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Fisheries in the Mediterranean

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The socio-economic, human and cultural dimensions of fisheries, although important, are often ignored. Many Mediterranean fisheries are small-scale, local and part of a long-established way of life. Recently, economic pressures and changes have been producing a new environment for the Mediterranean fishing community, whose future is difficult to evaluate due to the lack of information on and knowledge of this process. It is therefore necessary to take greater account of economic and social factors and to integrate them into management and decision-making. A better understanding of the economic and other factors which influence the fisheries sector and its financial success is needed. Furthermore, the importance of fisheries in a country cannot be measured in terms of volume and value of landings alone; the fact that fisheries resources and products are fundamental components of human nutrition and employment must also be taken into consideration.

Fishing activities carried out in the Mediterranean region ensure the income of a large number of people in the coastal areas. However, there is a lack of reliable information on most of the basic aspects of the fisheries industry, such as the essential socio-economic features and markets.

From a social point of view, it can be estimated that there are currently roughly 300 000 fishermen in the Mediterranean, plus a significant number of part-time fishermen. Assuming that every job at sea generates 3 jobs on land (commercialisation, fishmeal industry, administration, research and training, etc.) one can estimate that around 900,000 people are employed in the various fisheries sectors. Consequently, taking a minimum of 3 to 4 people per family, it is not unreasonable to say that about 3 million people depend on fishery activities for their livelihood, i.e. 2% of the population of Mediterranean coastal regions.

In economic terms, the fisheries component of a Mediterranean Transboundary Diagnostic Analysis performed by the GFCM Technical Secretariat in 1997 estimated that the value of landings is some 3.8 billion dollars annually. The same analysis also estimated that if fisheries were better exploited, for example, under Maximum Sustainable Yield conditions, the result would be an increase in income in the order of 451 million dollars. Even better, if fishing effort were reduced to the level corresponding to Maximum Economic Yield conditions, income would rise by a further 790 million dollars.

In fact, the trend towards modernisation and more efficient, larger boats in a race for fish results in a constant increase in fishing effort. Fish stocks are finite and, hence, cannot be increased in size by increasing productive inputs, as with many other business activities. In the Mediterranean, the fishing effort is in excess of the minimum required to generate the target fishing capacity (the maximum amount of fish that can be produced by a fishing fleet if fully utilised). This results in a situation of overcapacity.

¹ This analytic note is an extract of the CIHEAM annual report Agrimed 2005

Furthermore, lack of input and output control, unsustainable fishery management methods and subsidies also contribute to overcapacity. Government subsidies that directly contribute to target fishing capacity being exceeded are categorised as 'bad'. What might be regarded as 'good' subsidies are those that contribute to the attainment of target capacity (e.g. some 'buyback' schemes). However, 'good' subsidies become 'bad' subsidies when unduly prolonged.

The sixth annual report – CIHEAM 2004 published in 2004 – included in Part II a quantitative study of Mediterranean fisheries devoted to the analysis of trends in the fishery sector in the Mediterranean countries focusing mainly on Mediterranean production.

The following aspects were analysed as means of production: fishing fleets (number of vessels and their main characteristics), aquaculture fish-farms and employment (number of fishermen), production (catches/landings and aquaculture production in volume and value), trade (import-export) of fishery products and food supply. The present report will perform the same kind of analysis updating the information with the most recent data and endeavouring to establish a way to analyse Mediterranean fisheries on an annual basis.

However, as has been indicated in previous reports, it must be borne in mind that an important constraint and a major difficulty in carrying out this kind of analysis is the lack of availability of regular and feasible information and data on which to base it. There is currently a lack of regularly updated fishery databases offering adequate coverage and reliability.

A limited number of sources of authorised information on fisheries covering all the region and updated annually are available, providing some useful background data for conducting an overall preliminary analysis. These databases have been used for the present analysis, as in the previous reports; they are FAO FISHSTAT, FAOSTAT and EUROSTAT.

The most useful and main sources of information that are available and updated on an annual basis are the statistical databases provided by FAO: FAOSTAT and in particular FAO-FISHSTAT with their components: GFCM capture production, aquaculture production and value, capture production and commodities, production and trade, and FAOSTAT for consumption of fishery products.

The other database that has been used is EUROSTAT, mainly for data on fleets and their main characteristics and also to obtain employment information, but since this database focuses on the EU countries, it does not provide a great deal of information on third countries, at least for the moment. In fact the main difficulty is the gathering of information on fleets and, even more so, on the value of landings, because this kind of information is not provided by FAO. And in fact EUROSTAT only provides a limited amount of information on the number of vessels, the GRT and horse power of EU fleets, employment and value of landings.

Three groups of countries have been identified, as in the 2004 report:

- the European Union Member Countries: Portugal, Spain, France, Italy and Greece together with the countries incorporated in 2004: Malta, Slovenia and Cyprus.
- the countries in the Maghreb area: Morocco, Algeria and Tunisia
- the remaining Mediterranean Countries: Albania, Turkey, Lebanon, Egypt, Libya, Israel, Syria, Gaza Strip, Serbia-Montenegro, Croatia and Monaco.

It must also be pointed out that, except in the case of tuna fisheries, the Black Sea fisheries have not been taken into consideration for the analysis.

1. Means of production

The information on fleets provided by EUROSTAT refers to vessels fishing in and outside the Mediterranean. For this reason, in the case of Spain, France and Morocco it has to be taken into account that a large proportion of these fleets do not operate in the Mediterranean and also that a large part of the Turkish fleet operates in the Black Sea; the same applies to Egyptian boats operating in the Red Sea.

Table 1
Number of fishing vessels

Num.vessels	1995 (1)	2002	2003
Spain (3)	18 483	14 900	14 579
France (3)	6 586	8 158	8 079
Greece	18 483	19 473	19 043
Italy	16 352	15 808	15 655
Portugal	12 120	10 337	10 462
Cyprus	542		
Malta	1 609		
Slovenia	95		
EU MED	74 270		
Morocco (3)	2 416	18 825 (2)	
Tunisia	14 242		
Algeria	1 750		
MAGHREB	18 408		
Albania	110		
Turkey		17 319	17 696
Lebanon	1 000		
Egypt	4 052		
Croatia	6 043		
Palestine			
Israel	456		
Libya	3 561		
Syria	1 490		

- (1) EU countries: EUROSTAT; Others: FAO Fish.Circ.927.
 (2) FAO Country profiles 2001
 (3) Fleets operating outside Mediterranean waters included

Source: EUROSTAT 2004.

As has already been indicated, the only available data updated on an annual basis refers to fleets operating both inside and outside the Mediterranean waters. However, as was stated in the previous report, the number of fishing vessels operating throughout the Mediterranean can be estimated at approximately 100 000 units, up to 80% of which, in the EU countries, are small vessels less than 12 metres in length overall using small-scale gears. In the non-EU countries the percentage of small vessels is larger – generally over 90-95% of the fleets.

For this reason and in order to make it possible to analyse fishing fleets, it is recommended that the main characteristics of the vessels be examined, where possible, in order to have a better idea of their fishing capacity. However, information on fleet characteristics is scarce and is usually not readily available. Actually, the only annually updated information available is data on Gross Registered Tonnage and Horse Power and it generally only refers to the fleets of the European Union countries.

Table 2a
Fishing fleet characteristics: Gross Registered Tonnage of EU fleets (metric tonnes)

GROSS TONNAGE Mt	1995	2002	2003	Average GRT
Spain	658 166	519 111	496 253	34.04
France	178 460	229 938	228 201	28.25
Greece	116 778	102 823	99 332	5.22
Italy	260 357	214 735	216 938	13.86
Portugal	125 418	115 954	118 548	11.33
Malta	nea	nea	nea	
Slovenia	nea	nea	nea	
Cyprus	nea	nea	nea	
EU MED	1 339 179	1 182 561	1 159 272	

nea: not elsewhere available

Source: EUROSTAT 2004.

Table 2b
Fishing fleet characteristics: horse power of EU fleets (kW)

Horse power kW	2002	2003	Average kW
Spain	1 257 948	1 200 712	82.36
France	1 116 022	1 108 942	137.26
Greece	591 892	567 320	29.79
Italy	1 281 990	1 284 720	82.06
Portugal	398 335	404 859	38.70
Malta	nea	nea	nea
Slovenia	nea	nea	nea
Cyprus	nea	nea	nea
EU			

nea: not elsewhere available

Source: EUROSTAT 2004.

The data on fleets and their characteristics highlight the different vessel size of European fleets. The Spanish and French fleets have an average GRT of 34 and 28 tonnes respectively while Italy and Portugal have 11 and 14 tonnes and Greece 5 tonnes. For as regards horse power, France, Spain and Italy have the fleets with the highest ratings with average registers between 82 and 137 while the average values for Greece and Portugal are 29 and 38 respectively. However, if only Mediterranean fleets were included in the calculation the average values would probably be of the order of those of Greece and Italy. The 2004 CIHEAM report contained some detailed, but not absolutely homogeneous, information on the Mediterranean fleet characteristics gathered from various sources. This information can give us a rough idea of the average fishing capacity of the Mediterranean fleets.

These data on fleets also show the EU's evident effort to reduce the fishing capacity of fleets in the last few years. However, this year (2002 data) we nevertheless observe that Portugal has increased both the number of vessels and GRT and horse power, and Italy has also slightly increased GRT and horse power. On the other hand, as was observed in last year's analysis, the fishing fleets in the non-EU countries are steadily growing, as are vessel efficiency and size, resulting in a constant increase in fishing effort.

As regards employment, the figures again refer not only to Mediterranean activity but also to the total fishing activity developed by each country.

Table 3
Employment in number of fishermen

Fishers	1995	2000 (1)	2001 (1)	2002
Spain	75 009	46 189	44 676	55 800
France	38 270 (1)	26 016	26 036	13 824 (4)
Greece	19 840	16 308	37 490	19 879
Italy	45 000	52 184	49 637	48 342 (4)
Portugal		25 021	23 580	20 033
Cyprus	1 097			1 139
Malta	1 707			2 552
Slovenia	102	118		336
EU MED				
Morocco	99 885			
Tunisia	61 258			
Algeria	23 000			
MAGHREB	184 143			
Albania	720			
Turkey		50 000		
Lebanon	9 000			
Egypt	36 000 (2)			
Croatia	11 756			
Palestine				
Israel	1 250 (2)			
Libya	4 700 (2)			
Syria	4 200 (2)			
Total	452 514 (3)			

(1) Review of Fisheries in OECD Countries.

(2) FAO Fish.Circ.927.

(3) France, Spain and Morocco, Atlantic fishers included. Using 2001 national data from EU countries.

(4) EU Concerted Action on Economic Performance of Selected European Fishing Fleets. Report 2003.

Source: EUROSTAT 2004.

The CIHEAM report for 2004 estimates roughly that, not counting the significant number of part-time fishermen, employment can be situated around 450 000 fishermen in the Mediterranean countries, around 300 000 of whom are working in Mediterranean fisheries. These figures do not include the jobs generated on land for persons working in the various fisheries-related sectors (marketing, fishmeal industry, administration, research and training, etc.). At this point in time, in view of the poor information available on this item few further conclusions can be reached except to state the lack of information.

With regard to means of production, it can be pointed out again that three groups of countries can be identified:

- The first group includes the EU countries, with larger and high, but decreasing, fishing capacity: France, Greece, Italy, Portugal and Spain. As of this year three new "small fleet" countries – Cyprus, Slovenia and Malta – should be included in this group because their fleets will be included in the Common European Fisheries Policy.
- The second group includes countries with fleets of considerable size but lesser individual fishing capacity. This group includes the Maghreb countries (Morocco, Algeria and Tunisia), Libya, Egypt, Croatia and Turkey. These countries are developing their fleets, increasing the number of vessels and improving their technological characteristics. It is also relevant to point out that the crews on vessels of similar characteristics is larger in these fleets than in those of the EU countries.
- The third group of small countries or countries with a reduced littoral zone and small fleets under development, in some cases non-powered or even undecked: Israel, Lebanon, Syria and Albania. In these countries the number of crew per boat is also high.

2. Production

Total world fisheries production in 2000 amounted to 130 million tonnes, of which 100 million tonnes were from marine production (86 million tonnes from capture fisheries and 14 million tonnes from aquaculture). It must be pointed out at all events that outside China the total production was of only 89 million tonnes. Furthermore, looking at the regional level, there is a group of major fisheries regions which in terms of volume of catches totalise up to 60 million tonnes; these regions are the North-West Pacific (including China), South-East Pacific, North-East Atlantic and the West Central Pacific.

Capture production in the remaining regions ranks between 4.7 million tonnes in the East Indian Ocean and 2.1 million tonnes in the North-West Atlantic (the remaining regions in this group are East Central Atlantic, South-West Atlantic, South-East Atlantic, Western Indian Ocean, North-East Pacific, East Central Pacific and South-West Pacific). Capture fisheries production in the Mediterranean region with 1 507 506 tonnes (and a total production level of 1 891 667 tonnes) is not so far behind this second group. And when we consider fishing activities in terms of value or from the social point of view, rather than in terms of volume of catches, the relative importance of Mediterranean fisheries in the world context becomes much clearer.

2.1. Fisheries (catches/landings: volume and value)

The trend of catches observed last year for the last 30 years, showed a progressive decrease in the European share of catches in the Mediterranean. The new data confirm this trend, i.e. the European industrialised countries are reducing their respective shares in the total landings in favour of those of developing countries.

Table 4
Landings in metric tonnes

Country	Mediterranean			Total
	1995	2001	2002	2002
Cyprus	2 505	2 258	1 918	1 978 (1)
France	28 369	36 906	38 395	700 451
Greece	133 900	79 312	82 222	88 987
Italy	358 133	279 346	241 254	271 852
Malta	500	567	571	1 004
Portugal	0	84	18	200 037
Slovenia	1 851	1 621	1 459	1 686
Spain	140 426	133 939	108 487	882 876
EU MED	665 684	534 033	474 324	2 148 871
Algeria	103 536	129 326	130 447	134 325
Morocco	36 220	24 342	24 866	902 881
Tunisia	79 418	91 374	89 072	96 732
MAGHREB	219 174	245 042	244 385	1 133 938
Albania	1 160	1 906	2 751	3 957
Egypt	42 475	57 803	56 920	425 171
Lebanon	3 565	3 200	3 273	3 970
Turkey	81 628	54 370	46 262	566 682
Croatia	14 467	17 507	20 206	21 236
Israel	3 362	3 548	3 262	4 880
Libya	32 470	31 060	33 006	33 676
Monaco	3	3	3	3
Palestine	1 229	2 380	2 195	2 378
S. and M.	332	371	411	1 394
Syria	1 795	1 952	2 493	9 178
OTHERS	53 658	56 821	61 576	72 745
TOTAL	1 067 344	953 175	889 491	4 355 334

(1) 81071 mt reported in 2001; (2) Fishstat 2004/capture production

Source: FAO-FISHSTAT 2004.

To allow a more detailed analysis of fishery production, Table 5a presents Mediterranean landings distributed by species groups and Table 5b those referring to tuna fishes. In this case landings from the Black Sea and Sea of Marmara are included. In both tables we can see that landings are continuing to decrease slightly but steadily.

Table 5a
Landings in metric tonnes by group of species (tuna fishes not included)

Species group	1995	2001	2002
Cephalopods	62 526	53 849	53 195
Crustaceans	45 343	43 253	44 157
Demersal marine fish	276 813	213 838	208 271
Freshwater and diadromous fish	2 088	3 300	4 283
Marine fish nei	114 447	67 214	64 584
Other aquatic animals	231	784	514
Molluscs (excl. cephalopods)	90 230	96 393	89 443
Pelagic marine fish	475 482	474 210	424 708
Other	82	83	100
TOTAL	1 067 242	952 924	889 255

Source: FAO-FISHSTAT 2004.

Table 5b
Landings of tuna fishes in metric tonnes by country

Tuna fishes	1995	2001	2002
Albania	1	32	39
Algeria	2 343	4 302	3 878
Bulgaria	25	49	0
China	137	0	0
Croatia	1 437	957	1 005
Cyprus	109	251	235
Egypt	1 227	1 850	2 717
France	9 608	6 159	5 887
Greece	5 610	5 731	4 437
Israel	215	70	50
Italy	17 843	14 972	13 394
Japan	741	188	390
Korea	460	0	0
Lebanon	500	450	400
Libya	1 540	1 950	4
Malta	670	326	433
Morocco	3 456	3 807	4 495
Palestine	0	120	183
Panama	1 498	0	0
Portugal	446	204	11
S. and M.	45	47	46
Slovenia	0	0	1
Spain	8 581	5 210	4 918
Syria	155	370	330
Taiwan	493	197	131
Tunisia	3 513	6 273	6 790
Turkey	13 470	15 920	8 956
Other nei	1 350	571	508
Total	75473	70006	59238

Source: FAO-FISHSTAT 2004.

Table 6 shows the information available on the value of landings. It demonstrates the scarcity of economic data available on fisheries, a fact which constitutes the major obstacle to performing an accurate assessment of fisheries.

Table 6
Value of landings in million euro

million €	1995	2001 (1)	2002
Spain	1 898		1 959
France	849 (1)	835	880
Greece	270	163	251
Italia	882	147	946
Portugal	280 (1)	292	906
Cyprus	nea	nea	nea
Malta	nea	nea	nea
Slovenia	nea	nea	nea
EU MED	nea	nea	nea
Morocco	nea	nea	nea
Tunisia	nea	nea	nea
Algeria	nea	nea	nea
MAGHREB	nea	nea	nea
Albania	nea	nea	nea
Turkey	719 (1)	nea	nea
Lebanon	nea	nea	nea
Egypt	nea	nea	nea
Israel	nea	nea	nea
Libya	nea	nea	nea

(1) Review of Fisheries in OECD/OCDE Countries
nea: not elsewhere available

Source: EUROSTAT 2004.

2.2. Aquaculture production (volume and value)

Table 7
Aquaculture production by country in metric tonnes

Country	1995	2001	2002
Cyprus	452	1 883	1 862
France	280 786	251 655	249 734
Greece	32 644	97 512	87 928
Italy	214 725	218 269	183 962
Malta	904	1 235	1 116
Portugal	4 981	8 211	8 437
Slovenia	789	1 262	1 290
Spain	223 965	312 647	263 762
EU MED	759 246	892 674	798 091
Algeria	369	454	476
Morocco	2 072	1 403	1 670
Tunisia	960	1 868	1 975
MAGHREB	3 401	3 725	4 121
Albania	340	286	860
Egypt	71 815	342 864	376 296
Lebanon	300	300	790
Turkey	21 607	67 244	61 165
Croatia	4 007	10 166	8 416
Israel	16 180	21 318	22 261
Libya	100	100	.
S. and M.	2 404	2 688	2 448
Syria	5 857	5 880	5 988
TOTAL	885 257	1 347 245	1 280 436

Source: FAO-FISHSTAT 2004.

Table 8
Aquaculture production in 2002 by species groups in metric tonnes

Species group	1995	2001	2002
Aquatic plants	5 100	35	35
Cephalopods	1	16	14
Crustaceans	273	278	351
Demersal marine fish	69 121	250 354	255 539
Freshwater and diadromous fish	241 060	465 087	462 235
Marine fish nei	90	1 358	954
Miscellaneous aquatic animals	1	0	0
Molluscs (excl. cephalopods)	569 597	625 599	556 296
Pelagic marine fish	16	4 518	5 012
TOTAL	885 259	1 347 245	1 280 436

Source: FAO-FISHSTAT 2004.

With regard to aquaculture production, as was evidenced in the last report, production is dominated by six countries: Egypt, Spain, France, Italy, Greece and Turkey, which supply 96% of total production in the region. Whilst in Spain, France and Italy production is mainly based on molluscs (mussels, oysters, and clams respectively), in Egypt it is based on the semi-intensive production of freshwater species (i.e. tilapia and carp) and marine finfish species (i.e. mullet). Greece and Turkey, among others, concentrate most of their production on the intensive production of finfish (seabream, seabass and trout).

It is important to underline, however, that production has stabilised after the rapid increase observed in last decade. This is probably due to the decrease in prices due to that rapid increase and to the fact that production is concentrated on a limited number of species. It is currently not really expected that new species will be incorporated into aquaculture production from the market point of view, and this fact is also generating a demand problem.

Table 9
Aquaculture. Value of production by country in 1000 US dollars

Country	1995	2001	2002
Cyprus	4 467	9 527	10 487
France	663 176	453 763	472 127
Greece	157 307	307 364	243 891
Italy	419 288	415 318	337 129
Malta	8 127	3 080	3 747
Portugal	28 218	55 629	58 337
Slovenia	3 190	3 515	3 538
Spain	250 015	392 112	354 062
EU MED	1 533 788	1 640 308	1 483 318
Algeria	971	1 230	1 283
Morocco	12 254	3 375	4 478
Tunisia	5 454	9 196	8 746
MAGHREB	18679	13801	14507
Albania	251	529	1 862
Egypt	115 194	756 980	655 565
Lebanon	1 500	900	2 361
Turkey	127 197	142 315	130 482
Croatia	12 472	32 597	29 245
Israel	48 906	77 523	61 208
Libya	150	150	0
S. and M.	6 028	6 769	5 692
Syria	26 912	28 716	50 761
TOTAL	1 891 077	2 700 588	2 435 001

Source: FAO-FISHSTAT 2004.

Table10
Aquaculture. Value of production by species groups in 1000 US dollars

Species	1995	2001	2002
Aquatic plants	1 848	2	2
Cephalopods	1	66	56
Crustaceans	4 317	3 133	3 795
Demersal marine fish	466 943	1 035 779	876 116
Freshwater and diadromous fish	598 111	928 419	838 002
Marine fish nei	792	6 157	4 023
Miscellaneous aquatic animals	1	0	0
Molluscs (excl. cephalopods)	818 857	660 056	639 124
Pelagic marine fish	209	66 978	73 884
TOTAL	1 891 079	2 700 590	2 435 002

Source: FAO-FISHSTAT 2004.

The production figures in economic terms, by country and also by species group, confirm the same trend observed in production in terms of weight.

3. Trade in fish and fishery products

3.1. Imports and exports and trade balance

It must be pointed out first of all that the import-export data used refer to the trade activity in fish and fishery products landed by the fleets of Mediterranean countries operating inside and outside the Mediterranean region, but also the trade activity in those products landed by the non-Mediterranean fleets of Mediterranean countries. It is also important to bear in mind that these countries trade not only amongst themselves but also with the rest of the world. This fact can complicate the appreciation of the situation in the Mediterranean Sea, especially in the case of France, Morocco, Spain and Portugal, whose fleets also fish in the Atlantic Ocean, in the case of Turkey because its fleet also fishes in the Black Sea, and in the case of Egypt in the Red Sea. However, this type of analysis provides an overview of fisheries in each country.

In the area taken into consideration, Italy, France, Spain and Portugal, and the European countries in general, appear as the main importers, as is shown in Tables 11 and 12. The same countries, together with Morocco, are also the main exporters. However, exports are mainly addressed to EU countries, for which reason, the value of imports of EU countries is compensated by the value of exported products. No relevant structural changes are apparent between 2001 and 2002 in the area as a whole. However, there have been important relative changes in certain specific countries, some of which have registered an important increase in external trade (imports and exports). This is the case of Algeria and Syria. Morocco, the major "exporting" country, seems to be showing a significant downward trend in exports together with an increase in imports, reflecting a significant increase in the internal consumption of fish and sea products.

Tables 11 and 12 show a significant increase in imports and exports in the EU countries, 5.1% in the case of imports and 5.42% in the case of exports. The EU countries import and export considerably more fishing products than do the other countries: expressed in volume, they account for 77.54% of total exports and 89% of total imports; expressed in value, the figures are 75.5% and 95.1% respectively. Despite this, the trade volume measured in metric tonnes has decreased by about 1% in the case of exports and 3% in the case of imports. This can be explained by two important facts. First, the constant growing scarcity of marine products and the consequent increase in prices; secondly, the Mediterranean countries are developing a fishing industry that is based mainly on the exploitation of the most popular and profitable seafood products.

Table 11
Export-import quantities and trade balance in 1000 metric tonnes

Country	Exports		Imports		Imports-Exports	
	2001	2002	2001	2002	2001	2002
Cyprus	790	796	18 314	17 069	17 524	16 273
France	442 998	406 566	1 058 048	1 025 997	615 050	619 431
Greece	85 725	73 061	196 668	194 309	110 943	121 248
Italy	134 722	127 910	883 836	868 621	749 114	740 711
Malta	2 269	3 150	17 360	14 614	15 091	11 464
Portugal	95 820	103 614	336 122	338 555	240 302	234 941
Slovenia	2 340	2 081	13 630	12 933	11 290	10 852
Spain	924 102	818 452	1 533 284	1 458 534	609 182	640 082
EU MED	1 688 766	1 535 630	4 057 262	3 930 632	2 368 496	2 395 002
Algeria	1 498	2 415	8 000	11 306	6 502	8 891
Morocco	371 632	354 938	13 230	18 948	-358 402	-335 990
Tunisia	15 051	17 438	17 336	17 810	2 285	372
MAGHREB	388 181	374 791	38 566	48 064	-349 615	-326 727
Albania	2 052	2 175	5 470	6 918	3 418	4 743
Egypt	1 265	2 574	261 338	176 700	260 073	174 126
Lebanon	49	107	27 557	19 072	27 508	18 965
Turkey	27 476	39 996	49 812	37 208	22 336	-2 788
Croatia	21 471	22 009	56 118	67 632	34 647	45 623
Israel	1 416	1 299	65 042	60 393	63 626	59 094
Libya	1 586	1 720	4 879	4 034	3 293	2 314
S. and M.	194	89	40 503	39 973	40 309	39 884
Syria	52	109	10 757	22 827	10 705	22 718
TOTAL	2 132 508	1 980 499	4 617 304	4 413 453	2 484 796	2 432 954

Source: FAO-FISHSTAT 2004.

Table 12
Export-import value and trade balance in thousand US dollars

	Export		Import		Export-Import Balance	
	2001	2002	2001	2002	2001	2002
Cyprus	6 836	5 504	34 720	33 673	-27 884	-28 169
France	1 032 036	1 103 801	3 087 695	3 237 053	-2 055 659	-2 133 252
Greece	212 085	227 416	312 407	386 471	-100 322	-159 055
Italy	386 657	430 199	2 732 804	2 917 341	-2 346 147	-2 487 142
Malta	13 205	17 320	22 981	21 148	-9 776	-3 828
Portugal	276 167	303 917	937 333	949 424	-661 166	-645 507
Slovenia	5 824	6 049	28 397	31 947	-22 573	-25 898
Spain	1 859 140	1 903 364	3 733 478	3 867 431	-1 874 338	-1 964 067
EU MED	3 791 950	3 997 570	10 889 8 15	11 444 488	-7 097 865	-7 446 918
Algeria	4 876	5 816	14 043	9 260	-9 167	-3 444
Morocco	874 389	964 134	9 704	13 407	864 685	950 727
Tunisia	89 028	97 054	18 856	18 637	70 172	78 417
MAGHREB	968 293	1 067 004	42 603	41 304	925 690	1 025 700
Albania	6 910	8 727	5 246	9 798	1 664	-1 071
Egypt	1 348	2 328	163 100	107 516	-161 752	-105 188
Lebanon	117	246	55 140	46 102	-55 023	-45 856
Turkey	74 841	118 270	30 676	29 671	44 165	88 599
Croatia	64 138	80 068	65 406	84 666	-1 268	-4 598
Israel	9 486	8 690	146 547	135 218	-137 061	-126 528
Libya	9 057	11 230	9 478	11 021	-421	209
S. and M.	319	169	36 226	37 989	-35 907	-37 820
Syria	268	138	43 359	85 220	-43 091	-85 082
TOTAL	4 926 727	5 294 440	11 487 596	12 032 993	-6 560 869	-6 738 553

Source: FAO-FISHSTAT 2004.

Table 13
Export-import prices per kg in US dollars by country

USD/kg	Export		Import	
	2001	2002	2001	2002
Cyprus	8,65	6,91	1,90	1,97
France	2,33	2,71	2,92	3,16
Greece	2,47	3,11	1,59	1,99
Italy	2,87	3,36	3,09	3,36
Malta	5,82	5,50	1,32	1,45
Portugal	2,88	2,93	2,79	2,80
Slovenia	2,49	2,91	2,08	2,47
Spain	2,01	2,33	2,43	2,65
EU MED	2,25	2,60	2,68	2,91
Algeria	3,26	2,41	1,76	0,82
Morocco	2,35	2,72	0,73	0,71
Tunisia	5,92	5,57	1,09	1,05
MAGHREB	2,49	2,85	1,10	0,86
Albania	3,37	4,01	0,96	1,42
Egypt	1,07	0,90	0,62	0,61
Lebanon	2,39	2,30	2,00	2,42
Turkey	2,72	2,96	0,62	0,80
Croatia	2,99	3,64	1,17	1,25
Israel	6,70	6,69	2,25	2,24
Libya	5,71	6,53	1,94	2,73
S. and M.	1,64	1,90	0,89	0,95
Syria	5,15	1,27	4,03	3,73
TOTAL	2,31	2,67	2,49	2,73

The information collected also shows that, with some exceptions, import prices seem to be higher than export prices. This is the case with Spain, France, and to some extent also Italy, where import and export prices are similar. This is probably due to the strong demand for expensive products on the internal markets in these countries despite the fact that they are already specialised in the production of this kind of product. However, in other countries such as Lebanon and Syria this is perhaps linked to production problems.

At all events, one has to look at the trade balance (Table 12) in order to understand the underlying trends of the Mediterranean fishing trade. This table shows that all of the European countries (Italy, France, Spain, Malta, Cyprus, Slovenia and Portugal) have a negative trade balance while Maghreb countries (Morocco, Tunisia) and Turkey have a positive trade balance.

The demand for fishery products in the European countries – as well as other countries in the south - and the relative shortage in relation to demand, together with the decrease in landings due to overfishing and to the reduction of fishing fleets, are forcing prices up. This scenario is also stimulating the development of fisheries in the southern and eastern countries, where the sector provides a real source of income and employment.

The fact that the southern Mediterranean countries are not too far from the European markets, where there is high demand, means that these countries have an advantage over other countries around the world, because they can provide fish rapidly and without any major conservation problems. It must also be borne in mind that developing these fishing industries does not require significant investment, a fact which explains the rapid growth observed in the past few years.

This process is currently having a positive impact on the immediate development of fisheries in the southern countries, but it could jeopardise it in the future. Given the limitation of resources, it is only if production allows their sustainability that fishing will contribute positively to development in southern countries, i.e. to investment recovery and employment stability, as well as providing a supply to EU consumers.

4. Summary

The possibilities for establishing a system of indicators for assessing fisheries in the Mediterranean are currently limited because of the lack of reliable information, particularly since this information needs to be updated regularly; and major difficulties arise when it comes to obtaining indicators relating to the fishing capacity of fleets, the pressure exerted by those fleets on resources, and the investments effected.

However, by focusing more on the European countries and on the major “fishing” countries (i.e. the CIHEAM member countries), on which more information is available, it has been possible to identify a set of basic indicators allowing us to perform some analysis of the status of fisheries in the Mediterranean countries.

4.1. Production, demand and supply (consumption) of fish and fishery products

When we examine these indicators, which are summarised in Table 14, we can identify two groups of countries or, rather, two models of fisheries.

As was already stated in the previous report, one group of countries – those in the north – shows high consumption, which is growing despite the limitation of resources and a high demand for fishery products. The other group – the southern countries in general – presents relatively low consumption and demand. However, demand is steadily growing in all countries. These differences are probably due to the resources available and accessible in each area as well as to the trade process and consumer habits. There are also differences between the figures on per capita supply provided by FAOSTAT and the estimates of production and export-import balance by country. Various factors, such as errors in reporting, can explain these differences, but in some cases – Morocco, for example – the difference is due to the use of fish captures for non-food products.

Table 14a
Summary I. Volume of production and supply (in metric tonnes)
Apparent consumption estimated and provided by FAOSTAT in kg/caput/year

Country	Catch	Culture	Import-Export	Supply
Cyprus	1 978	1 862	16 273	20 113
France	700 451	249 734	619 431	1 569 616
Greece	88 987	87 928	121 248	298 163
Italy	271 852	183 962	740 711	1 196 525
Malta	1 004	1 116	11 464	13 584
Portugal	200 037	8 437	234 941	443 415
Slovenia	1 686	1 290	10 852	13 828
Spain	882 876	263 762	640 082	1 786 720
EU MED	2 148 871	798 091	2 395 002	5 341 964
Algeria	134 325	476	8 891	143 692
Morocco	902 881	1 670	-335 990	568 561
Tunisia	96 732	1 975	372	99 079
MAGHREB	1 133 938	4 121	-326 727	811 332
Albania	3 957	860	4 743	9 560
Egypt	425 171	376 296	174 126	975 593
Lebanon	3 970	790	18 965	23 725
Turkey	566 682	61 165	-2 788	625 059
Croatia	21 236	8 416	45 623	75 275
Israel	4 880	22 261	59 094	86 235
Libya	33 676	0	2 314	35 990
Monaco	3	0	0	3
Palestine	2 378	0	0	2 378
S. and M.	1 394	2 448	39 884	43 726
Syria	9 178	5 988	22 718	37 884
TOTAL	4 355 334	1 280 436	2 432 954	8 068 724

Table 14a (contd.)

Country	Supply per capita	FAOSTAT Sea food supply
Cyprus	25.27	28.5
France	26.23	31.3
Greece	27.18	23.3
Italy	20.82	26.2
Malta	34.56	50.2
Portugal	44.13	59.3
Slovenia	6.96	7.7
Spain	43.60	47.5
EU MED	30.94	-
Algeria	4.60	3.5
Morocco	18.91	8.8
Tunisia	10.18	11.1
MAGHREB	11.42	-
Albania	3.04	4.1
Egypt	13.84	15.0
Lebanon	6.60	12.2
Turkey	8.89	7.3
Croatia	16.96	11.9
Israel	13.68	22.0
Libya	6.61	7.1
Monaco	0.09	nea
Palestine	nea	nea
S. and M.	4.15	2.0
Syria	2.18	2.7
TOTAL	46.66	-

A steady decline in capture fisheries landings has been observed over the past few years, while aquaculture production has been growing rapidly. However it seems that aquaculture production has also been levelling off recently and is facing problems, mainly a decrease in prices, which is probably due to the rapid growth in production observed in the last decade and to the fact that production is concentrated on a limited number of species.

Table 14b
Summary II – Value of production in 1.000 USD

Country	Catches 1000 €	Culture	Export	Import	Balance Export-Import
Cyprus	nea	10 487	5 504	33 673	-28 169
France	880 000	472 127	1 103 801	3 237 053	-2 133 252
Greece	251 000	243 891	227 416	386 471	-159 055
Italy	946 000	337 129	430 199	2 917 341	-2 487 142
Malta	nea	3 747	17 320	21 148	-3 828
Portugal	906 000	58 337	303 917	949 424	-645 507
Slovenia	nea	3 538	6 049	31 947	-25 898
Spain	1 959 000	354 062	1 903 364	3 867 431	-1 964 067
EU MED	-	1 483 318	3 997 570	11 444 488	-7 446 918
Algeria	nea	1 283	5 816	9 260	-3 444
Morocco	nea	4 478	964 134	13 407	950 727
Tunisia	nea	8 746	97 054	18 637	78 417
MAGHREB	-	14507	1 067 004	41 304	1 025 700
Albania	nea	1 862	8 727	9 798	-1 071
Egypt	nea	655 565	2 328	107 516	-105 188
Lebanon	nea	2 361	246	46 102	-45 856
Turkey	nea	130 482	118 270	29 671	88 599
Croatia	nea	29 245	80 068	84 666	-4 598
Israel	nea	61 208	8 690	135 218	-126 528
Libya	nea	0	11 230	11 021	209
S. and M.	nea	5 692	169	37 989	-37 820
Syria	nea	50 761	138	85 220	-85 082
TOTAL	-	2 435 001	5 294 440	12 032 993	-6 738 553

nea: not elsewhere available

Table 14c
Summary III –Employment and fleets

	Employment	Fleets				
	Fishermen	Number of vessels	GRT metric tonnes	Average GRT	Horse power kW	Average horse power
Spain	55 800	14 579	496 253	34.04	1 200 712	82.36
France	13 824	8 079	228 201	28.25	1 108 942	137.26
Greece	19 879	19 043	99 332	5.22	567 320	29.79
Italy	48 342	15 655	216 938	13.86	1 284 720	82.06
Portugal	20 033	10 462	118 548	11.33	404 859	38.70
Cyprus	1 139	542 (1995)	nea	nea	-	-
Malta	2 552	1 609 (1995)	nea	nea	-	-
Slovenia	336	95 (1995)	nea	nea	-	-
EU MED	161 905	70 064	nea	nea	-	-
Morocco	99 885 (1995)	18 825 (2001)	nea	nea	-	-
Tunisia	61 258 (1995)	14 242 (1995)	nea	nea	-	-
Algeria	23 000 (1995)	1 750 (1995)	nea	nea	-	-
MAGHREB	18 4143	34 817	nea	nea	-	-
Albania	720 (1995)	110 (1995)	nea	nea	-	-
Turkey	50 000 (2000)	17 696	nea	nea	-	-
Lebanon	9 000 (1995)	1 000 (1995)	nea	nea	-	-
Egypt	36 000 (1995)	4 052 (1995)	nea	nea	-	-
Croatia	11 756 (1995)	6 043 (1995)	nea	nea	-	-
Palestine	nea	nea	nea	nea	-	-
Israel	1 250 (1995)	456 (1995)	nea	nea	-	-
Libya	4 700 (1995)	3 561 (1995)	nea	nea	-	-
Syria	4 200 (1995)	1 490 (1995)	nea	nea	-	-
Total	45 1918	139 289	nea	nea	-	-

nea: not elsewhere available

In fact the information available on means of production in general and on fishing fleets and employment in particular is scarce and not always consistent when obtained from different sources of information. At all events, it would seem that the main part of fishing capacity is concentrated in the European countries plus Morocco, Turkey and Tunisia.

In the north it is evident that fleets are overfishing resources and, furthermore, that some of these resources are already depleted. For this reason measures to reduce fishing effort or fishing activity are recommended and have in fact been underway since 1990. However, the most recent data show that in two European countries (Italy and Portugal) fishing power (in terms of horse power and Gross Registered Tonnage and in the case of Portugal also in terms of number of vessels) seems to be on the increase again. On the other hand, and apart from the fact that the information available is limited, the fishing fleets and their fishing power in the non-EU "fishery" countries, are steadily growing. In fact, the Libyan fishing fleet of 400 units in 1980 had increased to 2000 units by 2000, and catches grew from 10 000 metric tonnes in 1980 to 50 000 in 2000. Also in Algeria the 2003-2007 Plan for developing the private fishery sector includes the construction of 1913 new fishing vessels to increase annual production from the current 100 000 tonnes to 250 000 tonnes.

Despite the scarcity of information, it seems that in many EU countries costs are rising but incomes are remaining stable at same time, due mainly to decreasing resources. This phenomenon is having an impact on wages, which are directly linked with landings in a wage system based on a proportion of the sales. When wages go down, many crews leave the activity to find better wages in other sectors. This fact is actually jeopardising the future of fisheries, mainly because there are no newcomers interested in working in the sector.

5. The Common Fisheries Policy of the European Commission

5.1. European Fisheries

The European Union at present comprises 25 countries after the 2004 expansion, which has brought 10 new members; 4 countries have candidate status at the moment: Bulgaria, Romania, Croatia and Turkey. The next expansion in 2007 is expected to comprise Bulgaria, Romania and Croatia.

The fishery sector, which currently accounts for 0.2% of GNP and 0.4% of employment, is not an important economic activity in the European Union. In fact, the sector's contribution to the gross national product of Member States is generally less than 1%; however, its impact is highly significant as a source of income in areas where there are few employment alternatives. In addition, the fishery sector helps to supply fish products to the EU market, one of the largest in the world.

With an output of 7.6 million tonnes of fish – from fisheries and aquaculture – in 2002, the EU is the world's third largest fishing power after China and Peru. Yet, while 3.9 million tonnes of fish products were exported, 4.3 million tonnes had to be imported to meet the needs of the EU in 2001 (including the 10 new members). In economic terms this amounts to a deficit of over € 4 billion.

The EU fishing fleets comprise more than 95 000 vessels, which vary greatly in size and fishing capacity or potential catching power. Fleet capacity has declined over the past few years because it was too large for the available fish and was becoming uneconomic. The EU has facilitated the transition towards a better balance between fishing fleets and resources, i.e. vessels and fish, but more needs to be done.

Fishing provides a variety of jobs. Although the number of fishermen in the EU – in both full-time and part-time jobs – has been declining over the years, some 260 000 fishermen are directly employed in catching fish. Their activities generate more jobs in processing, packing, transport and marketing on the production side and in shipyards, fishing gear manufacturing, chandlery and maintenance on the servicing side. These jobs form the backbone of many remote coastal areas all over the Community's coast. Studies carried out a few years ago identified some 300 coastal zones within the EU and showed that employment in the fishing sector across these zones represented only a small percentage of all jobs - between 1 and 1.5%. But this share amounted to 10% in 20 zones such as the Atlantic coast of Spain, the east coast of Italy and Scotland. In 82 other zones the fishing sector accounted for between 2 and 10% of all jobs. Even in areas where employment in the fishing sector is low, these jobs are still very important. In these areas, geographic and economic factors such as distance from the main centres of activity, sparse population, poor agricultural land or industrial decline, which characterise many coastal areas, combine to reduce other employment opportunities.

Table 15
Fisheries production in the EU countries

	Catches Volume in tonnes 2002	Catches Value in 1 000 € 2002	Aquaculture Volume in tonnes 2001	Aquaculture Value in 1 000 € 2001
Belgium	19 874	72 000	1 630	6 049
Cyprus	nea	nea	1 883	10 637
Czech Republic	nea	nea	20 098	59 399
Denmark	905 351	464 000	41 573	167 045
Estonia	nea	nea	467	1 451
Finland*	96 711	23 000	15 739	44 312
France	403 334	835 000	252 062	474 776
Germany**	86 100	104 000	53 409	156 006
Greece	96 035	258 000	97 802	344 654
Hungary	nea	nea	13 056	25 283
Ireland***	202 909	184 000	60 935	102 157
Italy	253 802	946 000	221 269	475 968
Latvia	nea	nea	463	710
Lithuania	nea	nea	2 001	2 816
Malta	Nda	nea	1 235	3 439
Netherlands	478 159	327 000	52 064	116 224
Austria	nea	nea	2 393	12 239
Poland#	225 000	71 464	35 460	71 706
Portugal	173 920	306 000	7 824	59 931
Slovakia	nea	nea	999	2 402
Slovenia	nea	nea	1 262	3 925
Spain**	962 823	1 813 000	312 647	444 246
Sweden	284 279	114 000	6 773	17 480
UK	498 670	773 000	170 516	572 461
Total EU	4 461 967	6 290 464	1 373 560	3 175 318

nea: not elsewhere available; * catch data: only species subject to quota; ** 2001; *** 2000; # from reports

Source: European Commission.

Table 16
Number of fishing vessels and employment

Country	Number of vessels		Gross tonnage		Engines Kw		Employment	
	2002	2003	2002	2003	2002	2003	2002	2003
Austria	0	0	0	0	0	0	2 350	nea
Belgium	130	125	24 276	23 794	67 774	66 732	940	nea
Cyprus *	700	nea	nea	nea	nea	nea	1 139	1114
Czech Rep.	0	0	0	0	0	0	2 167	nea
Denmark	3 825	3 587	99 656	95 922	345 835	324 650	5 112	nea
Estonia *	650	nea	nea	nea	nea	nea	7 352	7 954
Finland	3 571	3 494	19 873	19 535	188 711	186 416	5 562	nea
France ♦	8 158	8 079	229 938	228 201	1 116 022	1 108 942	15 476	nea
Germany ♦	2 247	2 212	69 227	66 002	163 862	160 248	4 347	nea
Greece	19 473	19 043	102 823	99 332	591 892	567 320	19 879	nea
Hungary #	0	0	0	0	0	0	3 500	nea
Ireland ♦	1 508	1 461	78 963	81 282	225 169	224 383	5 494	nea
Italy ♦	15 808	15 655	214 735	216 938	1 281 990	1 284 720	48 342	nea
Latvia*	470	nea	16 000	nea	35 000	nea	6 145	6 378
Lithuania *#	196	nea	54 000	nea	56 000	nea	2 400	nea
Malta*	1 900	nea	nea	nea	nea	nea	2 552	nea
Netherlands ♦	952	949	201 068	200 507	471 977	470 194	2 320	nea
Poland#	1 263	nea	75 000	nea	175 000	nea	15 000	nea
Portugal ♦	10 337	10 462	115 954	118 548	398 335	404 859	27 200	20 033
Slovakia#	0	0	0	0	0	0	700	nea
Slovenia*	110	nea	nea	nea	nea	nea	336	344
Spain	14 900	14 579	519 111	496 253	1 257 948	1 200 712	55 800	nea
Sweden	1 820	1 795	45 373	44 402	224 450	223 792	2 231	2 066
UK	7 567	7 260	240 335	232 196	921 043	899 177	12 746	11 774
Total UE	95 585	88 701	2 106 332	1 922 912	7 521 008	7 122 145	249 090	

Nda : No data available; * Fleet Data: author's estimation from special reports; # Employment data: author's estimation from special reports; ♦ Employment data from 1998.

Source: Eurostat.

In 2001, EU aquaculture (including the data on the 10 new members) produced just over 1.4 million tonnes of fish and shellfish, worth almost € 3.2 billion. Aquaculture provides some 35 000 full-time and 50 000 part-time jobs, mostly in coastal and rural areas.

The EU fishing sector is having to cope with the problems experienced by most other fishing industries in the world today, overfishing, which leads to smaller stocks, smaller landings and smaller incomes, being the main threat to the future of fish stocks and of the fishing industry itself.

Increased competition due to the globalisation of the market in fish products is an additional challenge. Greater ability to compete depends on the capacity of the industry to adjust in order to cope with the constraints imposed both by the status of resources and by market demand.

Financial support has been available from the Community to assist the fishing sector during its unavoidable restructuring process. In this process the heterogeneity of the EU creates additional difficulties, because the importance of fisheries differs from one country to another. Furthermore, production is concentrated in only part of the member countries.

It has been difficult to obtain homogenised data from the EU as a whole this year, because the expansion to 10 new member states has made it more difficult to standardise data from the past. Despite these problems, we have endeavoured to present a panoramic picture of the present situation. We use data from different sources and, in some cases, from different years. The findings may not be absolutely accurate, but the general perspective allows us to understand the place of each country in the new fishing sector of the new EU.

Figure 1 shows that 4 countries alone account for 55% of total production in terms of volume of catches. With regard to economic value, the differences are even more conspicuous. Figure 2 shows that the percentage corresponding to certain countries is growing even more and that the relatively low Mediterranean production in terms of volume of catches is significantly greater when the economic value is taken into consideration. From an economic perspective, the weight of the Mediterranean countries in the EU fisheries sector actually is not marginal; it represents an important share of the value of EU aquatic production.

This heterogeneous situation makes it difficult to agree on common policies within the EU. Structures and problems are not the same in all countries. The reduction of employment in the fisheries sector is not constitute a major problem in every country. Some countries are specialised in extractive activities and others in processing catches. Some countries have developed marine aquaculture, while others have developed continental aquaculture; a third group of countries have no aquaculture industry at all. Some countries have industrial fisheries, whereas in other countries the major part of fisheries is artisanal. Some countries have a large fish market while in other countries fish consumption is very low; in addition, in some regions consumers prefer processed products whereas in others fresh fish is more popular.

Figure 1
Distribution of fisheries production in weight

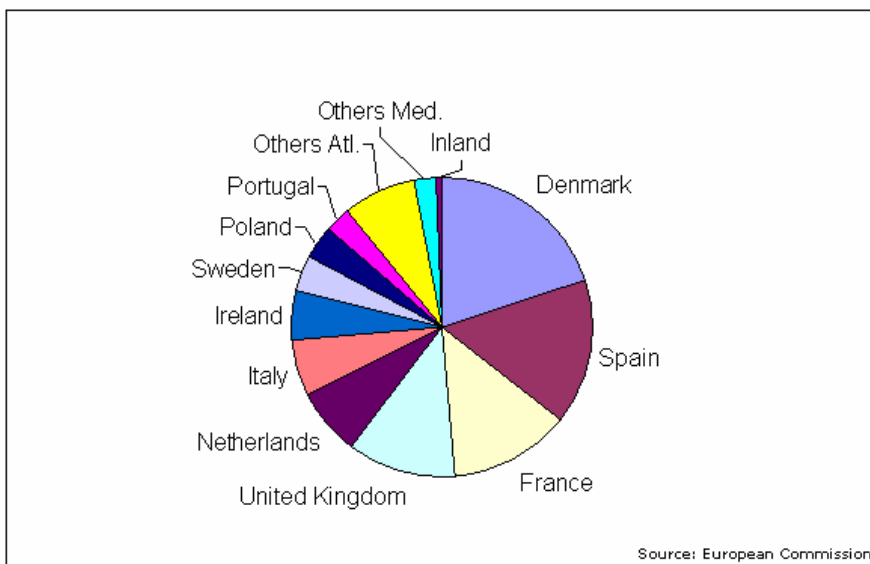


Figure 2
Distribution of value of fisheries production

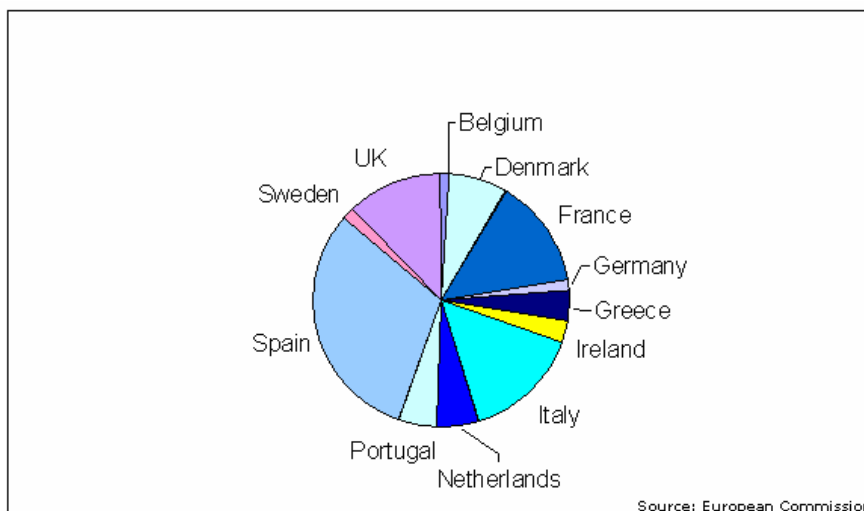
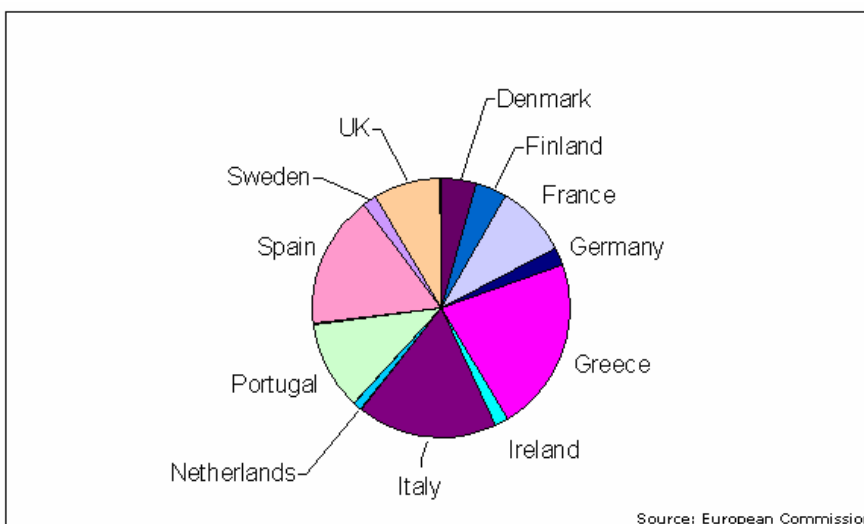


Figure 3
Distribution of fishing fleets in number of vessels



All of these differences create problems when a fishing policy has to be agreed and implemented. In fact, a policy can favour a particular type of gear, a group of consumers, certain enterprises, a group of countries, etc., or others, depending on their priorities. This fact causes major difficulties when it comes to agreeing on a policy and even more so when we take into account that such a policy also presupposes financial transfers from the EU to a particular country, sector or region. Consequently, there is not always total coherence in the final agreements, and this also explains why the process of elaborating fishing regulations is slow.

In 2002 the European countries opened an internal discussion to revise their Common Fisheries Policy and to reconsider their rules and mechanisms, but it proved difficult to reach a consensus. The main questions on the table at that moment were:

- *What are the EU common waters?* Some large industries demand that the coastal area be included in the common waters, while artisanal fisheries try to keep their area outside it, and some industries frequently in crisis try to avoid competition from others and demand that the common sea be nationalised. The decision taken in this case was to maintain the present situation, i.e. 12 nm reserved for the fleets of the coastal country and to consider the waters outside this coastal area to be common sea.
- *What kind of subsidies need to be maintained?* The sector is used to receiving funds from the EU to amortise investments; however, the Commission is having difficulty increasing the budget in this context, mainly because a direct effect of fishing capacity is the overfishing of resources and, consequently, the reduction of profits. Finally, the agreement reached was to maintain financial support, but only where fishing effort and catchability are not increased. In this scenario, subsidies for modernisation and new construction are over.
- *Is it convenient to maintain relative stability or it is necessary to establish a common market of fishing rights?* Preventing buying and selling between European enterprises is inconsistent with EU law. However, effective competence cannot be ensured when the sector is largely financed on the one hand and there is strong overcapacity on the other, and when, furthermore, the market has great difficulty in operating transparently. Relative stability is being maintained for the moment, but the Commission will allow each country to decide whether or not to leave fishing market rights open.
- *What kind of commercial control?* Some big industries prefer a low degree of control while small and medium enterprises prefer to ensure stringent control over quality and product identification.
- *What kind of consumer warranties?* Consumers call for stricter control, but some enterprises prefer to avoid making too much information on their products available.
- *What support can be given to joint ventures?* These companies contribute to reducing the fishing effort in EU waters and to withdrawing from certain areas without any aid from the Commission or member states. However, since the EU is reducing import tariffs, interest in this method of reducing fishing fleets is waning mainly due to the zero tariff. No decision has as yet been taken on this issue.
- *What type of international agreements, what type of financing, what type of control?* A wide debate has been opened on this subject both within and outside the EU. Some NGOs maintain that these agreements are a neo-colonial practice; others argue that they provide a means of development that ensures administrative control over their companies by the EU. Some companies and administrations such as the US prefer to establish private agreements, since they regard these agreements as a form of concealed aid; other companies and administrations, such as the EU or Japan, prefer to establish political agreements ensuring legality and control of shares (of landings), avoiding administrative corruption or abuse on the part of companies. The EU will maintain its traditional position in favour of political agreements.

5.2. The Common Fisheries Policy

This chapter includes an introduction to the Common Fisheries Policy (CFP) and the agreements established under the 2004 reform as well as comments on the impact on Mediterranean fisheries.

The Community was created in order to ensure peace and to promote prosperity in Europe. The policies set up to meet these goals include measures to encourage economic development in regions suffering from lack of jobs and opportunities. Fishing and aquaculture are considered to be a factor of economic and social cohesion.

At the outset of the EU (Treaty of Rome, 1956) marine resources were considered to be a common resource, and all member countries were assured free access. However, fish are a natural, biological, mobile and renewable resource and fish reproduction takes place without any control whatever. No one can own fish until they have been captured. In the same context, every fish taken from the sea is one fewer available to the other catchers. Every fisherman is, therefore, vulnerable to the actions of the others. Today fish stocks continue to be regarded as a common resource, but the need to manage them collectively is obvious.

The first common measures in the fishing sector of the European Union date from 1970. They laid down rules for access to fishing grounds, markets and structures. It was agreed that, in principle, Community fishermen should have equal access to Member States' waters. However, in order to ensure that smaller vessels could continue to fish close to their home ports, a coastal band was reserved for local fishermen who had traditionally fished these areas. Measures were also adopted for a common market in fisheries products and a structural policy was set up to coordinate the modernisation of fishing vessels and on-shore installations.

All of these measures became more significant when, in 1976, Member States followed the international movement and agreed to extend their rights to marine resources from 12 to 200 nautical miles from their coasts. Member States also decided that the Community was best placed to manage fisheries in the waters under their jurisdiction and to defend their interests in international negotiations. As a result of this decision and after years of difficult negotiations, the CFP came into being in 1983. This policy was developed with a view to managing fisheries for the benefit of both fishing communities and consumers.

The Common Fisheries Policy is the European Union's instrument for the management of fisheries and aquaculture. When the rules regarding the duties of the original Community were being drawn up, it was decided that the fishing sector, together with agriculture, would be a Community responsibility in order to ensure security of food supply. The common rules are adopted at the Community level and implemented in all member states.

The common measures are agreed in four main areas:

- **Conservation** - to protect fish resources by regulating the amount of fish taken from the sea, by allowing young fish to reproduce, and by ensuring that measures are respected.
- **Structures** - to help the fishing and aquaculture industries adapt their equipment and organisation to the constraints imposed by scarce resources and the market.
- **Markets** - to maintain a common organisation of the market in fish products and to match supply and demand for the benefit of both producers and consumers.
- **Relations with the outside world** - to set up fisheries agreements and to negotiate at the international level within regional and international fisheries organisations for common conservation measures in deep-sea fisheries.

Conservation

Fish stocks need to be renewed as fish die as the result of both natural causes and fishing. In order to have enough mature fish to renew stocks, small fish must be left to grow and reproduce. The CFP lays down maximum quantities of fish that can safely be caught every year. On the basis of scientific studies on the main stocks the Council of Ministers decides on the amount of fish that EU fishermen will be allowed to catch the following year. These maximum quantities, called total allowable catches (TACs), are divided among Member States in a fixed percentage by area and species. Each country's share is called a national quota.

Each member state must monitor its quota uptake and close fisheries as and when quotas have been caught. Here the principle of subsidiarity is at work, where the task on hand is carried out at the most appropriate level of government. Member States must keep the European Commission regularly informed of their quota uptake to allow its services to monitor the situation at the Community level.

Quota management techniques vary from one country to another. Quotas can be kept in a national pool or allocated to producers' organisations or associations, or even to individual vessel owners. In a few cases, quotas can be hired, bought or swapped. Described as individual transferable quotas (ITQs), they are used in some countries, though in the Community such a system only applies to a few stocks in a small number of member states.

This system applies in the Atlantic and Baltic EU fishing areas, but in the Mediterranean only tunas are subject to TAC regulation (under ICCAT rules). The objective is to ensure biological and economic sustainability and prevent conflict between EU countries. However, the outcome is not satisfactory.

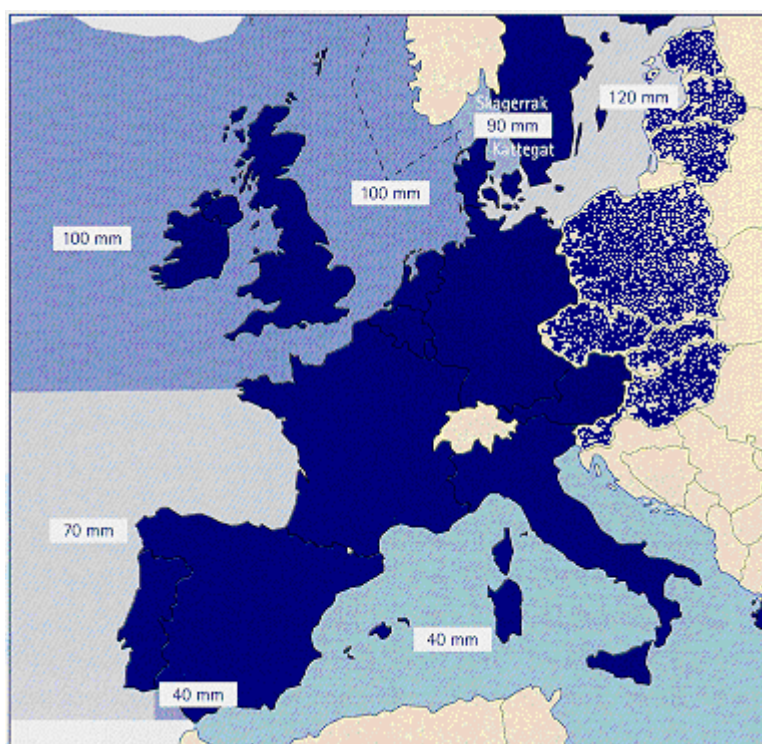
The status of stocks under exploitation is steadily deteriorating, mainly because the fishery administrations generally take account of the fishermen's complaints concerning the TAC proposals, which are based on scientific recommendations, and also because control is not perfect and real catches exceed those reported by fishermen. The system is actually controlling fishing pressure on resources but is not allowing those

resources to recover and reverse the negative trend observed over the last 20 years. The TAC system therefore has not been applied in the Mediterranean, where it is considered inappropriate for market reasons and because of the large number of vessels.

On the other hand, the fixed percentage of TAC (the so called “relative stability” principle) prevents conflicts between countries, but it causes a problem when the complexity and specialisation in the different EU member countries is not taken into account as it is in other economic sectors. Some companies want to be allowed to buy and sell TACs between them.

In order to limit the capture of small fish so that they can grow to maturity, a number of technical rules have been adopted which are also in effect in the Mediterranean. Minimum mesh sizes are fixed in the different EU fishing areas as shown in the map in Figure 4. Certain areas can also be closed to protect fish stocks. Some fishing gears are banned and more “selective” techniques, which facilitate the escape of young fish and reduce the capture of certain species, can be made compulsory. Minimum fish sizes are laid down, below which it is illegal to land fish. Catches and landings have to be recorded in special log books.

Figure 4
Regulatory EU mesh sizes for towed gears implemented in 2000



Structures

Clearly inspired by EU Agrarian Policy, structural policy tries to promote the fishing sector. Funding is available for projects in all branches of fishing and aquaculture as well as for market and development research.

For a long period (1983-2002) funding was available for modernising fishing fleets and facilitating new constructions. Despite the requirements to compensate new construction by withdrawing the same or greater fishing capacity (measured in Gross Registered Tonnage and Horse Power), the result was that these facilities contributed to increasing overinvestment in the sector and to overfishing. The EU has been able to control and even reduce fishing capacity but not catchability, which is continuously improving as the result of technological advancement. This funding was therefore eliminated by the 2002 reform, although some financial commitments have been maintained until 2006.

In order to enable EU fleets to be restructured and to eliminate excess fishing capacity, EU funding has been available since 1986 to end the fishing activities of vessels by scrapping them or moving them to other sectors outside fisheries, such as marine museums, or transferring them to fishing activities outside

Community waters. Multi-Annual Guidance Programmes incorporate a set of measures agreed by Member States and the Commission and map the planned development of each Member State's fleet over periods of four or five years. Community financial support is available for implementing these programmes from the Financial Instrument for Fisheries Guidance. For each Member State, fleet restructuring is planned within multi-annual guidance programmes setting out objectives and the means of achieving them. Funds are available for scrapping or reconverting fishing vessels. Eligible projects also include improving the selectivity of fishing gear, using more environmentally friendly fishing techniques, improving standards of hygiene and fish conservation on board vessels, and improving safety.

The EU may also co-finance national aid programmes for fishermen retiring early. It can also allocate a one-off grant to fishermen who have lost their jobs through the laying-off or transfer abroad of their vessels.

The common organisation of markets

The consumption of processed fish products, especially in the form of prepared meals, has increased in the Community. New technologies and tougher food hygiene and environmental regulations are imposing severe demands on businesses. The processing sector has undergone significant restructuring in recent years, conditioned by several circumstances: production has been growing by 4 to 5% in recent years while employment has decreased, mainly because of the closure of small, poorly equipped processing units and mergers among larger companies.

The goal of market policy is to strengthen the EU common market to balance production and demand, for the benefit of both producers (stability of incomes) and consumers (health guarantees and supply stability). These original objectives have been complemented with the establishment of the community single market and the gradual opening up of world trade.

The development of market policy covers two areas:

- customs barriers and any other measures which could prevent the flow of fish products from one Member State to another have had to be reduced or even eliminated;
- common rules for the market of fishing products have to be set up.

The result has been the free circulation of goods or products within the Community through the development of the single market. In addition, there has been a trend towards liberalisation of international trade through agreements under the General Agreement on Tariffs and Trade (GATT), now regulated within the framework of the World Trade Organisation (WTO).

Furthermore, it must be borne in mind that the common market is organised in four components:

- common marketing standards for fresh products concerning quality, grades, packaging and labelling of both Community and imported fisheries products;
- producers' organisations (POs), which are voluntary associations of fishermen, set up to help stabilise markets, their role being to protect fishermen from sudden changes in market demand;
- a price support system which sets minimum prices below which fish products cannot be sold; financial support is available to POs if they have to take fish and shellfish off the market, store them for later use or process them;
- rules for trade with non-Community countries.

As with other elements in the CFP, the common organisation of the market has had to adapt to major changes since its creation in 1970. At present, supply is often not adapted to the needs of the market in terms of quantity, quality and regularity. This is partly due to the poor state of conservation of fish stocks. At the same time, improvements in international transport have encouraged an increase in imports of fish products. In addition, marketing structures have changed; supermarket chains, now the main buyers of fish products, expect steady supplies and rely heavily on imports to meet their needs.

The result has been growing dependence on imported fisheries products, which now account for almost 60% of EU total consumption, and in the Mediterranean region less than 20% of consumption comes from regional capture fisheries. There has also been an evolution from a market dominated by fresh fish to one where consumers have increasingly turned to processed fish products, especially prepared meals. EU consumers have become more demanding, not only in terms of choice but also in terms of the dietary and hygiene quality of food products.

This results in stiffer international competition, which means that the Community fishing industry must become more competitive by exploiting its strength, particularly in the fresh fish sector. This is more difficult to achieve in a situation of overcapacity coupled with reduced fishing opportunities because of overfishing.

The Commission provides some support for the regulation of fish prices and the costs for stocking products, as in agricultural policy. For some products (especially small pelagic species) guaranteed prices have been established, but this mechanism has rarely been used, because of the high market prices due to the fact that demand exceeds supply. The only instance where production takes advantage of this support is fish production used to produce fish meal in Denmark and many environmental NGO's are questioning the appropriateness of encouraging this kind of processing.

As regards fish processing, uncertainty in supplies produces vulnerability and price fluctuations. The Community has to rely on imports in order to ensure a regular supply of fish and shellfish products on the European market. The EU deficit, or negative balance between imports and exports of processed products, has reached 3 billion ECU. Community funding can help finance projects which involve new methods and products and add value to the goods. Four categories of operations are eligible for support:

- improving the quality and hygiene of production, especially at the processing and packaging stages;
- restructuring and modernising processing businesses;
- promoting technological innovation and the development of new products;
- increasing the value added to the products by processing.

The Commission develops various initiatives to improve other aspects of the market process such as marketing, port facilities, promotion or product identification. These measures do not involve large amounts in terms of financial resources, but they are important in terms of impact on the added value of fisheries.

The structures necessary for marketing fish mainly include fish auctions, cold storage facilities and wholesale markets. The Community has helped finance the development of such facilities, especially with a view to improving the implementation of hygiene regulations. Equipment used to collect and transmit data electronically has also attracted support. Furthermore, port facilities need to be adapted in order to ensure that fish landing, handling and marketing are carried out in the best possible conditions. In addition, vessels require a growing range of services when in port. Substantial investments are addressed to meeting these needs.

On the other hand, the Community has been involved in promotional activities in order to encourage the consumption of fish and shellfish resources which are not overexploited or which are not well known by the public. Campaigns have been run to point out the benefits of fish in the diet in countries where fish is not a popular dish. Community support has been available since 1988 for this purpose. The organisation of, and participation in, trade fairs and exhibitions, quality certification programmes and market surveys are also eligible for support.

Finally, the promotion of Producers' Organisations (PO) can be mentioned as another of the lines covered by market policy. PO development is slow in the Mediterranean area for various reasons, but mainly because of the existing traditional fishery organisations, i.e. Cofradias in Spain, Proudhomies in France and other cooperatives, trade unions, etc., and because of the lack of effective incentives to encourage the fishery sector to patronise these new organisations.

It can be stated that the effect of EU market support is positive on the whole. In particular the improvement of the labelling system to clearly identify every product provides guarantees for consumers and producers. However, it can also have several undesirable effects such as the incentive to maintain an excessive number of auctions, which do not help to improve prices and supply and which increase logistic costs.

Relations with third countries

The fisheries agreements, at bilateral and multilateral levels, became necessary when distant-fishing vessels from the Community lost access to their traditional grounds due to the extension of fishery zones. A large part of the European fleets' activities depend on access to non-Community fish resources, either in waters under the jurisdiction of third countries with which the Community has fisheries agreements, or in international waters. Fishing rights for such vessels have been negotiated with many non-Community countries in return for various forms of compensation whose nature depends on the interests of the third

country concerned. The Community is also involved in negotiations with international organisations and regional fisheries organisations to ensure rational fishing.

Due to its exclusive competence for fisheries, the European Union is entitled to enter into international fisheries obligations with third countries or with other international organisations. Acting on behalf of the Union, the European Commission thus negotiates bilateral fisheries agreements with third countries and takes part in various Regional Fisheries Organisations (RFO).

The bilateral fisheries agreements between the European Union and third countries establish the general framework for access for Community fleets to the waters of these countries. A protocol attached to each agreement lays down the specific conditions (technical, financial, type of resources, etc.) for implementation of the agreement. There are different types of agreements, but the most important are those with development countries where compensation ranges from financial payment for access to development cooperation in fisheries, trade or any other sector. The most important agreement from the financial point of view at the present time is the agreement with Greenland. A further type of agreement supported by the EU is the establishment of joint ventures entailing the definitive export of capital to a third country.

The Regional Fisheries Organisations (RFOs) are created by international agreements. The RFOs provide a framework within which the representatives of governments agree on ways of managing the fish resources of the open seas and straddling stocks. They are meant to strengthen regional cooperation to guarantee both conservation and the sustainable exploitation of fish resources. These organisations issue recommendations on management and conservation measures based on the best scientific advice available. The recommendations must then be implemented by all the RFO contracting parties.

Upon becoming a party to the 1982 United Nations Convention on the Law of the Sea² (UNCLOS), the International Community (including the EU) agreed, *inter alia*, to strike a balance between the rights and obligations of coastal states and those of countries engaged in fishing activities on the high seas. The main aim of such a balance is the sustainable exploitation of fish resources. Following the extension of the exclusive economic zones to 200 miles in the 1970s, distant-water fishing fleets had to reorganise their activities and consequently intensified their drain on resources. Combined with technical advancement, this led to an alarming overexploitation of most stocks.

Stable international legal relations and the implementation of real cooperation present a major challenge for the future of EU high-sea fishing. The European Union has played an active part in the development of three new instruments, which supplement and add further detail to the provisions established by UNCLOS, namely:

- the Agreement to promote compliance³ with international conservation and management measures by fishing vessels on the high seas, adopted by the FAO in 1993,
- the Code of Conduct for Responsible Fisheries⁴, adopted by the FAO Conference in November 1995, which followed on from the Cancun Declaration of 1992,
- The Agreement for the implementation of the provisions of UNCLOS relating to the conservation and management of straddling fish stocks and highly migratory fish stocks, known as the New York Agreement⁵ adopted in 1995.

The European Union's accession to these instruments has had implications on the fishing activities of the Community fleet in international and third-country waters, either through closer cooperation with developing countries to help them become more effective in fisheries matters, or through support for the international community's efforts to combat illegal, unreported and unregulated fisheries (IUU), particularly in the context of RFOs.

Against this background the Commission recently proposed an Action Plan for the eradication of IUU. It adjusts the International Plan of Action⁶ developed by the FAO Fisheries Committee (COFI) to the scale of the EU, the EU thereby making an active contribution in keeping with the spirit of the Code of Conduct for Responsible Fisheries. Among the actions proposed in the Community Action Plan, a number of measures are planned at RFO level, in particular the development of control and inspection systems within each RFO,

² www.un.org/Depts/los/convention_agreements/texts/unclos/unclos_e.pdf

³ www.fao.org/legal/treaties/012t-e.htm

⁴ www.fao.org/fi/agreem/codecond/codecon.asp

⁵ http://europa.eu.int/comm./doc_et_publ/factsheets/legal_texts/docscom/en/ec_98_414_en.pdf

⁶ www.fao.org/DOCREP/003/y122e/y1224e00.HTM

the regulation of certain fishing activities on the high seas, the identification and monitoring of IUU vessels, the promotion of uniform action plans to curb illegal fishing and the identification and quantification of illegal catches.

Aquaculture

Aquaculture, or fish farming, in the Community plays a role similar to that of the fishing industry. By supplying the market with fish and shellfish it helps reduce the Community imbalance between imports and exports of fish products. It also generates jobs in areas which generally lack other industries. Consumers benefit from the variety of aquaculture products which complement those available from fishing. The past 15 years have witnessed rapid expansion in world aquaculture. Fish farming has become the fastest growing sector in world food production. Aquaculture production amounts to almost one fifth in volume and around one third in value of world production of fish and shellfish.

Community aquaculture has also grown substantially. There is a long tradition of fish and shellfish farming in some European countries, which helps to explain its diversity, ranging from the artisanal business to the industrial-scale multinational company. Community aquaculture comprises three main activities: sea fish, marine shellfish and freshwater farming. Mollusc species, mussels and oysters, dominate Community production; however the share of fish production is progressing constantly: tilapias and carps in the case of freshwater fishes, trouts and salmons in the case of diadromous fishes and the marine finfishes – seabream, seabass and mullets.

As a result of greater expertise in the needs of farmed fish and advances in technology, fish farmers have been turning their attention to more exotic species such as seabass, seabream and turbot. Diversifying the range of species available means that they are better equipped to face world competition.

Aquaculture has benefited from financial support from the Community since 1971. Limited at first to inland fish farming, Community support was extended to other areas in the late 1970s. Now financial support includes aid for projects involving:

- modernising existing premises or building new ones;
- installing or improving water circulation systems on site;
- installing new equipment;
- bringing hygiene standards up to Community requirements;
- reducing the impact on the environment.

In spite of its rapid growth in recent years, aquaculture has run into a number of problems. Food production is becoming an increasingly competitive market, and this situation is aggravated by fluctuation in demand, a problem shared with agriculture.

Greater public awareness of the need to protect natural resources and increase food safety has resulted in a more heavily regulated environment. New aquaculture projects as well as certain day-to-day operations require permission from various authorities. Technical problems and risk of disease also add to the vulnerability of the enterprises.

A number of options for consolidating the sector are being considered. These include encouraging the development or strengthening of voluntary producer associations in order to promote rational production and more stable market conditions, to disseminate and make practical use of research findings and to share examples of good practice.

In the case of mature activities (seabass, seabream, etc.) some reduction (including a complete halt) of financial support is being considered. In fact there is no reason to maintain support for an industry that has no development problems. The overincentive to produce can induce the saturation of supply and then wreck the industry.

The present situation of the Common Fisheries Policy

When the CFP was adopted, a mechanism of periodical revisions was established. The first CFP review conducted in 1992 showed that there were too many vessels for the available resources and that overfishing cannot be prevented through technical measures alone. Consequently, in order to make the common fisheries policy more effective the decision was taken to reinforce the links between their various components: markets, structures and resources. Control measures were introduced to ensure that rules are respected throughout the industry and new technologies are now used to transmit data to the authorities and to monitor larger vessels through satellite tracking systems.

Furthermore, since January 1995 all vessels fishing in Community waters and EU vessels operating outside Community areas are required to have a fishing licence. Fishing effort can be regulated through the allocation of special fishing permits stating the terms of access, time and specific fisheries. The Council of Ministers now decides which fisheries require such permits and the conditions attached to fishing.

It was in this context that the multi-annual guidance programmes (MAGPs) were established, which allow to each member country to manage their reduction of fishing effort. The scope of the control policy was extended to ensure compliance with the provisions in these MAGPs.

Prior to devising new targets for each multi-annual guidance programme, scientific appraisals on the state of the main stocks are commissioned. On the basis of the resulting reports, decisions are made on the required level of effort reduction. These reductions are specified for the main groups of fish stocks. To target vessels better, fleets have been divided into groups or 'segments' to match their main types of fisheries. It is then a matter of calculating the reduction in effort required in each segment for every national fleet. Reduction in effort can be achieved either by compensating for withdrawing vessels or by means of a system that ties vessels up in port for a given period of time.

However, the 2002 review has shown that the results are still unsatisfactory. In short:

- the TAC system succeeded in avoiding the collapse of resources, but was unable to ensure that stocks recover;
- the MAGP has avoided an increase in fishing fleets but has not promoted the necessary reduction effort; the symptoms of overcapitalisation are thus still there;
- profits have not improved and some segments have had difficulty maintaining their levels of employment and economic sustainability;
- wages and working conditions have not improved at same rate as in other sectors;
- consumer dependence on imports has increased;
- the resources allocated by the Commission (0.6% of their budget) has not produced the results expected, and the sector's dependence on public transfers has remained at the level registered at the beginning of the CFP; furthermore, additional state contribution has been necessary;
- the enlargement of the EU with ten new member countries is a new reason for revising the cost of the CFP.

For these reasons, the efforts made to date need to be reviewed and stepped up. Subsidisation within the EU will be maintained only for aspects that do not improve catchability, as is already the case with fishing capacity. This entails eliminating the financial support for building new fishing vessels or for modernisation.

Other supports can be maintained in order to ensure facilities for withdrawing part of the surplus fleet, but also to provide port facilities for landings and the servicing of vessels, fish auction halls, handling facilities and processing which can meet ever tougher hygiene requirements.

However, before a common policy for managing fishing effort can be set up, new instruments are needed to manage access to fishing activities in general and access to specific fisheries in particular. Restrictions on fishing gears and on fishing activity in certain zones and seasons should be used together with the right to catch a quota. TACs and quotas are insufficient tools to ensure fisheries conservation. For even when fisheries are closed because quotas have been exhausted, for example, fishermen continue to catch fish, which they then have to dump, or discard, overboard. In addition, to make the most of their quotas, fishermen may choose to retain only the best fish and discard the rest. To minimise the occurrence of discards, total allowable catches and quotas have been complemented by technical measures to limit catches of young and non-targeted fish. The Council also has the power, although it has not used it so far, to set multi-annual total allowable catches to introduce more flexibility in the system. In addition, the Community has taken steps towards matching fishing effort with available resources by reducing fleet overcapacity.

A further measure for improving fisheries management is to increase knowledge of marine ecosystems as a whole. Data collection on catches in commercial fisheries has been carried out for years, but, given the cost and complexity of collecting statistical information, data on non-commercial stocks is virtually non-existent. Scientific evidence on the state of habitats and the impact of fishing on other living organisms is patchy, having been collected only for specific scientific surveys.

Research will make an essential contribution towards improving fishing management. At present the framework of the EU FAIR programme provides funding for, inter alia, studies in fisheries, aquaculture and rural development, which will help to improve knowledge of ecosystems. The Commission considers that the integration of environmental factors in fisheries policies will, in the long run, benefit not only the environment but also the fishing sector because fish resources need healthy marine ecosystems in order to flourish. EU policies requiring the use of selective measures and a reduction in fishing effort contribute to the improvement of these ecosystems.

The CFP in the Mediterranean

The narrowness of the Mediterranean continental shelf has influenced the nature of fishing in the region. Most fisheries take place in the coastal band and involve a high number of small vessels. However, highly migratory species, such as tuna, are to be found offshore.

Despite the inherent complexity due to "Mediterranean multispecificity", there is an identifiable series of target species which, in biomass or in economic terms, constitute the basis of production and consequently characterise the main fisheries. These species are: sardine *Sardina pilchardus* and anchovy *Engraulis encrasicolus* among the small pelagics; hake *Merluccius merluccius*, red mullets *Mullus* spp., blue whiting *Micromesistius poutasou*, anglerfishes *Lophius* spp., *Pagellus* spp., *Octopus* spp., squid *Loligo* spp., and red shrimp *Aristeus antennatus* among the demersals; and the large pelagics, bluefin tuna *Thunnus thynnus* and swordfish *Xiphias gladius* together with other species of local interest in specific sites. At all events, these species account for 70-80% of all landings, at least eight of them over 2% of the total catch, and two over 15%, a situation that is not unlike that of European Atlantic fisheries.

Fishing in the seven EU Mediterranean member states (Cyprus, France, Greece, Italy, Malta, Slovenia and Spain) employs some 150 000 fishermen in all of their fisheries (up to 50% or even more of all Community fishermen, an important proportion of whom work in Mediterranean fisheries), on around 70 000 vessels (up to 50 000 of which – half of the total number of Community vessels – operate in Mediterranean waters). The annual catch of these countries totals over 2 million tonnes, more than 40% of the total catch of European countries. Up to 500 000 tonnes of these catches are captured in the Mediterranean; that is more than 10% of the Community's production in volume and much more in value.

Figures 5, 6 and 7 give a general overview of Mediterranean fisheries in terms of production, consumption and means of production. Figure 5 shows different levels of volumes of production, trade and consumption of fishing products in the Mediterranean countries. Figure 6 shows the share of total production corresponding to the Mediterranean Sea. Figure 7 shows that the bulk of means of production of capture fisheries seems to be concentrated in the EU and Morocco, Turkey and Tunis.

Figure 5
Production, trade and consumption of Mediterranean countries in metric tonnes

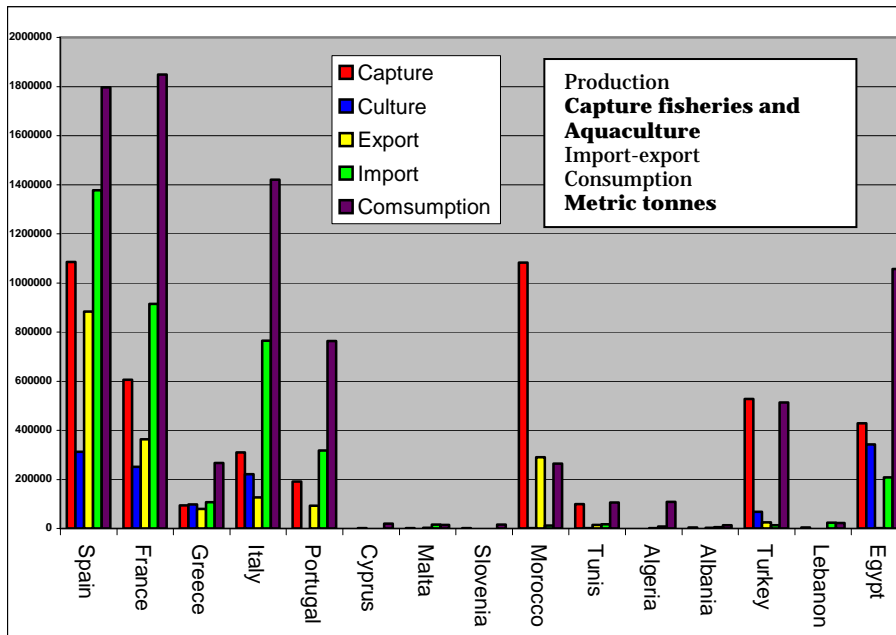


Figure 6

Total landings in metric tonnes by country and Mediterranean share

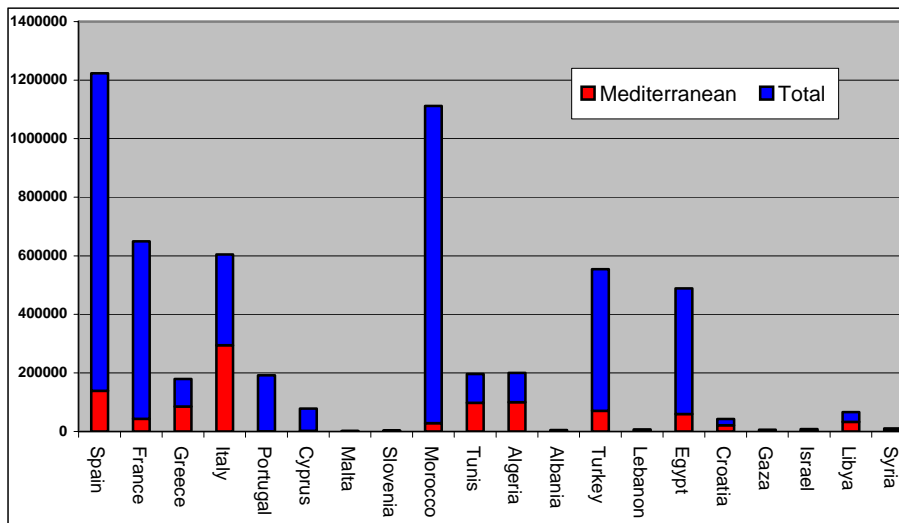
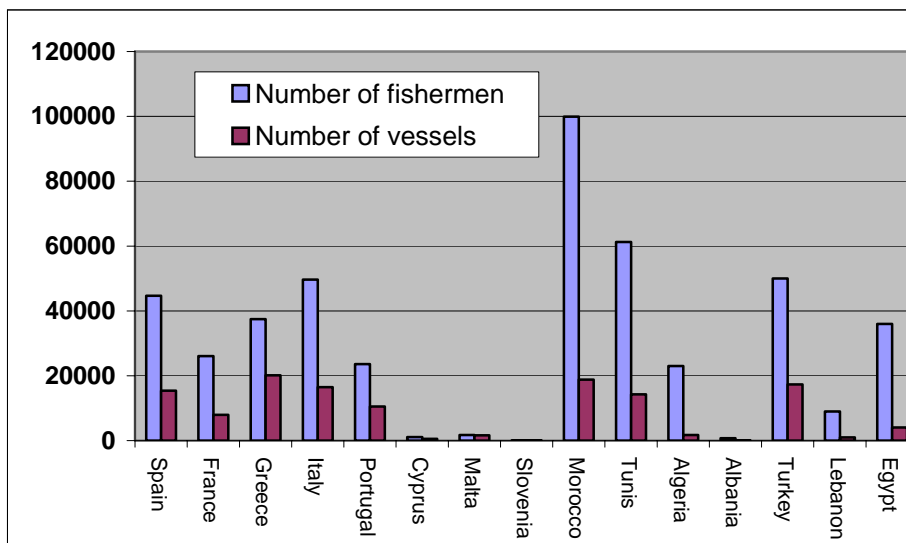


Figure 7
Number of fishermen and vessels by country



The narrow continental shelf partly explains why most Mediterranean coastal States have not extended their exclusive fishing zone beyond the 12 nautical miles considered to be territorial waters. However, a number of Community conservation measures have nonetheless been introduced. In December 1997, total allowable catches were fixed for tuna fisheries following the recommendations of the International Commission for the Conservation of Atlantic Tuna (ICCAT) and in 1996 Spain established a Fishing Protection Area, which covers the major part of the potential EEZ in the Mediterranean.

The Community is a member of both the General Fisheries Commission for the Mediterranean (GFCM) and the International Commission for the Conservation of Atlantic Tuna (ICCAT). These Commissions make recommendations concerning Mediterranean fisheries and especially for tuna fisheries.

The fishing pressure and the threat of pollution in this densely populated region make Mediterranean-wide conservation measures necessary. The Community has adopted a dual approach to ensure sustainable fisheries in the region. In 1994, it introduced common conservation measures banning the use of certain fishing techniques and methods, fixing some minimal net mesh sizes and sizes below which fish should not be landed.

It is also actively involved in negotiations with Mediterranean coastal states and other parties with a view to enhancing cooperation in scientific research and devising conservation measures for the entire Mediterranean. Measures to strengthen the General Fisheries Commission for the Mediterranean are regarded as the best way to achieve these objectives.

Except for tuna, which is relatively easy to control and is exploited by a very limited number of vessels, the Mediterranean is not affected by the TAC system at the moment, the reasons being the large number of species and the difficulty in controlling landings.

The CFP components concerning markets and structures which apply in the Mediterranean do not differ substantially. In fact, the Mediterranean is included in the MAGP; fleets are not allowed to grow and they are currently being reduced.

However, it is generally agreed that the Mediterranean needs to be managed through effort control, and it is also agreed that in many fisheries the national, regional or local regulations, when more restrictive, can coexist with a more general regional regulation without causing problems. In fact, since most fishing activities are local, the main consequences of a situation of overexploitation have an impact on the local community. It is probably for that reason and due to the resulting self-control that can be generated that the expansion processes (and crises) in Mediterranean fisheries are less serious than in other seas. However, despite the process of fleet reduction, improving technologies are resulting in an increase in the fishing power of these fleets.

This situation has called for additional management measures for the Mediterranean Sea. An EC Council Regulation (No 1626/94) was adopted in 1994 on certain technical measures for the conservation of marine resources in the Mediterranean, and in 2000 a new regulation⁷ was adopted amending the first one. Both regulations establish mainly which gears are allowed to be used and their characteristics, the minimum size of landing for some species and areas and seasons closed to fisheries. However, these Regulations are considered not enough to ensure the sustainability of Mediterranean fisheries, mainly due to the excessive number of derogations adopted. It is at all events important to point out that part of the fishing sectors in some countries are still calling for the adoption of new derogations.

A process to improve the Mediterranean Fishery Regulation is in progress at the present time. An initial draft proposal appeared in 2003⁸, eliciting a strong reaction from the fishery sector, national fishery administrations and even fishery scientists. The proposal tries to regulate the same aspects as are included in Regulation 1626/94 but incorporating new aspects – fishing protected areas, recovery plans, non-commercial fishing and the Malta fishing area.

Agreement has not yet been reached on this new Regulation, and the Mediterranean will probably continue to be managed through an effort control system in the meantime, i.e. through measures to block methods used by fishing fleets or incentive measures to reduce these fleets as well as technical measures such as:

- measures to control the gears allowed to be used and their technical limitations
- stipulation of minimum landing sizes and perhaps degrees of tolerance
- definition and duties of Protected Areas
- limits and rights of recreational fisheries
- management plans
- control measures
- regulation of Malta waters.

If the new Regulation were approved it would help to provide clarification on certain definitions and would establish a minimum regulation that can be improved (subject to additional restrictions) at the national or regional level.

⁷ Council Regulation (EC) No 2550/2000 of 17 November 2000.

⁸ COM(2003) 589 final, (9.10.2003) Council Regulation concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea and amending Regulations (EC) No 2847/93 and (EC) No 973/2001.

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