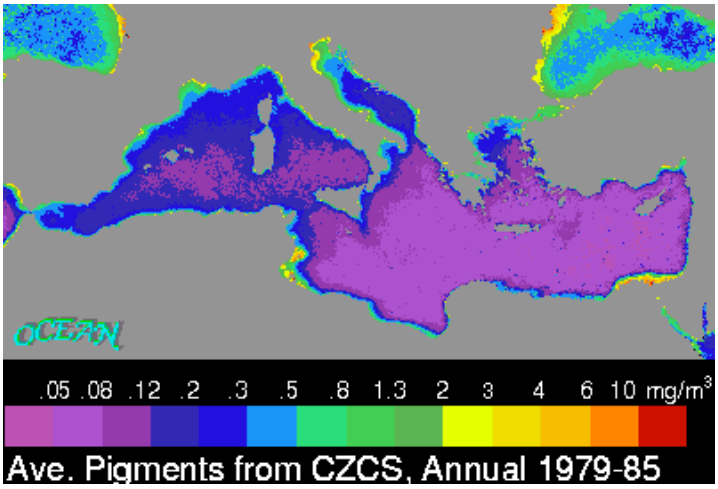


The low biological productivity of Mediterranean waters compared with other productive areas elsewhere is well known. However this oligotrophic character of the Mediterranean Sea has been under discussion for a number of years. In fact, despite its oligotrophic nature, primary production rates reported for the basin are comparable to values reported for the rest of the world. The presence of a series of mechanisms enhancing fertility at certain times of the year in connection with hydrographic structures has been proposed to explain this fact.

Furthermore, production is positively influenced by moderate levels of nutrient inputs, even if these inputs can also lead to negative effects close to the coast, where they can damage habitats and have effects on biodiversity. The waters from several rivers and from the Black Sea that enter into the Mediterranean Sea create a continuous run-off of nutrients.

Satellite imagery (figure 6.4) shows how the western part and, more so, the north-western part with large coastal cities are surrounded by water with higher levels of chlorophyll pigmentation than elsewhere in the eastern part and along the southern coastline. From west to east, and from north to south, water is progressively depleted of nutrients.

Figure 6.4 - Satellite images showing the average monthly distribution of surface chlorophyll-a pigment



Source: Marine Environment Unit. Joint Research Centre of the European Union.

The effects of the closure of Nile outflow on the small pelagic fisheries of Egypt is a rare confirmation that declines in nutrient-rich run-off will reduce the total catch and the proportion of small pelagics it contains. The fact that here a recovery in small pelagics has recently occurred can be attributed to diffusion of nutrient rich drainage water from the delta and coastal cities such as Alexandria. This shows up as a semicircular area of high plankton productivity offshore from the delta in the CZCS imagery.

However, if the Mediterranean Sea is an oligotrophic body of water, and its fishing resources are therefore limited, a series of characteristics make several areas like, for instance, the north-western Mediterranean, the Sicily Channel, or the northern Adriatic, the highest producing areas in the entire Mediterranean.

6.1.2 - Human impact

Human activity in regions surrounding the Mediterranean Sea produces a strong environmental impact. Concentration of population and human activities around the Mediterranean basin present considerable threats to coastal ecosystems and resources. These activities impact the structure and function of natural ecosystems, the quality and quantity of natural resources, the coastal zones and the natural landscape. These impacts are the consequence of the construction and operation of facilities for human activities, the increasing concentrations of people and the development of human activities adding to the demand for their use and exploitation

and subsequent disposal of wastes. In the future the Mediterranean Sea is likely to face increasing pressures, particularly on land; fresh water, energy, urbanization, tourism, agriculture, fishing, transport and industry being the the major forces of change.

The shelf areas now receive higher nutrient inputs, notably from river run-off in the northern basins. Primary production, and its contribution to food webs supporting fishery production, has increased. The spectacular increase in catches of filter feeders such as clams and mussels, as well as aquaculture (for oysters and mussels), appears to directly reflect changes in biological productivity of the Mediterranean basin. The clam (vongole) fishery is perhaps the single most valuable fishery in the Mediterranean, and has spread from the Adriatic to other areas and exploits several species. However, eutrophication, mainly in the Adriatic, has lead to seasonal clam die-offs due to hypoxia.

The serious decline in catches of the valuable red coral (*Corallium rubrum*) from the deeper shelf and slope in the early 1990's, and of valuable sponges, whose stocks in the southern and eastern Mediterranean were decimated by disease in the 1990's, may also reflect ecological changes.

The Mediterranean is also adversely affected by discharges and emissions of contaminants from industry, which pose an environmental threat. This mainly includes the chemical/petrochemical and metallurgy sectors, but also treatment of wastes and solvent regeneration, surface treatment of metals, production of paper, paints and plastics, dyeing, printing and tanneries. Maritime transportation, significantly oil traffic and microbial contamination related to urban wastewaters, has also to be considered.

6.1.3 - Biodiversity

Regarding biodiversity, the Mediterranean Sea, representing only 0·8% of the area and less than 0·25% of the volume of the world's oceans, includes about 7% of known world marine fauna and 18% of world marine flora of which 28% are endemic. A total of 10,000 to 12,000 marine species (with 8,500 species of macroscopic fauna) have been recorded for the Mediterranean Sea with valid scientific description.

In the Mediterranean there are 694 described species of marine vertebrates. More than 500 of these are species of fishes recorded and with valid scientific descriptions and 363 of these species are affected by fisheries (figures 6.5 and 6.6). The FAO Regional Guide for the Mediterranean covers the species of interest to fisheries of the major marine resource group found in the Mediterranean. This Guide includes information on 530 species of fishes (3 jawless, 86 cartilaginous fishes and 441 bony fishes), 5 turtles, 21 marine mammals and 340 invertebrates (62 crustaceans, 104 bivalves, 94 gasteropods, 53 cefalopods, and 27 from other groups).

Figure 6.5 - Typical Mediterranean catches in the Fishmarket of Mazara del Vallo (Sicily, Italy). Photo: Oliver

Figure 6.6 - Typical Mediterranean catches in the Fishmarket of La Boqueria in Barcelona (Spain). Photo: Oliver

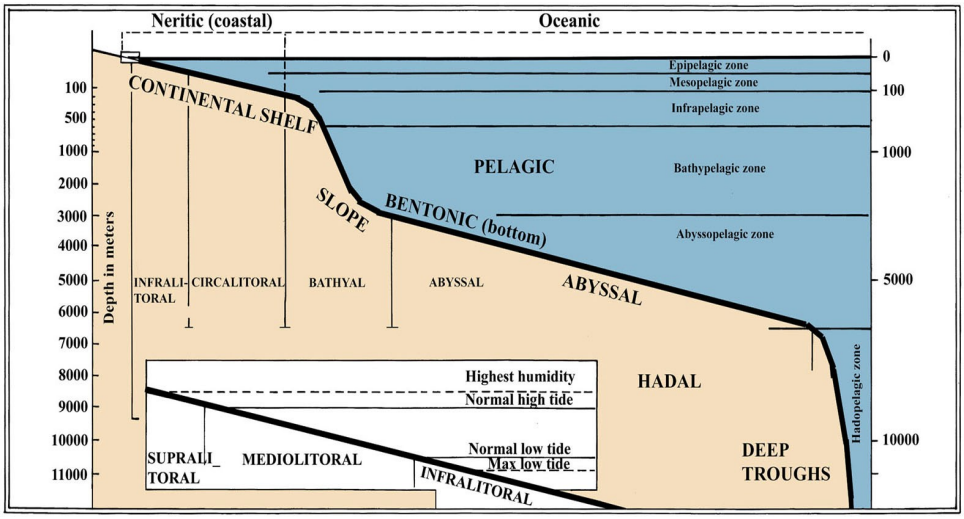
Furthermore, a growing number of Red Sea species are entering the eastern Mediterranean through the Suez Canal (Lessepsian migrants), and subsequently moving northwards and westwards. Species coming from the north Atlantic are mainly found in the northern areas of the Mediterranean. Saharan and subtropical species are mostly found in the eastern sector, while the ponto-caspic species occur in the Aegean Sea and north-Adriatic Sea. In this context, cases as the dramatic accidental introduction and spread of a species of seaweed (*Caulerpa taxifolia*) into

the western Mediterranean is also likely to affect demersal food chains in that area in a manner which is not easily predicted.

6.1.4 - Habitats

The distribution of species throughout the Mediterranean Sea varies from west, where it is greater, to east and with depth (figure 6.7). Diversity is also observed at the level of community and/or ecosystem.

Figure 6.7 – Biotopes. Picture: D'Antoni



The most typical and well-known ecosystem, the Mediterranean seagrass beds, are mostly constituted by the endemic angiosperm species *Posidonia oceanica*. This species inhabits large areas of coastal seabed down to depths of 40 m in optimal conditions. Seagrass beds are spatially complex and biologically productive ecosystems that provide habitats and food resources for a diversified fish fauna and act as an important nursery area for many species. Commercial species recruit in seagrasses, and are most abundant in summer and autumn, depending on the species. Meadows regress significantly for two main reasons: anthropic changes in sediment structure and composition, and the direct mechanical impact of fishing. Bottom trawling has the most dramatic consequences on *Posidonia*, though other fishing practices such as dynamite fishing may also be destructive at a more local level.

However, the vast majority of Mediterranean seabed surfaces lack such a massive vegetable cover and are muddy, sandy or, in some places, rocky. These apparently modest habitats, far from being lifeless, are also inhabited by complex biological communities, which are often part of fragile ecosystems.

Soft and hard bottom habitats are fished differently and the effects of fishing on them are different. Heavy fishing disturbs muddy and sandy bottoms, causing dramatic changes in the structure of both the physical support system and related biological assemblages. Trawls and dredges scrape or plough the seabed, resuspend sediment, change grain size and sediment texture, destroy bedforms, and remove or scatter non-target species. To these effects can be added the increase in the amount of suspended nutrients and organic matter. Highly impacting bottom fishing (trawling, dredging,...) mainly affects shelf areas. In the Mediterranean basin, deep trawling fisheries mainly targeting Norway lobster or red shrimp also affect slope muddy bottoms.

6.2 – The Mediterranean fisheries

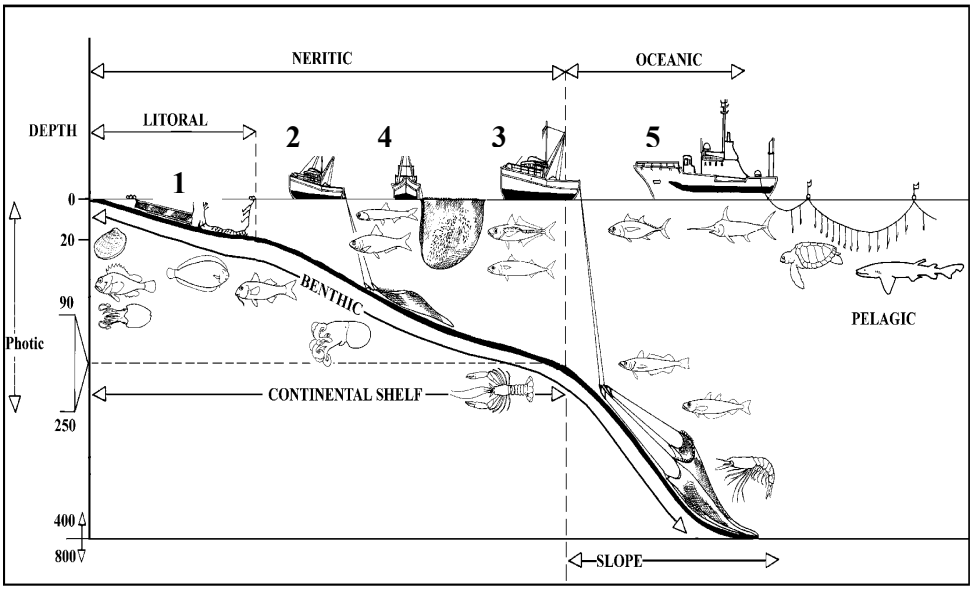
6.2.1 - Fleets and gears

We shall consider the conventional classifications of fishing gear: the trawl gears (bottom trawls fishing in the slope and in the continental shelf and pelagic trawls), towed gears and dredges, purse seine, small-scale gear (gillnets, bottom lines, etc.) and gear for large pelagics (longlines, tuna seines and driftnets), each specialized in the exploitation of different species or groups of species.

A fleet can be defined as a group of fishing vessels with similar physical characteristics, e.g. vessel type and size, fishing gear or similar activity patterns e.g. seasonality in fisheries.

Concerning fleets (figure 6.8), except for the industrial fleets fishing large pelagics in open seas, most Mediterranean fleets are artisanal. "Artisanal" is used to describe low-capital ventures where the fisherman is often the owner of the vessel, in contrast to industrial fisheries involving major investments by companies or financial groups. The total number of fishing boats which may be operating across the Mediterranean has been estimated at approximately 100,000.

Figure 6.8 – Fleets and gears



1: Small-scale gears; 2: Trawlers fishing on the continental shelf; 3: Trawlers fishing on the slope; 4: Purse seiner; 5: Surface longliners

Mediterranean fisheries are enormously diversified, with many fleets based all along the coast in a great many ports. Trawlers and towed gears (figure 6.9) clearly predominate, given the volume and value of their catches. However, purse seiners (figures 6.10 and 6.11) and small-scale fleets (figures 6.12 and 6.13) also constitute an important element of the Mediterranean fisheries.

Figure 6.9 - Trawler fishing in the continental shelf of Catalonia (Spain) and a tipical fishing boat using towed gears in the harbour of la Chioggia–North Adriatic (Italy)
Photos: Generalitat de Catalunya and Oliver

Figure 6.10 - Purse seiners of the Alboran Sea in the Ports of Nador (Morocco) and Fuengirola (Spain). Photos: Srour and Oliver

Figure 6.11 - A purse seiner returning to a harbour and in Catalonia (Spain). Photo: Generalitat de Catalunya

Figure 6.12 - Small-scale fleets in a beach between Tripoli and Leptis Magna (Libya). Photo: Oliver

Figure 6.13 - Small-scale fleets in Porto Cesareo in the Gulf of Taranto (Italy). Photo: Oliver

Figure 6.14 - A purse seiner operating to catch tunas. Photo: Farrugio

The number of fishing nets and gears included in the small gear category is usually almost as high as that of fishermen, e.g. trammel nets and their varieties; driftnets; dredges and towed gears; bottom or surface longlines; the different types of traps and many others. They are normally exclusively for catching a specific species or a group of species with similar behaviour patterns.

In the strict sense of the term, the trawl fleet is made up of vessels whose average characteristics are 30 Gross Registered Tons (GRT) and 300 HP, with a crew of 5 or 6. The mesh size of the cod end is not usually smaller that 40 mm. However, the small coastal trawlers found on most Mediterranean coasts usually have an average displacement of 12 GRT, a maximum of 100 HP and a crew made up of 2 or 3 people. These small trawlers use really tiny trawling nets with extremely small meshes and usually work close to the coast. In some areas, such as the Adriatic Sea and the Gulf of Lyons, fleets of pelagic trawlers (figure 6.15) also operate.

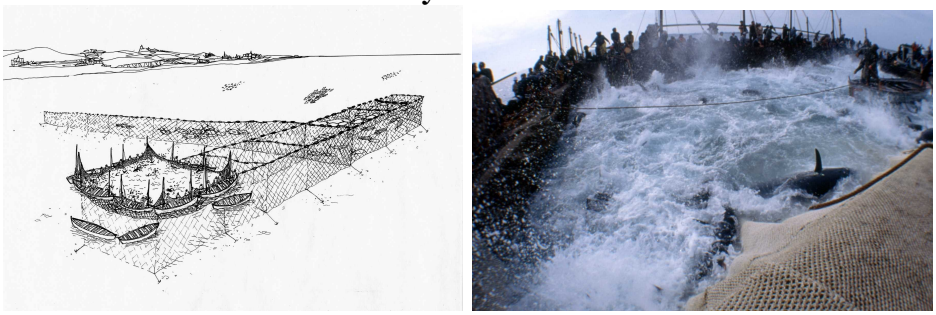
Figure 6.15 - Fleet of pelagic trawlers in Ancona (Italy). Photo: Oliver

The bulk of Mediterranean fisheries can be considered as "artisanal" and "coastal". Artisanal fishing is often associated with the notion of "coastal fishing", that is to say fisheries located on the continental shelf and very close to the coastal zone. Exploitation areas can be reached in a few hours from the ports, or even beaches, where the fishermen are based. Consequently, this type of activity does not imply a very long lapse of time at sea and employs a great number of men and women both on board and on land.

Although there is no accurate background information about the capacity and size of all countries' fleets, it is generally accepted that an expansion and modernization of both semi-industrial and small-scale fleets is taking place. This policy aims not only to increase the technical capacities of these fleets but also to improve fishing efficiency and to improve the living conditions of fishermen.

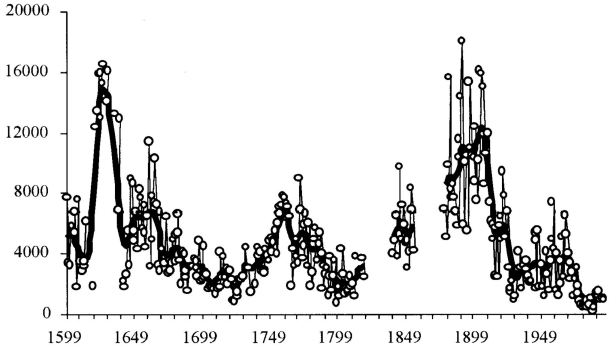
A shore-based tuna trap fishery (figure 6.16), active in Mediterranean countries since ancient times has to be also mentioned. This gear have declined in number in recent years due to changes in tuna migration, coastal changes like industry and pollution, as well as increased competition with other fishery methods. Mediterranean tuna trap fisheries continue today mainly in Spain, were is called "almadraba" and in Italy (Sardegna and Sicily) were is called "tonnara".

Figure 6.16 - Tuna trap called "almadraba" in Spain and "tonara" in Italy. Photo: Cort



This gear is used to catch mainly blue fin tuna (Thunnus thynnus) during their migrations, known since they were described by Aristotle in 350 BC. Together with blue fin tuna, this gear also caught other pelagic migratory species. Catches from these traditional tuna trap fisheries are relatively minor compared to modern tuna fisheries and catch statistics of blue fin tuna (number of fish) collected since XVII century (figure 6.17) in some of the places were this gear has been used shows how the catches have widely fluctuated during the last centuries and drastically declined in the recent period.

Figure 6.17 - Catch statistics of blue fin tuna (number of fish) collected since XVII century (1599-1953) in the "tonara" of Favignana-Formica (Sicily-Italy)



Source: From Fromentin in CIESM Workshop Series, 12.

6.2.2 - IUU fleets

The term **"IUU fishing"**, i.e. illegal, unreported and unregulated fisheries, is a problem that in Mediterranean waters has not been confined to non-Mediterranean vessels operating in the region (figure 6.18). In some instances, vessels flagged to Mediterranean countries could be involved in IUU fishing. To date, few measures have been adopted by GFCM and Mediterranean countries in seeking to address the IUU problem and the effectiveness of these measures such as the Spanish Protected Fishing Zone has already been mentioned in a previous paragraph.

Figure 6.18 - Distant-water surface longliner operating in the Mediterranean. Photo: Greenpeace

The scale of IUU fishing that has taken place in Mediterranean large pelagic fisheries is unlikely to be repeated in other fisheries.

Two main factors have influenced the development of IUU fishing in Mediterranean large pelagics:

- The product is highly sought after on the international market, thus offering the potential for significant monetary gain to participants in IUU fishery.
- The location of fisheries is such that the deployment of surveillance and enforcement of management measures is often difficult due to the fact that waters under the sovereignty and jurisdiction of Mediterranean states are limited to a distance of 12 nautical miles from the coast, making it unlikely that an offending vessel will be caught while fishing illegally.

6.2.3 - Tuna farming

Tuna farming has opened up a new section in the markets, but mainly in the Japanese one, which will further increase the demand for bluefin tuna and make the situation of wild stocks even more perilous. The tuna is a much appreciated fishery product (figure 6.19) and the rapid increase in tuna penning has changed fishing strategies in the Mediterranean. Nearly all fish caught by purse seiners (figure 6.20) are now transferred to cages for fattening (figure 6.21), rather than sold directly. With the new practice the reliability of catch statistics has further deteriorated – an already serious problem hampering efforts to properly manage the eastern Atlantic bluefin tuna population. In addition, demands from the tuna farming industry have created increasing fishing pressure on small pelagic fish stocks. Some of these fisheries are poorly regulated and affect stocks already in decline, such as the anchovy. The low conservation factor from feed to tuna meat also makes tuna farming a wasteful practice. The consequence could be the collapse of the eastern Atlantic bluefin tuna stock within the next years, unless fishing pressure is significantly lowered and tuna farming is regulated by the management bodies responsible.

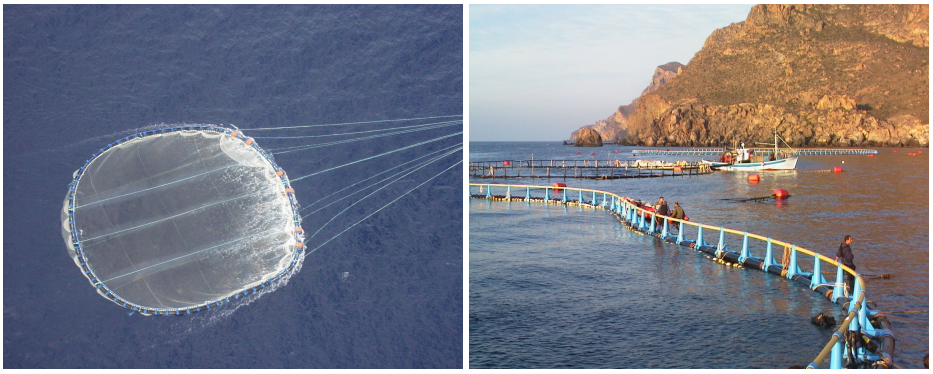
Figure 6.19 - Bluefin tuna, market of La Boqueria in Barcelona (Spain)
Photo: Oliver

Figure 6.20 - French purse seiners fishing tunas in the north-western Mediterranean. Photo: Farrugio

In 1998 ICCAT indicated a strong decline in the spawning stock biomass since 1993, as well as an increase in fishing mortality rates. The spawning biomass was estimated to be less than 20% of the 1970 level. The analysis also indicated that future catch levels in excess of 33,000 tons would not be sustainable and only catches of 25,000 tons or less would halt the decline in biomass. In 2001 it expressed concern about intense fishing pressure on small tunas.

Regulation has lagged behind this new industry and many fish farms are switching to bluefin tuna. All the sea bream farms in Malta, for example, have applied for tuna licenses.

Figure 6.21 - Transferring tunas in cages to the pen for fattening and pens for fattening bluefin tuna in Murcia (Spain). Photos: Farrugio



6.2.4 - Resources

From the fisheries point of view, two fundamental features of this sea are the presence of a large variety of species, which represent 5·5% of world marine fauna and the absence of large monospecific fisheries comparable to those which inhabit some wide areas of the open oceans. However, this traditional description of Mediterranean fisheries, requires some additional detail.

Concerning catch composition, and despite the inherent complexity of multi-species landings in Mediterranean ports, there is an identifiable series of target species which, in biomass or in economic terms, constitute the basis of production. These are sardine (*Sardina pilchardus*) and anchovy (*Engraulis encrasicholus*) among the small pelagics (figure 6.22); hake (*Merluccius merluccius*), red mullets (*Mullus* spp.), blue whiting (*Micromesistius poutasou*), anglerfishes (*Lophius* spp.), *Pagellus* spp., *Octopus* spp., squids (*Loligo* spp.), and red shrimp (*Aristeus antennatus*) among the demersals (figure 6.23); and, prominent among the large pelagics (figure 6.24), bluefin tuna (*Thunnus thynnus*) and swordfish (*Xiphias gladius*) with other species of local interest at specific sites. These species represent 70-80 % of all landings, at least eight of them over 2 % of the total catch, and two over 15 %. This situation is not unlike that of European Atlantic fisheries, and of some other areas.

Figure 6.22 - Landing anchovies fished by a pelagic trawler in Ancona (Italy). Photo: Oliver

Figure 6.23 - Demersal species in the market of Palma de Mallorca (Balearic Islands, Spain). Photo: Oliver

Figure 6.24 - Catches of bluefin tuna in the Ionian Sea. Photo: Delflorio

According to their habits, fishes can be categorized as follows:

Small pelagics: They comprise fish which live in large schools in midwater or near the surface. Their length is usually under 20 cm, having a lifespan that rarely exceeds a few years. They have a high natural mortality rate and generally mature very soon, which secures new descendants. Sardines, anchovies, mackerel and horse mackerel are the most common species in this category. They are fished with pelagic trawl and purse seine. They undertake seasonal migrations which bring them inshore in the summer and large fluctuations occur in their catches. Small

pelagic fish, like the sardine, anchovy, mackerel and horse mackerel are generally fished close to the coast.

Large pelagics: They live near the surface and are gregarious and migratory. They are defined as long-lived, good, fast swimmers, voracious and carnivorous. Swordfish, tunas and pelagic sharks are comprised in this group. They are caught mainly with seines, surface longlines and driftnets. Several tuna species, including the bluefin tuna, spawn in the Mediterranean and are generally fished in open seas.

Demersals: They live near the seabed. They are long-lived species that suffer a relatively small natural mortality, have slow growth and do not usually spawn until they are three years old or older. More than 100 commercial species belong to this group. Bottom trawls, nets, traps, handlines and bottom longlines are used to catch these species. The most exploited depths are found on the continental shelf and range from zero to 200/300 m depth. Some of these demersal species, like red mullets, sole, gurnards, poor cod, sea bream, spiny lobster and shrimps inhabit the upper zones of the continental shelf. Others, such as hake, blue whiting, angler fish, Norway lobster and shrimps are fished on the slope.

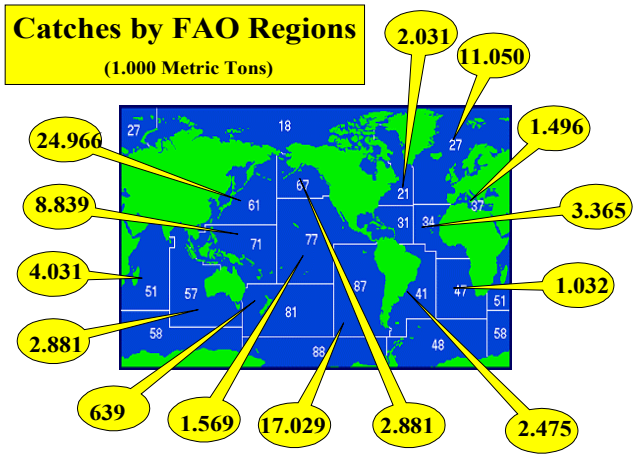
The Twenty-sixth Session of the General Fisheries Commission for the Mediterranean (GFCM) held in September 2001 decided, on the issue of stock assessment and conservation, the following list of priority species:

Hake (*Merluccius merluccius*), blue whiting (*Micromesistius poutassou*), whiting (*Merlangius merlangus*), red mullets (*Mullus barbatus* and *Mullus surmuletus*), common pandora (*Pagellus erythrinus*), bogue (*Boops boops*), turbot (*Psetta maxima*), anchovy (*Engraulis encrasichalus*), sardine (*Sardina picchiardus*), round sardinella (*Sardinella aurita*), sprat (*Sprattus sprattus*), horse mackerel (*Trachurus trachurus* and *Trachurus mediterraneus*), bluefin tuna (*Thunnus thynnus*), albacore (*Thunnus alalunga*), swordfish (*Xiphias gladius*), dolphinfish (*Coriphaena hippurus*), shrimp (*Aristiomorpha foliacea*, *Aristeus antennatus* and *Parapenaeus longirostris*), Norway lobster (*Nephrops norvegicus*), horned octopus (*Eledone cirrhosa*) and sturgeon (*Acipenser sturio*).

6.2.5 - Catches

Total world marine fisheries production in 1998 amounted to 86 million tons of which 1,496,000 tons were caught in the Mediterranean region. The north-west Pacific region had the largest reported landings, followed by the south-east Pacific (recently, catches have declined in this region due to the El Niño event in 1997-1998), north-east Atlantic and western central Pacific regions because of their highly productive stocks. The rest of the regions in the world report catches not far from those reported in the Mediterranean (figure 6.25).

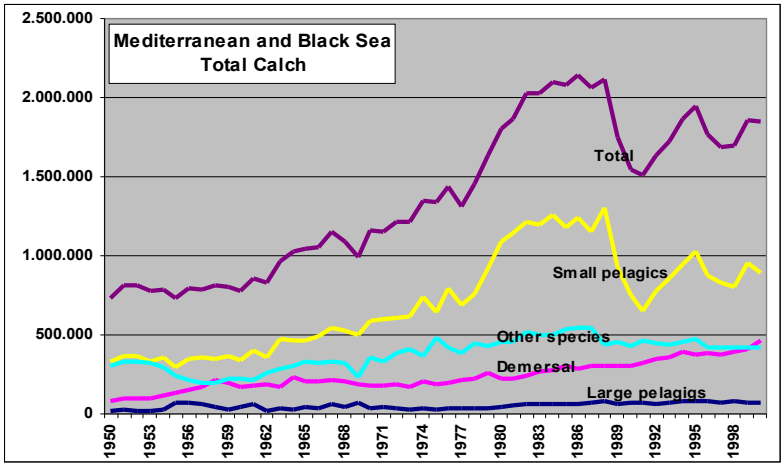
Figure 6.25 - The world marine fisheries production by FAO fishery regional areas in 1998



Source: FAO Fishstat.

Total catches from the Mediterranean region have increased steadily since 1950, remaining around 1.97 million tons since 1998. The decline to 1.28 million tons in 1991 can mainly be attributed to the collapse of Black Sea anchovy and sprat stocks. Other noticeable declines, such as that of shads and sturgeons since the mid 1980's, have been caused by degradation in Black Sea estuarine environments, while catches of major resources in the Mediterranean Sea continued to increase throughout this period (figure 6.26).

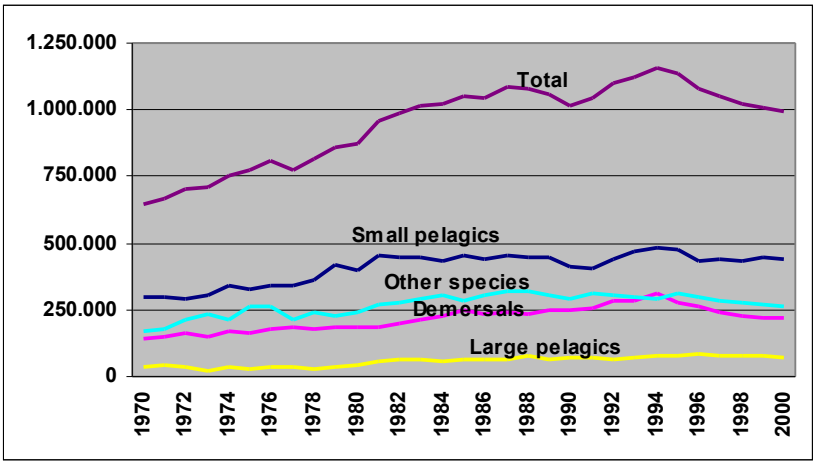
Figure 6.26 – Trend of Mediterranean and Black Sea catches between 1959 and 2000, Metric tons. Source: FAO Fishstat



In general, and despite the collection of landings data being acknowledged as poor, catch statistics of total landings which are available in the Mediterranean, Black Sea excluded, show catch increases until the mid 1990's and stable yields in recent decades. In any case, this trend of landings has been combined with a trend towards increasing fishing effort.

At present, the Mediterranean, Black Sea excluded, is one of the few marine areas of the world's oceans showing a steady increase in production over the entire time series for all major resource categories, demersals, small pelagics and also highly migratory species (figure 6.27). This increase in landings is in apparent contrast with a long and active tradition of fishing, large and seasonally increasing coastal populations, and long-standing high demand and prices for locally caught fish. The strong demand for seafood and the long history of fishing have resulted in heavy fishing intensities over most shelf areas. This high fishing intensity, together with the generally narrow coastal shelves and vulnerability of resources, would have led one to expect declining catches over most shelf areas, yet this had not occurred.

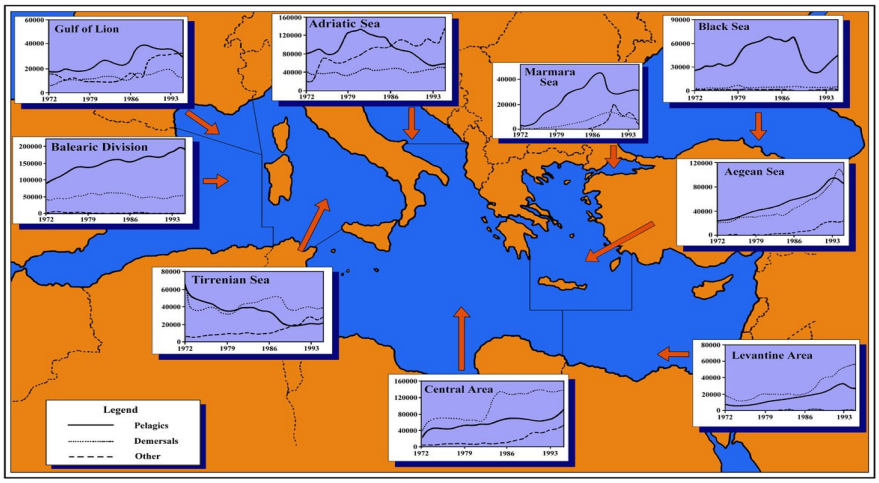
Figure 6.27 – Catches in the Mediterranean Sea, 1970-2000, Metric tons



Source: FAO Fishstat.

If we look at the trend in landings by species groups and by regional divisions we find more or less the same result: stable or increasing catches, except for pelagics in The Gulf of Lyons and the Tyrrhenian and Adriatic Seas (figure 6.28). It seems difficult to explain these geographical and temporal trends as a consequence of fishing intensity alone. Another suggestion is that shelf areas now receive higher levels of nutrients, notably from river run-off in the northern basins, and that primary production, and its contribution to food webs supporting fishery production, has increased.

Figure 6.28 - Trend of landings by species groups and by regional divisions in the period 1970-2000 in Metric tons



Source: FAO Fishstat.

In the following table we can sea as in 2000 56% of the total catches corresponded to the EU member countries and 44% to the non EU member countries as well as as Italy declared around 50% of the EU catches. In the same table we can also realize that in the last 30 years this share of catches has been progressively changing from 80% and 20% respectively in 1970 to the one indicated in 2000.

Table 6.1 – Evolution of Mediterranean catches (Metric tons)

Country	1970	1980	1990	2000
EU Member countries	550,780	615,998	595,429	558,716
France	38,720	36,332	39,907	39,050
Greece	45,572	74,253	111,100	89,393
Italy	317,325	356,408	301,492	290,985
Spain	99,163	149,005	142,930	139,288
Non EU member countries	140,554	251,738	413,122	430,833
Morocco	10,869	27,328	35,660	38,625
Algeria	24,234	48,000	90,640	100,000
Tunisia	22,449	61,846	87,704	94,610
Malta	1,212	1,078	759	1,039
Libyan Arab Jamahiriya	5,500	5,200	24,000	32,500
Egypt	7,858	17,470	35,310	54,872
Gaza Strip (Palestine)	.	.	.	3,600
Israel	6,801	4,674	3,941	3,966
Lebanon	2,300	1,700	1,420	3,646
Cyprus	1,363	1,308	2,584	2,217
Turkey	25,360	41,694	80,782	67,795
Syrian Arab Republic	1,000	1,036	1,591	2,581
Yugoslavia SFR	26,308	34,504	40,373	-
Yugoslavia, Fed. Rep. of	.	.	.	424
Croatia	.	.	.	20,963
Slovenia	.	.	.	1,630
Albania	5,300	5,900	8,358	2,365
Total	**691,334**	**867,736**	**1,008,551**	**989,549**

Note: Black and Marmara Seas not included. Other non Mediterranean countries like, Japan, South Korea, Belize, Honduras, Sierra Leone, Panama, Philippines, Taiwan, USA and Portugal are fishing in the region, however not all of them are reporting their catches.

Source: FAO Fishstat.

In the next table we realize that the share of catches between EU member countries and non EU member countries is similar when we consider the catches (in Metric tons) distributed by species groups.

Table 6.2 – Share of catches between EU member countries and non-EU member countries

Countries	Demersal	Small pelagic	Large pelagic
EU Member countries*	171,549 **41%**	220,648 **50%**	35,509 **49%**
Third countries	241,177 **59%**	221,623 **50%**	36,926 **51%**
Total	**412,726**	**442,271**	**72,435**

* EU countries are France, Italy, Greece, Spain and the other Mediterranean countries rest are included as third countries.

(1) All FAOstat invertebrate groups included
(2) FAOstat pelagic fishes excluding large pelagic
(3) Tunas,bonitos and billfishes ISSCAAP group

Source: FAO Fishstat.

7 *Economy and social issues in Mediterranean fisheries*

7.1 - Socio-Economy

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 (figure 7.1). Recently, economic pressures and changes are producing a new environment for the Mediterranean fishery community whose future is difficult to evaluate due to lack of existing information and knowledge of this process. For this reason, there is a need to take greater account of economic and social factors and to integrate these into management and decision-making. A better understanding is required of the economic and other factors which influence the fisheries sector and its financial success. Furthermore, the importance of fisheries in a country cannot be measured only in terms of volume and value of landings, but one must also take into consideration that fisheries resources and products are fundamental components of human feeding and employment.

Figure 7.1 - Fishing Ports of Porto Ercole – Tirrenian Sea (Italy), Gozo (Malta) and Nea Peamos in the Bay of Eleftheron in the North Aegean Sea (Greece). Photos: Oliver

Fishing activity carried out in the Mediterranean region ensures the income of an important number of people along 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 roughly estimated that, at present, there are around 300,000 fishermen in the Mediterranean (figure 7.2), apart from a significant number of part-time fishermen. Assuming that each job at sea generates 3 jobs on land (commercialization, 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 fisheries activities for their livelihoods, i.e. 2% of the population of Mediterranean coastal regions.

Figure 7.2 - Fishermen working in the ports of Tripoli (Libya), Marsaxlokk (Malta) and Porto Ercole (Italy). Photos: Oliver

In economic terms, the fisheries component of a Mediterranean transboundary diagnostic analysis performed by the GFCM Technical Secretariat in 1997

estimated that the value for landings is some 3,800 million dollars annually. The same analysis also estimated that if fisheries were brought to Maximum Sustainable Yield conditions the result would be an increase in income to the order of 451 million dollars and that if effort dropped still further to Maximum Economic Yield income would go up by some 790 million dollars with respect to Maximum Sustainable Yield conditions.

In fact, the trend towards modernization 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 utilized). 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 categorized 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.

7.2 - Markets

The globalization of trade markets has changed consumer habits and the Mediterranean market for fishery products is not an exception. In fact, the Mediterranean market for fishery products is probably one of the regions in the world where this change is most evident and important

Mediterranean fish markets are increasingly dependent on imports, making their equilibrium increasingly more fragile and endangering the interests of the Mediterranean fishery sector due to the inexorable advance of the liberal trading system. At present, in the Mediterranean region there is a growing dependence on imported fishery products (processed fish products and specially prepared meals, ...), which may now represent between 50 and 80% of total fish consumption in some European countries.

Regarding fish annual consumption per capita, estimations in Spain are almost 40 kg and over 20 kg in Italy, France and in Greece. In north-African countries, for the moment, imported products cover a less important part of total consumption, mainly due to the lower market demand for expensive processed fish products and also because of lower fish consumption per capita in these countries. The annual consumption per capita in Morocco, Tunisia, Libya and Egypt is around 8 kg and much less in Algeria.

As mentioned before, the annual landings reported in the Mediterranean are around one million tons and the population in coastal regions, including tourism, was estimated by UNEP in 1997 at around 160 million people. That means that Mediterranean landings provide around 6·25 kg per capita, which obviously cannot cover the market demand mentioned previously (figure 7.3). This situation, combined with the decline in regional catches, favours a sharp rise in imported fish products such as packed fish fillets (fresh or frozen), ready-made dishes that need only be reheated in a microwave oven and preserved fish, processed shellfish and molluscs. Or even fish pâtés, surimi-based products and shellfish soups. Imported products can also keep the Mediterranean markets supplied with fresh products.

Figure 7.3 - Mediterranean fish markets: Tunis (Tunisia), Gallipoli (Italy) and La Vuqueria in Palermo (Italy). Photos: Oliver

All these elements hinder the commercialization of local captures, mainly fresh fish, but also, in some cases, processed in local factories as is the case of Mediterranean canned fish.

This situation should be faced in order to establish an effective market policy to ensure a share of the Mediterranean fish market for regional, quality, fresh and

traditional products (figure 7.4) in competition with imported products and the processing industry. Consumers used to prefer fresh local products, where a "traditional" manner of production, including guaranteed traceability, safety and high quality control, is possible. In this way it will be possible to increase the value of local fish caught a few hours before consumption. To do so, however, local fishermen and all those involved in the supply chain to consumers must participate in improving the market for Mediterranean products.

Figure 7.4 - Fish market of Mazara del Vallo in Sicily (Italy)
Photo: Oliver

The market for Mediterranean fresh fish must become more competitive, starting by solving the aforementioned problems of overcapacity of fleets and reduced fishing opportunities because of overfishing. Certainly, a sustainable use of resources is a first step, but the optimum use of fish products, involving producers in market management and improved quality of fish products, including correct labelling, cold storage facilities, and ensuring that fish labelling, handling and marketing are carried out in the best possible way, are also *sine qua non* conditions to ensure a share in the local markets.

Almost all Mediterranean fishery marine production is for human consumption and most of it is consumed fresh. Much of this production is made up of species of high quality or in great demand and prices are constantly rising. The sale prices of fish in the Mediterranean are among the highest in the world. The average value in the Mediterranean estimated by the Mediterranean Transboundary Diagnostic Analysis performed by the GFCM Technical Secretariat in 1997 was US$ 3·5 per kg while the world average value per kg in the same year was US$ 0·95.

Together with the imported fish products, because their continued and rapid expansion, supplies from aquaculture also increased competitiveness into de Mediterranean fish market. In the Mediterranean, as in many parts of the world, the supply of cultured finfish, molluscs and crustaceans has continued to expand

rapidly, and growth has been much faster than was envisaged. For this reason, it is not easy to find fish capture products in the restaurants of the Mediterranean coastal villages and towns and even more difficult if we are locking for something landed by Mediterranean fleets, and a wide offer of these products is only offered by specialized markets. Nowadays and regarding regional aquaculture production (around 1,000,000 mt in the recent years in the countries with Mediterranean coast), molluscs dominate in terms of volume. Considering only marine production, molluscs also dominate (mainly clams…) with up to 180,000 mt. in 1997. However, marine finfish production (freshwater species as rainbow trout or tilapias excluded) is increasing and in 1997 reached more than 80,000 mt. Finfish Production (figure 7.5), mainly sea bass (*Dicentrarchus labrax*) and gilt-head sea bream (*Sparus auratus*), has developed tremendously in the last years in the Mediterranean, particularly in Greece, Turkey, Italy, Spain and Israel. In any case, if new species to aquaculture are not introduced and commercial practises adapted to the new market needs are developed, aquaculture will probably have to face problems that can challenge the current situation.

Figure 7.5 - Offshore fish farm platform belonging to "CRIA DE PESCADO, S.A" in L'Atmella de Mar (Tarragona – Spain)
Photo: CREPSA

The future demand for fish will basically be determined by the number of consumers and their eating habits as well as their disposable income and prices of fish. The fact that livestock products, particularly poultry and pork, become significantly cheaper can produce that consumers will eat less fish. However is in this scenario where the Mediterranean fish products can became more competitive. In fact, improved quality of Mediterranean products due to freshness could

generate a higher demand for local products, at the same time maintaining and justifying higher prices (figure 7.6).

Figure 7.6 - Selling fresh fish in the Island of Ischia (Italy). Photo: Oliver

8 Governance of Mediterranean fisheries

8.1 - Stakeholders and the legal framework

In the Mediterranean, there is a lack of stakeholder involvement in fisheries management and poor communication and information flow between fishermen, scientists and decision-makers. Stakeholders and their respective responsibilities and roles should be identified: the fishery administration at different levels (local, national, inter-governmental or international), the industry directly using the resources, the fishermen; but fish processors, boat-builders, net-makers, markets and consumers are also involved, as well as the knowledge-holders on marine environment, habitats, flora and fauna and fisheries (scientific national institutions and international, governmental and non-governmental organizations, ...). When possible, even the involvement of the local population is also recommended.

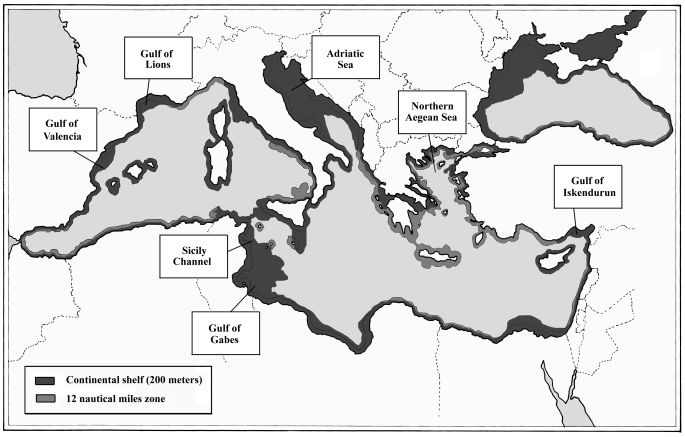
Under the UNCLOS, the Mediterranean Sea falls under the category of enclosed or semi-enclosed seas, which are defined as any "gulf, basin or sea surrounded by two or more states and connected to another sea or the ocean by a narrow outlet or consisting entirely or primarily of the territorial seas and exclusive economic zones of two or more coastal states" (article 122).

The Mediterranean Sea complies with one of the two alternative criteria as it is connected to the Atlantic Ocean by the narrow outlet of the Strait of Gibraltar. It would also satisfy the second alternative criteria if the coastal states would proclaim an exclusive economic zone. The legal consequences arising from this status are not significant, as UNCLOS does not subject these areas to any specific legal regime. It simply requires that states bordering enclosed or semi-enclosed seas cooperate directly or through an appropriate regional organization to, inter alia, "coordinate the management, conservation, exploration and exploitation of the living resources of the sea" (article 123).

In conformity with international law (Article 3 of the United Nations Convention on the Law of the Sea (UNCLOS), every Mediterranean state has a right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles. Figure 35 shows the territorial seas as well as the extension of the continental shelf (isoline of 200 m depth) around the Mediterranean.

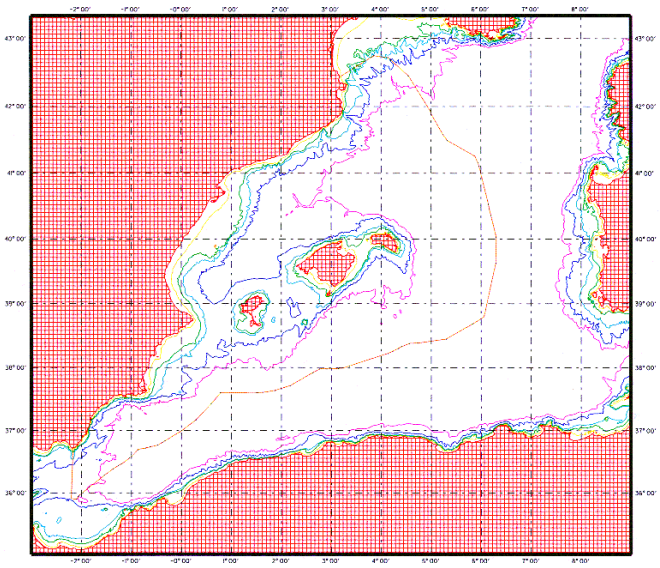
Figure 8.1 - Territorial sea (12 nautical miles) and the continental shelf (isoline of 200 m depth) around the Mediterranean

Illustration: D'Antoni



It should be noted that Algeria, Libya, Malta and Spain (figure 8.2) have declared a protected fishing zone in the Mediterranean, extending approximately between 20 to 70 miles seaward measured from the baselines, in which they claim sovereign rights over the marine living resources occurring therein.

Figure 8.2 - Spanish protected fishing zone



8.2 - International organizations and agreements dealing with fisheries management in the region

The FAO Code of Conduct for Responsible Fisheries, unanimously adopted on 31 October 1995 by the FAO Conference, which is a voluntary instrument, is now widely recognized as the key instrument of reference for fisheries managers throughout the world. The Code provides principles and standards applicable to the conservation, management and development of world fisheries. It calls upon states to ensure that an effective legal and administrative framework at the local and national level is established for fisheries resource conservation and fisheries management.

In this context, other relevant instruments include the outcome of the then United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks which, in August 1995, adopted an Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Concerning Straddling Fish Stocks and Highly Migratory Fish Stocks. The FAO Conference, at its Twenty-seventh Session in November 1993, also adopted the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas.

The International Plans of Action for reducing incidental catch of seabirds in longline fisheries, for the conservation and management of sharks and for management of fishing capacity were developed by FAO in 1998 to establish some form of international agreement in order to manage the concerned issues in compliance with the code of conduct for responsible fisheries. The International Plans of Action (IPOAs) were adopted by the FAO Committee of Fisheries (COFI) and endorsed by the FAO Council in 1999. IPOAs are voluntary instruments that apply to all states whose fishermen engage in longline (figure 8.3), shark and capture fisheries, and set out a set of activities which implementing states are expected to carry out, including an assessment of whether a problem exists, adopting National Plans of Action (NPOA) as well as procedures for national reviews and reporting requirements. In the case of the IPOA for fishing capacity, it also includes urgent actions to assess and monitor fishing capacity (figure 8.4).

Figure 8.3 - Spanish surface longliners in Portocolom (Balearic Islands, Spain) (two trawlers at the left side of the pier). Photo: Oliver

Figure 8.4 - Italian trawlers in Fiumicino Port (Tyrrhenian Sea, Italy)
Photo: Oliver

The GFCM was created in Rome by an agreement of 24 September 1949, which came into force on 20 February 1952 and was amended in 1963 and 1976. As of December 1997, twenty-one Mediterranean and Black Sea states and one non-Mediterranean state were members of the GFCM. The purpose of the GFCM is to promote the development, conservation, rational management and best use of living marine resources occurring in the Mediterranean, the Black Sea and connecting waters, both in areas under national jurisdiction and on the high seas.

The International Commission for the Conservation of Atlantic Tunas is responsible for the conservation of tunas and tuna-like species in the Atlantic Ocean and adjacent seas, such as the Mediterranean Sea. The organization was established in 1969, at a Conference of Plenipotentiaries, which prepared and adopted the International Convention for the Conservation of Atlantic Tunas.

The main ICCAT recommendations and resolutions applicable to the Mediterranean Sea concern bluefin tunas (*Thunnus thynnus*): Recommendation No. 74/1, regarding the prohibition of catching and landing bluefin tuna weighing less than 6.4 kg. Resolution No. 94/7, which prohibits fishing during the period from 1 June to 31 July using large pelagic longline fishing vessels exceeding 24 m in length. Recommendation No. 96/2, which prohibits purse seine fishing (figures 8.5, 6.14 and 6.20) in the Mediterranean Sea during the period from August 1 to 31 and forbids the use of aeroplanes or helicopters supporting fishing operations in the Mediterranean Sea in the month of June. This recommendation was modified by Recommendation No. 98/6, which changed the purse seine closed season period from August 1 to 31 in the Mediterranean to May 1 to 31 for the Adriatic Sea and July 16 to August 15 for other areas of the Mediterranean Sea. Recommendation No. 96/3 prohibits the retaining on board, landing and sale of age 0 bluefin tuna weighing less than 1.8 kg by fishing vessels of Contracting Parties and non-Contracting Parties. The minimum weight of bluefin tuna that can be retained on board, landed or sold was changed to 3.2 kg by Recommendation No. 98/4.

Figure 8.5 - Italian tuna purse seiner fishing in the Aegean Sea
Photo: Pesola

In 1995 the GFCM formulated for the first time binding recommendations. Since then GFCM endorsed ICCAT management measures. Three other binding recommendations were adopted in 1997. Furthermore, the GFCM calls upon states

which are not members of the GFCM, but whose vessels engage in fishing activities in the region, to become members of the GFCM or otherwise cooperate in the implementation of the recommendations adopted by the Commission. It also urges Member States to report to the Commission on any fishing activities by vessels flying the flag of non-member states which undermine the effectiveness of GFCM recommendations (Resolution No. 97/2).

At the regional level, the GFCM adopted Resolution No. 97/1 prohibiting any vessel flying the flag of GFCM Contracting Party to keep on board, or use for fishing, one or more driftnets whose individual length is more than 2·5 km. It specifies that throughout the area beyond the 12-mile coastal band, the net must, if it exceeds 1 km in length, remain attached to the vessel. The Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) provides for similar restrictions. By adopting European Council Regulation (EC) No. 1239/98 of 8 June 1998, EU Member States agreed to ban the use of all kind of driftnets in the waters under their sovereignty or jurisdiction by 1 January 2000. At the national level, Spain issued an Order restricting the use of driftnets in the Mediterranean (Order of 22 October 1990). Lastly, it should be recalled that the United Nations General Assembly recommended a global moratorium on all large-scale pelagic driftnets on the high seas of the world's oceans and seas, including enclosed and semi-enclosed seas, by 31 December 1992 (Resolution 46/215 of 20 December 1991).

8.3 - Regional cooperation

The International Council for the Scientific Exploration of the Mediterranean (ICSEM/CIESM), based in Monaco, promotes marine science for the lasting protection of the Mediterranean Sea and for the well-being of its coastal populations. ICSEM focuses its activity on background research on marine biology and oceanography having a committee on Living Resources and Marine Ecosystems and a Sub-committee on Living resources.

As a consequence of a cooperative research project between France, Italy and Spain, funded by the European Union, called "FARWEST - Study for assessment and management of fisheries in the western Mediterranean" and carried out in the period 1990-1994, a Working Group on Population Dynamics (DYNPOP) was established in 1993 within the framework of the International Commission for the Scientific Exploration of the Mediterranean (ICSEM/CIESM) with the support of the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM). DYNPOP incorporated, in the period 1992-1996, scientists from the eastern and, mainly, southern parts of the Mediterranean. This Working Group carried out successful work and was the basis for establishing, in 1998, the Scientific Advisory Committee of GFCM, which met for the time in Rome in 1999.

In 1975, the Mediterranean states adopted the Mediterranean Action Plan (MAP) in the framework of the United Nations Environment Programme (UNEP). One of the main objectives of this Plan was to establish a framework convention for the protection of the Mediterranean environment: The Barcelona Convention. Within the framework of the Barcelona Convention and of MAP, the 1995 Conference of Plenipotentiaries adopted the "Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean Sea", whichcame into force in December 1999. This Protocol, replacing the Genoa Protocol concerning Mediterranean Specially Protected Areas, introduced novelties regulating the protection and management of endangered and threatened species, and the conservation and sustainable use of biodiversity. This new approach makes it necessary to take into account the impact of fisheries in order to manage activities impacting on biodiversity (species and ecosystems).

As a follow up, a project proposal was prepared by MAP Coordinating Unit in association with the Regional Activity Centres (SPA/RAC, PAP/RAC, CP/RAC, FAO, WHO, METAP, FFEM, IUCN and WWF). The project includes the preparation of a Strategic Action Plan for Biological Diversity in the Mediterranean Region (SAP BIO), with RAC/SPA as the lead agency. Consequently the 2000-2001 programme and budget of RAC/SPA, approved by the Eleventh Ordinary Meeting of the Contracting Parties held in 1999 in Malta, envisages the implementation of and support for activities related to the project.

In 1996, the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) was adopted within the framework of the Convention on the Conservation of Migratory Species of Wild Animals. Furthermore, in 1993, France, Italy and Monaco signed a declaration on the establishment of a sanctuary for the protection of marine mammals in the Mediterranean (figure 8.6).

Figure 8.6 - Fin whale (*Balaenoptera physalus*) caught on a drift net in the North Western Mediterranean during the summer of 2002

In the last quarter of 1996, FAO launched an international Spain-funded five-year fisheries regional project bearing the title "Advice, Technical Support and Establishment of Cooperation Networks to Facilitate Coordination to Support Fisheries Management in the western and central Mediterranean " and known as COPEMED. The objectives of the FAO COPEMED Project cover the western and central sub-regions of the Mediterranean. Morocco, Algeria, Tunisia, Libya, Malta, Italy, France and Spain have adhered to the project, which began at the end of 1996. With an initial duration of 5 years, the project has been extended up to 2003. The project is expected to connect marine research institutions and fishery administrations internationally. Another FAO regional project on "Scientific Cooperation to Support Responsible Fisheries in the Adriatic Sea" called and funded by Italy was conceived to contribute to the promotion of cooperative fishery management between the participating countries (Republics of Albania, Croatia, Italy and Slovenia). The long-term objective of the project is to support the Adriatic nations in formulating and implementing cooperative fishery management plans with the full and coordinated participation of the national fisheries administrators, research structures, fishing enterprises and professional fishermen as recommended in the FAO Code of Conduct for Responsible Fisheries.

8.4 - National legislation

The analysis of national fisheries legislation shows that all states bordering the Mediterranean Sea have adopted measures to manage fishing activities. Fisheries laws and regulations enacted by coastal states in the Mediterranean are primarily directed at protecting and conserving fishery resources. The legislation of a number of states is outdated and would therefore need to be reassessed in the light of recent developments in the field of fisheries, notably, the FAO Code of Conduct for Responsible Fisheries.

Most of the coastal states bordering the Mediterranean Sea have enacted legislation providing for the licensing of fishing vessels, whether national (figure 8.7) or foreign (figure 6.18), operating within the waters under their sovereignty or jurisdiction. By contrast only a few of these states require that fishing vessels flying their flags be licensed to operate on the high seas. This is a particularly sensitive issue in the Mediterranean Sea where coastal states have hitherto refrained from declaring economic exclusive zones and where areas of high seas lie, in general, no further than 12 nautical miles from the shores. As mentioned above, flag states whose vessels fish on the high seas are required under international law to grant these vessels special authorizations to do so and to ensure that their activities do not undermine the effectiveness of conservation and management measures taken by regional organizations. See article 6.11 of the FAO Code of Conduct for Responsible Fisheries, article III of the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the

High Seas of 1993, article 18 paragraphs 1 and 2 of the United Nations Straddling and Highly Migratory Fish Stocks Agreement of 1995.

Figure 8.7 - Trawler in the harbour of Valetta (Malta). Photo: De Leiva

Catch reporting, which is crucial to improve scientific knowledge of fisheries and devise sound conservation and management measures, is not required in all states. Where mandatory, procedures, frequency and information to be communicated are not always specified.

Although it is not possible to assess the adequacy of the measures taken by each individual state with regard to fishing gear selectivity, it should be emphasized that all states bordering the Mediterranean Sea have adopted measures regulating the characteristics of fishing gear and the conditions of their use. Specific measures restricting the use of driftnets have also been adopted both at the regional and local levels.

While several states prohibit the taking of sea mammals and/or marine turtles, few have devised a comprehensive scheme designed to ensure the conservation of species associated with or dependent upon target species. Likewise, regulations dealing with incidental catch and discard of non-target species that have been adopted in the area generally provide only for the protection of undersized individuals of selected species of commercial interest such as tuna or tuna like species but do not constitute a global legal framework for the protection of protected or immature species.

Apparently, no state has taken any measures aimed at reducing the impact of ghost fishing on fishery resources. However, it is not quite clear whether ghost fishing is recognized as a threat to the fishery resources in the Mediterranean Sea. Insofar as could be established, only Spain and Turkey have adopted regulations governing the establishment of artificial reefs in the waters under their sovereignty or jurisdiction in the Mediterranean.

Conservation of critical fisheries habitats and spawning grounds is crucial to ensure the sustainable utilization and diversity of marine living resources. This objective can best be achieved through the creation of marine protected areas or prohibited fishing zones. With regard to the latter, fisheries legislation usually empowers the competent authority to prohibit or restrict fishing, either permanently or temporarily, in any specified area. Such provisions are generally used to protect spawning grounds. As regards the former, most states have enacted legislation providing for the establishment of land-based protected areas that can be extended to adjacent marine waters but few have devised specific provisions for the creation of marine protected areas.

The National Maritime-Terrestrial Park of Cabrera Archipelago in the Balearic Islands (Spain) constitutes an excellent example of a protected area (figure 8.8). This Park, which includes 18 islands and islets, covering an area of around 10,000 hectares (25 nautical square miles), including depths of 100 metres, was created in 1991.

Figure 8.8 - National Park of Cabrera Archipelago in the Balearic Islands (Spain). Photo: Oliver

8.5 - The Reform of the Common Fisheries Policy of the European Union

Following intense consultations with stakeholders (fishermen, the industry, scientists regions and national governments), the European Commission has proposed an ambitious reform of the 20 year-old Common Fisheries Policy (CFP) aiming to ensure sustainable fisheries in biological, environmental, social and

economic terms. The Reform pretends to make it more effective and better able to respond to the challenges facing the EU fishing industry.

The main challenges of this new CFP are: dwindling fish stocks, diminishing catches, too many vessels chasing too few fish, continuous job losses and a lack of effective control and sanctions. In the centre of all this problems there is the overfishing of resources. To tackle fleet overcapacity, which is the main cause of overfishing and which threatens the future of both fish and fishermen, the Commission basically proposes measures to reduce fishing effort. The Commission proposes, in particular, to end public aid for the renewal and modernisation of the fleet and to use this aid instead for scrapping vessels and for helping fishermen who decide to leave the sector to retrain, find alternative jobs or retire.

The Commission also proposes to increase the stakeholders' involvement - fishermen and other operators from the industry, scientists, non-governmental organisations (NGOs) and local authorities in the CFP management process by setting up Regional Advisory Councils. These Councils will submit suggestions to the Commission and the Member States and provide opinions on proposals that relate directly to the area concerned.

Furthermore, the Commission wants to extend and strengthen the application of the reformed Common Fisheries Policy (CFP) to the Mediterranean where circumstances differ greatly from those in northern fisheries. Up till now, the CFP has only been partially applied to the Mediterranean. The Commission proposed in October 2002 an Action Plan specifically designed to tackle the problems of the EU fisheries sector in the Mediterranean Sea. In the Mediterranean, catches are falling, the fish caught are getting smaller and some species are becoming rarer. Mediterranean fleets need to fish less and better, improve compliance with the rules, reinforce co-operation between fishermen and scientists and strengthen multilateral co-operation. Co-operation at all levels of interaction between the EU and other parties is crucial and it seems that the Commission would spare no effort to develop and strengthen it.

However, in this context it is important for the credibility and effectiveness of the CFP that the rules agreed by the Council be applied correctly and in an equal manner across the EU and on EU vessels in international waters and obviously important issue is the jurisdiction of waters. At present, the situation as regards declarations of EEZs or Fisheries Protection Zones (FPZs) in the Mediterranean is very inconsistent. The European Commission considers that the declaration of FPZs could be an important contribution to improving fisheries management, given that about 95% of Community catches are taken within 50 miles of the coast. These FPZs would certainly facilitate control and contribute significantly to fighting against illegal, unreported and unregulated (IUU) fishing. However, such a declaration of FPZs would be much more effective if carried out through concertation among all the countries involved. If this debate results in a clear Community position on the issue, the next step should be to convene a conference

among coastal states of the Mediterranean in view of exploring a common Mediterranean-wide approach in this matter.

8.6 - Private sector involvement

The involvement of fisheries industries at various stages of the fisheries management planning process, particularly when establishing regulatory measures, is judged increasingly more necessary in order to carry out real fisheries management.

At its Twenty-sixth Session (Ischia, Italy, 2001), the General Fisheries Commission for the Mediterranean (GFCM) emphasized that it "was in agreement that participation of fisheries sector representatives would improve the quality of the work of the Commission and facilitate implementation of its recommendations". The Commission, however, recognized that the participatory process might take some time to be achieved, and several delegations acknowledged the need to set up a regional modality that would group together fish producers and other fishery industry stakeholders in the GFCM area. It was further stated that such an "arrangement would facilitate the participation of the private sector in GFCM meetings and would better reflect the needs of the sector".

It can be assumed that the general aim of such an arrangement would be to reinforce GFCM decision-making and implementation processes, governance and efficiency. The Commission did not specify however at which institutional level such an arrangement might be placed, nor did it specify its exact nature.

At present, the private sector usually takes care of its own direct needs, such as those related to technical innovations or market structure. In general, there is reliance on public research to deal with issues that lie beyond the scope of industry action capacity or priority. Fishing associations may cooperate among themselves as well. It has been reported, for example, that fishing associations from nine Mediterranean countries entered into an agreement focusing on exchange of information and increased collaboration on Mediterranean fishery issues, including scientific research, regardless of national boundaries and differing statutes.

The involvement of fishing industries in fisheries management should be based on an arrangement wherein each Party unequivocally benefits from the other, either on a short-term or long-term basis. It should also be kept in mind that, in many cases, the industry has a tendency to underestimate the complexity of fisheries management and external constraints such as international instruments.

Formal cooperative arrangements with the participation of the industry have already been established in many Mediterranean countries. In Italy, for example, it is seen within the framework of the preparation and implementation of the triennial fisheries and aquaculture development plan; several committees have

been established in which representatives of the various fisheries professional organizations are present, including the technical Scientific Committee. In Spain, it is seen in the case of the "Cofradías", mainly in relation with trade issues, and a Forum of dialogue on fisheries called "Foro Científico para la Pesca Española en el Mediterráneo", with the participation of scientists, fishery administrations and the fishery sector, meets annually since 1995. In France, it is seen in a number of Fisheries Committees and "Prud'homies". In Italy, we must mention the existence of a cooperative movement that also gives voice to the fishing sector. Such cooperation is also being built within various types of co-management schemes in countries such as Albania or Morocco. However, based on information available, it appears that few Mediterranean countries benefit from a federation arrangement (industry association or the like) which combines various stakeholder interests at the national level for responsible fisheries management. In the short- to medium-term, this could be seen as a major drawback towards establishing a body with the necessary legitimacy for representing the interests of the industry.

From the industry's perspective, a preliminary requirement would be to demonstrate an ability to establish a legitimate base for representing the selected interest group at subregional or regional level. It would also be appropriate to demonstrate willingness to assume some form of commitment, eventually including financial implications.

9 *Assessment of fisheries*

9.1 - A historical overview

The Mediterranean has a long tradition in fisheries. Fishing constitutes an important activity and a major economic resource in the region and thus a major source of employment.

There are abundant references to fishing activity throughout the history of the Mediterranean which provide information about early fisheries. The fresco (figure 9.1) of a *Coryphaena hippurus* (dolphin fish) fishermen dated 1500 BC, discovered at Akrotiri on Santorin Island, Greece (Athens National Museum), or the mosaic dated around 100 BC (figure 9.2) discovered at Pompeii (Naples Archaeological Museum) showing a variety of fishes, which is more a scientific illustration than simply a work of art, are only two examples of a large number of traces to be found around the coasts and among the cultures of the Mediterranean.

Figure 9.1 - Fresco of a greek fishermen of dolphinfish (*Coryphaena hippurus*) discovered at Akrotiri in Santorin Island (Greece) and dated 1,500 BC. Athens National Museum

Figure 9.2 - Mosaic discovered in Pompeii sowing marine fauna. National Archeological Museum of Naples (Italy)

Mediterranean peoples have fished for millennia and all of them have had a remarkable predilection for fish as a food. Bones of haddock (*Melanogrammus aeglefinus*), a species whose southern limit of geographical distribution in the eastern north Atlantic is nowadays the Bay of Biscay, were found and dated by radio-isotope dating in a cave on the Spanish Mediterranean coast called "cova de les cendres" [*cave of ashes*] along with remains of cooking utensils and ashes, showing that the people living there were fishing and eating fish about 10,000 years ago.

The hooks used during the Hellenic period (around 200 BC) in the northern part of the Aegean Sea, on show at the Amphipolis Archeological Museum (figure 9.3), which are similar to the ones used today by surface longliners to catch tunas, are a perfect example of how fisheries developed many years ago.

Figure 9.3 - Hooks used during the Hellenic period in the northern part of the Aegean Sea, before 200 BC, similar to those used today by surface longliners to catch tunas (Archaeological Museum of Philippoi)

Regarding fisheries research, the very rich Mediterranean fauna and the highly multispecific nature of catches certainly favoured the fact that early works were mainly oriented towards attempts at exhaustive descriptions of life cycles and biological parameters of a given species.

The Mediterranean has been, since remote antiquity, the subject of observations and descriptions in which maritime activities and fishing occupy a paramount place. A clearly documented and early forerunner of fisheries research in the Mediterranean is found in Aristotle's studies of tuna migration (384-322 BC), although this branch of modern marine science really dates from the close of the 18th century.

More recently, Umberto D'Ancona's observations on Mediterranean fisheries and variations in fish populations as a result of changing fishing patterns after the first World War allowed Lotka and Volterra to establish the mathematical foundations of population dynamics in the 1920's. However, the transition from marine biology *sensu stricto* to fisheries research is relatively recent in the Mediterranean. It is generally considered that the first practical attempts to apply some mathematical population dynamic models to exploited stocks were carried out in France and Spain in the late 1960's and by the scientific Working Groups of the General Fisheries Council for the Mediterranean (GFCM). Most of these early analyses used global production models.

These models have a sort of "black box" vision of fisheries in which only one data entry, fishing effort, and only one data output, catch, are observable and they require long data series and a calibrated measure of fishing effort. In the late 1980's and early 1990's, the limitations of production models persuaded a group of north-

western Mediterranean fisheries scientists to adapt Virtual Population Analysis (VPA) techniques to Mediterranean fisheries.

The normal use of analytical models in the Mediterranean was due to the European Union FARWEST project and the DYNPOP Working Group. DYNPOP incorporated, in the period 1992-1996, scientists from the eastern and mainly southern parts of the Mediterranean. Thanks to that, the main Mediterranean fishery resources have been assessed during the last ten years and increasingly complete and reliable assessments are available. However, the availability of reliable fishery data is the main problem to follow up these assessments.

These assessment mathematical methods prove not to be very suitable in some cases, for example, for assessing coastal pelagic stocks. These stocks vary greatly at different times and places as recruitment fluctuates for biotic or abiotic reasons. For this reason, some scientists, critical of evaluation methods based on fishing data, are opting for the application in the Mediterranean of Direct Methods of evaluation such as ichthyoplankton surveys applying the Daily Egg Production Method to evaluate the Spawning Stock Biomass of fish stocks, biomass hydro-acoustical surveys and trawl surveys, which constitute a useful tool for assessment of demersal fisheries.

The methods referred to above analyze stocks alone, ignoring interspecies relationships and the environment, even though the need for analytical systems to describe these interactions is increasingly evident. Such systems would introduce new data into the findings of monospecies analyses, which ignore the limits imposed by the carrying capacity of the system. Likewise, the existence of marked fluctuations in captures, apparently independent of exploitation, and which point to the concept of recruitment windows, further complicate the situation, stressing the need to observe marine systems as a whole and pointing out the limitations of "conventional" population dynamics modelling.

The Scientific Advisory Committee (SAC) of GFCM met for the first time in Rome in 1999. The fishery scientists of SAC, at their third meeting held in May 2000 in Madrid (Spain), introduced important new elements to assess and manage Mediterranean fisheries. SAC recognized the opportunity to establish biological reference points in order to improve fisheries management within a Precautionary Approach, pointing out that biological reference points can help decision-makers in defining the action to be taken in order to reach management objectives. Regarding SAC activity in relation to assessment and advice for management, the work carried out by the Subcommittee of Stock Assessment (SCSA) is particularly relevant.

9.2 - Assessment results

After the first SAC meeting, SCSA analyzed all available scientific information in the region, produced in the period 1985-1999, and more than 100 evaluations were selected and analyzed (most of them corresponding to stocks from the northern and western part of the region). It detected "a clear growth overfishing in some selected demersal species and the risk of recruitment overfishing of anchovy" and SAC made recommendations "to develop and apply management measures in order to correct these problems".

The result of this exercise is summarized in the following table:

Table 9.1 - Stock assessment results obtained by SCSA in 2000

Species	Number of assessments (1)	State of resources			
		Over fished	Fully fished	Under fished	Comments
Merluccius merluccius	36	28	7	1	General growth overfishing
Aristeus antennatus	10	6	3	1	
Mullus barbatus	32	18	14		
Mullus surmuletus	8	2	4	2	
Micromesistius poutassou	4	3	1		
Engraulis encrasicolus	14	2	8		Risk of recruitment overfishing
Sardina pilchardus	7	2		2	3 without results
Sardinella aurita	Never evaluated				Unknown
Thunnus thynnus	ICCAT 1999				Overfished
Thunnus alalunga	Never evaluated				Unknown
Xiphias gladius	ICCAT 1999				Unknown

(1) The number refers to separate stocks or separate assessments of the same stocks.

Since then the Subcommittee has improved the assessments on an annual basis focusing their activity on the assessment of anchovy and hake stocks.

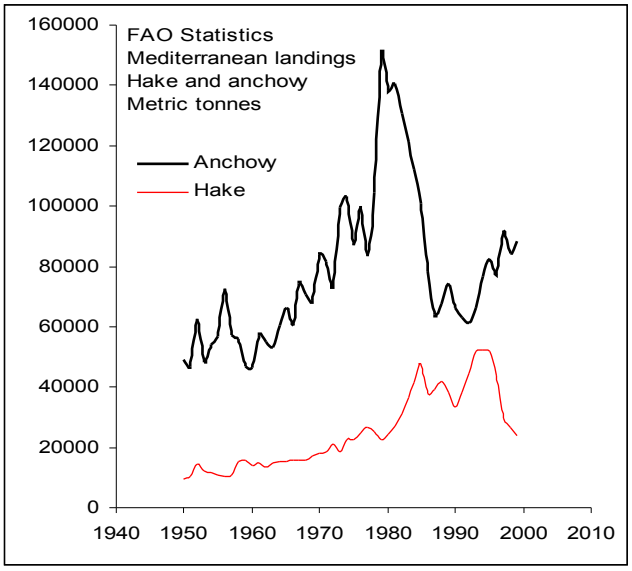
As regards anchovy, the Subcommittee recommended, due to the potential danger of recruitment overexploitation detected, setting the minimum legal size to length at first maturity and, in some cases, maintaining or reducing the fishing effort.

As regards hake, there appears to be a clear growth overexploitation in all hake assessments presented. The possibility was discussed to propose a legal minimum landing size closer to length at first maturity and a recommendation was made to reduce effort and increase selectivity in this species by not catching small individuals. Furthermore, in the Gulf of Lyons recommendations were made to

improve the fishing pattern of the trawl and reduce effort of all gears. The necessity was also stated to extend hake assessment to other areas of the Mediterranean.

The trend in catches constitutes additional information to the assessments. Catch data reported for hake and anchovy (figure 9.4), which represent an important percentage of total Mediterranean catches, constitute good examples representing the activity of trawl and purse seine fleets respectively. The trend in landings shows the sharp decline of hake observed in the 1990's and highlights the characteristic fluctuations of anchovy.

Figure 9.4 - Landings data reported for hake and anchovy in the Mediterranean, in tons



Source: FAO Fishstat.

10 Fisheries management. Options for the future

10.1 - Advice for management

A substantial effort is urgently needed in the Mediterranean to improve the scientific advice provided for fisheries management. The current level of stock assessment and, more generally, of fishery research for assessment purposes is not enough or not appropriate for the provison of proper and efficient advice to fishery managers and industry. In order to encourage efforts to produce the required scientific advice, the SAC recommends inter alia:

- Updating and improving the quality and coverage of fishery data and statistics, increasing the number of assessments and ensuring that all assessments will be carried out on a regular basis. The important role of the relationship between the environment and resources was also pointed out.
- Furthermore, to assess and monitor the state of resources to provide advice for fisheries management, sustainability indicators are necessary (e.g. stock biomass and fishing mortality in the case of the biological components of the fishery system), as well as reference values to make possible the interpretation of changes in the indicators over time.

10.2 - Management

Fisheries management generally failed and the main reasons could be:

- Lack of political resolution to make a difficult adjustment.
- Lack of capacity for implementation of management because of the lack of acceptance of rules by fishermen.
- Persistence of direct and indirect subsidies.
- Lack of control over fleets and also no sovereign rights of control outside 12 nautical milles.
- Ineffectiveness of fishery commissions to which member countries are reluctant to delegate necessary powers.
- Success of industry lobbies in resisting change including “engine builders and importers of fish products”.

Furthermore, and regarding the Mediterranean Sea, analyses indicate that the Mediterranean is “fully-fished” and there are very few underexploited resources left.

However, new issues could probably contribute to establishing a new scenario more appropriate for a successful management of resources:

- Widespread recognition of the problems of fishery management.
- Readiness to change expressed at highest levels of governance.
- New concerns for the environment, people's participation and empowerment.
- Consensus on the institutional origin of failure, with all other factors, including scientific uncertainty, being secondary.
- Availability of international instruments and initiatives (e.g. UNCLOS, UN Fish Stocks Agreement, FAO Code of Conduct), often embracing the precautionary approach.

If this opportunity is lost, the shortfall between demand and supply for human consumption could increase and imports and aquaculture will have a larger share of the market.

If management does not improve, abrupt resource declines will necessitate rapid corrective measures causing major socio-economic damage. Resources will also be impacted on, with changes in species dominance and trophic relationships, environmental degradation and increased fish disease. In general, loss of traditional fishing rights to other sectors such as conservation, tourism, oil industry, coastal activities and others will threaten the fishery sector.

10.3 - Effort-Based Management

In order to establish effective fisheries management in the region, as mentioned before, in May 1995 the General Fisheries Council for the Mediterranean discussed the issue of Effort-Based Management. The Commission agreed that direct effort control, as opposed to control of landings is the most appropriate method of limiting fishery impacts on stocks in the Mediterranean.

In any case, one of the main constraints on managing Mediterranean fisheries is the obvious deficiency of current databases on fleet sizes and characteristics operating in the Mediterranean (also including distant-water vessels operating in the Mediterranean), and the need for transparency and burden-sharing of the costs and restraints required by a system of effort control.

At this meeting the Commission adopted Resolution 95/4 calling on its member countries to prepare a list of fishing boats in operation from national ports in the Mediterranean and provide this information to the GFCM. But unfortunately, seven years later the list of fishing boats in operation from national ports in the Mediterranean has still not been completed.

Effort is a measure of the activity of the fishing fleet. The term is, however, ambiguous as it is used in two different contexts: as a measure proportional to fishing mortality (Fisheries biology), but also as a measure proportional to the variable costs of the fishing vessel (Fisheries economics).

One of the key problems in reducing fishing mortality through effort control is to ensure that the effort parameters which are selected for control are relevant to fishing mortality. There are numerous examples of attempts to control effort through decommissioning, reduction of allowable days at sea etc. which have failed to achieve the primary objective, to reduce fishing mortality.

Management measures addressing one of these parameters without restraining others may therefore not be efficient in reducing effort and thus fishing mortality.

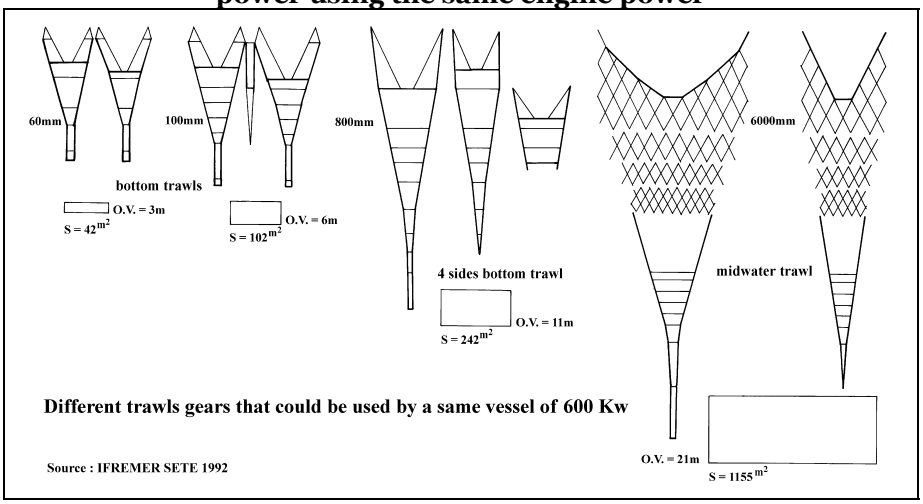
The relationship between fishing mortality and effort is usually expressed as a simple linear relation:

$$F = q\,E$$

where E is effort and q is the slope, usually referred to as catchability. However, operational definitions of effort which are appropriate according to this criterion are hard to get at because the relation between individual input factors (engine power, vessel size, gear characteristics, days at sea, etc.) and fishing mortality has not been sufficiently investigated and is rarely known, even on a qualitative basis.

A good example to illustrate this difficulty is engine power, a parameter frequently used to control the fishing effort of Mediterranean trawl fleets whose relation to fishing mortality is not easy to establish. In fact, different trawlers with the same engine power can, using different gears, or even modifying the performance of the propeller, modify their fishing capacity (figure 10.1).

Figure 10.1 - Different trawl gears that could be used by a same vessel of 600 Kw of engine power and different possibilities to modify the real power using the same engine power



Source: From P.Y. Dremiere (1992) at the CIHEAM/IMAZ Advanced Seminar on Management of Fishery Resources in the Mediterranean (10-12 February 1992), Zaragoza Spain.

Year	Engine	Propeler diameter	Real Power
1975	430 KW	Reversible	5200
1977	"Tuyere"	1550	7240
1978		1760	7800
1980		2180	9100 (+75%)

Source: Badouin (1981).

Furthermore, current data collection systems and databases in many cases do not contain information on crucial effort parameters. Vessel characteristics and basic type of main gear may be available, but parameters relating to dimensions or other gear characteristics are not, and relevant data on activity (days absent, trips, hauls) are quite often not available either.

In the context of scientific advice for effort-based management, effort has to be considered as composed of two elements: a capacity element and an activity (utilization) element. The capacity element can in turn be considered as composed of a capacity related to the vessels (numbers and size/power) and a capacity related to the gears used (including the fishing gear proper, gear handling equipment, catch handling equipment and equipment used to search). The activity element should express the utilization of the available capacity in terms that are relevant to fishing mortality. The measures of activity that are relevant to fishing mortality are variable between fleets - it may be the time the fishing gear is in the sea, search time, number of sets etc. In some cases simple measures such as time at sea may be relevant. In brief:

E = Capacity (vessels) * capacity (gear) * activity

Management measures addressing one of these parameters without restraining others may therefore not be efficient in reducing effort and thus fishing mortality.

10.4 - Management objectives

However, fisheries managers sometimes fail to set clear management objectives with clear priorities (e.g. increasing the extracted biomass, maintaining specific fish sizes in the market, increasing the economic value of catches, maintaining or raising employment levels, etc.), which makes it very hard for fisheries scientists to formulate scientific management criteria.

Fishery scientists and technical advisers have interpreted this lack in various ways, and priority has been given by omission to resource protection. This choice on the part of the technical people is unlikely to coincide with the priorities of either administrators or the fisheries sector itself. The result is "artificial" fisheries regulations and scant compliance and enforcement.

Management objectives can roughly be divided into two groups:

1. Objectives concerned with the sustainability of stocks and fisheries, e.g. maintenance of spawning stocks size above a critical minimum size.
2. Objectives concerned with maximization of output from fisheries, e.g. maximization of yield or socio-economic benefits to society.

There is an increasing awareness that these two sets of objectives must be considered as hierarchical: the sustainability of fisheries must be ensured before objectives concerning output maximization can be pursued. This hierarchy is implicit in the precautionary principle and is also the basis for biological advice given by advisory bodies.

This clearly points to the urgent need for clearly formulated and specific management objectives and the involvement of the fisheries sector. At the same time, assessment criteria prepared by the technical people must match management objectives and the sector must respect the fishing regulations produced by this joint effort.

Also, whereas stock assessment has until now relied almost exclusively on species biology and the population dynamics of fished resources, there is an increasingly clear and imperious need to evolve towards a consideration of fishing as a social practice which generates an economic process in which people (with all the implicit social and economic complexities) prey upon (exploit) a self-renewable natural resource evolving in an unstable environment or, in a more "ecological" and less "bio-economical" way, fishing is the interaction of two behaviours: the biological behaviour of the system exploited (recourse/catch within the environmental context) and the socio-economic behaviour of the exploiter (predator).

Until now, stock assessment in the Mediterranean, in general, has disregarded the socio-economic and even the technical aspects of fishing, as well as the influence of environmental and climate change on the resource, and the prevailing inter-specific relations within the system exploited, even though all evidence points to the need to observe the system as a unit.

10.5 - Ecosystem-Based Management

Over the last decades, scientists and decision-makers have increasingly realized that the hidden reality underlying fishing is that of a human activity affecting entire ecosystems. By doing so, the concept of single stock harvesting is itself giving way to that of ecosystem exploitation, as fishing entails the exploitation of the ecosystem as a whole. Under this new systemic perspective, it clearly follows that the classic concept of resources management should be expanded to that of ecosystem management, and that management goals should simultaneously address targets at the level of species, habitats and ecosystem processes.

Widespread concern about the sustainability of present uses of natural renewable resources led to the United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro, Brazil in 1992, and to the adoption of its Agenda 21. The event reflected a global consensus for more ecosystem-based sustainable development across all sectors of human activity, as a means of improving the human welfare of present generations without sacrificing that of the future. It called for a substantial shift in governance, improved scientific support to decision-making and a substantial increase in strategic information.

This situation presents a formidable challenge for modern fisheries governance in the Mediterranean Sea. The capacity of fishery managers and industry to comply with the requirements will condition the views of an increasingly aware society on the future role of fisheries in global sustainable development and food security.

However, Ecosystem-Based Fisheries Management is based on conventional fisheries management of which it is an extension and is not "Ecosystem management".

Regarding the Mediterranean region, the SAC of the GFCM, has recently recognized the need to discuss this concept and analyze the feasibility of the ecosystem-based management approach to fisheries in Mediterranean waters.

At present, the GFCM lacks a clear definition of the terms of reference for Ecosystem-Based Management (EBM) and of what its application would mean for Mediterranean fisheries. As commented earlier, the Commission has agreed to base management on fishing effort control. Any advances in the application of any other management tool (like those derived from an Ecosystem-Based Management), will have to be made with special caution and by relying on the practical experience and recommendations of international organizations.

EBM should also consider, together with the impact of fisheries, the harmful effects of non-fishery activities. The impact of human practices on marine ecosystems, mainly in the coastal zone, have to be faced urgently, implementing effective management measures.

The Reykjavik Conference, held in October 2001, yielded a declaration on Responsible Fisheries in the Marine Ecosystem. Therefore, the GFCM should discuss the Reykjavik Declaration in advance in order to determine its applicability in the Mediterranean.

10.6 - Sustainability of Mediterranean fisheries

Indicators: Limits and targets for a sustainable use of living resources and for social welfare and economic success

In order to assist fisheries policy-makers and managers, allow monitoring and performance assessment and facilitate people's participation, Chapter 40 of Agenda 21, Information for decision-making, calls for "a harmonized development of sustainable development indicators at the national, regional and global levels, and for incorporation of a suitable set of these indicators in common, regularly updated, and widely accessible reports and databases, for use at the international level, subject to national sovereignty considerations" (Paragraph 40.7).

In this context, fishery-specific sustainability indicators are necessary to assess and monitor the state of the sector and the performance of its governance, and to assess the degree of implementation of management measures. Furthermore the Precautionary Approach, proposed by FAO in the Conduct Code for Responsible Fisheries, declares that limitations, uncertainties or lack of data for the assessment or estimation of parameters, cannot be justification for not applying regulation measures, especially when there is information that stocks are overexploited. FAO has developed guidelines for the implementation of the Precautionary Approach as well as for the development and use of sustainability indicators. These indicators, which tend, in present use, to be limited to biological components of the fishery system - i.e. stock biomass (B) and fishing mortality (F) -, are an operational tool for providing advice to fisheries management. Changes in indicators over time, however, cannot be meaningfully interpreted in relation to sustainable development without considering them in relation to a reference value corresponding to sectorial or societal objectives (or targets) and ecosystem constraints (or limits). In fisheries, these reference values are conventionally called target reference points (TRPs), limit reference points (LRPs) or threshold reference points (ThRPs) and, at present, mainly concern the target stock. The precautionary approach also requires the adoption and use of indicators and reference values to determine the areas and degrees of risk created by the various sources of uncertainty. The need for both approaches to determine indicators and reference values and to take uncertainty into account has lead, during the last years, to the merging of both concepts.

In the context of biological reference points (BRPs), the long term objectives for fisheries management should take into consideration scientific fishing research and population dynamics, as well as climatic changes that may affect the stocks.

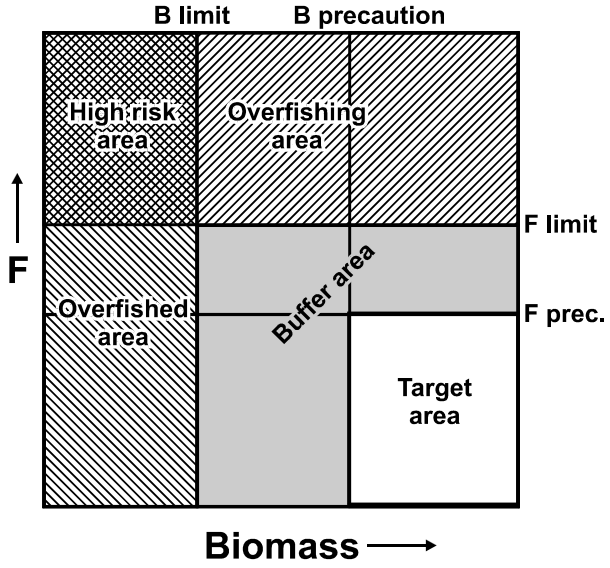
In order to define these long term objectives we have to consider fishing level values, which allow bigger catches in weight, whilst also ensuring the conservation of stocks. Extreme values of the biomass or the fishing level, which might seriously affect the self-renovation of stocks, have also to be considered.

Biologycal Target Reference Points are defined as the level of fishing mortality (F) or of the biomass (B), which permit long term sustainable exploitation of stocks, with *the best possible catch* and can be characterized as the *fishing level* or by the *Biomass*. For practical purposes of management, TRPs will be converted, directly or indirectly, into values of fishing effort, given as percentages of those verified in recent years.

Limit Reference Points, LRPs, are maximum values of fishing mortality or minimum values of the biomass which must not be exceeded as, otherwise, it might endanger the self-renewal capacity of stocks. In cases where fishing is already too intensive, LRPs can be important to correct the situation or to prevent it from getting worse. LRPs are limit values, mainly concerned with the conservation of marine stocks and they are therefore also referred to as reference points for conservation.

The limits of precaution due to the application of the Precautionary Approach, will be more restrictive than LRPs. The practical consequences of these new limits are regulation measures designed to control the fishing effort, which are more severe than in those cases where there are appropriate data. It can be said that this is the price to pay for not having the appropriate conditions to make reliable data and information available (figure 10.2).

Figure 10.2 - Example of a Harvest Control Rule based on Limit Reference Points and Precautionary Reference Points and using the stock biomass (B) and fishing mortality (F) as indicators



The evaluation of biological reference points has to be updated, taking into consideration possible changes in biological parameters or any other necessary correction of the exploitation pattern. This fact is important because the new biological reference points will be different from the previous ones.

Other biological or ecological indicators such as, for example, catch structure, relative abundance of target species, exploitation rate or direct effects of fishing gear on non-target species can also be used. Biodiversity constitutes an ecological indicator to be used. Of course the number of species is probably not the most feasible one, however, other measures of biodiversity can be used as indicators, looking for alternative measures of "biodiversity" because the structure and function of ecosystems can also provide data about complexity, heterogeneity, allowing a better comparison of ecosystems. In this context, it may be that indicators such as average Trophic Level (aTL) or Percentage of Primary Production Required (%PPR) to support a given population can be used as ecological indicators which are relatively easy to obtain provided that a limited amount of basic information is available.

Regarding ecological indicators, the TL or PPR already mentioned are good examples, as are the direct effects of gears on habitats (such as the regression of *Posidonia* seagrass due to the impact of trawl fishery practices) or changes in area and quality of important or critical habitats.

In general, the indicators are data or combinations of data for a clearly defined analytical or policy purpose and the Precautionary Approach, also suggests that the results of fisheries research should be adopted by management with regard to the formulation of regulation measures and that these measures should also take into consideration the socio-economic and technical conditions of fishing.

Relatively little attention has been paid to defining indicators that could be used to assess the economic and social aspects of fisheries and interaction with the pursuit of sustainable development objectives. In 1999 the OCDE Committee for fisheries decided to develop fisheries social and economic indicators to be used as tools in policy analysis and in 2002 agreed that the overall goal of this activity should be to contribute to improvement in the measurement of economic and social dimensions of sustainable development of fisheries and, where possible, relate these to resource and environmental dimensions.

The Scientific, Technical and Economic Committee for Fisheries (STCEF) of the European Commission in 2001 issued a document presenting a general set of economic and social fisheries stability indicators. The underlying notion is that to be economically and socially sustainable a fishery must be capable of being exploited profitably at some biologically sustainable level. The purpose of indicators must therefore be to show whether a fishery is currently sustainable, economically, socially and biologically, and, if not, whether it is capable of being

exploited sustainably at all and, if so, at what levels of capital, of labour employed and of fish stocks.

Nevertheless, a set of economic and social indicators can be mentioned; as economic indicators: Harvest value, Fisheries contribution to GDP, Income, Value of fisheries exports (compared with value of total exports), Investment in fishing fleets and processing facilities and as social indicators: Employment/participation Demography, Literacy/education Fishing traditions/culture, Gender distribution in decision-making.

To assess and report for Sustainable Management of fisheries it is needed to identify a set of indicators. The following Table summarizes a series of indicators by dimensions (Biologic/Resource, Ecologic/Environment, Economic and Social) and criteria. Not all of these indicators will apply in all fisheries and others may be needed depending on the particular characteristics and objectives set in each case, however they can give an idea of what is needed to perform a Reference System of Indicators.

Table 10.1 - Indicators

Dimensions	Criteria	Indicators
Biologic/ Resource	Catch , Landings Relative abundance of target species Fishing Mortality/ Exploitation rate	Catch structure, bycatch, ... Biomasses, cpue, ... Fleet size, fishing time, total effort, ...
Ecologic/ Environment	Impact of Fisheries Impact on non target species Impact on biodiversity (species) Indirect effects of fishing (trophic structure) Impact of gears on habitats	Area of critical habitats Community structure Biodiversity index Average trophic Level Percentage of Primary Production Requiered to support the population
Economic	Harvest value Fisheries Contribution to Gross Domestic Product (GDP) Fisheries exports value Investment Taxes and subsidies Employment Net returns	Landed price Fisheries GDP/National Export/Harvest value Market or replacement value, Depreciation, Fleet age composition. Tax rebates, grants Total employment Profit+rent, Net return/investment, value of entitlements
Social	Employment/participation Demography Literacy/Education Protein consumption Income Fishing tradition/culture Indebtedness Gender distribution of decision-maker	Total amount of paid labour Number of fishers, Immigration rate Fish /total protein consumption Salaries, percentage under poverty line Loss of traditional practises

11.1 - 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.

11.2 – Notes on methodology

11.2.1 – 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.

11.2.2 – Table of indicators

Table 11.1 - Population, demographic growth, urbanisation, agriculture ratio of employment, 2001

Country	Tot.pop. (1)	Growth rate. (2)	Urb.pop./ Tot.pop. (3)	Rur.pop./ Tot.pop. (4)	Agr.pop./ Tot.pop. (5)	ALF/ TLF (6)	Inhtts/ A.E. (7)
	mn inhtts	%	%	%	%	%	
	2000	1965-01	2001				
Albania	3,15	1,45	43	57	48	48	4
Algeria	30,84	2,68	58	42	24	24	12
Egypt	69,08	2,20	43	57	36	33	8
France	59,45	0,55	76	24	3	3	69
Greece	10,62	0,60	60	40	13	16	14
Italy	57,50	0,27	67	33	5	5	45
Lebanon	3,56	1,41	90	10	3	3	79
Malta	0,39	0,70	91	9	2	1	196
Morocco	30,43	2,32	56	44	36	35	7
Portugal	10,03	0,30	66	34	14	12	16
Spain	39,92	0,61	78	22	7	7	32
Tunisia	9,56	2,03	66	34	24	24	10
Turkey	67,63	2,18	66	34	30	45	5

(1) Total population in millions of inhabitants
(2) Average annual demographic growth rate in period 1965-01 (%)
(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 2003, our calculations based on FAO data.

Table 11.2 – Gross domestic product, economic growth, agriculture ratio to the GDP

Country	GDP	GDP/ inhtts	Exchange rate *	GDPGrowth rate.	AGDP/ GDP	AGDP/ Agr.E.
	mns $ 2001	$ 2001	MU p 1 $ 2001	% 91-2001	% 2001	$ 2001
	(1)	(2)	(3)	(4)	(5)	(6)
Albania	4114	1308	143,480	5,4	49,1	2701
Algeria	53009	1719	77,210	2,3	10,2	2069
Egypt	97545	1412	4,490	4,7	16,6	1869
France	1302793	21913	1,118	1,9	2,3	34964
Greece	116347	10952	1,118	2,5	6,2	9592
Italy	1090910	18971	1,118	1,7	2,4	20375
Lebanon	16709	4699	1,507	4,0	11,9	
Malta	3565	9094	0,449		2,21	
Morocco	33733	1109	11,303	2,5	13,8	1090
Portugal	108479	10812	1,118	2,9	3,1	5338
Spain	577539	14467	1,118	2,8	3,57	16708
Tunisia	20035	2095	1,438	4,8	12,7	2681
Turkey	147627	2183	1225588	3,2	13,5	1376

(1) Gross Domestic Product in millions of $ US, 2001
(2) Gross Domestic Product per inhabitant in $ US, 2001
(3) Exchange rate, local monetary unit per 1 $ US, 2001
(4) Average annual growth rate of GDP on period 1991-2001 (%)
(5) Part of agricultural GDP in the total GDP (%), 2001
(6) Agricultural GDP per agricultural employee (1 $ US), 2001

* Euros per 1 $ US in Spain, France, Greece, Italy and Portugal
* MU per 1 $ = national monetary unit per 1 US dollar

Source: Medagri 2003, our calculations based on FAO data, world bank, IMF, and National data.

Table 11.3 – Cultivated areas, irrigated areas, means of production, 2000

Country	Arable land, perm.crops. 1000 ha	Cult.Land 1000 htts 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	85	13
Algeria	8195	271	3,2	7	88	11
Egypt	3291	48	0,4	100	38	386
France	19582	331	21,8	11	15	212
Greece	3854	363	5,0	38	16	119
Italy	10825	188	8,0	25	6	159
Lebanon	332	95	7,1	31	40	200
Malta	9	23	4,5	22	18	83
Morocco	9734	326	2,3	13	225	37
Portugal	2705	270	4,2	24	16	84
Spain	18217	456	14,1	20	21	118
Tunisia	5014	530	5,3	8	143	22
Turkey	26672	400	1,8	17	29	78

(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 2003, our calculations based on FAO data.

Table 11.4 – Main agricultural products, 2001

Country	Cereals	Vegetables	Fruit	Milk	Meat	Sugar	Olive oil
	1000 T						
Albania	581	653	132	970	71	3	5
Algeria	2502	2565	1440	1513	536	0	45
Egypte	19464	14118	7282	3838	1460	1476	
France	60477	7805	11169	25600	6341	4195	4
Greece	3876	4206	3962	1890	497	341	422
Italy	20067	14943	18377	13048	4161	1430	558
Lebanon	96	1324	1313	279	121	40	6
Malta	12	67	7	49	19		0
Morocco	4607	3697	2179	1216	590	530	35
Portugal	1347	2309	1840	1993	738	60	41
Spain	18187	11952	14835	6920	5068	1068	1072
Tunisia	1820	2195	991	1010	247	4	94
Turkey	25571	21999	10660	9676	1372	2755	

Source: Medagri 2003, based on FAO data.

Table 11.5 – Growth rate of agricultural products, 2001

Country	Cereals	Vegetabes	Fruit	Milk	Meat*	Sugar	Olive oil
	%						
Albania	0,17	-1,36	-0,75	0,00	10,94	0,00	25,00
Algeria	104,08	-0,58	-3,36	9,96	5,30		-10,00
Egypt	-2,90	4,09	10,75	0,18	4,96	5,43	
France	-9,11	-1,19	2,63	-0,12	-0,30	-7,82	33,33
Greece	-8,61	0,10	-3,22	-0,53	0,40	-9,07	2,93
Italy	-3,26	-2,58	-5,68	6,64	0,27	-13,54	13,18
Libanon	0,00	0,00	0,08	0,00	7,08	0,00	0,00
Malta	20,00	1,52	-63,16	-9,26	-5,00		
Morocco	121,28	2,27	-91,60	-3,95	9,26	11,58	-43,55
Portugal	-20,11	-4,94	7,41	0,50	4,83	0,00	-12,77
Spain	-26,65	-0,25	-1,39	5,97	-0,06	-6,81	36,04
Tunisia	66,21	1,90	6,22	9,78	12,79	-78,95	-21,25
Turkey	-8,25	-0,45	0,48	3,49	-14,09	28,14	

* Meat = bovine meat + ovine meat + poultry meat

Source: Medagri 2003, our calculations based on FAO data.

Table 11.6 – Food consumption 2000, kg/capita /yr

Country	Cereals	Root	Sugar	Pulses	Vegetables	Fruit
	(1)	(2)	(3)	(4)	(5)	(6)
Albania	169	31	27	5	205	74
Algeria	219	38	30	6	79	43
Egypt	241	24	32	8	190	92
France	115	67	40	2	131	94
Greece	151	71	33	5	293	162
Italy	160	41	31	6	186	141
Libanon	131	55	31	15	308	230
Malta	178	100	51	3	147	62
Morocco	240	29	36	5	106	63
Portugal	134	125	34	4	177	133
Spain	100	85	31	6	157	117
Tunisia	205	28	29	8	188	87
Turkey	216	64	33	13	210	108

Country	Meat	Fish	Milk	Oil	Beverages
	(7)	(8)	(9)	(10)	(11)
Albania	32	3	289	10	17
Algeria	22	4	108	16	0
Egypt	23	13	50	8	1
France	100	31	259	36	100
Greece	88	25	265	31	64
Italy	92	25	265	36	84
Libanon	33	6	92	18	13
Malta	72	39	212	19	53
Morocco	19	8	33	13	3
Portugal	91	76	207	29	127
Spain	114	45	162	33	106
Tunisia	26	10	100	23	8
Turkey	20	9	120	20	12

(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 2003, our calculations based on FAO data.

Table 11.7 – International trade ratios for agricultural products, 2000

Country	Total Import TI	Total Export TE	Agri. Import AI	Agri. Export AE
	millions $			
Albania	1 091	261	307	86
Algeria	10 349	19 600	2 563	33
Egypt	14 010	4 691	3 611	499
France	332 856	324 343	23 225	33 390
Greece	27 858	10 751	3 193	2 577
Italy	235 943	237 229	21 608	15 604
Libanon	6 228	714	1 028	80
Malta	2 857	1 986	254	55
Morocco	11 484	7 417	1 668	695
Portugal	38 203	23 267	3 845	1 413
Spain	155 868	114 741	10 542	13 999
Tunisia	8 585	5 855	756	429
Turkey	53 983	27 324	3 231	3 621

Country	Tot.Bal.std.*	TE / TI	Agr.Bal.Std.**	AE / AI	AI / TI	AE / TE
	%					
Albania	-61,39	23,92	-56,23	28,01	28,14	32,95
Algeria	30,89	189,39	-97,46	1,29	24,77	0,17
Egypt	-49,83	33,48	-75,72	13,82	25,77	10,64
France	-1,30	97,44	17,95	143,77	6,98	10,29
Greece	-44,31	38,59	-10,68	80,71	11,46	23,97
Italy	0,27	100,55	-16,13	72,21	9,16	6,58
Libanon	-79,43	11,46	-85,56	7,78	16,51	11,20
Malta	-17,98	69,51	-64,40	21,65	8,89	2,77
Morocco	-21,52	64,59	-41,18	41,67	14,52	9,37
Portugal	-24,30	60,90	-46,25	36,75	10,06	6,07
Spain	-15,20	73,61	14,09	132,79	6,76	12,20
Tunisia	-18,91	68,20	-27,59	56,75	8,81	7,33
Turkey	-32,79	50,62	5,69	112,07	5,99	13,25

* Total Standardized balance = (TE-TI)*100/(TE+TI)
** Agricultural Standardized Balance = (AE-AI)*100/(AE+AI)

Source : Medagri 2003, our calculations based on FAO data.

Table 11.8 – Euro-Mediterranean trade, 2001, all products

Country	EU exports TE	EU imports TI	Trade balance TE-TI
	million $		
Albania	977	173	804
Algeria	6 676	60 109	-53 433
Egypt	6 131	7 907	-1 776
France	218 990	119 760	99 230
Greece	19 441	5 888	13 553
Italy	133 844	52 565	81 279
Lebanon	2 716	679	2 037
Malta	2 224	434	1 790
Morocco	6 642	8 256	-1 614
Portugal	33 436	9 625	23 811
Spain	108 832	45 775	63 057
Tunisia	7 099	4 547	2 552
Turkey	18 053	17 006	1 047

Source: Eurostat 6B- Intra and extra EU trade, 2002.

Table 11.9 – EU agro-food trade with the Mediterranean countries: Exports from the EU to the Mediterranean countries, 2001

Country	Cereals	Milk	Oils	Sugar	Meat	Total
	million $					
Albania	4	3	8	17	7	40
Algeria	329	289	27	198	0	843
Egypt	88	88	16	46	5	243
France	314	1873	685	422	2146	5440
Greece	173	498	51	32	608	1363
Italy	777	2323	773	339	2622	6834
Lebanon	14	77	18	32	4	144
Malta	2	19	6	9	9	46
Morocco	214	65	22	4	9	313
Portugal	278	252	134	40	430	1134
Spain	596	964	145	346	469	2519
Tunisia	86	15	34	28	0	162
Turkey	20	10	43	7	0	81

Country	Cereals	Milk	Oils	Sugar	Meat
	1000 T				
Albania	35	3	15	61	9
Algeria	2 551	124	58	788	0
Egypt	790	46	40	172	4
France	1 206	1 567	1 045	689	878
Greece	1 215	267	77	36	289
Italy	5 820	2 904	792	450	1 074
Lebanon	75	31	41	115	1
Malta	13	8	7	26	4
Morocco	1 814	41	49	8	7
Portugal	2 091	249	164	36	197
Spain	4 726	890	276	525	184
Tunisia	739	9	95	107	0
Turkey	145	4	117	15	0

Source: Eurostat 6B- Intra and extra EU trade, 2002.

Table 11.10 – EU agro-food trade with the Mediterranean countries: Imports of the EU from the Mediterranean countries, 2001

Country	Vegetables	Fruit	Citrus fruit	Tobacco	Cotton	Total
	million $					
Albania	0,8	1,5	0,0	3,2	0,1	5,6
Algeria	0,4	9,4	0,0	0,0	0,0	9,9
Egypt	88,2	23,2	6,5	0,0	163,8	281,7
France	1015,2	1092,2	45,4	272,3	451,2	2876,3
Greece	95,1	271,3	40,1	124,7	218,9	750,1
Italy	610,8	1373,3	66,3	115,3	1027,0	3192,7
Lebanon	0,4	0,2	0,0	0,7	0,0	1,2
Malta	2,0	0,0	0,0	0,0	0,1	2,2
Morocco	213,1	204,4	126,0	0,0	37,2	580,7
Portugal	61,0	83,0	1,5	69,9	124,5	339,9
Spain	2645,6	2824,6	1281,0	95,4	375,9	7222,4
Tunisia	5,2	52,9	9,1	0,4	57,2	124,8
Turkey	139,1	900,0	85,3	120,0	522,4	1766,9

Country	Vegetables	Fruit	Citrus fruit	Tobacco	Coton
	1000 T				
Albania	1	2	0	1	0
Algeria	0	7	0	0	0
Egypt	189	24	15	0	46
France	3 105	1 325	70	54	95
Greece	66	334	93	35	113
Italy	840	2 052	137	54	149
Lebanon	1	0	0	0	0
Malta	6	0	0	0	0
Morocco	308	298	237	0	8
Portugal	81	113	4	10	15
Spain	3 309	3 875	2 093	29	146
Tunisia	8	50	21	0	14
Turkey	194	671	151	27	194

Source: Eurostat 6B- Intra and extra EU trade, 2002.

Table 11.11 –Self Sufficiency ratios for main food products, 2000

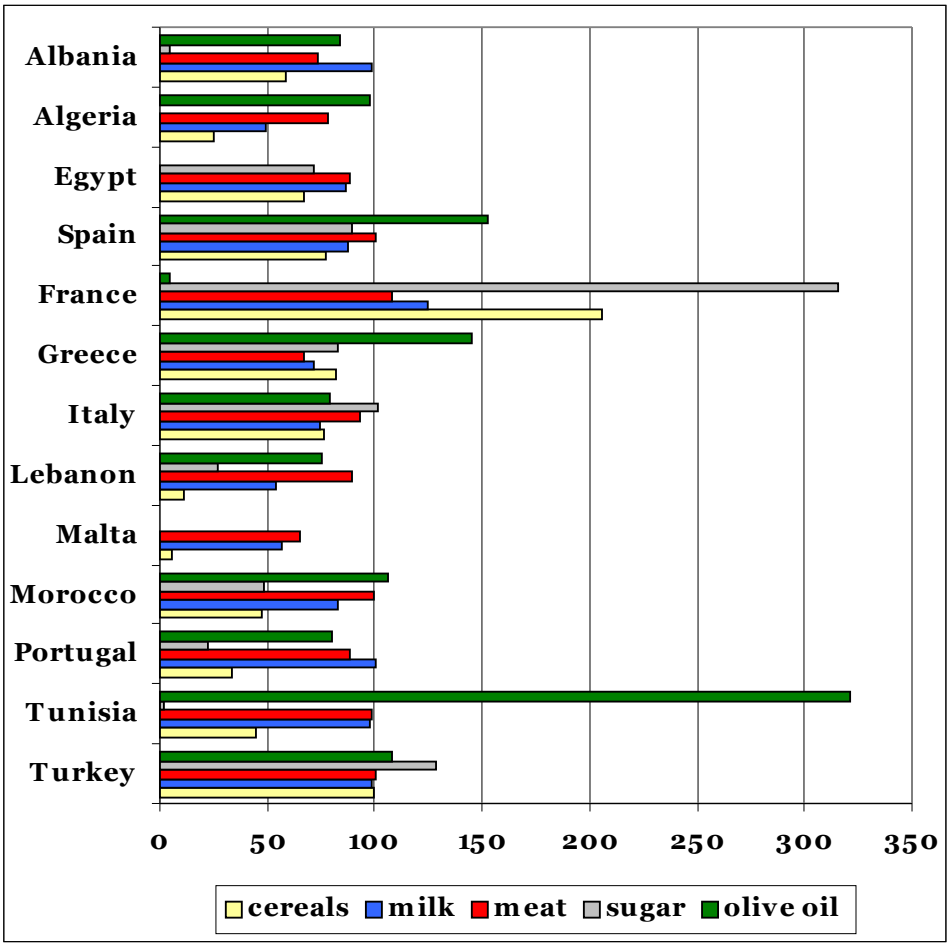
Country	Cereals	Sugar	Milk	Olive oil	Meat*
	%				
Albania	59,04	4,55	98,58	83,33	73,20
Algeria	24,99	0,00	49,36	97,83	78,02
Egypt	66,63	72,00	86,50	0,00	88,00
France	205,74	315,41	125,02	4,76	108,19
Greece	81,46	82,77	71,32	145,02	66,80
Italy	76,15	101,06	74,79	79,15	93,17
Libanon	11,29	26,85	53,76	75,00	89,63
Malta	5,85	0,00	56,32	0,00	65,52
Morocco	47,38	48,62	83,29	106,06	99,49
Portugal	33,93	22,73	100,55	80,39	88,49
Spain	77,62	89,07	87,79	152,92	100,48
Tunisia	44,62	1,49	97,49	320,75	98,80
Turkey	99,30	128,20	99,10	108,19	100,29

* Meat = bovine meat + ovine meat + poultry meat

Self Sufficiency ratio = production*100/(production+import-export)

Source : Medagri 2003, our calculations based on FAO data.

Graphique 11.1 – Self sufficiency ratios for main food products, 2000, %



Source : Our calculations based on FAO data.

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