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AGRICULTURE AND FISHERIES

THEME 5 – 4/1999

FISHERIES

Contents

Introduction.....	1
Catch of fishery products: 1991-96.....	2
Catch by fishing region.....	3
Major fish species caught.....	3
Aquaculture production.....	5
Major species reared.....	5



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Fisheries Production in EU Candidate Countries

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Introduction

Total fisheries production in the 11 EU Candidate Countries (Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia) in 1996 ranged from 370 thousand tonnes in Poland to 2 400 tonnes in Slovakia. 87% of the production was concentrated in the four coastal states of the Baltic Sea (Estonia, Latvia, Lithuania and Poland).

The total fisheries production of the 11 EU Candidate Countries (776 thousand tonnes) is only 10% of that of the EU Member States (7.8 million tonnes) and the largest single contributor to the total (Poland, 370 thousand tonnes) has a production of less than 5% of the EU total.

Country	Code	Catch	Aquaculture	Total	% catch
Bulgaria	BG	12 698	2 527	15 225	83
Cyprus	CY	2 639	465	3 104	85
Czech Republic	CZ	3 524	18 200	21 724	16
Estonia	EE	107 406	272	107 678	100
Hungary	HU	13 044	8 080	21 124	62
Latvia	LV	142 645	380	143 025	100
Lithuania	LT	55 186	1 537	56 723	97
Poland	PL	341 900	27 700	369 600	93
Romania	RO	18 260	13 900	32 160	57
Slovak Republic	SK	1 412	954	2 366	60
Slovenia	SI	2 342	869	3 211	73

Table 1: Total fisheries production (tonnes) in 1996

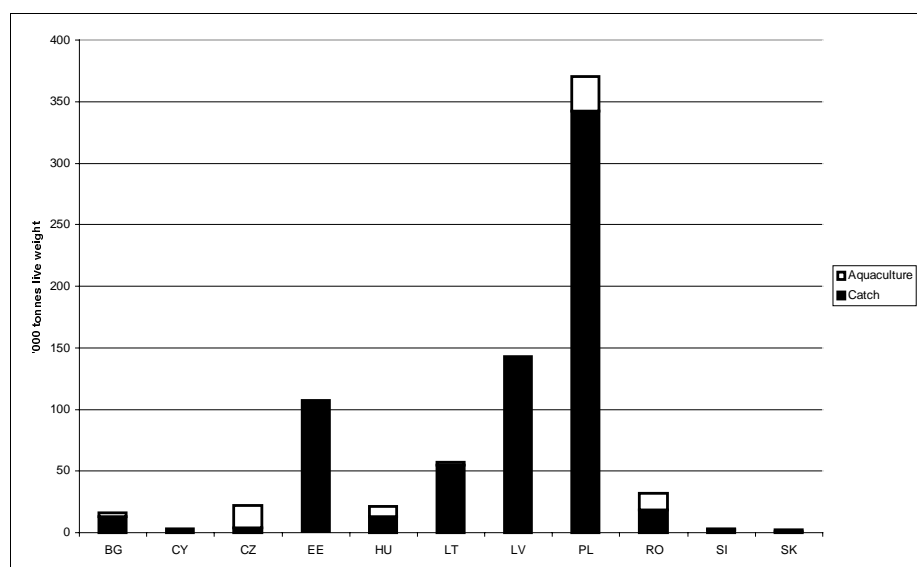


Figure 1: Total fisheries production in 1996

Catch of fishery products: 1991-96

All of the major marine fishing countries experienced sharp decreases in their total catches in the period 1991-96 (see Table 2 and Figure 2). These decreases were particularly marked in the earlier part of the period and were followed by a relative stabilisation of the situation. The total catch of all 11 countries decreased by approximately 63% to 701 thousand tonnes, with the greatest decreases being recorded by Bulgaria (-75%) and Romania (-84%). In the same period the total catch of EU Member States increased by about 2% to 6.6 million tonnes.

Only in Cyprus and those countries proportionally more dependant on inland fisheries were catches relatively stable throughout the period.

	1991	1992	1993	1994	1995	1996
Bulgaria	50 056	23 985	13 685	10 371	12 901	12 698
Cyprus	2 657	2 719	2 767	2 908	2 752	2 639
Czech Republic	:	:	3 185	3 955	3 929	3 524
Estonia	348 242	131 334	147 191	123 688	115 608	107 406
Hungary	14 944	15 206	13 912	14 058	13 506	13 044
Latvia	411 747	156 986	142 641	138 247	149 276	142 645
Lithuania	467 467	184 675	117 172	49 163	47 798	55 186
Poland	430 077	477 871	406 197	437 854	419 693	341 900
Romania	112 384	87 470	14 264	22 274	49 289	18 260
Slovak Republic	:	:	1 184	1 627	1 948	1 412
Slovenia	:	3 909	2 290	2 365	2 161	2 342

Table 2: Total catch (tonnes) of fishery products, 1991-96

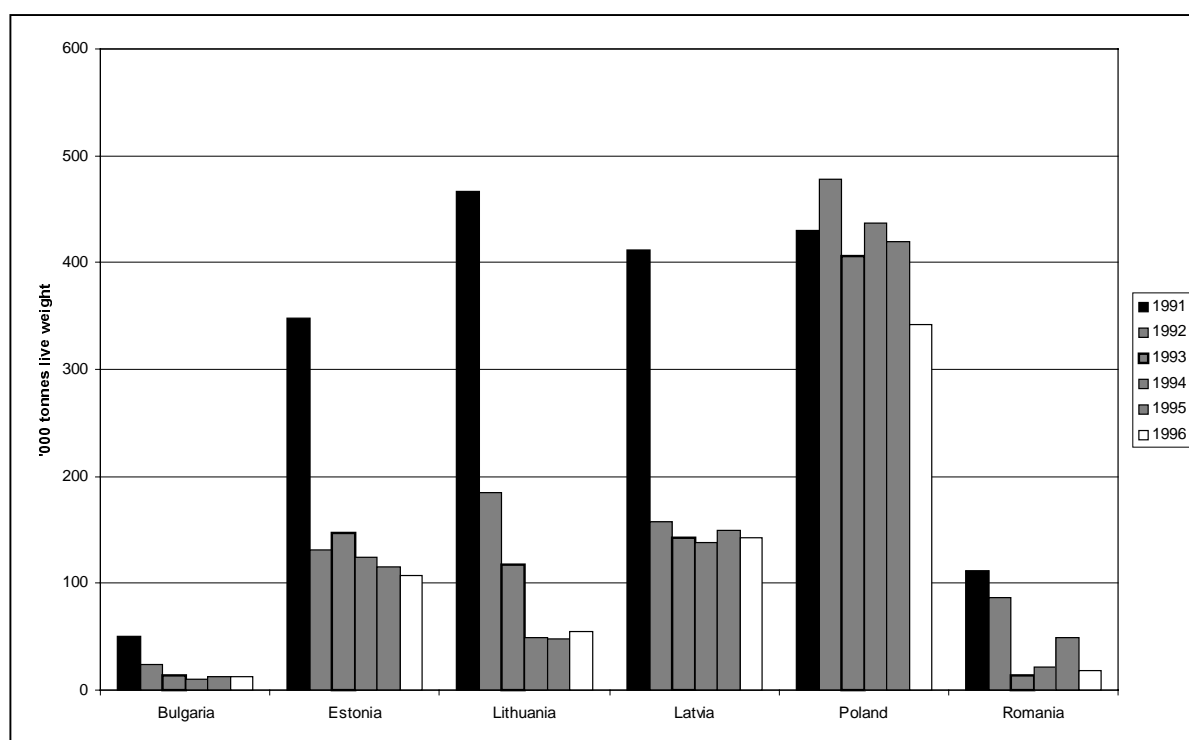


Figure 2: Total catch of fishery products, 1991-96

Catch by fishing region

Of the EU Candidate Countries, the major marine fishing countries fish widely throughout the world: none more so than Poland which fishes as far away from its own shores as the Antarctic and the Northwest Pacific Oceans (see Table 3). On average in 1996, approximately 36% of the total catch of EU Candidate Countries was taken in distant waters (that is, waters of FAO major fishing areas not adjacent to the coast-lines of the countries – see chart in the Methodology section). This compares with only about 13% for EU Member States.

Despite the importance of inland fisheries to the land-locked countries (the Czech Republic, Hungary and the Slovak Republic) on average only 8% of the total catch was taken by these fisheries in 1996. However this is still greater than the 2% of the total catch coming from inland fisheries, 123 thousand tonnes, in EU Member States.

	All areas	Inland	NW Atlant	NE Atlant	EC Atlant	Medit.	SW Atlant	SE Atlant	NW Pacif	Antarct.
Bulgaria	12 698	2 491	-	5 750	-	4 456	-	-	-	-
Cyprus	2 639	64	-	-	-	2 575	-	-	-	-
Czech Republic	3 524	3 524	-	-	-	-	-	-	-	-
Estonia	107 406	2 363	2 010	93 431	7 063	-	2 538	-	-	-
Hungary	13 044	13 044	-	-	-	-	-	-	-	-
Latvia	142 645	536	1 253	73 103	63 711	-	4 041	-	-	-
Lithuania	55 186	1 295	1 585	52 304	-	-	-	-	-	-
Poland	341 900	22 637	-	157 335	19 766	-	3 549	1 736	116 266	20 610
Romania	18 260	6 145	-	9 432	1	2 682	-	-	-	-
Slovak Republic	1 412	1 412	-	-	-	-	-	-	-	-
Slovenia	2 342	264	-	-	-	2 078	-	-	-	-

Table 3: Catch (tonnes) by fishing region in 1996

Major fish species caught

The European sprat was the largest component of the catches by EU Candidate Countries in 1996 (see Table 4). This catch of 150 thousand tonnes, largely by Latvian and Polish vessels in the Baltic Sea, was equivalent to 35% of the EU catch of the species in that year (423 thousand tonnes). The large catch of Alaska pollack, a species not recorded in the EU catches in 1996, was entirely due to the fishery by Polish vessels in the Northwest Pacific. The catches of herring and cod, both largely from the Baltic Sea, were equivalent to 16% and 17% of the EU catches in the same period (709 thousand and 306 thousand tonnes respectively). The catches of Sardinellas, by Latvian and Polish distant water vessels in the Eastern Central Atlantic, were over 2.5 times the EU catch (13 thousand tonnes).

Species	tonnes live weight	
	Catch	% of total
European sprat - <i>Sprattus sprattus</i>	149 897	21
Alaska pollack - <i>Theragra chalcogramma</i>	116 257	17
Atlantic herring - <i>Clupea harengus</i>	110 116	16
Atlantic cod - <i>Gadus morhua</i>	51 621	7
Sardinellas nei - <i>Sardinella</i> spp	33 775	5

Table 4: Major species in the total catch of the EU Candidate Countries in 1996

Table 5 shows a breakdown of the major fish species for each of the Candidate Countries. Apart from the above comments concerning marine species, of note is the importance of the Common carp in the inland fisheries of the Czech Republic, Hungary, the Slovak Republic and Slovenia. Indeed, the catch of this species by EU Candidate Countries (11 500 tonnes) makes up 71% of the non-farmed production of this species in Europe (15 000 tonnes).

Country	Major species	Catch	% of total
Bulgaria	European sprat - <i>Sprattus sprattus</i>	3 535	28
	Beaked redfish - <i>Sebastes mentella</i>	3 500	28
	Atlantic mackerel - <i>Scomber scombrus</i>	2 000	16
Cyprus	Picarels - <i>Spicara</i> spp	764	29
	Bogue - <i>Boops boops</i>	285	11
	Red mullet - <i>Mullus surmuletus</i>	240	9
Czech Republic	Common carp - <i>Cyprinus carpio</i>	2 522	71
	Freshw ater bream - <i>Abramis brama</i>	247	7
	Northern pike - <i>Esox lucius</i>	163	4
Estonia	Atlantic herring - <i>Clupea harengus</i>	45 296	42
	European sprat - <i>Sprattus sprattus</i>	22 493	21
	Blue whiting - <i>Micromesistius poutassou</i>	10 982	10
Hungary	Common carp - <i>Cyprinus carpio</i>	6 545	50
	Carp - Cyprinids nei - <i>Cyprinidae</i>	2 269	17
	Silver carp - <i>Hypophthalmichthys molitrix</i>	1 850	14
Latvia	European sprat - <i>Sprattus sprattus</i>	34 211	24
	Atlantic herring - <i>Clupea harengus</i>	27 523	19
	Sardinellas nei - <i>Sardinella</i> spp	24 209	17
Lithuania	Atlantic redfishes - <i>Sebastes</i> spp	10 649	19
	European sprat - <i>Sprattus sprattus</i>	10 165	18
	Atlantic horse mackerel - <i>Trachurus trachurus</i>	7 400	13
Poland	Alaska pollack - <i>Theragra chalcogramma</i>	116 257	34
	European sprat - <i>Sprattus sprattus</i>	77 472	23
	Atlantic cod - <i>Gadus morhua</i>	35 968	11
Romania	Atlantic mackerel - <i>Scomber scombrus</i>	7 265	40
	European sprat - <i>Sprattus sprattus</i>	2 014	11
	Goldfish - <i>Carassius auratus</i>	1 954	11
Slovak Republic	Common carp - <i>Cyprinus carpio</i>	778	55
	Freshw ater breams nei - <i>Abramis</i> spp	111	8
	Northern pike - <i>Esox lucius</i>	103	7
Slovenia	European pilchard - <i>Sardina pilchardus</i>	1 982	84
	Common carp - <i>Cyprinus carpio</i>	86	4
	Carp - Cyprinids nei - <i>Cyprinidae</i>	54	2

Table 5: Major species caught by EU Candidate Countries in 1996 (tonnes)

Aquaculture production

The EU Candidate Countries produced a total of 75 thousand tonnes of fish, crustaceans and molluscs on fish farms in 1996. This compared with a 1.4 million tonnes by the EU Member States. Poland (27 700 tonnes), Czech Republic (18 200 tonnes) and Romania (13 900 tonnes) were the largest producers (see Table 6).

Only about 100 tonnes of this 75 thousand tonnes was of crustaceans and molluscs: all the rest was of fin fish. This contrasts strongly with the situation in the EU where 68% of the production is of molluscs (923 thousand tonnes - largely mussels and oysters).

Another striking feature of the production in EU Candidate Countries is that 87% of the fish production is of freshwater fish (largely of the carp family) and only 12% of diadromous species (trout, salmon, eels and sturgeon). Marine fish constituted 1% of the production. This contrasts strongly with the situation in the EU Member States where diadromous fish production predominates (81% of the fish) followed by marine fish 12%. Freshwater fish only contributed 8% to the total.

	Marine fish	Freshwater fish	Diadromous fish	Crustaceans	Molluscs	Total
Bulgaria	-	1 900	585	-	42	2 527
Cyprus	348	0	105	12	-	465
Czech Republic	-	17 378	822	-	-	18 200
Estonia	-	61	211	-	-	272
Hungary	-	8 076	4	-	-	8 080
Latvia	-	379	1	-	-	380
Lithuania	-	1 537	0	-	-	1 537
Poland	-	21 900	5 800	-	-	27 700
Romania	-	13 520	380	0	-	13 900
Slovak Republic	-	329	625	-	-	954
Slovenia	75	212	532	-	50	869

Table 6: Aquaculture production (tonnes) by EU Candidate Countries

Major species reared

The major species reared in EU Candidate Countries in 1996 was the Common carp (see table 7): the production of 51 000 tonnes was 72% of the European total farmed production of this species (71 000 tonnes). This production was also 68% of the total fish reared by EU Candidate Countries. Three of the other major species produced were also members of the carp (Cyprinid) family.

Table 8 shows the major farmed species in each of the Candidate Countries. This indicates that only in Cyprus and Slovenia does the culture of marine species (sea bream and sea bass) play any significant role.

Species	Production
Common carp - <i>Cyprinus carpio</i>	50 625
Rainbow trout - <i>Salmo gairdneri</i>	8 449
Silver carp - <i>Hypophthalmichthys molitrix</i>	6 258
Goldfish - <i>Carassius auratus</i>	2 800
Bighead carp - <i>Hypophthalmichthys nobilis</i>	2 559

Table 7: Principal species reared in Candidate Countries in 1996 (tonnes)

Country	Species	Production
Bulgaria	Common carp - <i>Cyprinus carpio</i>	1 600
	Rainbow trout - <i>Salmo gairdneri</i>	585
	Silver carp - <i>Hypophthalmichthys molitrix</i>	300
Cyprus	Gilthead seabream - <i>Sparus aurata</i>	223
	Rainbow trout - <i>Salmo gairdneri</i>	105
	Seabass - <i>Dicentrarchus labrax</i>	99
Czech Republic	Common carp - <i>Cyprinus carpio</i>	15 940
	Rainbow trout - <i>Salmo gairdneri</i>	647
	Bighead carp - <i>Hypophthalmichthys nobilis</i>	405
	Tench - <i>Tinca tinca</i>	317
Estonia	Rainbow trout - <i>Salmo gairdneri</i>	194
	Common carp - <i>Cyprinus carpio</i>	61
	Sturgeons nei - <i>Acipenseridae</i>	17
Hungary	Common carp - <i>Cyprinus carpio</i>	5 788
	Silver carp - <i>Hypophthalmichthys molitrix</i>	1 007
	Bighead carp - <i>Hypophthalmichthys nobilis</i>	354
Latvia	Common carp - <i>Cyprinus carpio</i>	379
	Rainbow trout - <i>Salmo gairdneri</i>	1
Lithuania	Common carp - <i>Cyprinus carpio</i>	1 537
Poland	Common carp - <i>Cyprinus carpio</i>	21 400
	Rainbow trout - <i>Salmo gairdneri</i>	5 800
Romania	Silver carp - <i>Hypophthalmichthys molitrix</i>	4 900
	Common carp - <i>Cyprinus carpio</i>	3 450
	Goldfish - <i>Carassius auratus</i>	2 800
	Bighead carp - <i>Hypophthalmichthys nobilis</i>	1 800
Slovak Republic	Rainbow trout - <i>Salmo gairdneri</i>	600
	Common carp - <i>Cyprinus carpio</i>	315
	Brook trout - <i>Salvelinus fontinalis</i>	25
Slovenia	Rainbow trout - <i>Salmo gairdneri</i>	513
	Common carp - <i>Cyprinus carpio</i>	155
	Seabass - <i>Dicentrarchus labrax</i>	53

Table 8: Major species farmed in EU Candidate Countries in 1996 (tonnes)

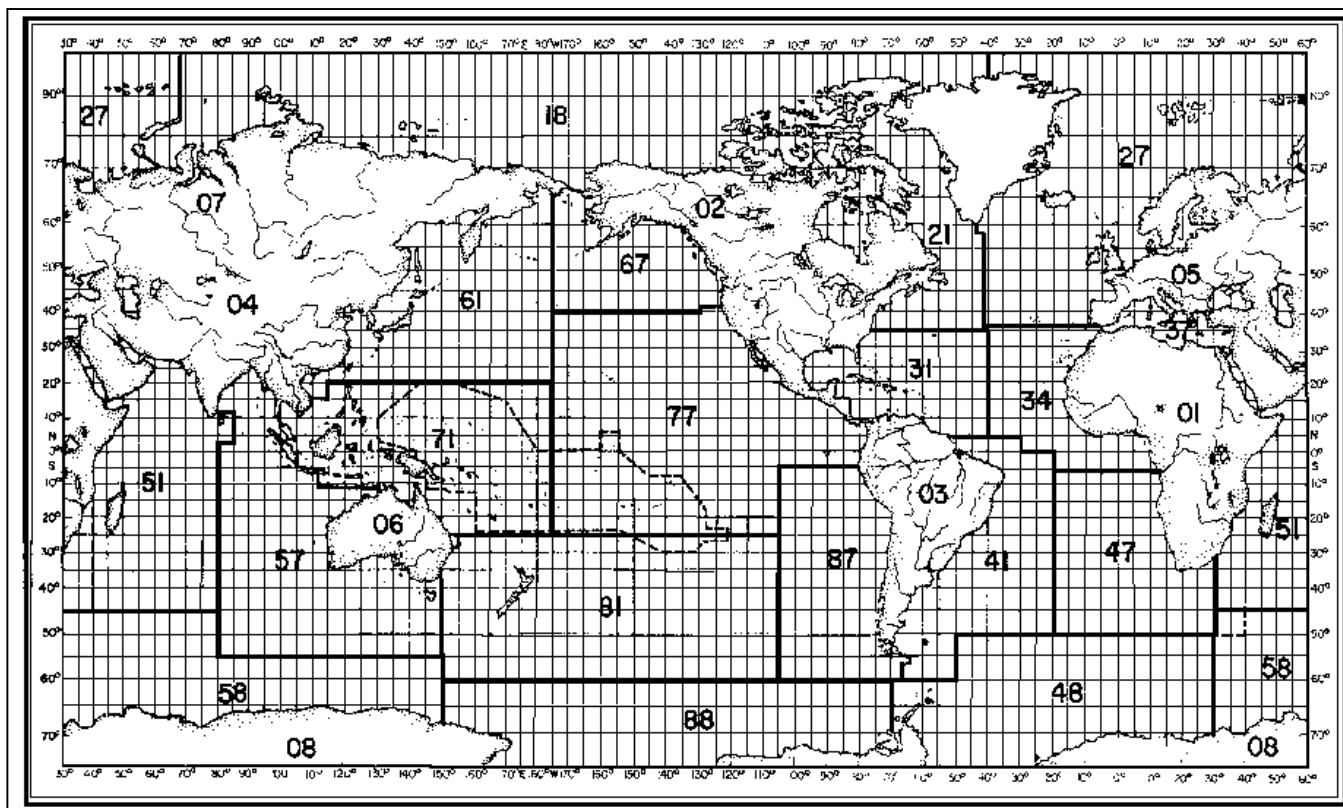
➤ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

The data have been compiled from the submissions of catches and aquaculture production by the national authorities of the EU Candidate Countries to Eurostat and/or FAO on the STATLANT and FISHSTAT systems of questionnaires. Eurostat gratefully acknowledges the collaboration of these national authorities and the contribution made by FAO in compiling and evaluating the data.

More detailed information of the catches and aquaculture production by EU Member States and the EU Candidate Countries are available on the New Cronos domain FISH.

- Catches and aquaculture production are recorded in the live weight equivalent of the landings/production.
- The major criterion in determining the nationality of the catch is the flag of the vessel performing the essential part of the fishing operation.
- Aquaculture is defined as the farming of aquatic organisms, including fish, molluscs, crustaceans and aquatic plants. Farming implies some form of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of, or rights resulting from contractual arrangements to, the stock being cultivated. For statistical purposes, aquatic organisms which are harvested by an individual or corporate body which has owned them throughout their rearing period contribute to aquaculture, while aquatic organisms which are exploited by the public as a common property resource, with or without appropriate licences, are the harvest of fisheries.
- The major fishing areas used in this publication are those defined by FAO. (see chart below)

Inland waters	Area 05	NW Atlantic	Area 21	NE Atlantic	Area 27
EC Atlantic	Area 34	Mediterranean & Black Sea	Area 37	SW Atlantic	Area 41
SE Atlantic	Area 47	NW Pacific	Area 61	Antarctic	Areas 48, 58 and 88.



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