COMMISSION OF THE EUROPEAN COMMUNITIES
Directorate-General for Fisheries

Regional, Socio-Economic Study in the Fisheries Sector

ITALIA

Friuli-Venezia-Giulia, Veneto, Emilia-Romagna, Marche, Abruzzi, Molise, Puglia, Basilicata

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ABSTRACT

The analysis of the fishery sector shows the importance of Adriatic and Ionian coasts within the general panorama of the Italian activity. The Region accomodates 44.2% of the GRT and about 45% of the total engine power of the Italian fishing fleet. There are 7,337 vessels, 42% of the national total and 15,184 fishermen, accounting for about 38% of the work force employed by the entire national fleet. The fishing activity carried out in the Region yields 177567 tons of fish per year, accounting for 53% of the total Italian production per year.

Regarding the zones that are dependent on fisheries and ancillary activities, three zone levels have been determined. Dealing about the first category, the Marches is undoubtedly the zone with the highest level of dependence; alongside the Marches other dependent regions such as Friuli V. Giulia and Puglia can be placed. Veneto and Emilia Romagna and Abruzzi fall into the second class of zones. Finally, fishery in Molise and Basilicata is furtherly less important. In general terms, the Region has shown a medium-high level of dependence. This is corroborated by the fact that about 2/3 of the territory in the Region is included in Objective 1 of the Structural Funds, which means a rather poor development of industry and tertiary industry.

Even though the sector shows some dynamism and a considerably higher productivity compared to the other Italian Regions, the enforcement of the Common Fisheries Policy is likely to have a negative impact on the economic and social level. Within this framework, the adoption of ancillary measures will somehow balance the situation, by creating new job opportunities for the exceeding labour, on the one hand, and by encouraging the voluntary departure of aged workers from fishing, on the other hand, with the final aim of boosting the employment of youngest fishermen in the fishing activities.

ABSTRACT

Analizzando il settore della pesca, si rileva l'importanza della costa adriatica e di quella ionica nel panorama generale delle attività alieutiche in Italia. La regione oggetto del presente studio conta il 44,2% della stazza lorda e circa il 45% della potenza totale della flotta da pesca italiana. I pescherecci sono 7.337, ossia il 42% del totale nazionale, e gli addetti 15.184, ossia il 38% della manodopera complessivamente impiegata dalla flotta nazionale. La produzione ammonta a 177.567 t di pesce all'anno, pari al 53% del quantitativo globale prodotto annualmente dall'Italia.

Le zone maggiormente dipendenti dalla pesca e dalle attività connesse sono state ripartite in tre gruppi. Il primo comprende anzitutto le Marche, che hanno il grado di dipendenza indiscutibilmente più elevato; possono esservi inclusi, inoltre, il Friuli-Venezia Giulia e la Puglia. Il Veneto, l'Emilia-Romagna e gli Abruzzi rientrano nel secondo gruppo. Vengono poi, nel terzo, il Molise e la Basilicata, dove il settore della pesca riveste minore importanza. Complessivamente la macroregione qui considerata ha un grado di dipendenza medio-alto. Ciò trova riscontro nel fatto che circa i 2/3 del suo territorio sono compresi nell'obiettivo 1 dei Fondi strutturali, il che indica uno sviluppo piuttosto scarso dell'industria e del terziario.

Benché il settore alieutico presenti un certo dinamismo e una produttività nettamente più elevata rispetto alle altre regioni italiane, l'attuazione della politica comune della pesca avrà, prevedibilmente, ripercussioni negative sul piano economico e sociale. L'adozione di misure di accompagnamento nell'ambito di tale politica potrà in parte ovviare a tale situazione, creando nuove possibilità di lavoro per la manodopera eccedente, da un lato, e incentivando il ritiro volontario dall'attività dei pescatori più anziani, dall'altro. Si contribuirà in tal modo al conseguimento dell'obiettivo ultimo, che è quello di favorire l'inserimento dei giovani nel settore.

ABSTRACT

L'analyse du secteur de la pêche fait apparaître l'importance que revêtent les côtes adriatique et ionienne dans le panorama général de l'activité italienne. La flotte de pêche de la région qui fait l'objet de la présente étude représente 44,2 % du tonnage - exprimé en tonneaux de jauge brute - et environ 45 % de la puissance totale des moteurs de la flotte de pêche italienne. On dénombre 7.337 navires - 42 % du total national - et 15.184 marins pêcheurs, soit 38 % des effectifs de la flotte de pêche nationale dans son ensemble. La pêche pratiquée dans la région procure 177.567 tonnes de poissons par an, soit 53 % de la production annuelle totale de l'Italie.

Les zones qui sont tributaires de la pêche et des activités connexes ont été subdivisées en trois catégories. Dans la première de celles-ci, les Marches sont assurément la zone accusant le degré de dépendance le plus élevé; on peut y ranger également d'autres régions tributaires de la pêche comme le Frioul, la Vénétie Julienne et les Pouilles. La Vénétie, l'Emilie-Romagne et les Abruzzes figurent dans la deuxième catégorie. En dernier lieu, il faut mentionner le Molise et la Basilicate, où la pêche joue un rôle moins important. D'une façon générale, la région a accusé un moyen ou haut degré de dépendance, observation corroborée par le fait que les deux tiers environ de son territoire relèvent de l'objectif 1 des Fonds structurels, ce qui atteste un développement assez faible de l'industrie et du secteur tertiaire.

Même si la pêche se montre plutôt dynamique et si sa productivité est beaucoup plus élevée que dans d'autres régions italiennes, la mise en oeuvre de la politique commune de la pêche est susceptible d'avoir des répercussions fâcheuses sur le niveau économique et social. Dans ce contexte, l'adoption de mesures d'accompagnement rééquilibrera quelque peu la situation, d'une part en créant de nouveaux emplois et d'autre part en encourageant les départs volontaires de travailleurs âgés du secteur de la pêche, l'objectif ultime étant de favoriser l'emploi des marins pêcheurs les plus jeunes.

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1. ANALYSIS OF THE SECTOR

1.1. Fishing Fleet

The focus here will be on the structure of the fishing fleet in Region IT.2. The analysis of the fishing fleet was carried out at different levels: Travel-To-Work Area, administrative regions, Region IT.2, according to the different aggregation degree of the available data.

Table 1.I gives a general overview of the situation in the Italian fishing fleet by coast and maritime district in 1991. The coast and maritime districts of Region IT.2 are also included. A first glance at the table reveals that the study is basically concerned with two coasts: the Adriatic and part of the Ionian coast. It covers 15 (13 on the Adriatic coast and 2 on the Ionian coast) of the 43 maritime districts in Italy. An interesting point is that these 1,646 km of coast (22% of the entire Italian coastline), with 225 ports and landing places (28% of the national total), accomodate 44.2% of the gross registered tonnage (GRT) and about 45% of the total engine power of the Italian fishing fleet. There are 7,337 vessels (42% of the national total) registered in these maritime districts and they take on board 15,184 fishermen representing about 38% of the work force employed by the entire national fleet.

The data shown in table 1.I are an elaboration from Archives of fishing licences of Ministry of the Merchant Navy. Such an unbalanced distribution of the fishing fleet, which mostly concentrates upon the Region IT.2, results from a number of combined factors, some of which will follow:

- the Adriatic Sea is characterized by a particularly wide continental shelf. Except for few deeps, the average depth reaches 200 m. In some zones of the High Adriatic the bathymetric line (depth line) of 100 m is located at 15-20 miles off the coastline. This peculiar characteristics create the most favourable conditions for the carrying out of trawl fishing, gill net fishing and deep long line fishing; as a result, such activities have along the years led to the creation of a deeply-rooted tradition all over the Region IT.2;

- in addition, the remarkably low sea-bottoms ensure the best chemical and physical conditions both for reproduction and for growth of the fish stocks.

Tab. 1.I - ITALIAN FISHING FLEET BY COAST AND MARITIME DISTRICT - APRIL 1991

COAST		DISTRICT	N.	G.R.T.	HP	CREW	COAST LENGTH (KM)	LANDING PLACES
		Brindisi	194	1003	8503	388	192,0	39
		Bari	283	18250	51185	764	86,0	21
		Molfetta	373	10450	54325	1007	58,0	9
		Manfredonia	642	8800	61408	1412	233,0	21
LOW ADRIATIC	4		1492	38503	175421	3572	569,0	90
		Pescara	877	15998	80887	1695	168,0	16
		S.B.Tronto	463	14052	47868	1000	48,0	9
		Ancona	982	17224	80568	1430	84,0	12
		Rimini	482	4950	48050	717	90,0	10
MEDIUM ADRIATIC	4		2804	52224	257373	4842	390,0	47
		Ravenna	638	8568	59918	1111	116,0	8
		Chioggia	700	8290	75092	1531	79,0	6
		Venezia	480	3950	40066	1103	88,0	10
		Monfalcone	408	2683	30263	953	54,0	5
		Trieste	195	910	9653	422	40,5	4
HIGH ADRIATIC	5		2421	24401	214992	5120	377,5	33
		Taranto	260	1156	9563	760	170,0	30
		Gallipoli	360	2276	19126	890	139,5	25
IONIAN	2		620	3432	28689	1650	309,5	55
TOTAL REGION IT. 2	15		7337	118560	676475	15184	1646,0	225
TOTAL OTHER ITALIAN REGIONS	28		10150	149133	829759	24454	5810	577
ITALY	43		17487	267693	1506234	39638	7456	802

Sources: Ministry of Merchant Marine - 3rd Fisheries Triennal Plan, 1991/93

Tab. 1.II - MOTORIZED AND NON MOTORIZED FISHING FLEET PERCENTAGE VARIATION BY COAST - 1984/1989

COAST	MOTORIZED (%)		NON-MOTORIZED (%)	
	N.	G.R.T.	N.	G.R.T.
Adriatic	0,2	6,3	-29,2	-27,6
-High	-3,0	4,5	-0,9	-1,5
-Medium	8,5	3,6	-34,4	-26,5
-Low	-7,1	11,4	-47,0	-48,7
Ionian (*)	10,5	20,3	-6,9	-4,4
TOTAL REGION IT.2	1,6	7,0	-25,1	-22,7
TOTAL OTHER ITALIAN REGIONS	-7,3	-3,4	-30,6	-38,7
ITALY	-3,8	1,0	-28,3	-33,0

Source: Our processing on ISTAT data

(*) Ionian data is overestimate because it contains one maritime district (Crotone) of Region IT. 1

Tab. 1.III - ITALIAN FISHING FLEET BY FISHING METHODS. COMPARISON BETWEEN REGION IT.2 AND ITALY - 1989

COAST	BOTTOM TRAWLER			PELAGIC TRAWLER			PURSE-SEINER			LONG LINER			GILL NETTER		
	N.	G.R.T.	HP (KW)	N.	G.R.T.	HP (KW)	N.	G.R.T.	HP (KW)	N.	G.R.T.	HP (KW)	N.	G.R.T.	HP (KW)
Adriatic	2127	63548	313550	83	5190	24009	39	1420	5386	62	185	1567	1465	4791	41934
Low	555	17273	95069	22	1108	6420	11	778	2387	8	47	316	376	1633	11786
Medium	721	35387	123268	18	1688	3964	11	515	1511	1	9	129	749	1738	14799
High	851	10888	95213	43	2394	13625	17	127	1488	53	129	1122	340	1420	15349
Ionian	91	1293	8698				22	148	883	73	376	2935			
TOTAL REGION IT.2	2218	64375	322248	83	5190	24009	61	1568	6269	135	561	4502	1727	5531	47475
TOTAL OTHER ITALIAN REGIONS	1616	78904	326026	3	99	1055	373	11286	47349	339	2789	17012	3471	12245	95756
ITALY	3834	143745	648274	86	5289	25064	434	12854	53618	474	3350	21514	5198	17776	143231

COAST	DREDGER			OTHER METHODS			MULTI-PURPOSE VESSEL			TOTAL		
	N.	G.R.T.	HP (KW)	N.	G.R.T.	HP (KW)	N.	G.R.T.	HP (KW)	N.	G.R.T.	HP (KW)
Adriatic	464	4811	46720	210	1570	13402	2029	30396	150863	6479	111911	597432
Low	53	474	4599	32	290	2305	466	15012	41631	1523	36615	164514
Medium	264	2772	26797	71	512	3373	781	9220	57897	2616	51841	231738
High	147	1565	15324	107	768	7724	782	6164	51335	2340	23455	201180
Ionian	2	19	162	92	164	1060	382	819	9828	924	3559	29107
TOTAL REGION IT.2	466	4830	46882	302	1734	14462	2411	31215	160691	7403	115270	626539
TOTAL OTHER ITALIAN REGIONS	61	390	4260	467	2696	21149	4700	39285	254669	11030	147994	767276
ITALY	527	5220	51142	769	4430	35611	7111	70500	415360	18433	263264	1393815

Source: our processing on ISTAT data

Parallel to the considerable development of the fishing fleet in the Region IT.2 as referred to above, it should be pointed out also the particular dynamism of the fleet, especially from S. Benedetto del Tronto towards the South of the Region. In particular S. Benedetto del Tronto and Bari represent the two major poles for the ocean-going fleet, which operates mainly in the South-West Atlantic, Gulf of Guinea and Indian Ocean. The inshore fishing fleet in the Medium and Low Adriatic also moves on a seasonal basis (from July to October) in the Ionian and Tyrrhenian Sea to catch deep-sea shrimps. On the other hand, the pelagic fishing fleet shows less dynamism, operating mainly in Medium Adriatic. Purse seine fishing is seasonal and restricted to the period from April to October.

Some hints are provided below as regards the law regulating the fisheries fleet activity in Italy, including of course the Region IT.2's fleet. The following measures have been adopted:

- within 3 miles of the coastline or at depth less than 50 m bottom trawl fishing is not allowed;
- minimum mesh size of nets;
- maximum allowable catch of each species of molluscs;
- fishing activity for a period of 45 days running in one year is not allowed with the aim of preserving resources and face overexploitation;
- an additional suspensive period of 2 days per week is provided for too.

During the eighties, the Italian fleet went through a widespread process of evolution. Within the said period, the 1984-1989 span has ben crucial. Table 1.II gives an idea of the extent to which Region IT.2 was involved in this process, characterized by some fundamental changes:

- rapid decline in the non-motorized fleet, though not so strong as in the other Italian Regions;

- marked decrease in the motorized fleet of smaller size;

- reconversion of the fishing fleet towards larger fishing vessels in tonnage, at a relatively double rate compared to the other Italin Regions.

With regard to the age of the fleet, the data in Table 1.IV confirms that the vessels in Region IT.2 are really quite old. In fact, 48.6% of the boats have been operating for over 20 years, while 29.7% fall into the category of vessels between 10 and 19 years and only 21.7% are less than 9 years old. As a result of the artisanal character of the fisheries sector, the operators show no aptitude in reserving funds for capital. This habit represents one of the principal reasons for the remarkable obsolescence affecting the fishing fleet in the Region. The structural support from the Common Fisheries Policy as well as from public funds have unfortunately had very little influence on the renewal process of the fleet.

A comparison between the situation of the motorized fishing fleet in Region IT.2 and Italy as a whole, with particular reference to fishing methods, is presented in table 1.III. A study of the data confirms the major role played by Region IT.2 in Italy. In particular, the main method adopted by the regional fleet in 1989 was bottom trawler. In spite of the fact that since 1980 fishing with drift nets within three miles of the coast has been prohibited, that the law no 278 of 18/07/1988 has suspended the issue of additional fishing licences for bottom trawling for a period of three years and that with a ministerial decree of 28/12/1989 it was forbidden to grant bew fishing licences for pelagic trawling (including drift nets), the data on the regional fleet using this fishing is quite impressive.

In absolute terms, this fleet has the largest number of boats, 2,218, with a total tonnage of 64,375 GRT, using 322,248 horsepower (equivalent to 57.8%,44.8%, and 49.7% of the Italian bottom trawler fleet). Next come the boats that use multipurpose gears with 2,411 vessels and 31,215 GRT. A particularly large number of boats in the regional fleet use system known as gill netter with 1,727 vessels and 5,531 GRT. Finally, there are two fishing methods adopted almost exclusively by the regional fleet: the pelagic trawler and the dredger with respectively 96.5% and 88.4% of the vessels, 98.1% and 92.5% of GRT, 95.7 and 91.6% of the engine power of the respective national fleets. By dividing the data according to coast it is also possible to see that the number of vessels using these fishing systems are almost exclusively concentrated on the Adriatic coast while they are almost non-existent on the Ionian coast. Purse-seiner and long-liner fishing methods are little used and involve not more than

200 vessels and about 2,000 GRT. It should be emphasized that the low ratio of number of boats to tonnage confirms the prevelently "coastal" character of the regional fleet characterized by medium to small vessels (up to 3 and 4-10 GRT).

Landings of fish in 1990 are below broken down by department, species and tonnage according to ISTAT data:

DEPARTMENTS	PELAGIC FISH (tons)	DEMERSAL FISH (tons)	MOLLUSCS (tons)	CRUSTACEANS (tons)	TOTAL (tons)
MONFALCONE	1128	2173	11091	201	14593
VENEZIA	331	1152	3751	288	5522
CHIOGGIA	12180	3580	2285	419	18464
RAVENNA	15275	2196	10657	548	28676
RIMINI	3745	3395	4402	660	12202
ANCONA	2500	21597	8941	2296	35334
S. BENEDETTO	2188	2032	829	677	5726
PESCARA	1279	3030	2235	702	7246
MANFREDONIA	720	1656	5840	279	8495
MOLFETTA	6628	3634	1549	530	12341
BARI	1986	10120	3781	815	16702
BRINDISI	445	1342	454	117	2358
GALLIPOLI	378	1213	923	147	2661
TARANTO	1295	2160	2012	310	5777
TOT. REGION IT.2	51147	59518	58882	8020	177567
ITALY	73490	135998	93922	33530	336940

Landings' value in 1987 is below broken down in terms of coast and composition:

	Pelagic	Demersal Finfish	Molluscs (Mio.Lit.)	Crustaceans	Clams	TOTAL
IONIAN	2351	39344	6892	6969	0000	55546
LOW.ADRIAT.	10104	140247	83650	87836	6242	328079
MED. ADRIAT.	35706	190151	65880	126030	61226	478993
HIGH ADRIAT.	44561	127514	43399	45368	31729	292571
ITALY	147119	1366126	343306	496934	100665	2454150

Source: IREPA (Institute for economic research in fishery and aquaculture)

Landings' value in 1987 is below broken down by fishing method and coast.

	Trawl	Purse seine	Gill Net (Mio.Lit.)	Other	Multipurpose	TOTAL
IONIAN	30170	2664	12334	XX	10378	55546
LOW.ADRIAT.	199013	7189	58906	13807	49164	328079
MED. ADRIAT.	345173	4201	32656	61226	37737	478993
HIGH ADRIAT.	173099	1432	12347	31124	74569	292571
ITALY	1538610	110224	311346	125071	368899	2454150

XX: not recorded
Source: IREPA (Institute for economic research in fishery and aquaculture)

1.2. Aquaculture

Italian aquaculture can be considered as a recent development of the well known Valliculture[Here follows the meaning of Valliculture: Extensive rearing (G. Barnabé "Aquaculture" Vol 2, 1990, Ellis Horwood). Extensive rearing is carried out in fresh waters through the stocking of lakes in Poland and Sweden and particularly the brackish waters of the Po delta (Valli di Comacchio and the Venice region - Ravagnan 1988), where eels make up 70% of the production. In France, this practice is carried out in the Archaron basin (Certes) and salt marshers near Gueronde. In cold temperature waters, growth is so slow that wild eels reach commercial size only after 3-4 years in managed bodies of water. Production is low, a few tons of Kg/ha/yr] of the Venetian region. It developed at an increasing rate in the last twenty years, dealing both with fresh water to produce mainly trouts and with brackish water to produce white fish and molluscs. Technological development during last decade has been relevant mainly in hatchery and feed production, improving survival rate up to marketable size. According to a survey made in 1980 by IRVAM (8) the total number of plants in Italy was about 364, the production was estimated in 90,000 tons. In 1990 the number of plants, according to API (Italian Aquaculture Operators Association) (10), is 1,285 (Tab. 1. V). As far as employment is concerned, tab. 1. VI shows the development between 1980/1990 in Region IT.2 The number of people involved in Region IT.2 in 1990 is 13,044.

The production systems involved in Region IT.2 concerns mainly valliculture (Friuli V. Giulia, Veneto, Emilia R.) and intensie systems.

Valliculture is the oldest tradition of Italian aquaculture, developed mostly in Friuli V. Giulia, Veneto and along the river Pò. The production concerns mainly eel, sea bass, sea bream and mullet. Valliculture has had a period of crisis due to environmental problems, which good conditions are fundamental to the viability of the farms. During the '80 the development of new technologies has allowed a new valorization of new technologies has allowed a new valorization of this system thanks to semi-intensive systems and integrated aquaculture.

As far as intensive systems is concerned, the production of trout in the Region IT.2 counts a volume of 22,270 tons (Tab. 1. VII) that is over 60% of the Italian total production; the value registered in 1990 has been 65,15 million ECU, out of a total of 140 million ECU (Tab. 1. VIII). It involves 288 plants out of a total of 562 (Tab. 1. V). Trout market has been upset 5-7 years ago by an export crisis, which depressed price, in real terms, facing rising production costs. Since then the market recovered, thanks to recent developments in terms of market

Tab. 1.IV - FISHING FLEET AGE BY COAST AND AREAS - 1989

	from 0 to 9 years			from 10 to 19 years			20 years and over			Total		
	N.	%(a)	%(b)	N.	%(a)	%(b)	N.	%(a)	%(b)	N.	%(a)	%(b)
A.												
ADRIATIC	1571	8,7	21,7	2152	12	29,7	3520	19,6	48,6	7243	40,3	100
TYRRHENIAN	1413	7,9	25,2	1565	8,7	27,9	2637	14,7	47	5615	31,3	100
SICILIAN	816	4,5	20,8	1080	6	27,5	2029	11,3	51,7	3925	21,9	100
SARDINIAN	200	1,1	17	284	1,6	24,1	693	3,9	58,9	1177	6,6	100
B.												
NORTH	986	5,5	20,4	1382	7,7	28,6	2467	13,7	51	4835	26,9	100
CENTER	763	4,2	23,8	941	5,2	29,4	1496	8,3	46,8	3200	17,8	100
SOUTH	2251	12,5	22,7	2758	15,4	27,8	4916	27,4	49,5	9925	55,3	100
ITALY	4000	22,3	-	5081	28,3	-	8879	49,4	-	17960	100	-

Source: Our processing on ISTAT data

Legenda: %(a) Total Italy = 100
%(b) Total Area = 100

Tab.1.V - REGIONAL DISTRIBUTION OF ITALIAN AQUACULTURE PLANTS AND VALLICULTURE EXTENSION IN HA (1990)

Region	Trout	Catfish	Eel	Eurhialin sp.	Carp	others	Mussels	Subtotal	Valli (ha)
Friuli V. G.	87	1	2	1		1	35	127	1328
Veneto	166	27	56	11	9	2	55	326	15850
Emilia Romagna	9	163	12	3	4	15	7	213	14948
Marche	13		2	1			3	19	
Abruzzi	10							10	
Molise	2							2	
Puglia			14	7		2	110	133	13287
Basilicata	1		2	2				5	
TOTAL REGION IT. 2	288	191	88	25	13	20	210	835	45413
TOTAL OTHER ITALIAN REGIONS	274	2	47	27	15	15	70	450	18072
ITALY	562	193	135	50	30	35	280	1285	63485

Source: A.P.I.

Tab.1.VI - AQUACULTURE EMPLOYMENT TREND IN THE REGION IT. 2 - 1980/90

Year	Employment	
1980	5883	
1981	6679	
1982	7386	
1983	8093	
1984	8801	
1985	9508	
1986	10215	
1987	10922	
1988	11630	
1989	12337	
1990	13044	
	1981	1990
TOTAL REGION IT. 2	6679	13044

Source: Our processing on ISTAT and API data

Tab. 1.VII - AQUACULTURE PRODUCTION IN THE REGION IT. 2 - 1990: VOLUME (tons)

Species	Trout	Catfish	Eel	Eurhialin sp.	Mussel	Total
TOTAL REGION IT. 2	22270	1680	1430	350	69200	94930
TOTAL OTHER ITALIAN REGIONS	12730	120	2570	1550	25800	42770
ITALY	35000	1800	4000	1900	95000	137700

Source: ICRAP data bank

Tab. 1.VIII - AQUACULTURE PRODUCTION IN THE REGION IT. 2 - 1990: VALUE (million ECU)

Species	Trout	Catfish	Eel	Eurhialin sp.	Mussel	Total
TOTAL REGION IT. 2	65,15	4,37	19,78	4,99	44,99	139,28
TOTAL OTHER ITALIAN REGIONS	38,87	0,31	14,03	24,78	39,20	117,19
ITALY	104,02	4,68	33,81	29,78	84,19	256,47

Source: ICRAP data bank

segmentation. The catfish production is also important in terms both of volume and value; the production in the Region IT.2 involves 1,680 tons, out of a total production of 1,800 tons (Tab.1.VII). This species is mainly produced in Emilia R. (1.500 tons). Eel production in Region IT.2 involves 1,430 tons, out of a total of 4,000 tons. (Tab.1.VII), mainly in Friuli V. Giulia where valliculture is practiced. The production of white fish is not very relevant in the region: about 350 tons, practiced mainly as valliculture (Tab.1.VII), out of a total of 1,900 tons. On the contrary the production of juveniles of sea bass and sea bream is very high. The production in the Region registered in 1990 is 6,100,000 juveniles out of a total of 8,950,000 (Tab.1.IX). Finally, mussels production contributes to a production of 69,200 tons out of a total of 95,000 tons (Tab.1.VII).

The data showed reveal the importance of the aquaculture sector in Region IT.2, which production counts a volume of 94,930 tons in 1990, out of a total of 137,700 tons (Tab.1.VII); the corrsponding value registers in Region IT.2, in 1990, 139,28 million ECU out of a total of 256,47 million ECU (Tab.1.VIII). The development of aquaculture is tied not only to the technology but, even more, to the availability of sites. At the moment it can be said that a well known technology has been reached, a further development is therefore tied to the exploitation of those sites which have favourable environmental features. Sites like North-Adriatic area and, in the South, Lesina and Varano lagoons have the above mentioned features capable to improve the production.

As far as valliculture is concerned some problems have to be overcome; the management of a valle has high costs, to which it does not correspond an adequate level of earings, as in the past; at the moment a good solution appears the conversion from the extensive system to semintensive one, but even more it is important to focus the attention to the pollution, which decrease the productivity of the enterprises.

The off-shore technology could be further developed in the Region, given the availability of favourable sites; this technology has in fact shown a good level of productivity, due mainly to low investments costs.

1.3 Processing

The total turnover for the fish preserving industry amounts to 0,89 billion ECU - 1989 figures - (13) giving a slight increase on the previous year. The volume produced is calculated at 137,400 tons; consumption of preserved in Italy amounts to 1,29 billion ECU (1989 figures). Over 7,000 employees in industrial and semi-industrial enterprises and a fair number (1,300/1,400) of employees and seasonal workers in small artisanal enterprises (of which there are about 200) prepared about 250,000 tons of raw product in 1989, and kept these businesses working at 63% of their productive capacity (33).

The greater part of these industrial concerns is involved in preserving tuna. This is the main commodity as can be seen from the information that 62% of the total quantity of fish processed, and 50% in terms of value, is tuna. Employment is provided for 2,800 workers in the fish processing industry excluding personnel involved in marketing and distribution. The Italian companies in this segment increased their production between 1983 and 1988 by about 54%. The market is fairly concentrated: 56% of the annual production comes from the top four companies in this segment. In 1988 were operating 18 tuna processing firms, 4 of them were located in Region IT.2 (2 in Friuli V. Giulia, 1 in Emilia Romagna and 1 in Puglia) (see Tab. I.X.). The most delicate aspect processing industry is the problem of supply.

Although Italy is the main user of tuna fish in the EC - it consumes about 130,000 tons per year - it is forced to get its supplies almost exclusively from foreign sources. National catches, in the order of 5,000 tons, are meagre compared to the demand.

On the other hand, production and processing activities are well integrated in the sardine industry. Here, a high percentage of the freshly landed catches (about 40%) is used, which would otherwise not be consumed. Almost all the maritime district of the northern and central adriatic coast supply the fresh product to the preserving industries. In 1988 in Italy there are eight main companies, that have a processing capacity of 35,000 tons of raw product; however, average production is not more than 50% of this.In 1988 were located 8 main firms characterized by a processing capacity of 35.000 tons of raw

Tab.1.IX - JUVENILES PRODUCTION IN THE REGION IT. 2 (n°)

Year	1989	1990
TOTAL REGION IT.2	5200000	6100000
TOTAL OTHER ITALIAN REGIONS	3000000	2850000
ITALY	8200000	8950000

Source: ICRAP data bank

Tab. 1.X - DISTRIBUTION OF PROCESSING FIRMS IN THE REGION IT. 2 - 1988

TUNA

Friuli Venezia Giulia		
	Mazzola Igino S.p.A.	
	Safica S.p.A.	2
Emilia Romagna		
	Parmasole S. Coop.	1
Puglia		
	Alco S.p.A.	1
TOTAL REGION IT. 2		4
ITALY		18

SARDINES

Emilia Romagna		
	Marinalco Coop. S.r.l.	
	Trinity Alimentari Italia S.p.A.	2
TOTAL REGION IT. 2		2
ITALY		8

ANCHOVIES

Friuli Venezia Giulia		
	Siva	1
Veneto		
	Conservificio del Polesine	1
Emilia Romagna		
	Cavani Camillo	
	Delicius S.p.A.	
	Zarotti Ettore & C.	
	Rizzoli E.	
	F.lli Amati	5
Marche		
	Cinquina Nicola	
	Salmar	
	Comarpesca	3
Abruzzi		
	Sici	
	Russino s.r.l.	
	Marinangeli	
	Vemisi Italia	4
Puglia		
	IPAM	
	LACE	
	CIRIO	
	SILPI	4
TOTAL REGION IT. 2		18
ITALY		69

CLAMS

Veneto		
	Clodia Frigo	1
Emilia Romagna		
	Cons. Pescatori Goro S.c.r.l.	
	F.lli Amati	2
Marche		
	Coop. Pescatori Vongole	
	Soc. Conserviera Adriatica	
	Atlantide S.r.l.	
	CAM	
	Ancopesca	5
Abruzzi		
	SICI S.r.l.	
	ICI	2
Puglia		
	Euromare Sud	1
TOTAL REGION IT. 2		11
ITALY		11

REFRIGERATED FISH

Veneto		
	S.I.A.S. S.p.A.	
	Euromar S.n.c.	
	C.A.M. S.c.r.l.	
	Clodiafrigo S.p.A.	
	Coop. Solemar S.c.r.l.	
	Ind. Cons. Prod. Ittici	
	Marepesca S.n.c.	
	Mazzucco Onorina	
	Surgi	
	Veneta Pesca s.a.s.	
	Voltolina Giorgio	
	Ittica Rivarese S.r.l.	
	Delta Pesca S.a.s.	13
Emilia Romagna		
	Italgel S.p.A.	
	Marinalco	
	Cons. Pescatori Goro S.c.r.l.	
	Geladria S.r.l.	4
Marche		
	Artika	
	Atlantide S.r.l.	
	Adriacoop. S.c.a.r.l.	
	Eurogel S.r.l.	
	Euroittica S.p.A.	
	Gattoni Guido	
	Italgela S.r.l.	
	Frescomar	
	Gastronomica Surgelati S.p.A.	
	Ferpesca S.r.l.	
	Marchegiani & Mosca S.n.c.	
	Meo Giuseppe	
	Pescatori Vongole S.c.r.l.	
	S.P.A.I.M.	
	Sgattoni Guido S.n.c.	
	Siamar S.r.l.	
	Itticolt S.r.l.	
	Ancoopesca S.p.A.	
	Soc. Artico S.n.c.	19
Abruzzi		
	Esca S.r.l.	
	Coomarpesca S.c.r.l.	2
Puglia		
	Taranpesca S.p.A.	
	De Mar S.r.l.	
	Surgel Sud S.r.l.	
	Europesca S.n.c.	
	Surgelevante S.n.c.	5
Molise		
	De Palma Pietrangelo & G.ppe S.d.f.	1
TOTAL REGION IT. 2		44
ITALY		78

Source: De Gioia Service, The italian fishing processing industry, 1988.

materials, but average plant utilization is only 50,7%. We stress that in Emilia Romagna there is a sardinas processing pole; this region includes the only two Region IT.2 firms (see Tab. I.X). The number of people employed, not counting seasonal workers, is about 540.

The situation in the sub-segment of anchovies is completely different. The total value of the production (salted and fillets in oil) in 1989 was 16,100 tons and 0,24 billion ECU achieved with very modest methods: the anchovy, a small and very delicate fish, is in fact processed almost totally by hand. This consideration justifies the relevance of the segment in the fish-processing industry specially with regard to employees (permanent and seasonal) and to the units of production. The last ones, around 25% of Italian production units operating in 1988 (69 as total, see Tab. I.X) are located in Region IT.2. In Emilia Romagna, Abruzzi and Puglia are the most of Region IT.2 firms (13 of the 18 operating), while less important is the situation of Friuli V. Giulia, Veneto and Marche where there is a lack of processing firms.

The clam processing industry is a recent addition to the Italian food processing industry; its activities are completely dependent on the availability of catches along the Adriatic coast. This situation led to bordeline companies being squeezed out of the market and there are currently 11 companies involved in the processing of clams.

A total of 132 people are employed in this segment: they produce a turnover of 0,04 billion ECU, which corresponds to 4% of the total value of the fish preserving production. The small clam-processing concerns, closely linked with the fishing activity, are all located close to the fishing grounds: all 11 firms that survived the streamlining process are to be found in the Region IT.2, with a remarkable presence in Marche, a true real clam processing and cold storage pole, In this region is located the most of the production units (5 of the total 11 - see Tab. I.X).

1.4. Ancillary activities

Port infrastructure

The distribution of the ports by coast is not regular, as evidenced by the concentration index, given as ratio between length coast in km and the number of the existing ports (Tab.1.XI). Referring to fishing activity, the most important ports are along the medium and low Adriatic coast (Tab.1.XII), that reach 34% of the national GRT. In analyzing the infrastructure, efficiency and organization of the fishing ports, it has been adopted the approach used in a research (14) for the Ministry of Merchant Navy. The sample of 71 ports are representative of all the ports in Italy. In particular, the sample contains 62% of the gross registered tonnage of the entire fleet, 54% of existing sea-going units in the territory and, this is certainly a relevant figure, 90% of national catches.

Within the sample thus identified we shall section off a smaller group of ports that are to be found in Region IT.2 (Tab.1.XIII).

The wholesale market: fish markets and wholesalers

Data come from two separate sources: one recent issue, (15) "The Fish and Fishing Yearbook 1991" (Tab.1.XIV), which endorses 52 markets, and one relating to the "Sectoral Plan" of the Ministry of Merchant Navy of 1990 (33), which endorses 70 fish markets throughout the country separated into markets for consumers and producers, and coastal and inland markets. The follow focuses on those markets that, among the 70, are located in Region IT.2 (Tab.1.XV). The coastal markets make up the majority of fish markets; they are also quite well situated, so that are on the spot to see that national catches are distributed promptly. The Adriatic coast, which contributes 53% of national catch, is in fact served by 56% of the coastal markets (Tab.1.XVI). The inland markets, on the other hand, fall short in terms of both number (there are only eight) and national distribution (they are in fact situated exclusively in the central-North of the country). The product reaches the markets, as was mentioned earlier, directly from the producers for the coastal markets, and indirectly through the wholesalers in the case of the inland markets.

Tab. 1.XI - PORTS DISTRIBUTION BY DISTRICTS AND COAST - 1989

DISTRICT AND COAST	KM OF COAST	N. PLACES OF LANDING			KM OF COAST/ N.PORTS	G.R.T./ KM OF COAST
		Ports	Berths	Total		
HIGH ADRIATIC	377	9	22	31	42	61
Trieste	40	1	3	4	40	18
Monfalcone	54	3	1	4	18	48
Venezia	88	1	9	10	88	46
Chioggia	79	2	4	6	39	99
Ravenna	116	2	5	7	58	69
MEDIUM ADRIATIC	390	18	29	47	22	133
Rimini	84	6	4	10	15	51
Ancona	90	5	7	12	16	197
S.B.del Tronto	48	1	8	9	48	296
Pescara	168	6	10	16	28	98
LOW ADRIATIC	569	18	72	90	32	63
Manfredonia	233	4	17	21	58	35
Molfetta	58	5	4	9	12	190
Bari	86	5	16	21	18	183
Brindisi	192	4	35	39	48	6
IONIAN	588	10	88	98	59	11
Gallipoli	140	6	18	24	23	20
Taranto	170	2	28	30	85	7
TOTAL REGION IT. 2	3570	108	380	488	33 (*)	33 (*)
TOTAL OTHER ITALIAN REGIONS	3886	145	430	575	27 (*)	
ITALY	7456	253	810	1063	29 (*)	

Source: Our processing on De Giosa Service s.r.l. "Ricerca sulle strutture portuali della pesca in Italia" - 1990
(*) Average value

Tab. 1.XII - G.R.T., FISHING FLEET AND TOTAL LANDINGS BY COAST - 1989

COAST	Fishing fleet G.R.T.		Landed fish production	
	G.R.T.	Comp.%	Tons	Comp.%
HIGH ADRIATIC	23455	9	68725	20,5
MEDIUM ADRIATIC	51841	20	60508	18
LOW ADRIATIC	36615	14	39896	12
IONIAN	3559	1	8438	2,5
TOTAL REGION IT.2	115470	44	177567	53
TOTAL OTHER ITALIAN REGIONS	147994	56	159373	47
ITALY	264264	100	336940	100

Source: ISTÁT data 1989

Tab. 1.XIII - MAIN PORTS DISTRIBUTION

FRIULI VENEZIA GIULIA	VENETO	EMILIA ROMAGNA	MARCHE	ABRUZZI	MOLISE	PUGLIA
Monfalcone	Caorle	Comacchio	Ancona	Vasto	Termoli	Mola di Bari
Grado	Chioggia	Goro	Porto S.Giorgio	Ortona		Molfetta
Marano Lagunare		Cesenatico	S.B.del Tronto	Pescara		Bisceglie
		Cattolica	Civitanova	Giulianova		Barletta
		Rimini	Fano			Brindisi
			Pesaro			Vieste
						Manfredonia
						Otranto
						Gallipoli
						Taranto

Source: Ministry of Merchant Marine - Sectorial Plan, 1990

Tab. 1.XIV - DISTRIBUTION OF FISH MARKETS - 1991

	MARKETS
FRIULI V.G.	2
VENETO	4
EMILIA-ROMAGNA	6
MARCHE	8
ABRUZZI	3
MOLISE	1
PUGLIA	7
BASILICATA	
TOTAL REGION IT.2	31
TOTAL OTHER ITALIAN REGIONS	21
ITALY	52

Source: Our processing on "Fish and Fishing Yearbook" data - 1991

As illustrated by Tab.1.XVII a large percentage of consumer markets have refrigeration and freezing facilities, while about half of the producer markets have no such equipment.

The retail market

The fish retailing market is on the whole much more fragmented than the food retail market.

There are about 7,200 fishmonger's shops and a higher number of street sellers together making up the two main areas of the retail trade. The number of fishmonger's shops in Region IT.2, given in absolute figures and as a percentage of the country as a whole is as follows (Tab.1.XIII). Emilia Romagna and Puglia have quite a number of retail outlets (367 and 835 respectively) corresponding to 5% and 11.5% of the total. Next comes Veneto with 303 retailers (4.2%), Friuli Venezia Giulia with 179 units (2.5%), the Marche with 105 fishmongers, equivalent to 1.4%, Abruzzo with 86 fishmongers (1.2%), Molise with 38 (0.5%) and Basilicata with 11 fishmongers and 0.1% of the total number of retailers in the country. In the fishing sector the category of street sellers is much more important than in other food areas with regard to both the number of sales units and quantities handled. The fishmongers in fact only handle 16% more produce than the street sellers. They are obviously more widespread in the production areas, as result of the low cost of buying stock. The most part of retail units consists of one owner-employee. The size of the sales area is very small: 40 square metres for the fish shops and barely 10 square metres for the street sellers.

2. IDENTIFICATION OF ZONES HIGHLY DEPENDENT ON FISHERIES

2.1 Socio-economic indicators

The analysis carried out makes it possible to outline a fairly clear picture of the fishing and aquaculture industry in Region IT.2. The second stage involves identifying and characterizing those zones that are dependent on fishing and ancillary activities.

Tab. 1.XV - WHOLESALE FISH-MARKETS IN THE REGION IT.2 - 1990

VENETO	ABRUZZO
TREVISO	GIULIANOVA
VENEZIA	PESCARA
CHIOGGIA	ORTONA
CAORLE	VASTO
DONADA	
PILA DI TOLLE	**MOLISE**
SCARDOVARI	TERMOLI
VERONA	
	PUGLIA
FRIULI V.G.	MANFREDONIA
TRIESTE	BARI
MONFALCONE	BISCEGLIE
GRADO	MOLA DI BARI
	MOLFETTA
EMILIA ROMAGNA	MONOPOLI
PARMA	BRINDISI
MODENA	CASTRO
GORO	TARANTO
PORTO GARIBALDI	
MARINA DI RAVENNA	
RIMINI	
CESENATICO	
CATTOLICA	
MARCHE	
FANO	
PESARO	
SENIGAGLIA	
ANCONA	
CIVITANOVA	
PORTO RECANATI	
S.B.DEL TRONTO	
PORTO S.GIORGIO	

Source: Ministry of Merchant Marine - Sectorial Plan, 1990

Tab. 1.XVI - FISH MARKETS AND NATIONAL CATCHES BY COAST - 1987

COAST	COASTAL FISH MARKETS %	NATIONAL CATCHES %
ADRIATIC	56,3	52,9
IONIAN AND SICILIAN	23,4	25,9
TYRRHENIAN	20,3	21,2
TOTAL (%)	100	100
TOTAL	64 (*)	515 (**)

Source: ANDMI (1984) and IREPA (1989) data
(*) = Number; (**) = '000 Tons

Tab. 1.XVII - REFRIGERATION CAPACITY IN CONNECTION WITH ANNUAL SALES - 1983

		ANNUAL SALES/ CAPACITY REFRIGERATION
CONSUMER MARKET		
	SAVONA	5,8
	SALERNO	9,8
	ROMA	12,0
	TORINO	25,8
	CATANIA	72,2
PRODUCER MARKET		
	CIVITANOVA	3,5
	LIVORNO	6,9
	CESENATICO	16,4
	CAORLE	18,0
	SCARDOVARI	28,9
	VIAREGGIO	45,5
	BISCEGLIE	49,7
	TRIESTE	100,0
	ANCONA	105,0
	LICATA	117,0

Source: Ministry of Merchant Marine - Sectorial Plan, 1990

In order to identify the zones dependent on fishery, it has been considered the socio-economic indicators showed in the synoptic table. The table is divided into four parts.

The concept of "zone" can be taken here as synonymous with the Travel-To-Work Areas that make up Region IT.2.

The first part of the table contains the general characteristics of the zones. The chosen indicators are: number of inhabitants, active population (i.e. total number of inhabitants of working age), the total number of employed people and the total value added at current prices (i.e., the value, net of intermediate consumption, of all the economic activities in the zone). Later, to get a measure of the different level of economic development in the zones concerned, the total value added was divided by the number of inhabitants, thus obtaining the value added per inhabitant. The second part of the table takes into consideration the occupational variation pertaining to the fisheries sector and ancillary activities. Here the indicators directly concern the number of fishermen and the number of people employed in the related sectors. It should be noted that in Italy the most recent data on employment in this sector date from 1981. Although ISTAT (Italian Central Institute for Statistics) has not yet published the results of the latest census (1991), it is possible to evaluate the number of fishermen using a Italian Fishing Shipowners Association estimate. This estimate is based on the number of fishermen that should be employed regularly on fishing boats to meet navigational and fishing needs.

Obviously this number varies according to the size of the vessels (GRT class) and fishing methods adopted.

Since regional data on the fleet, broken down by GRT class and fishing method, were available, it has been possible to calculate the number of fishermen directly involved in fishing activities. It should be mentioned that, given the mainly "coastal" nature of the fleet in Region IT.2 (which emerged from the sectoral analysis), a part of the work force and therefore of its contribution in terms of gross saleable product slips through the net of the official estimates which are thus under estimated. ISTAT official estimate of fish production is about 450,000 tons in 1990, while Italian Fishing Shipowners Association's one is 650,000/700,000 tons.

The calculation of the number of people employed in related sector was a bit more difficult. Here, the lack of up-to-date data combines with the extremely fragmented nature of the related activities, ranging from processing and trading activities to all the services concerned (repairs, dry docks, transport, etc.). An Italian Fishing Shipowners Association estimate has been used.

The third part of the table gives the added value of fishing and related activities calculated at current prices for each year.

The fourth part of the table gives the ratios resulting from the relationship between the indicators cited. These quotients are suitable for measuring both occupational and economic dependence of each zone. A critical reading of the values of these indices made it possible to establish the different levels of dependance on fisheries and ancillary activities in the zone examined.

2.2 Analysis of socio-economic indicators

Tab.2.I, whose data refer to 1990, shows that there is an increase in the number of people employed in fisheries and related sectors. The 13,637 fishermen employed in 1984 increase to 19,423 in 1990; the 2,125 people involved in other sectors (excluding aquaculture employment) in 1984 increase to 4,722 in 1990 and, adding the aquaculture employed people (13,044), it reaches 17,766 . The employment ratios show that the Marche (0.7%), Puglia (0.9%), Abruzzi (0,7%) and Friuli V.Giulia (0.7%) are the zones with the highest number of people employed in fishing and related sectors. From the economic point of view the values assumed by the relative indicators show the Marche is the area with the highest level of dependence on fishing and related activities (1.6%), followed by Puglia (1.1%) and Molise (0.8%); Abruzzi (0.6%), Friuli V. Giulia (0.4%), Emilia Romagna (0.3%) and Veneto (0.2%). Finally the level of dependence of Basilicata (0.1%) is insignificant.

2.3. Conclusions

As was mentioned at the beginning, the identification and characterization of zones dependent on fisheries and ancillary activities is carried out through a combined interpretation of employment and economic data. On the basis of the values assumed by the quotients in 1990, it is possible to distinguish three zones that are dependent on fisheries and ancillary activities.

With regard to the first category, Marche and Puglia are the zones at the highest level of economic and employment dependence, with respect both to fishermen totally involved in their job and to economic activities related to fishery too.

Puglia is an interesting case, considering that about 37% of the fishermen in Region IT.2 operate along its coasts, producing about 22% of the whole added value of fishing segment in Region IT.2.

Veneto, Emilia Romagna, Friuli V. Giulia fall in the second class of zones. In particular, the positioning of Molise from the economic point of view is due to the remarkable added value in other activities related to fishery.

Finally, the third segment, the marginal one, includes only Basilicata.

3. SOCIO-ECONOMIC IMPACT OF CFP

3.1. Review of CFP, period 1983/1990

One of the most important aims of the Common Fishery Policy is the balance between fishing fleet and fishing capacity. Italian Multiannual Guidance Programmes (MGP) 1983-1986 and 1987-1991 aimed at reducing the fleet capacity by the end of the period; in spite of this aim, the fishing capacity has increased. Better results have been reached through the adoption of the following Multiannual Guidance Programme, period 1987-1991. The programme aimed at reducing the fishing capacity, the fleet modernization, the reducing of the fishing

Tab. 2.I - SYNOPTIC TABLE OF SOCIO ECONOMIC INDICATORS IN THE REGION IT.2 - 1990

1990	GENERAL FEATURES OF THE ZONE					NUMBERS OF JOBS IN FISHERIES AND RELATED ACTIVITIES			ADDED VALUE OF FISHERIES AND RELATED ACTIVITIES			RELATIVE DEPENDENCE			
TRAVEL TO WORK AREAS	POPULATION	WORKING FORCE	TOTAL NUMBER OF JOBS	G.D.P. TOTAL (Million ECU)	G.D.P. PER CAPITA (ECU)	FISHERMEN ONLY	OTHER JOBS (*)	TOTAL	LANDINGS & FIRST HANDLING (Million ECU)	OTHER ACTIVITIES (Million ECU)	TOTAL	IN TERMS OF JOB %		IN ECONOMIC TERMS %	
	a		b	c	d=c/a	e	f	g=e+f	h	i	j=h+i	e/b	g/b	h/c	j/c
FRIULI V. GIULIA	1202877	497000	462000	16991,9	14126,0	910	2164	3074	55,5	16,6	72,1	0,2	0,7	0,3	0,4
Monfalcone	26924	11173	10450	672,0	24958,0	40		40	1,4		1,4	0,4	0,4	0,2	0,2
Grado	9253	3840	3591	184,3	19918,5	210		210	32,1		32,1	5,9	5,9	17,4	17,4
Marano Lagunare	2197	912	853	36,5	16624,1	350		350	22,0		22,0	41,0	41,0	60,2	60,2
VENETO	4385023	1913000	1800000	63222,7	14417,9	2167	7123	9290	61,7	49,9	111,6	0,1	0,6	0,1	0,2
Caorle	11158	4932	4695	151,8	13607,0	340	385	725	8,2	2,7	10,9	7,2	15,5	5,4	7,2
Chioggia	52582	23241	22125	2528,1	48078,9	1542	6738	8280	53,5	47,2	100,7	7,0	37,4	2,1	4,0
EMILIA ROMAGNA	3921597	1802000	1703000	61901,2	15784,7	3300	3192	6492	90,3	97,0	209,1	0,2	0,4	0,2	0,3
Comacchio	21239	9855	9401	338,5	15937,0	400	186	586	9,7	5,7	15,3	4,3	6,2	2,9	4,5
Goro	4414	2048	1954	96,5	21864,3	1100	500	1600	45,0	15,2	60,2	56,3	81,9	46,7	62,4
Cesenatico	20375	9454	9019	331,6	16275,6	502	466	968	5,8	14,2	20,0	5,6	10,7	1,8	6,0
Cattolica	15125	7018	6695	276,5	18277,9	383	210	593	8,3	6,4	14,7	5,7	8,9	3,0	5,3
Rimini	128119	59447	56709	2322,4	18127,0	620		620	13,3		13,3	1,1	1,1	0,6	0,6
MARCHE	1430726	644000	596000	18201,5	12721,9	2950	1018	3968	182,2	99,3	281,5	0,5	0,7	1,0	1,6
Ancona	101179	45328	42335	2183,9	21584,1	567	170	737	83,4	16,2	99,6	1,3	1,7	3,8	4,6
Porto S. Giorgio	15794	7076	6608	159,1	10074,8	167	11	178	3,1	1,0	4,1	2,5	2,7	2,0	2,6
S.B. del Tronto	45862	20546	19189	532,6	11614,0	1119		1119	18,2		18,2	5,8	5,8	3,4	3,4
C.nova Marche	37070	16607	15511	578,3	15601,1	354	3	357	48,2	0,2	48,4	2,3	2,3	8,3	8,4
Fano	53281	23870	22294	817,9	15351,5	423		423	16,6		11,6	1,9	1,9	1,4	1,4
Pesaro	88500	39648	37030	1382,1	15616,9	116	3	119	5,1	0,2	5,3	0,3	0,3	0,4	0,4
ABRUZZI	1266448	528000	465000	13780,0	10880,8	2555	560	3115	25,3	56,6	82,0	0,6	0,7	0,2	0,6
Vasto	32810	13879	12462	353,9	10786,7	158	76	234	2,6	7,7	10,3	1,3	1,9	0,7	2,9
Ortona	21999	9306	8356	248,1	11279,1	490	71	561	3,3	7,2	10,4	5,9	6,7	1,3	4,2
Pescara	121367	51338	46098	1625,0	13389,0	452	34	486	5,7	3,5	9,1	1,0	1,1	0,4	0,6
Giulianova	51432	21756	19535	315,7	6138,6	1295	379	1674	12,2	38,4	50,6	6,6	8,6	3,9	16,0

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Tab. 2.1 - SYNOPTIC TABLE OF SOCIO ECONOMIC INDICATORS IN THE REGION IT.2 - 1990

1990	GENERAL FEATURES OF THE ZONE					NUMBERS OF JOBS IN FISHERIES AND RELATED ACTIVITIES			ADDED VALUE OF FISHERIES AND RELATED ACTIVITIES			RELATIVE DEPENDENCE			
TRAVEL TO WORK AREAS	POPULATION	WORKING FORCE	TOTAL NUMBER OF JOBS	G.D.P. TOTAL (Million ECU)	G.D.P. PER CAPITA (ECU)	FISHERMEN ONLY	OTHER JOBS (*)	TOTAL	LANDINGS & FIRST HANDLING (Million ECU)	OTHER ACTIVITIES (Million ECU)	TOTAL	IN TERMS OF JOB %		IN ECONOMIC TERMS %	
	a		b	c	d=c/a	e	f	g=e+f	h	i	j=h+i	e/b	g/b	h/c	j/c
MOLISE	335348	136000	118000	3228,0	9625,8	297	174	471	1,6	23,2	24,7	0,3	0,0	0,1	0,8
Termoli	27206	11182	9620	440,2	16181,8	297	174	471	1,6		1,6	3,1	4,9	0,4	0,4
PUGLIA	4069359	1516000	1263000	36218,9	8900,4	7232	3476	10708	125,1	283,8	409,0	0,6	0,9	0,4	1,1
Mola di Bari	25801	9830	8285	228,5	8857,5	650	85	735	23,2	6,9	30,2	7,9	8,9	10,2	13,2
Molfetta	66658	25397	21405	455,6	6834,9	800	1180	1980	36,6	96,3	132,9	3,7	9,3	8,0	29,2
Bisceglie	46916	17875	15066	574,3	12239,9	250	78	328	3,7	6,4	10,1	1,7	2,2	0,6	1,8
Barletta	86215	32848	27685	923,7	10713,6	760	42	802	2,1	3,5	5,6	2,8	2,9	0,2	0,6
Brindisi	91778	34967	29472	1467,3	15987,0	287	944	1231	2,6	77,1	79,6	1,0	4,2	0,2	5,4
Vieste	12990	4949	4171	66,8	5138,3	240	9	249	3,9	0,8	4,6	5,8	6,0	5,8	7,0
Manfredonia	58157	22158	18675	537,5	9242,9	2000	412	2412	23,2	12,2	35,4	10,7	12,9	4,3	6,6
Otranto	5152	1963	1654	45,2	8766,1	69	22	91	1,3	1,8	3,1	4,2	5,5	2,8	6,8
Gallipoli	20095	7656	6453	206,5	10276,2	920	28	948	8,9	2,3	11,2	14,3	14,7	4,3	5,4
Taranto	232200	88468	74564	3759,2	16189,5	900	676	1576	13,6	55,2	68,8	1,2	2,1	0,4	1,8
BASILICATA	623175	250000	197000	4623,7	7419,7	12	59	71	0,9	3,3	4,2	0,0	0,0	0,0	0,1
TOTAL REGION IT.2	17234553	7286000	6604000	218165,7	12658,6	19423	17766	37189	542,7	629,6	1172,4	0,3	0,6	0,3	0,5

Sources: (a), (b) and (h) = ISTAT

(c) = Istituo G. Tagliacarne, 'Il Reddito Prodotto in Italia', F.Angeli Libri, 1991

(i) = Our estimate on ISTAT data

Notes:

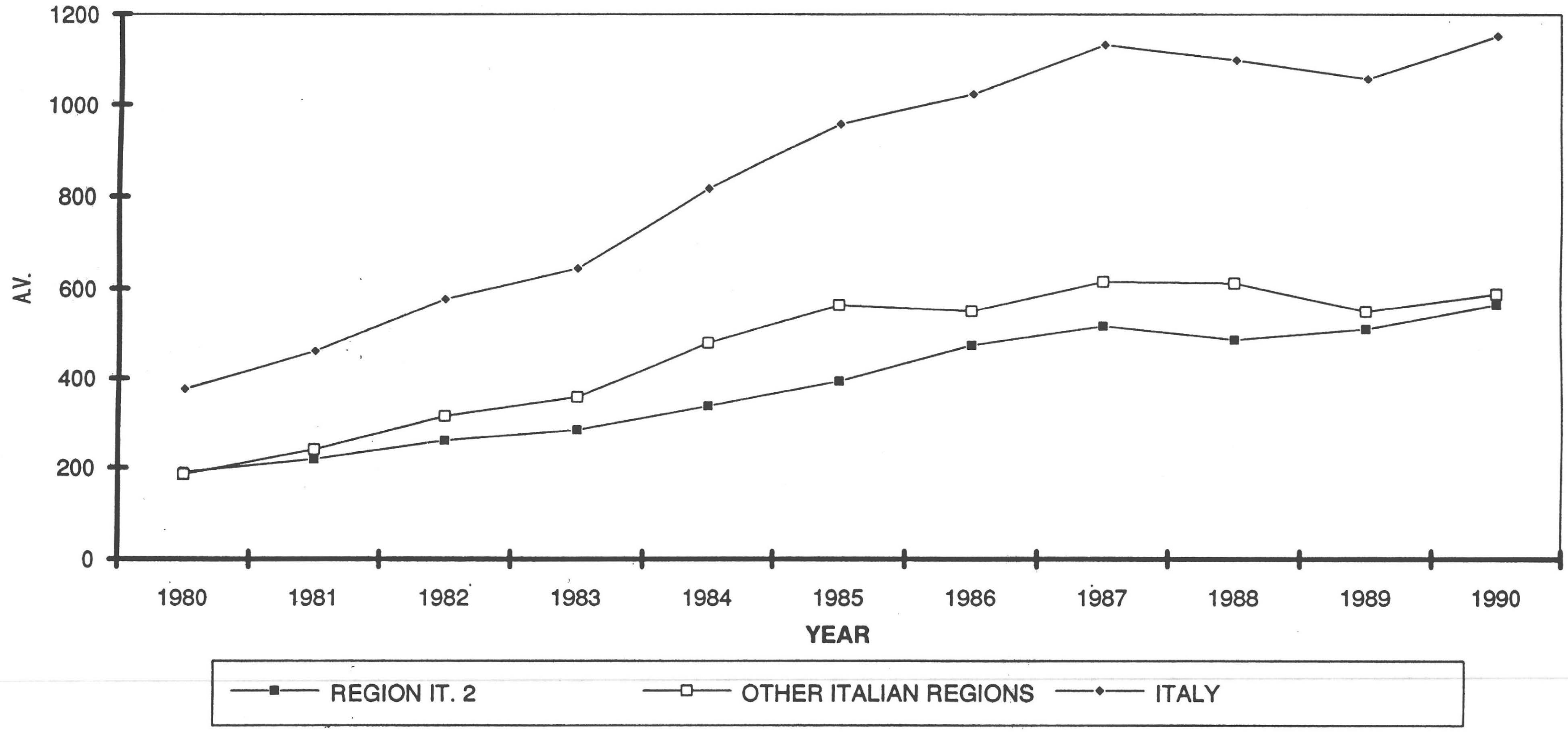
(*) = all data recorded below include the Aquaculture employment in the Region IT.2 (Tab.1.VI)

Tab. 2.II - FISHING ADDED VALUE PER CAPITA (AT CURRENT PRICE - value in ECU) - TREND 1980/1988

ZONE	1980	1981	1982	1983	1984	1985	1986	1987	1988
FRIULI V.G.	0,018	0,021	0,028	0,030	0,044	0,047	0,058	0,075	0,077
VENETO	0,018	0,021	0,021	0,025	0,032	0,034	0,037	0,040	0,037
EMILIA ROMAGNA	0,013	0,016	0,018	0,022	0,031	0,035	0,022	0,040	0,038
MARCHE	0,015	0,017	0,019	0,019	0,026	0,029	0,045	0,044	0,038
ABRUZZI	0,007	0,009	0,009	0,009	0,013	0,013	0,010	0,020	0,015
MOLISE	0,012	0,011	0,009	0,008	0,010	0,013	0,018	0,015	0,009
PUGLIA	0,009	0,009	0,012	0,013	0,018	0,013	0,028	0,024	0,023
BASILICATA	0,007	0,008	0,012	0,016	0,011	0,036	0,071	0,103	0,165

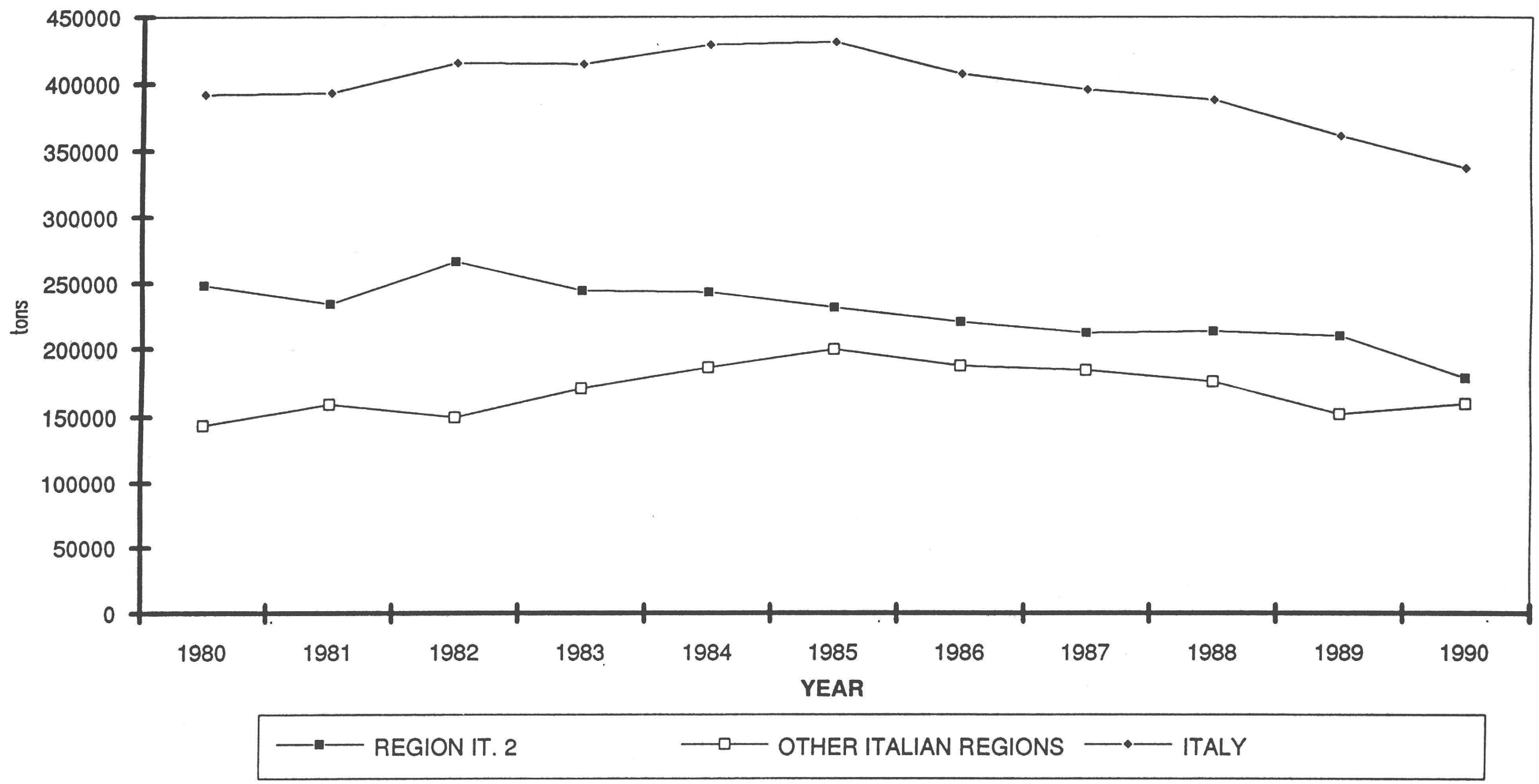
Source: Our processing on ISTAT data

Fig. 2.I - FISHING ADDED VALUE TREND IN THE REGION IT. 2, OTHER ITALIAN REGIONS AND ITALY - 1980/1990
(Value at current price in million ECU)



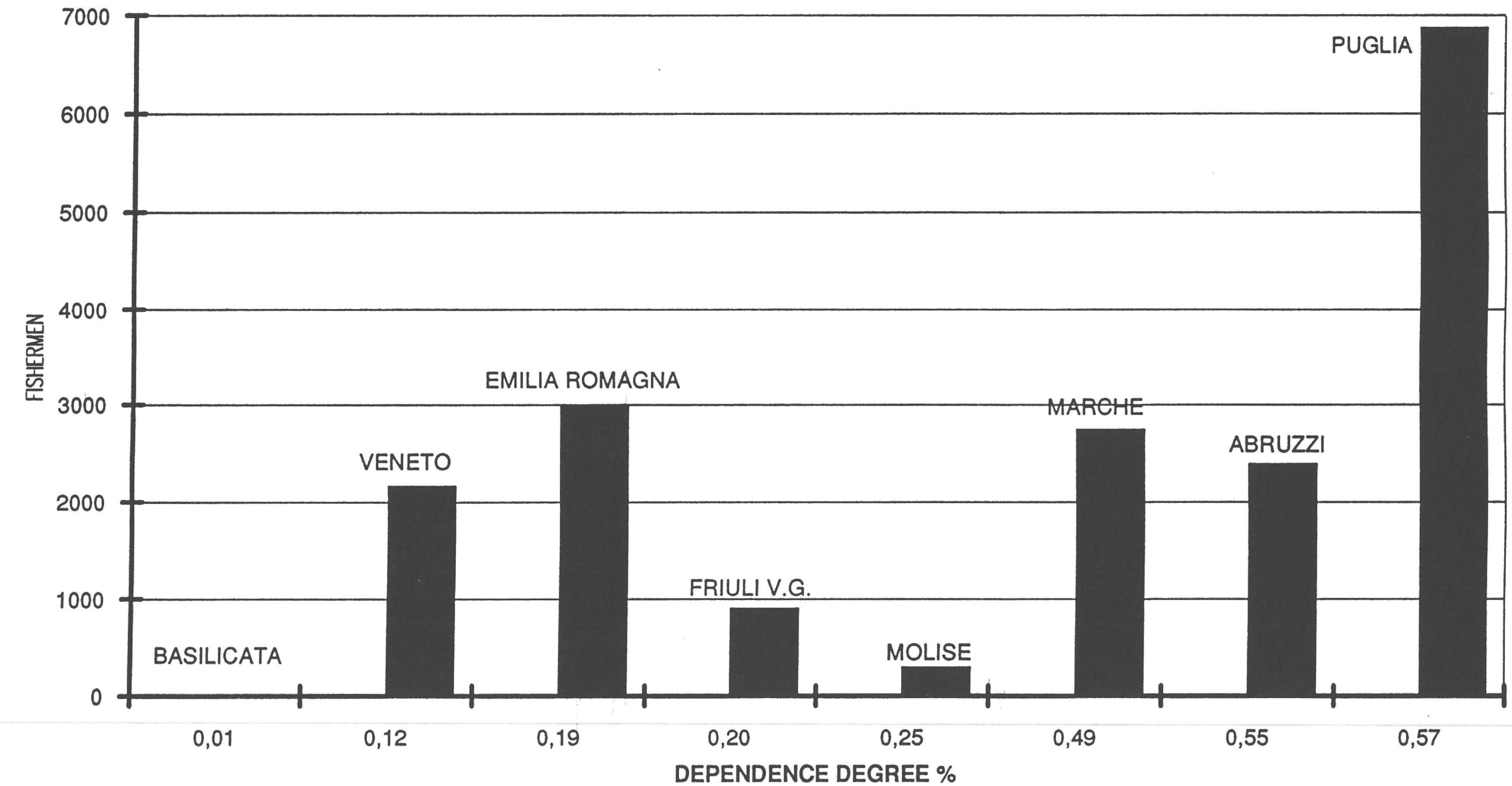
Source: Our processing

Fig. 2.II - CATCHES TREND IN THE REGION IT. 2, OTHER ITALIAN REGIONS AND ITALY - 1980/1990



Source: Our processing

Fig. 2.III - EMPLOYMENT DEPENDENCE DIAGRAM REGION IT.2 - 1990



Source: Our processing on Tab. 2.I data

Fig. 2.IV EMPLOYMENT DEPENDENCE MAP OF REGION IT.2 - 1990

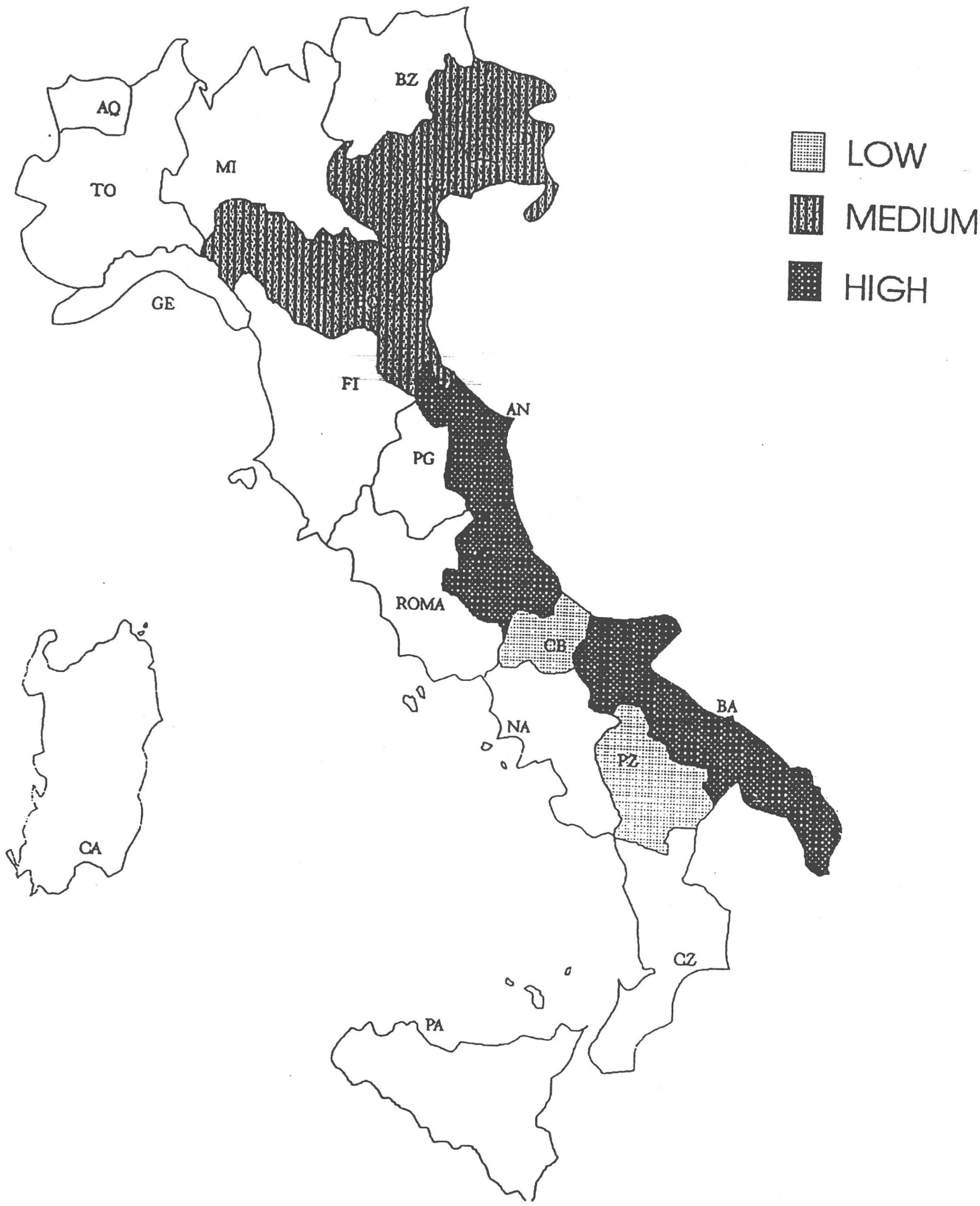
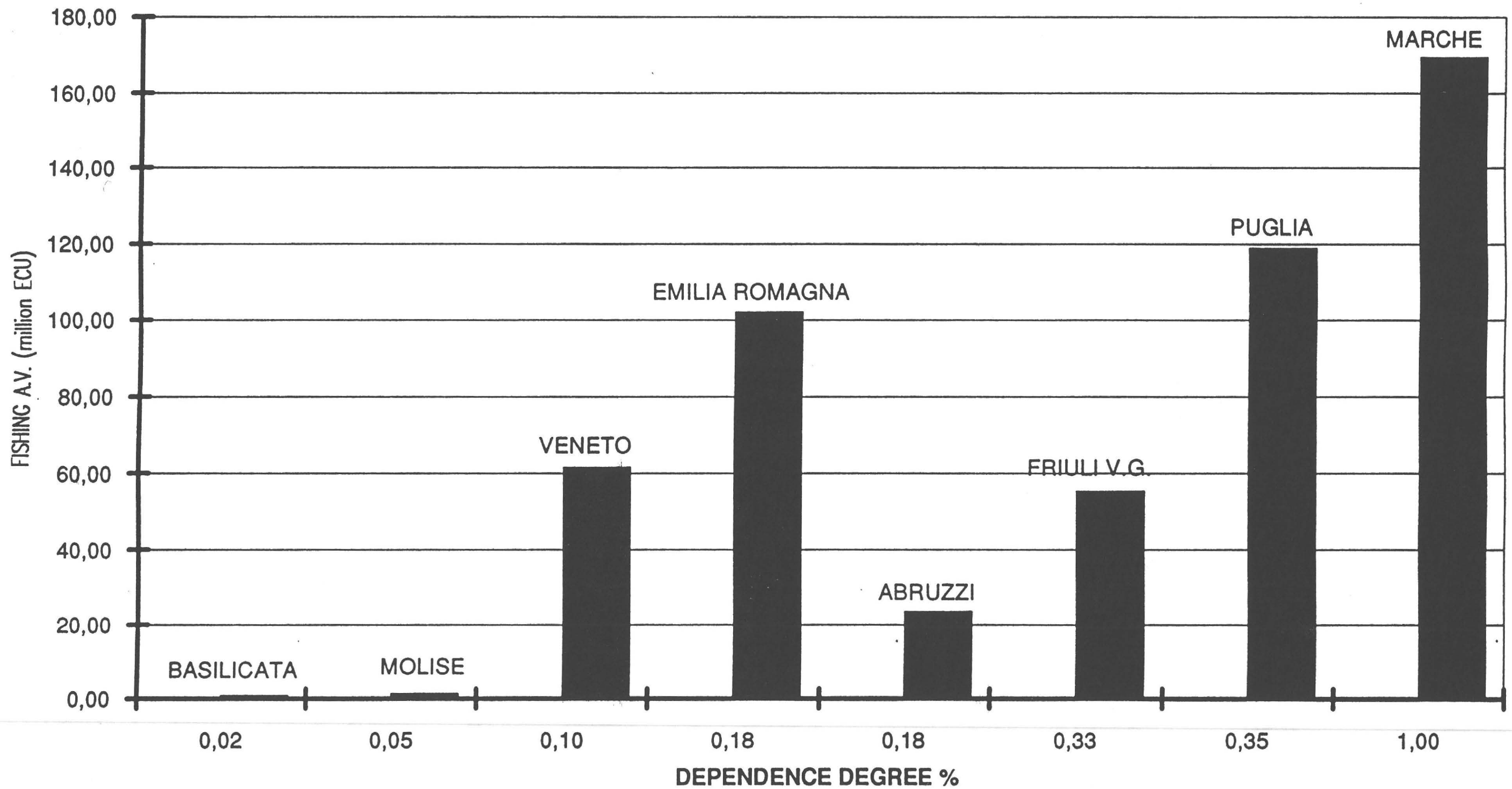


Fig. 2.V - ECONOMIC DEPENDENCE DIAGRAM REGION IT.2 - 1990



Source: Our processing on Tab. 2.I data

Fig. 2.VI ECONOMIC DEPENDENCE MAP OF REGION IT.2 - 1990

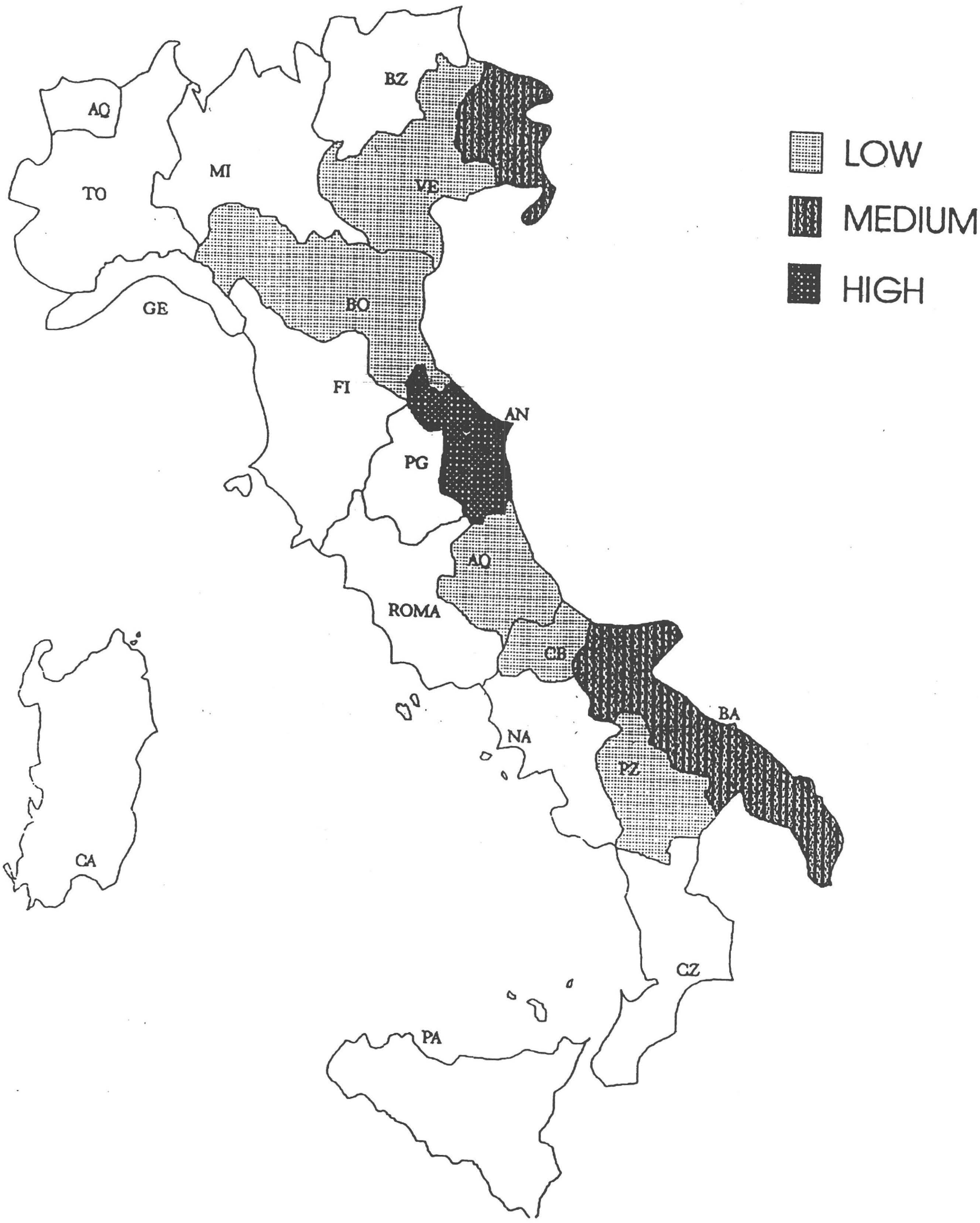


FIG. 2.VII - EMPLOYMENT-ECONOMIC DEPENDENCE GRAPHIC TRENDS - 1980/89 (Friuli V. G., Veneto, Emilia Romagna)

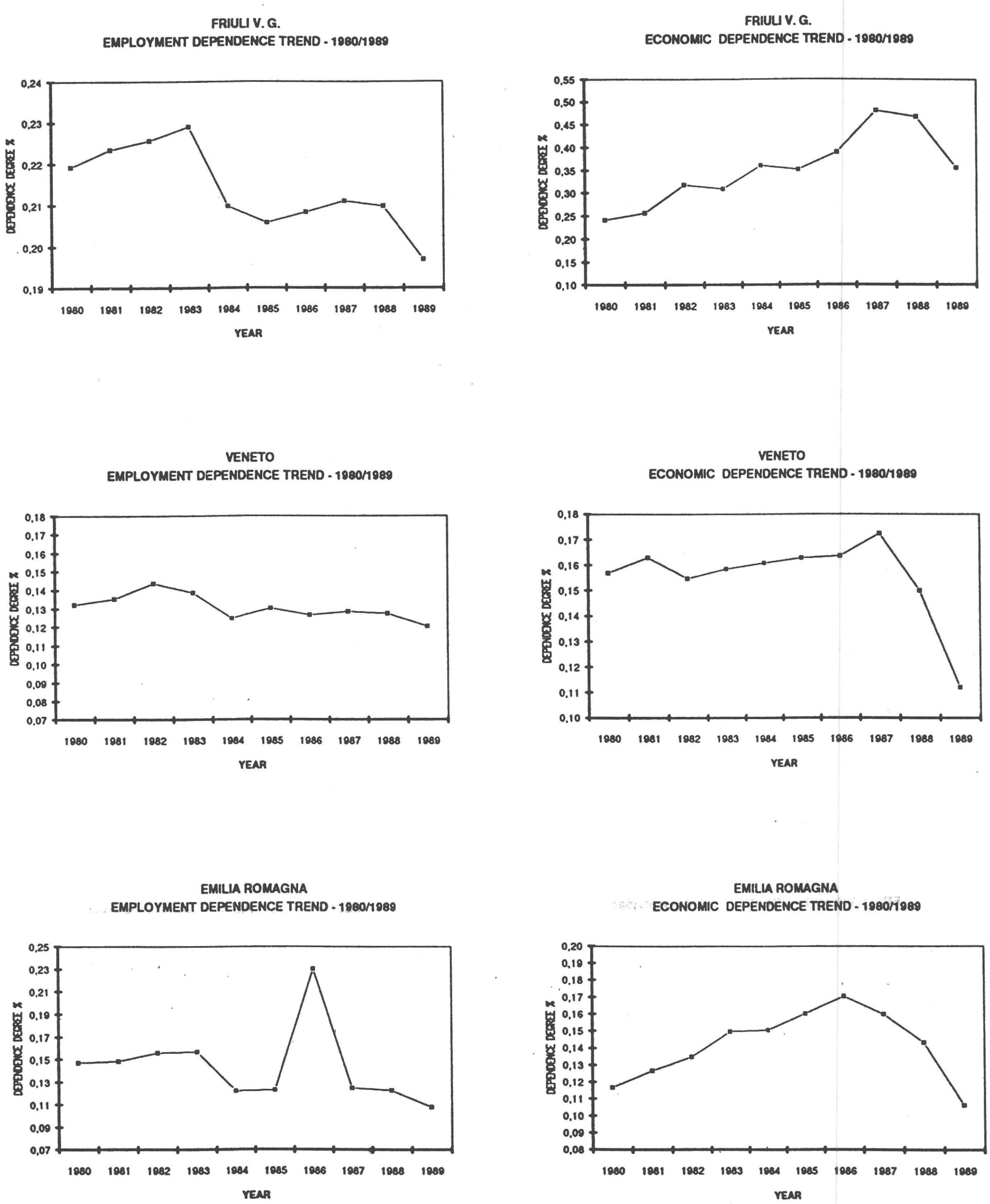


FIG. 2.VIII - EMPLOYMENT-ECONOMIC DEPENDENCE GRAPHIC TRENDS - 1980/89 (Marche, Abruzzi, Molise)

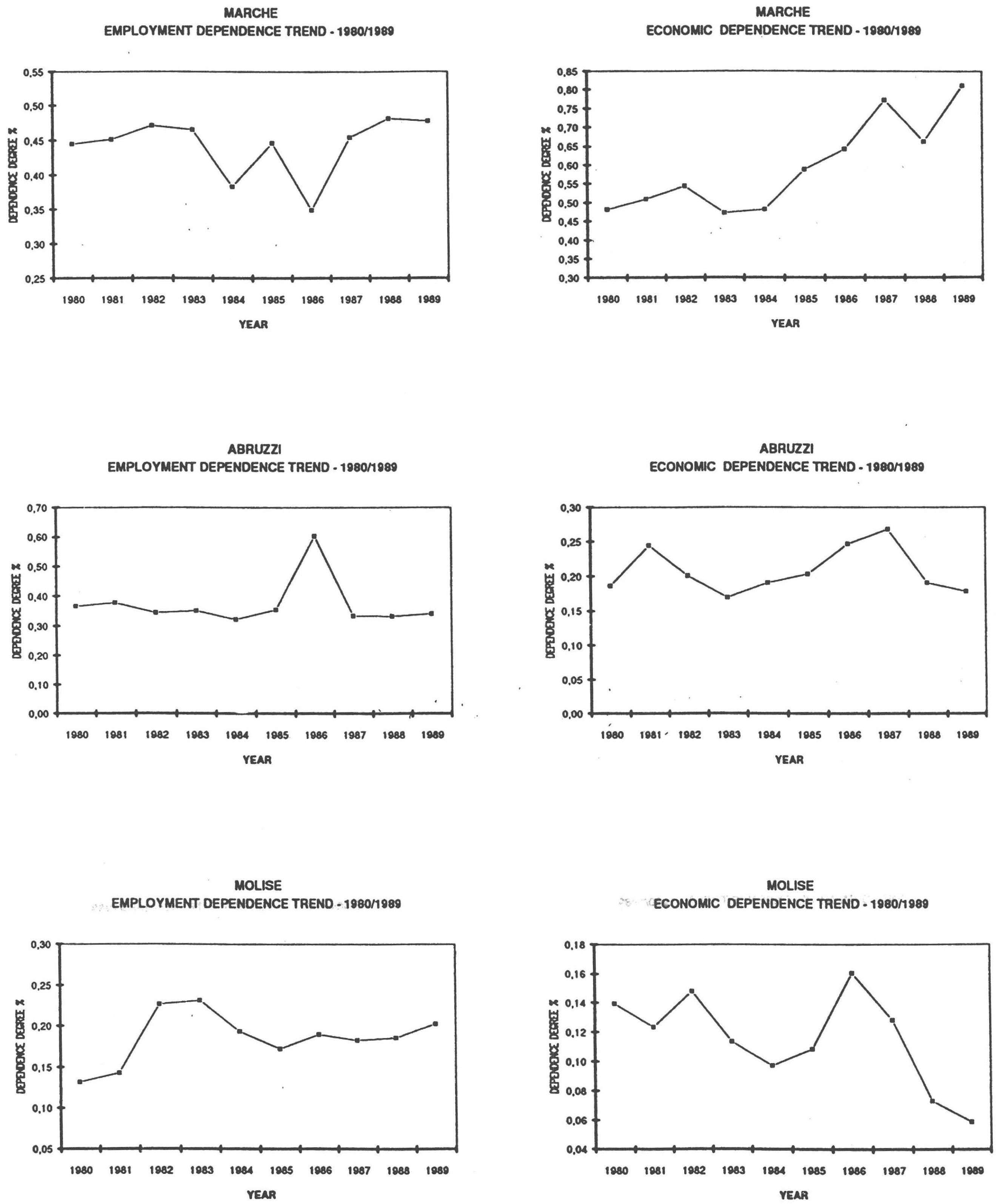
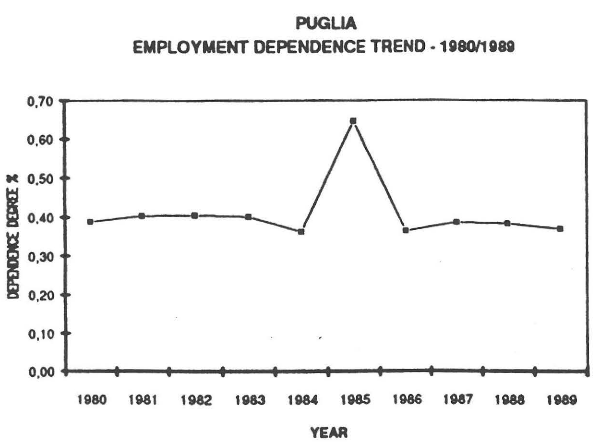
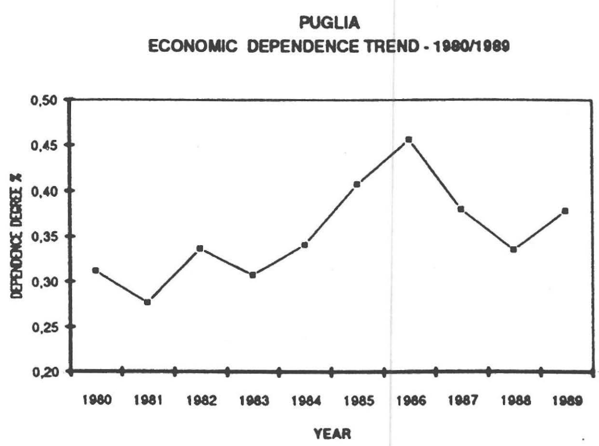


FIG. 2.IX - EMPLOYMENT-ECONOMIC DEPENDENCE GRAPHIC TRENDS - 1980/89 (Puglia)





effort of clams, the reconversion of the bottom trawler towards more selective methods and the restructuring of the ocean-going fishing fleet. Considering the targets proposed in MGP, in terms of GRT and horse power, it can be said that by the end of the period a reduction of the fishing fleet occurred. In fact, for the period 1988-1990, the level of the GRT was the following: in 1988 the target was 302,986 GRT, while the actual level was 273,695; in 1989, aiming at 299,507 GRT, the level was 263,164; in 1990 the target was 282,114, while the reached level was 283,393. As pointed out, in some cases the level of registered GRT was lower than the one required. Finally, in 1991 the data relating to the fishing fleet is 267,693 GRT; considering that the MGP aims at 268,198 GRT, it can be assumed that the fleet capacity has matched the provided aim of the community programme.

As regards the fleet modernization, the MGP fixed intervention measures on the 6% of the total fleet GRT. During the enforcement of the 2nd Fisheries Triennial Plan 1988-1990, about 386 projects have been financed, all relating mostly to bottom trawlers, involving 5% of the GRT to be modernized. About the new constructions, 119 investment projects have been financed, by scrapping of a corresponding GRT. This measure has allowed not only a moderate progress in terms of modernization of the fleet, but also the reaching of better standards of technical and economic efficiency together with improved security on board.

Several technical measures have been adopted in reducing the fishing effort of clams fishery, mainly involving Region IT.2. The daily catches have been really reduced from 1,200 kg/day to 600 kg/day; the fishing days in the week have been reduced from 5 to 4; finally the period of compulsory stop has been increased from one to two months yearly. In addition to the above mentioned technical measures, other actions have been adopted such as granting no more financial aids to construction of vessels for clams fishery and to regulate the ownership and the transfer of the relating fishery licence. Finally, the required reconversion of the bottom trawler towards more selective methods has met some difficulties, probably due to the higher earnings of trawling. Nevertheless, a general reduction of the bottom trawler occured in the period 1987-1989, precisely 2% of HP, 7% of the vessels number and 13% of the GRT.

4. ASSESSMENT OF OTHER COMMUNITY RECONVERSION ACTIONS

4.1 Review of other Community reconversion actions

The EEC has long recognised the need of helping those local economies and communities which are adversely affected by the decline in major local industries. Up to now most attention has focused upon the impact on areas of the decline in the coal, steel, textile, ship building industries and fishery sector. The community programmes and action which have been executed in Italy include:

- RENAVAL . EEC regulation 2506/88: this programme (29) deals about the reconversion actions in the shipbuilding sector. It involves those areas that (according to art.2, art.3 of the above mentioned regulation) have had loss of job in the shipbuilding sector, where this sector determines the economic development of the area. Regarding this criteria, three zones in Italy are involved in the RENEVAL action: eastern-center Liguria, basin of Trieste-Gorizia and Venetian area (EEC decision 90/455, 30/07/1990). The programmes, which will expire in the end 1993, can interest those measures aiming at supporting the reconversion in the above mentioned areas, like: readjustment of degraded industrial sites and infrastructures related to the development of economic activities, services (promotion and diffusion of innovations, advices and analysis, common services) and support to small and medium sized undertakings. Since it is still carrying out, non effect can be estimated.

- <u>OBJECTIVE -2 PROGRAMME</u>: on the basis of EEC regulation 2052/88 (30);the Community action through the structural funds has, among other, the objective of: support reconversion efforts in areas that are affected by industrial recession. The reconversion programme presented by the Ministry of Industry and Trade on 12/9/1989, for the period 1989-1991, involves the following areas: Torino, Novara, Valle d'Aosta, Genova, Sondrio, Rovigo, Massa Carrara, Prato, Livorno, Terni-Perugia, Pesaro-Urbino, Frosinone. The total amount is 1.655,49 billion Lire. The decree of the Ministry of Industry and Trade (27/06/1991) provides a capital grant in favour of small and medium sized undertakings for the following activities: diffusion of high technology;

new enterprises; development of employment; improvement of environemntal impact of produce process industrial reconversion. The programme is still carrying out, no effect can be estimated.

- RESIDER, EEC regulation 328/88: the programme (31) deals about the reconversion of steel areas. It is now carrying out, it supports those areas that (according to art.2, art.3 of the mentioned regulation) are highly dependent on steel industries; the Commission, with the decision 90/64 of 06/02/1990, has focused the following areas: Lombardy, Liguria, Tuscany and Umbria. The Italian law 15/05/1989 n.181 "Support measure in steel industry" and the law by decree of the Ministry of Industry and Trade 25/06/1991 n.357, the relating carrying out regulation, provide a subsidy contribution of 70 billion Lire (46.000.000 ECU about) in favour of small and medium sized undertakings in the following activities: 1) creation of new productive unit in the interested area; 2) modernization of already existing plants, in the sense of rationalization and not maintaining; 3) enlargement of already existing plants, through the acquisition of new machinery, development of structures enlargement of existing buildings with the acquisition of grounds; 4) acquisition of services for the research of new markets for the sale of the products (i.e. market research, analysis of potential customers, informations about the competition); the increasing of the quality products (i.e. research of new formulation, research of lesser polluting products, study on the productive cycle, so as to reduce the product quality discards); the increasing of the productivity (i.e. lay-out rationalization, autonomation of the productive process control). The above mentioned subsidy contribution could be transformed in interest dicount on funds granted by credit institution. The total grant of 70 billion Lire is so divided: 65 billion Lire for the above mentioned activities 1, 2, 3 to which is added a FESR contribution equal to 5% of the investment costs; 5 billion for intervention 4. Since the programme is still carrying out no effect at now can be estimed.

- LEADER, on the basis of EEC regulation 4253/88; the programme (32) aims at creating small and medium sized undertakings and jobs within the framework of intervention under objective 1 and 5b of the Regional Fund. Till now 28 projects have been approved (13 in the North of Italy, 15 in the South), the amount granted is 80 million ECU.

- RECHAR: on the basis of EEC regulation 4253/88: no action is provided in this sector.

4.2. Identification of actions particularly relevant for fishery sector

The above reconversion actions already carried out in other sectors present some analogies with the fishery sector. The action which would be implemented in the zones dependent on fishery, so as to contribute to the development of employment providing activities, could be directed towards the setting up of new economic activities. It is therefore important to improve the physical environment of the zones, since the existence of an unfavourable site makes it difficult to attract new employment providing activities. It is also important to encourage small and medium sized undertakings and craft activities through investment aids and by ficilitating access to necessary services in management, organization and so on.

The Fund may partecipate in the following activities: 1) aids to investments in small and medium undertakings or craft activities in order to create new enterprises or, if existing, to diversify the activities of fisheries industry to include cooperation in other sectors, to adapt the production from other sectors to market potential; 2) studies aiming at providing information to undertakings on the potential of national and external markets; on the local tourism potential; 3) readjustment of degraded fishing ports and infrastructures related ot the development of economic activities; 4) creation of consultancy firms aiming at assisting the new undertakings for the implementation of their recommendations; 5) tourism promotion; 6) promotion of innovation in industry and related services.

5. OPPORTUNITIES TO CREATE JOBS AND SUPPORT MEASURES IN THE CONCERNED ZONES

5.1 Identification of support measures allowing the reconversion of affected population

A deep knowledge of the socio-economic indicators related to the zones is necessary in order to evaluate the opportunities to create jobs and related support measures in the zones highly dependent on fishery and thus more influenced by an employment reduction caused by the CFP.

An interesting survey on the Italian professions structure (17), based on a comparison between the data related to the last two ISTAT census in Italy, has evidenced how the fishermen class (including fish farmers) is one of the forty professions that, during the period 1971/1981, has revealed the most employment decrease in absolute terms (32%). This trend has been confirmed by the results in Chapter 2, revealing how, during the eighties', the fishery sector and related activities has registered a constant reduction in terms of employed people, higher in the fishery sector than the related activities. This result has been then confirmed by the analysis of the future impact of the CFP for the period 1992/1996 in Chapter 3.

It is well known that the unemployment affecting Italy, Europe and more generally all the industrialized countries comes from qualitative origins, rather than quantitative, it does not come from the fact that employment is lower force, but from the fact that, while the employment of some sectors comes down quickly, the employment of other sectors rises slowly of lesser than it could rise so as to reduce the unemployment. This could be lowered through a policy focused on the demand - by increasing the development of some sectors - or the supply - by creating new jobs; in other words by a policy focusing the problems related to economic-social environment of the affecdted areas, production features, import-export, training and development of new enterprises.

The analysis of the opportunities to create jobs cannot therefore put aside from the socio-economic environment of the affected zones. The results shown in Chapter 2 reveal that the northen zones in Region IT.2 are highly dependent on fishery though having a low number of fishermen; these zones revealed a positive economic performances and a good industrial development both in produce and services. Dealing about central and southern zones, the socio-economic environment changes; in fact in some southern zones it happens that at the increasing in the number of fishermen, the per capita fishing added value decreases. These zones have a limited development of produce and service activities, while the agricultural and tourism ones are prevalent. Consequently, the affect population in the southern zones have more opportunities of redeployment in the fishery and ancillary sector or others than the ones involved in southern zones, where the socio-economic environment is not favourable. In conclusion, it can be said that the support measures allowing the reconversion of affected population have to be different in relation to the interested zone.

Two kinds of support measures aiming at facilitating the redeployment of fishermen can be identified:

a) Measures aiming at encouraging the leaving from fishery activity:

- decommissioning premium;

- early withdrawal: this measure is provided for by the Italian law n. 223, 1991 and the decree n. 41, 1992;

- lay-up premium together with an income support; the leaving from fishery activity is so stimulated supplying a monthly salary to the firm as well as a daily allowance per each crew member;

- mobility incentives: regarding people not having the qualifications of the early retirement it is possible to supply grants so as to encourage the mobility towards sectors related to fishery or other ones. Actually it does not exist legislative measures setting the ceiling of these grants; the metal and mechanical industry adopting these measures have granted about 20/30 million Lire each employee, plus one/two monthly salaries' warning.

b) Redeployment towards other sectors.

The redeployment of work force affected by the loss of job towards other sectors - both in fishery activity or other ones - does not seem easy to carry out.

There are some factors encouraging this process like the presence of young people employed in the fishery sector respect to other ones, i.e. agriculture. A survey made on ISTAT data (18) census 1981 evidenced how the fishery sector reveals 26% of employees younger than 20 years, while agriculture registers only 7%; people 20/29 years old are also present in fishery (32% of the employees) respect to agricolture (11%). The high number of young pople involved in the fishery is undoubtedly an encouraging factor in the succeeding of the professional retraining policies, that are propaedeutics to the reployment towards other sectors. Regarding older people employed in the fishery, the education and tradition tied to fishery and more generally to seamanship, causes and identification between the man, his boat and the sea environment, thus enabling the redeployment towards other activities. The high social cost of such an operation makes therefore difficult the redeployment of affected people towards other activities. In this case, it is useful to carry out those actions aiming to the redeployment towards related sectors, i.e. aquaculture; such a measure could exploit the fishermen' experience, through the establishment of new enterpreneurial activities (cooperatives). Finally, another measure could be the redeployment of the fishermen towards tourism activities, thus exploiting their knowledge of sites where have been working for years.

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List of figures and tables

<u>Tables</u>

Figures