COMMISSION OF THE EUROPEAN COMMUNITIES
Directorate-General for Fisheries

Regional, Socio-Economic Study in the Fisheries Sector

ESPAÑA

Andalucía (parte atlántica), Canarias

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MAIN CONTRACTOR

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A B S T R A C T

La región objeto de estudio comprende las provincias de Huelva, Cádiz, Las Palmas y Santa Cruz de Tenerife, considerando España en su conjunto, cuenta con el 25 % del total de los tripulantes de buques de pesca de España (22.807 personas) y con otros 29.220 trabajadores empleados directamente en actividades relacionadas con la industria pesquera (acuicultura, transformación, construcción y reparación de buques, etc.), lo que arroja un total de 52.027 personas.

El estudio se centra en 7 áreas particularmente dependientes de la pesca y de actividades relacionadas con la misma, que cuentan con 47.482 puestos de trabajo y 900 millones de ecus de valor añadido bruto, lo que supone el 5,0 % de todos los puestos de trabajo de estas zonas y el 2,5 % del valor añadido bruto. La actividad extractiva supone, respectivamente, el 48 % y el 29 % de estas cifras.

Los desembarques efectuados por las flotas regionales ascendieron en 1990 a 177.000 toneladas, de las cuales 77.000 correspondieron a la flota de altura y 100.000 a la flota de gran altura y de bajura. Tales desembarques supusieron el 20 % del total de desembarques nacionales (correspondiendo el 22 % a la flota nacional de altura y el 18 % a la flota nacional de gran altura y de bajura) y fueron efectuados por 3.475 buques con un peso de 152.590 toneladas de registro bruto (el 18 % y el 23 %, respectivamente, de la flota pesquera española), con una valor de 500 millones de ecus, aproximadamente.

La política adoptada por la Comunidad, tendente a reducir la flota y la actividad pesquera, se traducirá en una pérdida de puestos de trabajo directos e indirectos que afectará principalmente a los tripulantes de la flota y, además, a los trabajadores de empresas de suministro y armadores, empleados en tierra, a los de los sectores relacionados con actividades pesqueras (comercio al por mayor, transporte, industria de transformación, etc.) y a los de los sectores de inversión (construcción de buques de pesca, industria naval auxiliar, etc.).

A fin de paliar las repercusiones de esta pérdida de empleos, se ha propuesto una amplia gama de medidas adaptadas a cada colectivo y tipo de zona en que reside; sin embargo, dado que las características profesionales de los tripulantes dificultan su desplazamiento a otros sectores sin reciclaje previo, es necesario hacer hincapié en estas medidas de reciclaje profesional (cursos básicos, especializados y de preparación profesional) dado que constituyen una política previa inevitable destinada a facilitar el desplazamiento referido anteriormente.

ABSTRACT

The studied Region covers the provinces of Huelva, Cádiz, Las Palmas and Santa Cruz de Tenerife and in terms of Spain as a whole, accounts for 25% of all crewmen on fishing ships (22,807 people) and also provides direct employment for another 29,220 people in activities related to the fishing industry (aquaculture, processing, construction and ship repairing etc.), a total of 52,027 people.

The study has considered 7 areas that depend heavily on the fishing industry and ancillary activities. These areas provide 47,482 jobs and generate ECU 900 million of gross value added, which represents 10.0% of all jobs in these zones and 6.5% of the gross value added. Fishing activity makes up 48% and 29% of these figures respectively.

Landing made by Regional fleets amounted to 177,000 tonnes in 1990, of which 77,000 tonnes were landed by the deep-sea fleets and 100,000 tonnes, by the midwater and coastal fleets. These landings represented 20% of the total national landings (22% of the landings by the national deep-sea fleet, and 18% of the landings by the national midwater and coastal fleet), made by 3.475 vessels weighing 152,590 GRT (18% and 23% respectively of the Spanish fishing fleet), and amounting to a value of approximately Ecu500 m.

The policy that the Community has adopted of reducing the fleet and the fishing effort will mean a loss of direct and indirect employment, mainly for the crews on board, but also for the land workforce of shipowners and supplies firms, sectors that require fishing activities (wholesale trade, transport, the processing industry, etc...) and investment sectors (fishing boat building, auxiliary naval industry, etc...)

In order to offset the effects of this job loss, a broad range of measures adjusted to every collective and type of zone in which they are located has been proposed; but, given the professional characteristics of the workforce that makes difficult their deployment to other sectors without furthur retraining. Such professional retraining (pre-professional, basic and specialized courses) must be regarded as an unavoidable preliminary policy in facilitating such redeployment.

A B S T R A C T

La région étudiée couvre les provinces de Huelva, Cádiz, Las Palmas et Santa Cruz de Ténérife et en considérant l'Espagne comme un tout, fournit 25 % des équipages des navires de pêche espagnols (22.807 personnes) et emploie directement 29.220 autres personnes dans des branches d'activité liées au secteur de la pêche (aquaculture, transformation, construction et réparation de navires, etc.), soit 52.027 personnes au total.

L'étude a été focalisée sur sept zones qui dépendent fortement du secteur de la pêche et de ses activités connexes, avec 47.482 emplois (5 % du total régional) et une valeur ajoutée brute de 900 millions d'écus (2,5 %). Les activités d'extraction représentent respectivement 48 % et 29 % de ces chiffres.

Les mises à terre effectuées par les flottes régionales ont pour leur part atteint 177.000 tonnes en 1990 (77.000 tonnes pour la flotte de haute mer et 100.000 tonnes pour les flottes côtière et de pêche au large), soit 20 % du total national (mais aussi 22 % des mises à terre de la première flotte citée et 18 % de celles des deux autres). Réalisées par 3.475 navires jaugeant 152.590 TJB (soit respectivement 18 % et 23 % du tonnage des flottes précitées), leur valeur a atteint environ 500.000 millions d'écus.

La politique que la Communauté a adoptée pour diminuer la taille de la flotte et l'effort de pêche entraînera des pertes d'emplois directs et indirects qui frapperont principalement les équipages à bord, mais aussi ceux qui travaillent à terre pour le compte de propriétaires de navires et de fournisseurs, certains secteurs qui ont besoin des activités de pêche (commerce de gros, transport, transformation, etc.), ainsi que d'autres secteurs d'investissement (construction de navires de pêche, industrie navale auxiliaire, etc.).

Pour atténuer les effets de ces pertes d'emplois, un large éventail de mesures adaptées aux collectivités et à leur zone de résidence a été proposé. Toutefois, comme les membres d'équipage, de par leurs caractéristiques professionnelles, sont difficiles à transférer sans recyclage préalable, il convient, pour faciliter l'opération, de mettre l'accent sur les mesures prévues en la matière (cours préprofessionnels, de base et spécialisés), qui constituent une étape préliminaire incontournable.

CONTENTS

1.- INTRODUCTION

This report attends firstly to the reasons necessitating this study, defining its objectives and delimiting the geographical and sectorial fields that this study has focused on according to the criteria laid down by the Contractor. (Chapters 2, 3 and 4).

Chapters 5 and 7 provide information on the analysis that enables the attainment of this work's objectives.

2.- REASONS FOR THIS SURVEY

The present situation of imbalance between the available fishing resources and the fishing capacities of the EEC will bring a hardening of the Common Fishing Policy (CFP) after 1992. This change will affect the countries of the Community with varied intensity.

This policy, basically oriented to the reduction of the fleet and the catches, will produce significant economic and social consequences. Logically, they will affect more intensely those areas heavily dependent on fishing and ancillary activities.

In terms of these considerations, this report will delimit those zones likely to be most affected, characterizing them by several indicators, then follow the "accompanying measures" that can offset the foreseeable loss of employment arising from the implementation of the Community's policies.

3.- <u>OBJECTIVES</u>

This report deals with the following objectives:

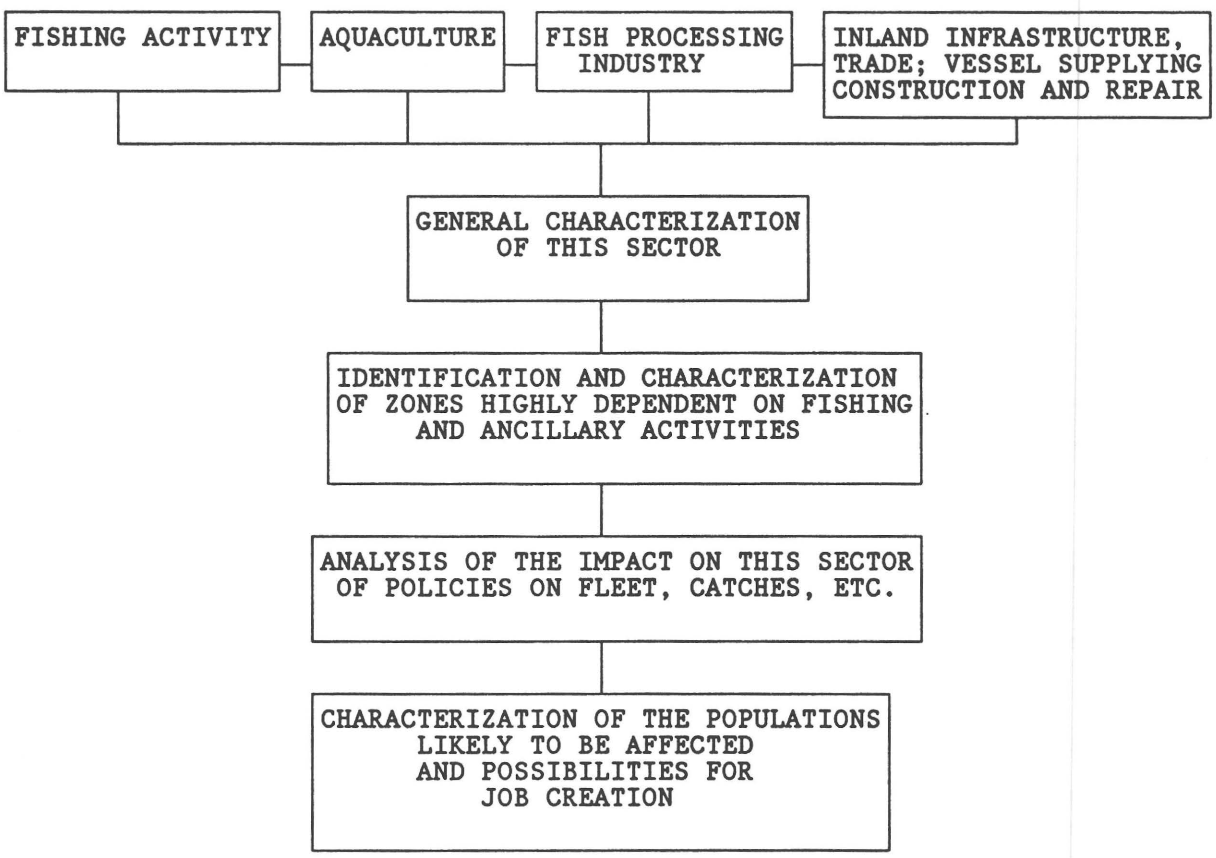
- Identifying and characterizing zones highly dependent on fishing and ancillary activities.

. Analyzing the socio-economic impact of a hardening of the Common Fishing Policy within the zones thus indentified and characterized.

. Defining the different measures, called "mesures d'accompagnement" that the Commission should implement in order to solve the socio-economic problems arising from the establishment of a Common Fishing Policy, especially in order to generate alternative jobs for the fishermen and other people obliged to quit their present activity.

The table shows the broad issues studied and the order followed in the analysis of the information.

FIGURE Nº 1



4.- GEOGRAPHICAL AND SECTORIAL AREA

As defined in the survey contract, Region E.2 consits of the following administrative units:

. Province of Huelva
. Province of Cádiz
. Province of Las Palmas
. Province of Santa Cruz de Tenerife

The zone is a part of the Region where the economic and social activity is highly dependent on fishing and ancillary activities. The determination of the characteristics of these zones is the main aim of this survey.

The "extended zone" incorporates some neighbouring population centres with significant industrial and services activities. This would be the spatial framework for policies of job creation.

The fishing and aquaculture sector, special area of this survey, includes fishing and farming, maintenance, processing, the conditioning and marketing of fishing products from fishing and aquaculture.

Under the heading of "ancillary activities" are those activities engendered by the fishing and aquaculture sector, such as construction, maintenance and repair of fishing vessels and their equipment (gear, engines, electronic equipment, etc.), services and supplies to the vessels and breeding grounds, management and maintenance of fishing ports and their facilities, etc.

5.- GENERAL CHARACTERIZATION OF THE SECTORS OF FISHING AND ANCILLARY ACTIVITIES.

Table I shows the basic information for this Region as a whole.

The activities reflected in these tables are:

Fishing sector

. Fishing
. Aquaculture
. Processing industry (of goods from fishing and aquaculture)
. Marketing, storage and other activities of this sector

Ancillary

FIGURE 1

TABLE I
GENERAL CHARACTERIZATION OF THE FISHING SECTOR
AND ANCILLARY ACTIVITIES (REGION E.2)

FISHING ACTIVITIES	REGION	% SPAIN
FISHING VESSELS		
. NUMBER OF VESSELS	3,475	18%
. GRT	152,590	23%
. ENGINE POWER (KW)	567,600	29%
. CREW	22,807	25%
SHIPOWNER COMPANIES		
. NUMBER OF COMPANIES	3,612	22%
. NUMBER OF ONSHORE JOBS	2,819	26%
LANDINGS (1990)		
. VOLUME (thousands of tonnes)	177	20%
- DEEP-SEA	77	22%
- MIDWATER AND COASTAL	100	18%
. VALUE (millions of ECUS)	507.7	28%
- DEEP-SEA	284.6	50%
- MIDWATER AND COASTAL	223.1	18%

AQUACULTURE	REGION	% SPAIN
SALT WATER AQUACULTURE		
- COMPANIES		
. NUMBER	158	*
. EMPLOYMENT (Permanent and temporary)	855	*
- PRODUCTION (adults)-1990		
. VOLUME (tonnes)	527	5.5% (1)
. VALUE (millions of ECUS)	5.3	8.5% (1)
- PRODUCTION IN BREEDING GROUNDS-1990		
. VOLUME (thousands of units)	289	*
. VALUE (millions of ECUS)	5.2	*
INLAND AQUACULTURE		
. NUMBER OF COMPANIES	3	2.1%

(1) Mussels not included.
* No data available.

PROCESSING INDUSTRY		
	REGION	% SPAIN
- NUMBER OF COMPANIES	46	12%
. CANNING	17	10%
. FROZEN GOODS, PREPARED DISHES AND FRESH GOODS	20	14%
. DRYING, SALTING AND SMOKING	5	6%
. INDUSTRIAL USE & NON-HUMAN CONSUMPTION	4	44%
- EMPLOYMENT (permanent and temporary)	3,488	20%
- PRODUCT.VOLUME,1989(thousands of tonnes)	122,737	20%
- PRODUCTION VALUE,1989(millions of ECUS)	411	20%

MARKETING, STORAGE AND OTHER ACTIVITIES OF THIS SECTOR		
	REGION	% SPAIN
ONSHORE INFRASTRUCTURES		
. NUMBER OF FISHING PORTS	41	17%
. NUMBER OF FISH-MARKETS	29	17%
. FISH REFRIGERATION CAPACITY	200,000m3	20%
HANDLING, STORAGE AND DISTRIBUTION		
. TAX LICENCES WHOLESALE.TRADE	771	27%
. EMPLOYMENT	2,837	30%

ANCILLARY ACTIVITIES		
CONSTRUCTION, MAINTENANCE, AND REPAIR OF FISHING VESSELS	REGION	% SPAIN
- SHIPYARD LAUNCHINGS IN THIS REGION, 1990		
. FOR THE NATIONAL MARKET	4	11%
. EXPORTED	3	8%
- NUMBER OF SHIPYARDS (>100 GRT)	3	6%
- NUMBER OF SMALL AND REPAIR SHIPYARDS	19	*
- EMPLOYMENT	2,350	*
NAVAL GOODS TRADE		
- NUMBER OF TAX LICENSES	77	20%
- EMPLOYMENT	797	26%

*No data available

5.1 Fishing sector

The fishing fleet

In the ports of Region E.2 there are 3,475 ships registered that are involved in fishing, with a GTR of 152,592 (an average of 44 tons) and 567,589 KW (an average of 163 KW per ship). The seagoing workforce totals about 22,807.

The regional fleet accounts for 17% ships, 23% GTR, 29% KW, and 25% seagoing personnel of the Spanish fleet.

The data included here has been taken from different sources and is up-to-date for the Canary Islands, (Development of Operative Fleet Census dated 1/1/91) and the Province of Cádiz (Diputatión Provincial Government 1990). There is no recent data for the Province of Huelva, thus we have referred to the last census of the S.G.P. 1986 for the number of ships, tonnage and KW.

The information on seagoing personnel also differs very much depending on the source, therefore we have opted to take data supplied by the Marine Welfare Institute.

We now turn to the distribution and characteristics of the fleet.

Of the 3,475 fishing ships, 46% are attached to the Canary Islands, 33% to Cádiz and the remaining 21% to Huelva. The largest average tonnage refers to Huelva (74 GTR), followed by Cádiz and the Canaries (41 GTR and 32 GTR, respectively).

The Canaries fleet (1,586 ships) mainly consists of longliners (54% of the total) and all-purpose ships (22%). In reference to the GRT, the trawlers (35,994 of total GRT) make up 64%, the longline vessels (6,610 GRT) 13%, and slightly smaller percentages for purse seiners.

The ships registered in Cádiz (1,159) are mainly gill net vessels (44% of the total), although the trawlers make up 21% of the total, apart from the fact that they constitute 63% of GRT. However, the average tonnage is 123, against 243 for the Canaries.

Finally, the data on the fleet from Huelva (1986) consists of trawlers (54%, a quarter of which are freezers) with an average GTR (125) similar to Cadiz's, making a total of 730 vessels.

TABLE II
FISHING FLEET

	TOTAL	TRAWLERS	PURSE SEINERS	LONGLINERS	GILL NET	ALL PURPOSE	OTHERS
CANARY ISLANDS							
Number of vessels .	1,586	148	70	854	13	350	151
GRT	51,076	35,994	6,477	6,610	96	1,591	309
Power (Kw)	145,344	93,261	17,592	24,493	372	8,118	1,503
Crew	6,678	2,550	607	2,289	37	910	285
CADIZ							
Number of vessels	1,159	244	96	221	507	6	85
GRT	47,363	30,004	10,041	5,092	1,981	20	221
Power (Kw)	206,947	112,192	46,558	27,073	17,610	207	3,306
Crew	6,299	2,421	1,441	1,123	1,064	9	35
HUELVA	TOTAL	TRAWLERS	PURSE SEINERS	SURFACE			
Number of vessels	730	397	45	288			
GRT	54,153	49,639	2,214	2,310			
Power (Kw)	215,298	180,833	10,641	23,824			
Crew	6,401	4,621	539	1,241			

SOURCES: S.G.P. (MAPA).Quoted from Mar. 287. September 1991 (Data dated 1/1/1991) for Canary Islands. Diputatión-Provincial Government Cádiz (1990). MAPA for Province of Huelva (1986)

The following table shows the structure of the provincial fleet by tonnage bracket. The data regarding Cádiz refers to 1990; the remaining data refers to 1986, for no furthur updated data is available.

TABLE III

SEGMENT OF THE REGIONAL FISHING FLEET ACCORDING TO THE GRT

	Cádiz	Huelva	Tenerife	Las Palmas	Total
Up to 20 GRT	75%	58%	96%	82%	80%
Up to 250 GRT	19%	38%	4%	10%	15%
More than 250 GRT	6%	4%	--	8%	5%
	100%	100%	100%	100%	100%

Source: Diputation-Provincial Governnment of Cádiz (1990) MAPA (1986)

Fishing fleet within the framework of the CFP

Since 1986, and following the directives of EEC Ruling 4028/86, the Community has combined policies of renewal and modernization of the fishing fleet with other policies of reduction of the number of vessels and tonnage of the fleet. The former have been implemented through EEC financial aid supplemented with other aids from the Spanish administration, directed to those regions classified as Objective One. Between 1986 and 1990 EEC financial support has aided exclusively the construction and modernization of vessels longer than nine metres (twelve metres for trawlers) which meant the exclusion of an important part of the regional fleet. Nevertheless the Spanish subsidies have been mostly directed to those vessels excluded from EEC aid. Some experts estimate that 20% of the fleet has been renewed thanks to this policy. In order to implement the latter the final retirement of the vessels has been subsidized.

The modification of the above Ruling in December of 1990 (EEC Ruling 3944/90) has allowed access to Community subsidies of vessels whose length is between five and nine metres. Other measures have also been established in order to accelerate the reduction of the fleet, the exportation of vessels, and the constitution of joint ventures.

The above mentioned actions were included in the Multiannual Guidance Programme for the 1987-1991 fishing fleet, which was approved in March 1988.

The programme established reduction objectives for the active Spanish fleet. By December 31, 1991, the overall tonnage had to stand at 588,590 gross registered tonnes (GRT) and 1,860,689 KW, which with respect to January 1, 1987 mean a 6% reduction in GRT and 5% in KW. The most affected fleets are those that fish in the national fishing area and in waters of third countries with which they have fishing agreements. Following the terms of the Treaty of Accession, the Multiannual Guidance Programme cannot be applied to the Canary Islands, although the Council may take structural community measures in favour of its territory, and also take its own interests into consideration when adopting decisions.

The European Economic Community is now considering taking more action in this sense, even though it needs further data on the most affected fisheries and the fleets that operate in them.

To this effect, the recommendations, with a view to preparing the Multiannual Guidance Programme, insist on relating the type of fleet to specific species or groups of species so as to determine the objectives in the fishing effort system according to areas.

Fisheries

This region´s fishing fleet operates in the following zones:

1. Spanish waters (South Atlantic, Canary Waters, Mediterranean Sea)

2. Waters of other countries

- CECAF Area. Between Gibraltar Strait and River Congo mouth.
- ICSEAF Area. Between Angola and South Africa.

* SPANISH WATERS
- Fleet based in Cádiz.

This fleet operates mainly along the South-Atlantic seaboard (zone XI-a) and in the Mediterranean sea. There are 916 vessels fishing in these zones, with a toal of 2,951 personnel on board.

The South-Atlantic coastal fishery is over-exploited. Some species have become extinct, others are close to extiction and there is an important decrease in the volume of catches. This situation is due to pollution from uncontrolled industrial spillage and the scant regard for rulings on fishing zones, grounds, gear, etc, and also to unauthorized trawling or bag-netting.

These fleets make up 79% of the fleet from Cádiz and 47% of their crews.

- Fleet based in Huelva

The fleet based in Huelva also operates in the South Atlantic Fishing Ground usually fishing European anchovies, soles, clams, and other species. These are usually vessels of less than 20 GRT (58% of the fleet).

- Fleet based in the Canary Islands.

The Canarian coastal fleet operates in the waters of this archipelago. It consists of family concerns, including vessels involved in tuna fishing (tuna-vessels, and longliners) that alternately engage in mackerel fishing by bag-netting; other vessels catch local demersals using small gear.

* WATERS OF OTHER COUNTRIES
- Fleet based in Cádiz.

The following table shows four different fisheries and the number of vessels and crews working them:

FISHERY	NUMBER OF VESSELS	PERSONNEL ON BOARD
. Moroccan and Saharan	176	2,139
. Portuguese...............	4	49
. Mauritanian..............	26	439
. Others (*)	37	721
TOTAL	243	3,348

* Fisheries located in exclusive economic zones of other countries and in international waters.

SOURCE: Provincial Government of Cádiz 1990.

- Fleet based in Huelva

The midwater and freezer fleet based in Huelva operates mainly in waters off Morocco and the West African coast,bearing in mind the problems often derived from the Fishing Treaties with those countries.

- Fleet based in the Canary Islands.

The sardine fleet, comprising 12 vessels based in Lanzarote, operates in the Saharan ground, south of Cape Noun, under Moroccan jurisdiction. Its catches amounted in 1988 to 62% of all Canarian catches, though only to 15% of their value. They provide raw material for canning or reducing industries located in Lanzarote Island.

The craft fleet operates in the Canarian-Saharan ground, mainly taking demersals using hooks; some vessels alternate this kind of activity with tuna fishing. The biggest ones are specifically concerned with these species. This is the fleet most affected by international agreements.

The freezer-trawler fleet also has its main fishery in Morocco, although some vessels operate in Guinea Conakry, Senegal, and Guinea Bissau, countries with which they have signed treaties.

Present situation of the fishing activity

In 1990, about 177,000 tonnes of fishing products were landed in the E.2 Region, Ecu 507,7m (2,808 ECUs per ton). Compared with 1986, this figure represents 20% fewer tonnes and a 2% loss in value.

Considering 22,807 personnel on board, these ratios are obtained: 7.8 tonnes and Ecu 22,261 per person.

The 100,000 tonnes from midwater and coastal fishing (56% of the total) reached Ecu 223,1m (2,231 ECUs per ton).

In 1990, virtually nine out of every ten tonnes of this type of fishing (87%) were unloaded in the subregion of the South Atlantic (Huelva and Cadiz).

Regarding midwater and coastal fishing, the pelagic species comprise 60% of the total and demersals 31%. Molluscs make up 5%, crustaceans 4% and the rest is tuna trap.

In Huelva, mackerel, sardines, octopus, whiting and shrimp are the most important species as far as landed tonnage is concerned. The most important landings in Cadiz are of whiting/hake, European anchovies, tuna fish and mackerel. Whiting/hake make up 48% of the volume landed and anchovies 14%.

In the Canary Islands, and always in reference to midwater and coastal fishing, the pelagic species (mainly sardines) made up 85% of the total volume.

Octopus make up 27% of the volume of other species to be frozen that are landed in this Region.

Problems related to fishing activity

The fundamental problem faced by the fishing activity in this Region, as in the rest of Spain and the other countries of the EEC, is the progressive reduction of fishing possibilities.

This situation has led to the existing fishing fleet being considered too large an assessment variously applicable to the different countries in the EEC in relation to their zones of operation.

In percentage indicator terms (number of vessels, GRT, sea-going personnel) Spain, and this Region especially, should not be most affected, but the situation changes when absolute figures are considered due to the significant role of the Spanish fishing fleet in the fishing activity of the Community as a whole.

In general terms, vessels operating in coastal waters, commonly known as craft fleet, can be the most affected in the future. Overfishing and industrial pollution of these waters is seen to significantly reduce the total percentage of landings. As the landed tonnage/person rate is substantially lower than that in the rest of the fishing activities, its negative effect on employment and the economy of several coastal townships can be forecast as being severe. An aggravating factor, is that the skills required in this activity cannot easily be deployed in other types of activity.

Other forms of fishing will also be affected in the future by a reduction in the possibilities of fishing, to a greater or lesser degree, depending on the kind of fleet and the fisheries where they operate. Most likely these reductions will affect demersal fishing more than pelagic fishing because the latter has access to exploitation of new species, alternative less exploited fisheries, etc.

This sector as a whole has suffered difficulties caused as much by reduced catches due to the exhaustion of the fishing grounds as by the limitations of access to the traditional fisheries in Morocco.

TABLE IV
CATCHES LANDED 1990 (TONNES)

ZONES	DEEP SEA	MIDWATER & COASTAL	TUNA TRAP	TOTAL
ISLA CRISTINA		4,977		4,977
HUELVA	16,372	6,797		23,169
PROVINCE OF HUELVA	**16,372**	**11,774**		**28,146**
CADIZ	129	27,958		28,087
ESTRECHO		7,156	2,302	9,458
ALGECIRAS	6,505	19,951	1,119	27,575
PROVINCE OF CADIZ	**6,634**	**55,065**	**3,421**	**65,120**
SOUTH ATLANTIC SUBREGION	**23,006**	**66,839**	**3,421**	**93,266**
FISHINGS PORTS	53,102	25,147		78,249
PROVINCE OF LAS PALMAS	**53,102**	**25,147**		**78,249**
FISHING PORTS	1,277	4,302		5,579
PROVINCE OF STA.CRUZ TENER.	**1,277**	**4,302**		**5,579**
CANARIAN SUBREGION	**54,379**	**29,449**		**83,828**
TOTAL REGION E.2	**77,385**	**96,288**	**3,421**	**177,094**

Sources: MAPA and Regional Fishing Councils

NOTES:

a) Deep-sea: Frozen. Midwater & coastal: fresh
b) Tuna traps: MAPA 1989
c) Products used in the reducing industry are only partially included

5.2.- Aquaculture

In 1990, marine aquaculture production (adults) in Region E.2 reached 527 tons (5.5% of the national total, excluding mussels) representing a total of Ecu 5,3m (8.5% of Spain's total).

Fish (388 tons) represent 74% of the total volume produced, molluscs 17%, and crustaceans the remaining 9%.

A further ECU5,2m is generated by production in hatcheries. Of this total, 62% is mollusc seed production and the rest fish larvae (22%) and crustaceans (16%).

Marine aquaculture production can thus be estimated at 10.7 million ECUs (figures supplied from MAPA and regional councils).

Around 90% of the adult production and almost all the seed production comes from Andalusia, namely from the province of Cádiz.

One type of extensive production that takes place in lagoons is crustacean harvesting (mainly camarote prawns) and fishing (golden snapper, mullets, seabass, and so on). In addition, there are ground mollusc factories concentrate on clams.

The bulk of the production from hatcheries is camarote prawn broods.

It is in the last type that production has developed most, i.e. a tenfold increase since 1985.

However, the supply of adults is very much below the objectives set in the previous sectorial plan.

The number of companies involved in marine aquaculture has grown considerably in the past few years, although continental aquaculture has scarcely developed. Despite this fact, many of these companies are still under construction.

In Huelva and Cádiz 148 companies are authorised to operate and in the Canary Islands there are 10. The area for aquaculture, par excellence, is San Fernando (Cádiz), where the majority of these companies are sited. The main companies combine larvae and brood production with the production of adult fish and crustaceans.

Employment for the sector as a whole was forecast for 1991 at a workforce of 855 (permanent and seasonal), of which 18% is technical personnel.

Saltwater aquaculture development has been constant since the outset of the former Multiannual Guidance Programme (1987-1991). With aid from the EEC and Spanish administrations a significant number of companies have started to operate, mainly in the zone of Cádiz, taking advantage of the good conditions existing for such development, which equals that along the South Atlantic coast and in the Canary Islands.

The greatest production has been achieved in breeding grounds, whose figure has exceeded the forecast for 1991 by 27%. On the other hand, projected goals for fish, molluscs and crustaceans in 1990 were not met. The difficulties in this sector are related to technological and commercial problems and to the need for controlling the effects of these activities on the environment.

In short, this shows promising perspects given rising demand, though given the small workforce required, it has a very limited capacity for absorbing employment reductions from the fishing subsector.

5.3.- Processing industry

There are 46 companies involved in fish processing or aquaculture products in this region (12% of the national figure, 396 companies). 42 of them process goods destinated for human consumption. The majority of them (19) have as their main activity the processing of frozen goods or preserved/semipreserved canned goods (17).

By geographical area, Huelva has the highest number of companies (16) followed by Cádiz (14) and Las Palmas (13).

In the province of Huelva, the most important establishments producing frozen goods are located in Huelva city, whereas Isla Cristina and Ayamonte are the location of canning factories. It must be noted that the marketing activity of the former takes precedence over processing.

The processing industry in Cádiz is present in almost all the towns of any significant size along the coast. The canning factories with the highest production are located in La Línea, Barbate and Algeciras, though there are also establishments in Tarifa, Puerto de Santa María and San Fernando. The frozen goods industry produces far less than that of Huelva.

In the province of Las Palmas, three canning factories are of note (two in Arrecife -Island of Lanzarote- and one in Las Palmas), and also a factory that processes frozen goods. The latter is of considerable importance in the national context. Also in this province, on the island of Lanzarote, are three factories producting flour and oil from fish.

In 1989 there were 3,488 people employed in the industry processing fish and aquaculture industries in this region (about 20% of the national figure).

This refers to permanent and seasonal employment in industrial plants. The equivalent annual employment was estimated at 2,883 persons.

The main problems in the sector are:

- Scarcity of raw material
- Political and administrative limitations to its export activity
- Need for modernization of resources.

Nonetheless the companies do not make full use of their capacities due to several factors: scarcity of raw material, foreign imports, etc.

The basic guidelines of Community policy regarding the processing sector try to encourage company competitiveness, to adjust processes of production to new types of demand and to develop new companies (except for sardine canning). Community Aid Scheme for Spain. Processing and marketing of fishing products. Objective 5(a). 1991-1993.

The specific investment is directed to the technological modernization of processing and packing equipment and machinery, improvement in storage raw material handling rooms, quality control of equipment, hygienic-sanitary control, etc.

5.4.- Onshore infrastructures, handling, storage, distribution

There are 41 ports situated on this region's coast distributed by provinces as follows:

SUBREGION	PROVINCE	NUMBER OF PORTS
South Atlantic	* Huelva	6
	* Cádiz	13
Canary Islands	* Las Palmas	11
	* Tenerife	11
		41

In the 41 ports there are 29 fish-markets, 19 being located in the South Atlantic subregion and the other 10 in the Canary Islands.

In the six most important ports (Algeciras, La Linea, Cádiz, Huelva, Las Palmas and Tenerife) fish markets occupy 26,367 square metres, fish processing another 31,801 and the industry's huts 243,849.

The cold-storage capacity for the entire Region since 1990 has increased to 198,000 cubic metres.

Landed fresh fish products go for sale in the first instance, to fish markets. There, they are classified by species and size and part of them are in semi-processed annexes called processing rooms. According to information from the General Directorate of Ports, infrastructures dealing with fish handling and canning cover a surface of 276,000 sq. m in the six most important ports (five of them situated in Huelva).

The commercial wholesaler operating in these fish-markets buy the products by auction to send later to central or local markets, processing factories, etc.

Frozen fish marketing networks differ greatly from those for fresh products. Thus, big fishing companies have often created subsidiariaries involved in wholesaling at destination, gone into partnership in processing factories, handling rooms, etc., or formed joint ventures. Producer organizations have an important role in the marketing of some species at source.

There are 771 tax licenses recorded for this region (legalizing wholesaling in fresh, frozen, salted fish, etc.). The employment calculated for these companies amounts to 2,437 people. It must be taken into account that 51% of the companies are licensed as independent operators, not just legal entities.

	REGION E.2	% SPAIN
Number of tax licences for wholesale marketing	771	12%

Wholesale trade of vessel commodities employs 797 people in this region (77 companies). 46% of those jobs are located in or around Cádiz, and another 32% in the town of Las Palmas.

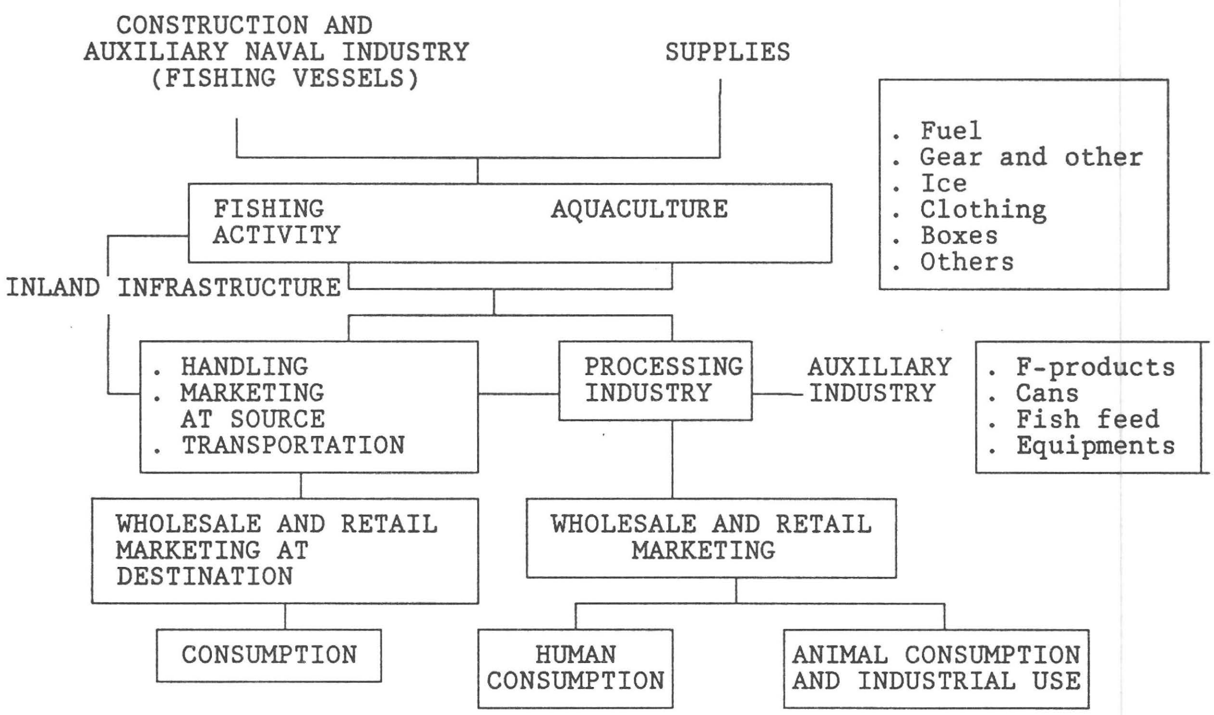
5.5.- <u>Ancillary activities</u>

Three shipyards (two in Huelva and 1 in Las Palmas) are involved in building vessels of over 100 GRT. In addition to these, there are 13 other shipyards, most of them in Las Palmas, where those and other types of vessels undergo enlargement and repair. Another 19 shipyards build mostly fishing vessels of less than 100 GRT and perform repairs.

5.6.- <u>Relationships between the different activities in this sector</u>

The following table schematizes the connections between the different activities in this sector and other ancillary activities:

FIGURE Nº 3



6.- IDENTIFICATION OF ZONES HIGHLY DEPENDENT ON FISHING AND ANCILLARY ACTIVITIES

6.1.- Delimitation of zones

In order to delimitate the zones of this report we have proceeded as follows:

First of all, we have selected every population centre with a fishing port or businesses engaged in ancillary activities.

These population centres have been chosen for their geographic proximity and administrative districts.

After delimiting these zones, other dependent areas were chosen if they met one of the following conditions:

1º) % of total fishing jobs higher than the provincial average.
2º) Weight of the fishing sector higher than the provincial average.
3º) Employment figures, in absolute terms, are significant, even though not higher than the provincial average.

According to these criteria we demarcated seven zones highly dependent on the fishing sector, taking in a total of 55 population centres.

These zones are located in four provinces and two Autonomous Communities within Region E.2 (Figures 5 to 8). This region accounts for about 25% of all sea fishermen in Spain.

In this respect, the Community of Andalusia, to which 82% of the fishermen in this zone belongs, is the most important, followed by the Canaries with a mere 18% (Marine Welfare Institute Data)(1)

In the Community of Andalusia, Huelva (59%), including the zone of Isla Cristina (51%), is the most important of the two provinces. Foremost in the province of Cádiz (41%), is, the zone of Cádiz (45%), while the other two are of equal importance.

In the Community of Canarias (18%), The province of Las Palmas (72%) clearly leads.

The number of jobs connected with the fishing sector differ hardly at all from one Autonomous Community or province to the next.

In effect, the Autonomous Community of Andalusia (73%) is still the most important, although its relative weight is reduced in favour of the Canary Islands (27%).

The same situation prevails with Huelva (54%), which loses five percentage points in favour of Cádiz (46%) (within Andalusia).

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(1) These figures differ considerably from other sources. The Census of operative fleet (unofficial) gives 6,229 crew members enrolled in The Canarian fleet.

In the province of Huelva the zone importance is reversed with the zone of Isla Cristina taking precedence, though not by much. In the province of Cádiz, the zone of the Gibraltar Strait loses out in importance to Cádiz.

The province of Las Palmas, in the Community of Canaries, is of even greater importance.

Of all zones, the only zone of overall significance regarding all its activities (fishing, aquaculture, processing industry, shipyards, and auxiliary naval industry) is the province of Las Palmas, in the Canary Islands.

The zones where fishing and the processing industry predominate are Huelva, the Gibraltar Strait and Algeciras (Cádiz), all of them in Andalusia, and Santa Cruz de Tenerife in the Canaries.

Finally, the zones primarily involved in fishing are Huelva and Cádiz, both in Andalusia.

FIGURE Nº 4

CHARACTERIZATION OF THE ZONES ACCORDING TO THE TOTAL NUMBER OF JOBS DEPENDENT ON THE FISHING SECTOR.

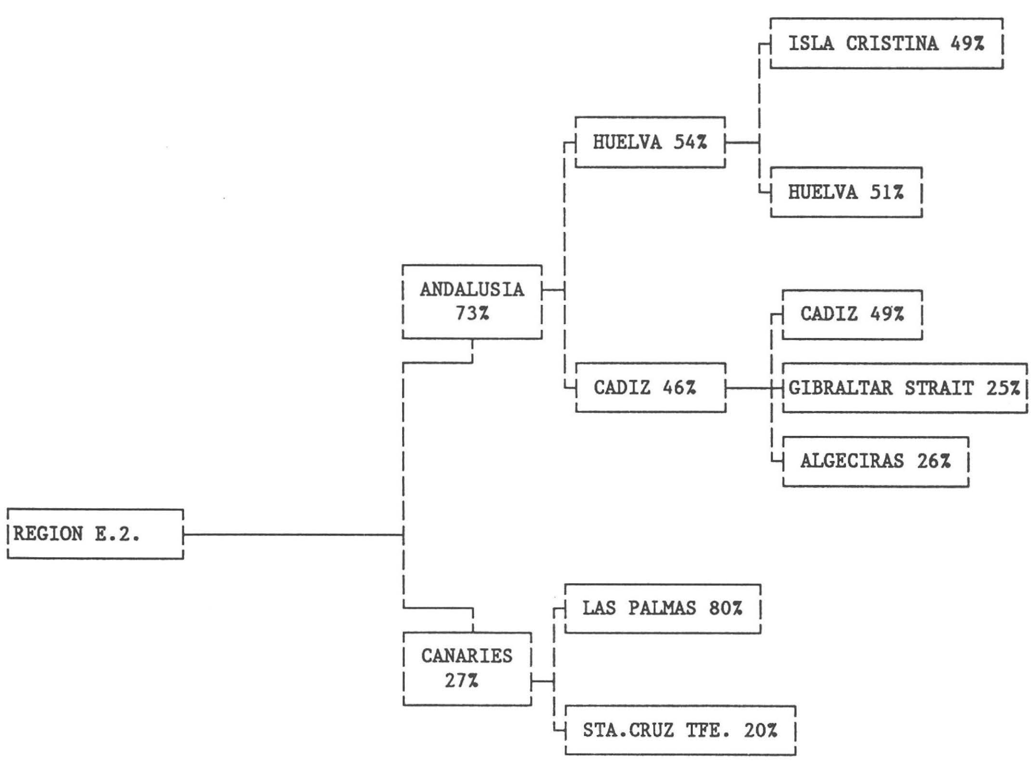


TABLE V

DEPENDENCY RATE (FISHING ACTIVITY ZONES)

ZONE (1)	GENERAL FEATURES OF THE ZONES					NUMBER OF JOBS IN FISHING AND ANCILLARY ACTIVITIES (5)					VALUE ADDED OF FISHERIES ANCILLARY ACTIVITIES					RELATIVE DEPENDENCE				% DEPENDENCE ON QUOTAS
	TOTAL POPULATION	WORK FORCE (2)	TOTAL NUMBER OF JOBS (3)	G.V.A. (4) TOTAL *	G.V.A. (4) PER CAPITA **	FISHERMEN ONLY	OTHER JOBS (F) AQUACULTURE	OTHER JOBS (F) PROCESSING INDUSTRY	OTHER JOBS (F) OTHER (7)	TOTAL	LANDINGS & FIRST HANDLING(6)	OTHER ACTIVITIES AQUACULTURE	OTHER ACTIVITIES PROCESSING SECTOR	OTHER ACTIVITIES OTHER (7)	TOTAL	IN TERMS OF JOBS (%)		IN ECONOMICS TERMS (%)		
	A		B	C	D=C/A	E	F 1	F 2	F 3	G=E+F	H	I 1	I 2	I 3	J=H+I	E/B	G/B	H/C	J/C	
ISLA CRISTINA	47,151	22,263	18,437	228	4,829	5,622	122	484	2,903	9,131	7.7	0.2	10.4	98.4	116.7	30 ½	49 ½	5 ½	51	
HUELVA	160,803	66,092	51,625	1,130	7,029	5,401	18	48	4,106	9,573	88.2	---	1.0	113.3	202.5	10 ½	18 ½	9	18	
TOTAL FOR HUELVA *	207,954	88,355	70,062	1,358	6,530	11,023	140	532	7,009	18,704	96.5	0.2	11.4	211.1	319.2	16	27	8	24	19%
CADIZ	505,991	152,552	112,865	3,324	6,569	3,474	670	65	3,577	7,786	55.4	0.2	1.7	84.1	141.4	3	7	2	4 ½	
ESTRECHO	36,671	12,598	8,696	160	4,374	2,162	15	307	1,501	3,985	10.9	2.6	7.8	34.9	56.2	25	46	9	35	
ALGECIRAS	159,174	52,206	38,055	1,013	6,348	2,084	--	323	1,704	4,111	37.7	---	8.2	39.7	85.6	5 ½	11	4	8 ½	
TOTAL FOR CADIZ *	702,236	217,356	159,616	4,497	6,404	7,720	685	695	6,782	15,882	104.0	2.8	17.7	158.7	283.2	5	10	3	6	28%
LAS PALMAS	513,357	157,381	122,401	4,281	8,339	2,932	20	1,490	5,895	10,337	52.1	1.0	39.8	151.7	244.6	2 ½	8 ½	2	6	
TOTAL FOR LAS PALMAS *	513,357	157,381	122,401	4,281	8,339	2,932	20	1,490	5,985	10,337	52.1	1.0	39.8	151.7	244.6	2 ½	8 ½	2	6	0
TENERIFE	466,365	163,712	130,441	3,843	8,240	1,132	10	372	1,045	2,559	3.6	---	10.6	32.4	46.6	1	2	0	1	
TOTAL FOR TENERIFE *	466,365	163,712	130,441	3,8431	8,240	1,132	10	372	1,045	2,559	3.6	---	10.6	32.4	46.6	1	2	0	1	0
Z. DEPENDENCE E. 2. *	1,889,912	626,804	482,520	13,979	7,397	22,807	855	3,089	20,731	47,482	256.2	4.0	79.5	553.9	893.6	5	10	2 ½	6 ½	
TOTAL E.2.	3,134,363	1042222	798,800	19,357	6,175	22,807	855	3,488	24,877	52,027	256.2	4.0	79.5	656.5	996.2	3	6 ½	2	5	8%

SOURCES: INE (1991), INEM (1990), MAPA (1990), BBV (1987 updated 1990), Regional Fishing Councils (1988-1990), CISE (1989) and others.

* Figures in millions of ECU.

** Figures in ECUS. (1 ECU= 130 PTS.)

(1) Every zone contains several municipalities

(2) Active Population in the working age group

(3) Including self-employed

(4) Gross Value Added

(5) Permanent and temporary employment. Only direct employment. Fishermen: personnel on board

(6) Landings of Spanish ships in the zone

(7) Management and maintenance of port infrastructure, construction & repairing of fishing boats, auxiliary naval industrial fishing, wholesale trade of ship components, wholesale fish processing industry, onshore corporate shipowner activity shellfish harvesting & other. This last category has been estimated from input-output tables which would include textiles, a whole range of services provided to companies that are associated with transport, fuel, credit institutions, etc. (See Table VII)

* Figures for survey zones only (not whole province)

FIGURE 2

ZONES DEPENDENT ON FISHING AND ANCILLARY ACTIVITIES
REGION E.2: HUELVA

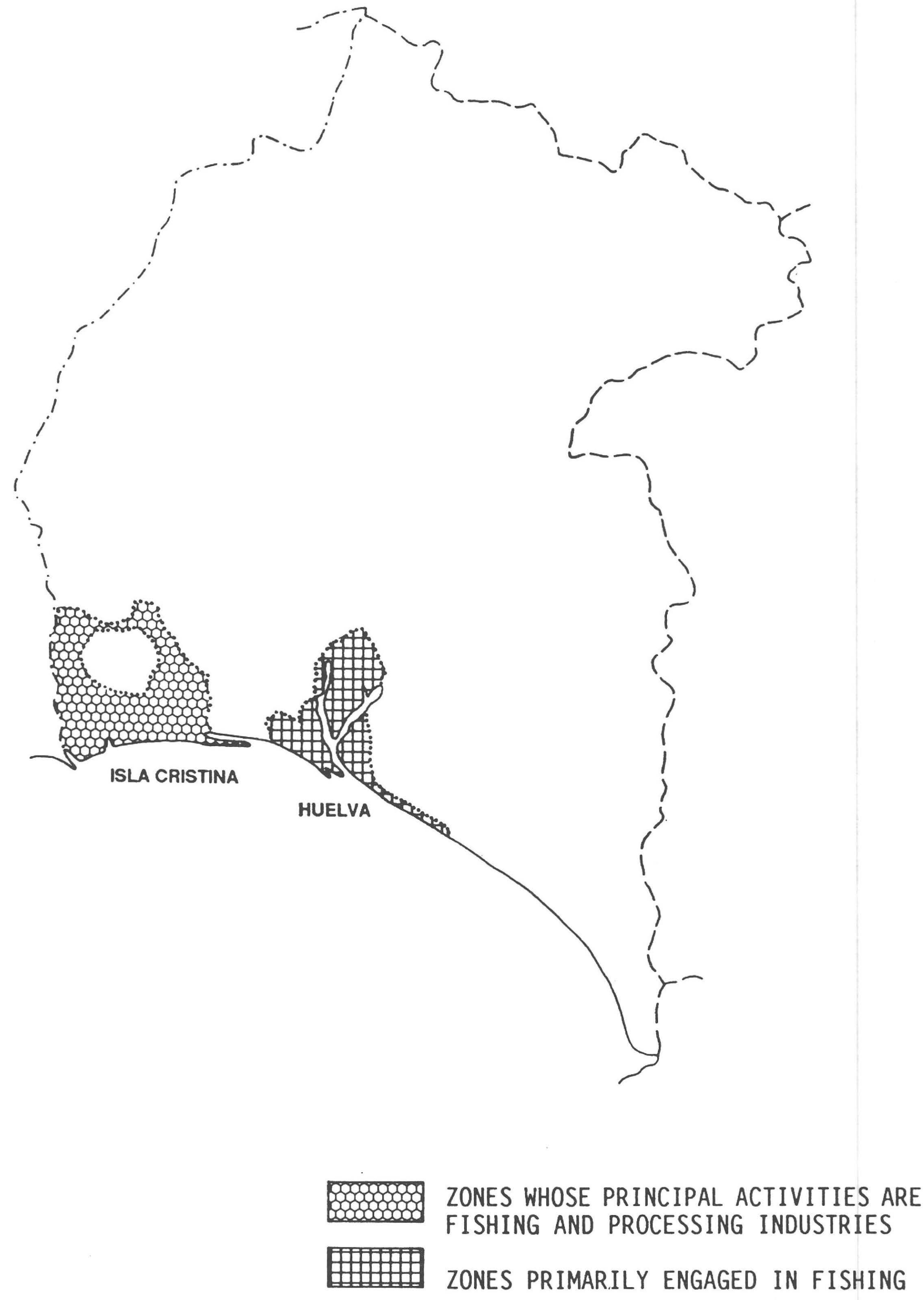


FIGURE 3

ZONES DEPENDENT ON FISHING AND ANCILLARY ACTIVITIES

REGION E.2: CADIZ

ZONES WHOSE PRINCIPAL ACTIVITIES ARE FISHING AND PROCESSING INDUSTRIES

ZONES PRIMARILY ENGAGED IN FISHING

FIGURE 4

ZONES DEPENDENT ON FISHING AND ANCILLARY ACTIVITIES
REGION E.2: CANARY ISLANDS

STA.CRUZ OF TENERIFE

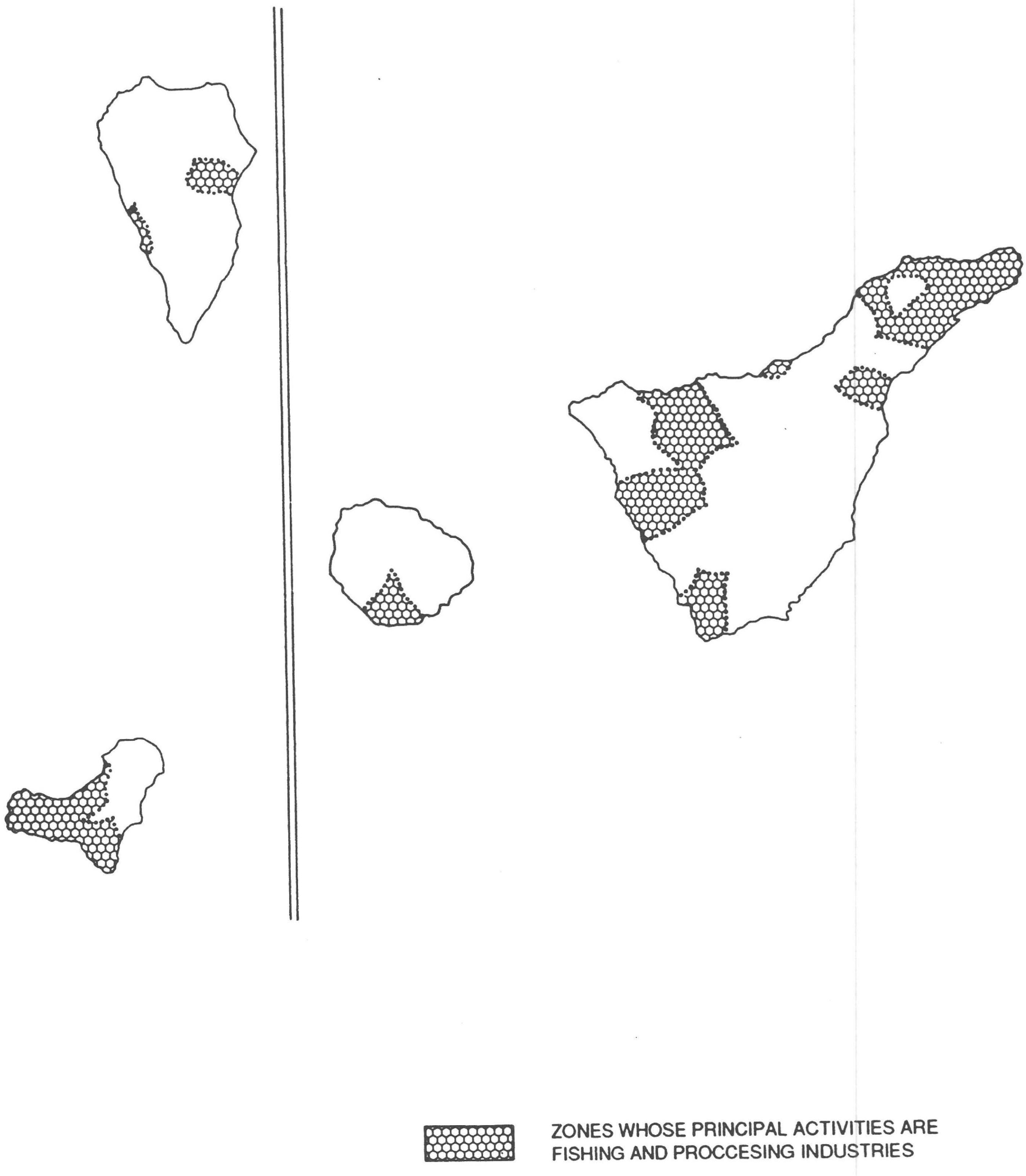
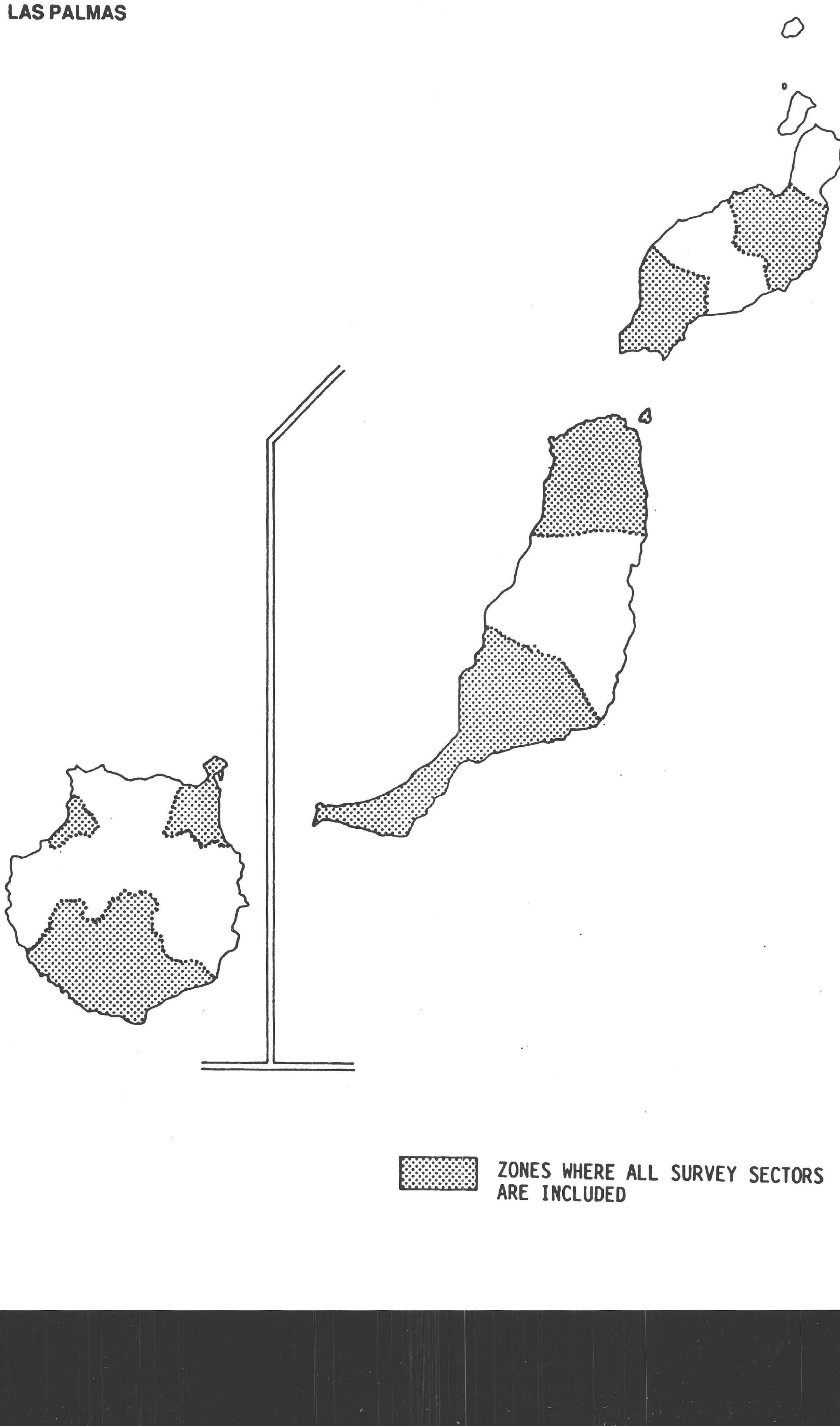


FIGURE 5

ZONES DEPENDENT ON FISHING AND ANCILLARY ACTIVITIES

REGION E.2: CANARY ISLANDS

LAS PALMAS



E.2. REGION: MUNICIPALITIES

ZONE	PROVINCE	AUT.COMMUNITY
CADIZ	**CADIZ**	**ANDALUSIAN**

HIGHLY DEPENDENT MUNICIPALITIES	MUNICPALITIES IMPLEMENTING EMPLOYMENT POLICY
. Cádiz	. Jerez de la Fra.
. Chiclana de la Frontera	
. Chipiona	
. Conil de la Frontera	
. Pto. de Sta. María (El)	
. Puerto Real	
. Rota	
. San Fernando	
. Sanlúcar de Barrameda	

ZONE	PROVINCE	AUT.COMMUNITY
STRAIT ZONE	**CADIZ**	**ANDALUSIAN**

HIGHLY DEPENDENT MUNICIPALITIES	MUNICPALITIES IMPLEMENTING EMPLOYMENT POLICY
. Barbate de Franco	
. Tarifa	

ZONE	PROVINCE	AUT.COMMUNITY
ALGECIRAS	**CADIZ**	**ANDALUSIAN**

HIGHLY DEPENDENT MUNICIPALITIES	MUNICPALITIES IMPLEMENTING EMPLOYMENT POLICY
. Algeciras	. Barrios (Los)
. Línea de la Concep. (La)	. San Roque

ZONE	PROVINCE	AUT.COMMUNITY
ISLA CRISTINA	**HUELVA**	**ANDALUSIAN**

HIGHLY DEPENDENT MUNICIPALITIES	MUNICPALITIES IMPLEMENTING EMPLOYMENT POLICY
. Ayamonte	
. Isla Cristina	
. Lepe	

ZONE	PROVINCE	AUT.COMMUNITY
HUELVA	**HUELVA**	**ANDALUSIAN**

HIGHLY DEPENDENT MUNICIPALITIES	MUNICPALITIES IMPLEMENTING EMPLOYMENT POLICY
. Huelva	. Aljaraque
. Palos de la Fra.	. Niebla
. Punta Umbría	. la Palma del Condado
	. San Juan del Puerto

ZONE	PROVINCE	AUT.COMMUNITY
FISHING MUNICIP.	**LAS PALMAS**	**CANARY ISLANDS**

HIGHLY DEPENDENT MUNICIPALITIES	MUNICIPALITIES IMPLEMENTING EMPLOYMENT POLICY
. Agaete	. Pto. del Rosario
. Arrecife	. Sta. Brígida
. Mogán	
. Oliva (La)	
. Pájara	
. Palmas de G.C. (Las)	
. San Bartolomé de T.	
. Teguise	
. Tuineje	
. Yaíza	

ZONE	PROVINCE	AUT.COMMUNITY
FISHING MUNICIP.	**STA. CRUZ DE TFE.**	**CANARY ISLANDS**

HIGHLY DEPENDENT MUNICIPALITIES	MUNICIPALITIES IMPLEMENTING EMPLOYMENT POLICY
. Alajero	. Realejos (Los)
. Arona	. Sauzal
. Candelaria	. Tacoronte
. Frontera	. Tegueste
. Garachico	
. Guía de Isora	
. Icoz de los Vinos	
. Laguna (La)	
. Pto. de la Cruz	
. Sta. Cruz de la Palma	
. Sta. Cruz de Tenerife	
. Tazacorte	

6.2. Characterization of employment in region E.2

The number of jobs connected with the fishing sector in this Region is 52,027; 91% of them (that is, 47,482 jobs) are located in zones considered in this report to be dependent on the sector.

People in activities related to the fishing and aquaculture subsector amount to 77% of the direct jobs, and the other 23% to onshore activities essential to the former.

At zonal level the biggest fishing workforce is concentrated in the province of Huelva (equally divided between Isla Cristina and Huelva) accounting for 48% of the Region´s fishermen. Las Palmas is the zone with the highest number of jobs in the processing industry (48%).

The employment figures shown in TABLE VII are taken from various sources; the main ones are included at the bottom of the table.

The following is important in order to understand the table:

- The figures for shipbuilding and ship repairing in the fishing and for the auxiliary naval industry industry refer only to the employment of shipbuilders, manufacturers and wholesalers whose main activity is fish-related.

- The employment figures have been put into two groups:
  The first sub-total corresponds to fishing, aquaculture, and their supply activities. The second corresponds to those sub-sectors whose activities are based on fish products and aquaculture (wholesale distribution, transport, processing industry).

- Both sub-totals have been obtained with the help of direct coefficient tables (input-output), and the sections titled "Others" were obtained from the difference between the sub-total and the detailed activities. "Others" also refers to direct and region-resident employment and includes a range of activities: clothing, various services afforded to companies pertaining to transport, maintenance and upkeep of the dock's infrastructure, credit institutions and insurance companies, etc.

6.3.- Socio-demographic features of these jobs.

Employed population throughout this Region is mostly of medium age (25-54 age), though in the Autonomous Community of Andalusia, there is a slight increase in people older than 54. The population under 25 is similar in both communities.

It is impossible to establish differences by gender between both Autonomous Communities, the employment being mostly male in both of them (only 4% of women are employed in this sector).

Over three-quarters of employees have either not completed any formal education or have only finished primary level; of the remainder, only 3% have further education.

At Autonomous Community level, the same pattern exists, except that the number of people without formal education is four percentage points higher in Andalusia, while those with secondary or further education in the Canary Islands show an identical statistic in relation to Andalusia.

84% of the active population are wage earners and 16% self-employed. The proportion of the latter is higher in the Canary Islands (22%).

6.4.- Gross value added per capita

Regional GVA. per job stands at ECU 24,233. This figure falls to 19,148 when considering only the fishing sector and ancillary activities, and decreases to ECU 18,820 when considering all population centres in the zone dependent on fishing.

The highest income is located in the Autonomous Community of the Canary Islands (ECU 22,581).

At zonal level, Isla Cristina earns only slightly more than ECU 12,781, approximately 68% of the average for the dependent zones in this Region. The zone of the Gilbraltar Strait shows the second lowest inome, equal to three quarters of the average for the dependent zones in this Region. Landings in docks other than those to with the crewmembers have been assigned, account for these low averages.

At the opposite end is the zone of Las Palmas, whose income exceeds 25% the average for the dependent zones in this Region, and Algeciras (province of Cádiz), whose income is 11% higher than the average for the dependent zones in this Region.

TABLE VI
GROSS VALUE ADDED PER JOB FOR FISHING ACTIVITIES
(IN ECUs)

ZONES	
ISLA CRISTINA	12,781
HUELVA	21,153
HUELVA *	17,066
CADIZ	18,161
GIBRALTAR STRAIT	14,103
ALGECIRAS	20,822
CADIZ *	17,832
A. C. OF ANDALUSIA *	17,417
LAS PALMAS	23,663
LAS PALMAS *	26,663
STA. CRUZ DE TENERIFE	18,210
TENERIFE *	18,210
A. C. OF CANARIES *	22,581
DEPENDENT ZONE OF E.2. *	18,820
TOTAL E.2.	19,148

SOURCE: Compiled by CISE
* Figures for survey zones only (not whole province)

TABLE VII
DIRECT EMPLOYMENT IN ZONES DEPENDENT ON FISHING AND ANCILLARY ACTIVITIES IN REGION E.2

ZONES	CREW	ONSHORE CORPOR. SHIP-OWNER ACTIV.	AQUA-CULTURE	FISH. SHIP-BLDG & RE-PAIR.	AUX. NAVAL FISH. IND.	TRADE OF SHIP COMPON. AND EQUIPM.	(1) OTHERS	SUB-TOTAL	WHOLE - SALING	TRAN-PORTA-TION	PROCESS INDUS-TRY	(1) OTHERS	SUB-TOTAL	TOTAL
ISLA CRISTINA	5,622	214	122			2	1,465	7,425	205	108	484	909	1,706	9,131
HUELVA	5,401	493	18	770		52	1,408	8,142	405	104	48	874	1,431	9,573
TOTAL FOR HUELVA *	**11,023**	**707**	**140**	**770**		**54**	**2,873**	**15,567**	**610**	**212**	**532**	**1,783**	**3,137**	**18,704**
CADIZ	3,474	621	670	9	40	363	1,053	6,230	616	194	65	681	1,556	7,786
GIBRALTAR STRAIT	2,162	155	15	77		9	655	3,073	60	121	307	424	912	3,985
ALGECIRAS	2,084	156		34		10	632	2,916	347	117	323	408	1,195	4,111
TOTAL FOR CADIZ *	**7,720**	**932**	**685**	**120**	**40**	**382**	**2,340**	**12,219**	**1,023**	**432**	**695**	**1,513**	**3,663**	**15,882**
SOUTH ATLANTINC T.Z *	**18,743**	**1,639**	**825**	**890**	**40**	**436**	**5,213**	**27,786**	**1,633**	**644**	**1,227**	**3,296**	**6,800**	**34,586**
FISHINGS PORTS	2,932	1,067	20	886	180	258	1,421	6,764	1,011		1,490	1,072	3,573	10,337
TOTAL FOR LAS PALMAS *	**2,932**	**1,067**	**20**	**886**	**180**	**258**	**1,421**	**6,764**	**1,011**	* *	**1,490**	**1,072**	**3,573**	**10,337**
FISHINGS PORTS	1,132	113	10	110	40	53	354	1,812	123		372	252	747	2,559
TOTAL FOR TENERIFE *	**1,132**	**113**	**10**	**110**	**40**	**53**	**354**	**1,812**	**123**	* *	**372**	**252**	**747**	**2,559**
CANARIAN SUBREGION Z.*	**4,064**	**1,180**	**30**	**996**	**220**	**311**	**1,775**	**8,576**	**1,134**	* *	**1,862**	**1,324**	**4,320**	**12,896**
E.2 TOTAL ZONES	**22,807**	**2,819**	**855**	**1886**	**260**	**747**	**6,988**	**36,362**	**2,767**	**644**	**3,089**	**4,620**	**11,120**	**47,482**

NOTE: The subtotals are obtained with technical coefficients from input-output tables.
OTHERS are the difference between the SUBTOTAL and the employment figures from the remaining activities for which data were available, and include a whole range of services provided to companies that are associated with transport, fuel, credit institutions etc. (estimated for zones)
** Without data

TABLE VIII
GROSS VALUE ADDED IN ZONES DEPENDENT ON FISHING AND ANCILLARY ACTIVITIES IN REGION E.2.

ZONES	FISHING	ONSHORE CORPOR. SHIP-OWNER ACTIV.	AQUA-CULTURE	FISH. SHIP BUIL-DING	AUX. NAVAL FISH. IND.	TRADE OF SHIP COMPON. AND EQUIPM.	OTHERS	SUB-TOTAL	WHOLE-SALING	TRANS-POR-TATION	PROCESS INDUS-TRY	OTHERS	SUB-TOTAL	TOTAL
ISLA CRISTINA	7.7	4.8	0.2				53.7	66.4	4.1	2.5	10.4	33.3	50.3	116.7
HUELVA	88.8	11.0		6.5		1.1	51.6	159.0	8.1	2.4	1.0	32.0	43.5	202.5
TOTAL FOR HUELVA *	**96.5**	**15.8**	**0.2**	**6.5**		**1.1**	**105.3**	**225.4**	**12.2**	**4.9**	**11.4**	**65.3**	**93.8**	**319.2**
CADIZ	55.4	15.2	0.2	0.1	0.9	8.1	25.2	105.0	13.7	5.1	1.7	16.0	36.4	141.4
GIBRALTAR STRAIT	10.9	3.8	2.6	0.6		0.2	15.7	33.8	1.3	3.2	7.8	10.0	22.4	56.2
ALGECIRAS	37.7	3.8		0.3		0.2	15.1	57.2	7.7	3.0	8.2	9.5	28.4	85.6
TOTAL FOR CADIZ *	**104.0**	**22.8**	**2.8**	**1.0**	**0.9**	**8.5**	**56.0**	**196.0**	**22.7**	**11.3**	**17.7**	**35.5**	**87.2**	**283.2**
SOUTH ATLANTIC T.Z.*	**200.5**	**38.6**	**3.0**	**7.5**	**0.9**	**9.6**	**161.2**	**421.4**	**34.9**	**16.2**	**29.1**	**100.8**	**181.1**	**602.4**
FISHING PORTS	52.1	42.6	1.0	9.6	4.2	6.2	37.2	152.8	24.3	*	39.8	27.7	91.8	244.6
TOTAL FOR LAS PALMAS *	**52.1**	**42.6**	**1.0**	**9.6**	**4.2**	**6.2**	**37.2**	**152.8**	**24.3**	*	**39.8**	**27.7**	**91.8**	**244.6**
FISHING PORTS	3.6	5.7		1.4	0.9	1.3	11.8	24.6	2.9	*	10.6	8.4	22.0	46.6
TOTAL FOR TENERIFE *	**3.6**	**5.7**		**1.4**	**0.9**	**1.3**	**11.8**	**24.6**	**2.9**	*	**10.6**	**8.4**	**22.0**	**46.6**
CANARIES S. ZONES *	**55.7**	**48.3**	**1.0**	**11.0**	**5.1**	**7.5**	**49.0**	**177.4**	**27.2**	*	**50.4**	**36.1**	**113.8**	**291.2**
E.2 TOTAL ZONES	**256.2**	**86.9**	**4.0**	**18.5**	**6.0**	**17.1**	**210.2**	**598.8**	**62.1**	**16.2**	**79.5**	**136.9**	**294.9**	**893.6**

SOURCES: Employment Data, Bank of Bilbao-Vizcaya, Tables Input-Output Updated to 1990
NOTES: Fishing value added obtained from landings of the Spanish ships in the zone. Figures in millions of ECUs (1 ECU = 130 pts.)
** Without data

* Figures for survey zones only (not whole province)

TABLE IX

SOCIO-DEMOGRAPHIC PROFILE OF THE WORKFORCE POPULATION IN THE FISHING SECTOR IN REGION E.2.

(Vertical percentages)

	ANDALUSIA	CANARIES	TOTAL E.2
SEX			
. MALE	96%	96%	96%
. FEMALE	4%	4%	4%
OCCUPATION			
. SELF-EMPLOYED	15%	22%	16%
. EMPLOYED	85%	78%	84%
AGE			
. UNDER 25	15%	15%	15%
. 25 - 54	71%	74%	72%
. OVER 54	14%	11%	17%
QUALIFICATIONS			
. NO STUDIES	26%	22%	26%
. PRIMARY	52%	52%	52%
. SECONDARY	19%	22%	19%
. FURTHER	3%	4%	3%
UNEMPLOYMENT RATE	16%	16%	16%

SOURCE: INE 1.990

TABLE X

LANDED AND AQUACULTURE VALUE (MILLIONS OF ECUs) 1990

ZONES	DEEP-SEA	MIDWATER & COASTAL	AQUACULTURE	TOTAL
ISLA CRISTINA		12.2	3.7	15.9
HUELVA	162.3	19.9		182.2
PROVINCE OF HUELVA	**162.3**	**32.1**	**3.7**	**198.1**
CADIZ	1.0	87.2	0.3	88.5
GIBRALTAR STRAIT		14.6	4.3	21.5
ALGECIRAS	5.1	54.4		61.1
PROVINCE OF CADIZ	**6.1**	**156.2**	**4.6**	**171.1**
SOUTH-ATLANTIC SUBREGION	**168.4**	**188.3**	**8.3**	**369.2**
FISHING PORTS	110.8	15.9	1.7	128.4
PROVINCE OF LAS PALMAS	**110.8**	**15.9**	**1.7**	**128.4**
FISHING PORTS	7.6	11.4		19.0
PROVINCE OF STA.CRUZ TENER.	**7.6**	**11.4**		**19.0**
TOTAL CANARIAN SUBREGION	**118.4**	**27.3**	**1.7**	**147.4**
TOTAL REGION E.2	**286.8**	**215.6**	**10.0**	**516.6**

SOURCES: MAPA and Regional Fishing councils

NOTES: a) Deep-sea: frozen

Midwaters & coastal: fresh + tuna trap.

b) Subproducts used in the reducing industry are only partially included.

6.5.- Summary and conclusions

To conclude, zones can be grouped by the most characteristic feature of the populations surveyed.

Group 1. Zones where all fishing activities are represented.
It comprises: Zone of Las Palmas.
Its most relevant features are: increasing and young population, with higher than the average Regional educational level. Area very dependent on the fishing sector, with decreasing unemployment, and a fishing sector gross value added per capita far above the average for Region E.2.

Group 2. Zones where fishing and the processing industry predominate.
It comprises: Isla Cristina (Province of Huelva), Gibraltar Strait and Algeciras (Province of Cádiz), all of them in the Autonomous Community of Andalusia; and the zone of Tenerife in the Canary Islands.
Its most relevant features are: slightly increasing and young population, with educational level below the Regional average. Area very dependent on the fishing sector (except Tenerife), with increasing unemployment, and a fishing sector gross value added per capita below the average for the Region E.2 (except Tenerife).

Area 3. Zones where fishing is the prevailing activity.
It comprises: Zones of Huelva and Cádiz (both in Andalusia). Its most relevant features are: increasing and young population, with low educational level. Area very dependent on the fishing sector, with increasing unemployment (except in Cádiz), and a fishing sector gross value added per capita about the average for the Region E.1.

TABLE XI
SOCIOECONOMIC FEATURES OF FISHING ZONES (EXTENDED ZONES) IN THE SOUTH OF SPAIN

GEOGRAPHICAL AREA	NO. MUNI-CIPA.	EVOL.OVERALL POP. (1) 1960	1991	C.A.R 60/91 (2)	TYPE OF ZONE A(3)B(4	EVOL. IN WORKFORCE 1986 (A)	1991 (B)	(B)-(A)	EVOLUTION REGISTRED UNEMPLOYEMENT (6) 1986 (A)	1991 (B)	(B)-(A)	(B)-(A %
ISLA CRISTINA ZONE	3	35,598	47,151	1.08	P J	12,593	18,437	5,844	4,551	3,826	-725	-15.93
HUELVA ZONE	7	101,595	186,425	2.78	P J	40,405	59,157	18,752	17,027	16,379	-648	-3.81
HUELVA T. EXT. Z.	10	137,193	233,576	2.34	P J	52,998	77,594	24,596	21,578	20,205	-1,373	-6.36
PROVINCE OF HUELVA	79	399,934	441,778	0.35	E J	80,800	118,300	37,500	36,587	37,435	848	2.32
CADIZ ZONE	10	451,561	690,009	1.76	P J	133,892	153,982	20,090	55,540	55,474	-66	-0.12
GIBRALTAR STRAIT ZONE	2	36,453	36,671	0.02	E J	7,561	8,696	1,135	2,723	3,902	1,179	43.30
ALGECIRAS ZONE	4	151,743	182,304	0.67	E J	39,891	45,877	5,986	21,172	17,542	-3,630	-17.15
CADIZ T. EXT. Z.	16	639,757	908,984	1.39	P J	181,344	208,555	27,211	79,435	76,918	-2,517	-3.16
PROVINCE OF CADIZ	42	818,847	1090,773	1.11	P J	210,600	242,200	31,600	91,657	90,743	-914	-1.00
Z.COSTERA LAS PALMAS	12	263,363	542,355	3.53	P J	128,135	130,412	2,277	35,898	36,681	783	2.18
PROV. OF LAS PALMAS	34	453,793	836,552	2.81	P J	219,500	223,400	3,900	58,889	58,245	-644	-1.09
STA. CRUZ ZONE	17	311,334	514,738	2.18	P J	132,867	146,577	13,710	33,067	38,692	5,625	17.01
PROVINCE OF STA. CRUZ	53	490,655	765,260	1.87	P J	194,800	214,900	20,100	51,606	56,999	5,393	10.45
TOTAL EXTENDED ZONE REGION E.2.	55	1351,647	2199,653	2.09	P J	495,344	563,138	67,794	169,978	172,496	2,518	1.48
REGION E.2. TOTAL	208	2163,229	3134,363	1.49	P J	705,700	798,800	9,3100	238,739	243,422	4,683	1.96

(1) National Statistical Board
(2) Compounded Annual Rate (C.A.R.)
(3) Population Growth: E = stable, P = progressive, R = regressive
(4) Population age: E = aged, A = adult, D = dependant, J = young
(5) Active population survey INE
(6) Registred unemployment statistics by municipalities. INEM

7.- IDENTIFICATION OF THE MEASURES THAT WILL PROVIDE FOR THE RESTRUCTURING OF THE AFFECTED ZONES

7.1.- Introduction

Restructuring plans applied in Spain in the second half of the eighties (RENAVAL, RESIDER) combined various activities in fields such as the development of infrastructures, creation and promotion of new entreprises, and also employment and professional training policies.

It is precisely because this report is concerned with these latter policies that we have focused special attention on them.

The groups affected by these plans were initially the industrial workforce, with such jobs and training that they envisaged.

This is not the case for most of the group that could be affected in this instance.

The analysis of the segments has obviously had to take into account the degree of preparation for the different collectives concerned, in addition to the characteristics of every zone, in order to outline the list of indicators.

Before starting our analysis, we wish to stress that conditions at the time of application of these plans (RENAVAL, RESIDER) were industrially less problematic than at present and their chances of success were greater.

7.2.- Identification of the measures allowing for the restructuring of the affected zones

7.2.1. Typology of collectives and zones

According to the existing statistical indicators (population, employment, unemployment, GVA, employment distribution, etc.) we proceeded to a zonal classification that allowed us to establish a very specific typology: dynamic, stable, or regressive zones, on the one hand; and zones with or without the inclusion of some of the groups affected, direct or indirectly, by reduction in catches in the fishing sector.

Having established this classification, we proceeded to apply a list of criteria to determine what measures, and with what content, should be developed in each of the twenty-seven zones.

From the spatial viewpoint the most significant difference between these zones is the presene or absence of economic dynamism. The report understands this concept as the greater or lesser potentiality for the expansion of activities of an agricultural, fishing, industrial or services character. The development of programmes of professional training should be organized differently according to these trends.

Among the collectives taken into account we distinguish five different groups: 1) crew members; 2) onshore support personnel (vessel maintenance or repair, auxiliary operations, marketing activities, etc.); 3) personnel belonging to sectors supplying outputs to fishing activities (demanded by these); 4) personnel belonging to sectors demanding fishing products (wholesalers, canning industries, transportation, etc.); 5) personnel belonging to sectors producing equipment or other goods complementary to the investments made in the fishing sector.

In relation to the first cluster of measures considered (support for job creation in the private sector), it was thought that supporting incentives should be offered to companies that contract people affected by unemployment, incentives of two types: lump sum subsidies or a reduction in Social Security contributions, applied to permanent or temporary new jobs respectively.

Provided the objective was to maximise the redeployment into the labour market of all the affected personnel (as much from the fishing sector as from others), it was thought that these measures should be applied to all sectors under consideration.

In relation to the second cluster of measures (temporary jobs in the public sector), only those activities pertaining to public works or services were considered. Given the difficulties for job creation in the private sector, it was reckoned that the temporary incorporation of people affected by unemployment into some public activities could be a help to their later reintegration in the labour market of this zone.

To this end, a preliminary inventory of activities carried out by public entities or organizations was used. Every group considered was "assigned" the activities that best matched their professional qualifications; this assignment will obviously be adjusted as soon as the various measures are implemented in the different zones.

The third cluster of measures -professional retraining- is the one of most complex implementation, because the selection and assignment of courses will demand the organization of a specific programme in every zone or for neighbouring zones.

As a general criterion it was considered necessary for the crew member to receive a pre-professional training course. For the majority of this group, whose familiarity with technical tasks is meagre, it will be advisable to provide them with training that enables work flexibility. The same criterion was considered necessary for part of those working onshore (manual operations), and also for some groups of other sectors indirectly related to fishing.

Courses in "basic professional training" are assigned to every group. Nonetheless, as it happens in "specialized training" courses, their content will be determined according to the characteristics and potentialities of the zones.

Thus, in an "industrial" zone, it seems sensible to develop specialities oriented to occupations of an industrial or similar character, which undoubtedly will have better prospects for that zone or neighbouring ones. In a zone with more touristic potentialities, courses oriented to training for occupations more appropiate to these services should be preferred.

About "early retirements" it has been considered necessary to support those groups with an older age structure (who also offer more resistance to retraining). For this reason the group of crew members is potentially the most appropriate for the measure (early retirement after the age of 55). All other groups more directly affected by a reduction in catches (onshore personnel and those dependent on fishing products) are included as potential beneficiaries though only from the age of 60.

Failure to consider some types of courses in certain zones (for instance: mechanics in industrialized areas) does not mean an absolute absence of course of that kind in that zone. Eventually some courses will be included according to specific needs and programmes.

In relation to "unemployment benefits" it has been considered that all groups should be protected in a form complementary to the ordinary subsidies contemplated by Spanish legislation. For this reason a complementary allowance has been suggested for those of 55 years old - or 50 if they support a family-. In the case of the crew members, this measure is obviously connected with the early retirement age formerly referred to.

Finally, on "incentives for self-employment" it has been similarly considered necessary to facilitate the development of independent labour. With this aim various measures of support have been contemplated, which are more substantial in the case of crew members and of personnel. In both cases, in addition to immediate lump-sum payment of the whole amount of the unemployment to which the worker is entitled (according to the time she/he has been contributing to Social Security she/he will receive a lump sum according to the characteristics and amount of the investment required to establish him/herself independently.

In all cases, the oportunity should also exist for selecting projects, according not only to their economic viability, but also according to the characteristics and training of the beneficiary. Accordingly this measure should be aligned with that of providing these people with the most appropriate basic training or professional retraining.

7.2.2.- <u>List of occupations under consideration</u>

The list of occupations to which the above training courses for each group should be addressed have been established according to the possibilities that the economy of the zones and regions of this survey offer now and in the future. That is, the assessment of occupations on the increase or showing higher demand structures, compared with the shortage of personnel in the labour market.

Also considered are the real possibilities of retraining the different collectives according to the sector and trade from which they come.

According to these to criteria, we have drawn up a list of target occupations for which both levels of professional training considered -basic and specialized-, should be developed.

These contents are included in the CATALOG developed by the INEM (National Bureau of Employment) in Spain, not only directly by it, but also through Eployment Centres throughout the different districts and Autonomous Comunities of the country.

This means that, once the group has been established for inclusion in a certain course and level, the services of the INEM will participate in its subsequent education or retraining. To that end, coordinated actions would be organized by those services, which, for the sake of efficiency, might at times necessitate the redeployment of some people from these groups to specific geographical points where they would be taught and trained accordingly.

7.3.- Description of the potentialities for job creation, professional training and redeployment to other sectors

The following tables summarise the measures to boost employment in the most afffected groups.

FOR JOBS LOSSES OF CREW MEMBERS

- M.1. INCENTIVES FOR JOB CREATION
  - M.1.1.- Lump-sum subsidies to companies for permanent contracts
  - M.1.2.- Reduction of Social Security contributions (80% reduction)
- M.2. JOB CREATION IN THE PUBLIC SECTOR
  - A.1.- Fishing and allied
  - A.2.- Forestry
  - A.3.- Stock farming and crop-growing
  - A.10.- Craftwork
  - A.13.- Community services
  - A.14.- Tourism and leisure
- M.3. PROFESSIONAL RETRAINING
  - C.1. Pre-professional
  - C.2. Professional
  - C.3. Specialised
    - 01.- Saltwater aquaculture, fish farms, assistants for oceanographic institutes
    - 02.- Field sanitation, reforestation industrial breeding grounds
    - 03.- Intensive cultivation, farming, farm cooperatives
    - 04.- Canners, food handling, food processing and treatment
    - 09.- General building work, plank moulding, ironwork, survenying, kilnning, dry dealing
    - 011.- Sailors in cargo vessels, sailors in passengers vessels, drivers
    - 013.- Street cleaning, Maintenance of roads and ways, beach cleaning, maintenance of installation, maintenance of parks and gardens
    - 014.- Water sports, pleasure sailing, lifeguards
    - 015.- Gardening, building cleaning, surveillance and security, catering, hotel service
- M.4. EARLY RETIREMENTS
  - M.4.2. People aged over 55
- M.5. UNEMPLOYMENT BENEFITS
  - M.5.2. People aged between 50 and 55 years old
- M.6. SELF-EMPLOYMENT INCENTIVES
  - M.6.1. Lump-sum benefit payents
  - M.6.2. Incentives for the establishment of self-employed workers

DIRECT ONSHORE FISHING SECTOR EMPLOYMENT

- M.1. INCENTIVES TO JOB CREATION
  - M.1.1.- Lump-sum subsidies to companies for permanent contracts
  - M.1.2.- Reduction of Social Security contributions (80% reduction)
- M.2. JOB CREATION IN THE PUBLIC SECTOR
  - A.1.- Fishing and allied
  - A.10.- Craftwork
  - A.13.- Community services
  - A.14.- Tourism and leisure
- M.3. PROFESSIONAL RETRAINING
  C.1. Pre-professional
  C.2. Professional
  C.3. Specialised
  - 01.- Saltwater aquaculture, fish farms, assistants for oceanographic institutes
  - 02.- Field sanitation, reforestation, industrial breeding grounds
  - 03.- Intensive cultivation, farming, farm cooperatives
  - 04.- Canners, food handling, food processing and treatment
  - 06.- Taylaring, Boxing and storing
  - 012.- Commodities handling, consignee of exportation
  - 016.- Home electric appliances, plumbing, installations, electricity
- M.4. EARLY RETIREMENTS
  - M.4.1. People over 60
- M.5. UNEMPLOYMENT BENEFITS
  - M.5.1. People over 55
- M.6. SELF-EMPLOYMENT INCENTIVES
  - M.6.1. Lump-sum benefit payments
  - M.6.2. Incentives for self-employed workers

INDIRECT ONSHORE FISHING SECTOR EMPLOYMENT

- M.1. INCENTIVES TO JOB CREATION
  - M.1.1.- Lump-sum subsidies to companies for permanent contrasts
  - M.1.2.- Reduction of Social Security contributions (80% reduction)
- M.2. JOB CREATION IN THE PUBLIC SECTOR
  - A. 1.- Fishing and allied
  - A.10.- Craftwork
  - A.13.- Community services
  - A.14.- Tourism and leisure
- M.3. PROFESSIONAL RETRAINING
  C.2. Professional
  C.3. Specialised
  - 04.- Canners, food handling, food processing and treatment
  - 010.- Wood carving, preservation
  - 012.- Commodities handling, consignee of exportation
  - 015.- Gardening, building cleaning, surveillance and security, catering, hotel service
  - 016.- Home electric appliances, plumbing, installations, electricity
- M.5. EMPLOYMENT BENEFITS
  - M.5.1. For people over 55
- M.6. SELF-EMPLOYMENT INCENTIVES
  - M.6.1. Lump-sum benefit payments

EMPLOYMENT OF DEPENDANTS ON FISHING SECTOR	M.1. INCENTIVES TO JOB CREATION	M.1.1.- Lump-sum subsidies for companies for permanent contrasts M.1.2.- Reduction of Social Security contributions (80% reduction)
	M.2. JOB CREATION IN THE PUBLIC SECTOR	A.10.- Craftwork A.13.- Community services A.14.- Tourism and leisure
	M.3. PROFESSIONAL RETRAINING C.2. Professional C.3. Specialised	04.- Canners, food handling, food processing and treatment 011.- Sailors in cargo vessels, sailors in passenger vessels, helmsmen 012.- Commodities handling, consignee of exportation 015.- Gardening, building cleaning, surveillance and security, catering, hotel service
	M.4. EARLY RETIREMENTS	M.4.1. For people over 60
	M.5. UNEMPLOYMENT BENEFITS	M.5.1. For people over 55
	M.6. SELF-EMPLOYMENT INCENTIVES	M.6.1. Lump-sum benefit payments

JOBS LOSSES IN THE INVESTMENT SECTOR

- M.1. INCENTIVES TO JOB CREATION
  - M.1.1.- Lump-sum subsidies to companies for permanent contrasts
  - M.1.2.- Reduction of Social Security contributions (80% reduction)
- M.2. JOB CREATION IN THE PUBLIC SECTOR
  - A.10.- Craftwork
  - A.13.- Community services
  - A.14.- Tourism and leisure
- M.3. PROFESSIONAL RETRAINING
  C.1. Pre-professional
  C.2. Professional
  C.3. Specialised
  - 05.- Mechanics, maintenance, boiler craft
  - 07.- Processing materials
  - 08.- Boiler craft, assembly, shipwrighting
  - 09.- Building, plank moulding, ironwork, kilming, dry dealing
  - 012.- Commodities handling, consignee agent of exportation
  - 014.- Water sports, pleasure sailing, lifeguards
  - 015.- Gardening, building cleaning, surveillance and security, catering, hotel service
  - 016.- Home appliances, plumbing installations, electricity
- M.5. UNEMPLOYMENT BENEFITS
  - M.5.1. For people over 55
- M.6. SELF-EMPLOYMENT INCENTIVES
  - M.6.1. Lump-sum benefit payments

FIGURE 6

ZONES OF APPLICATION

REGION E.2: HUELVA

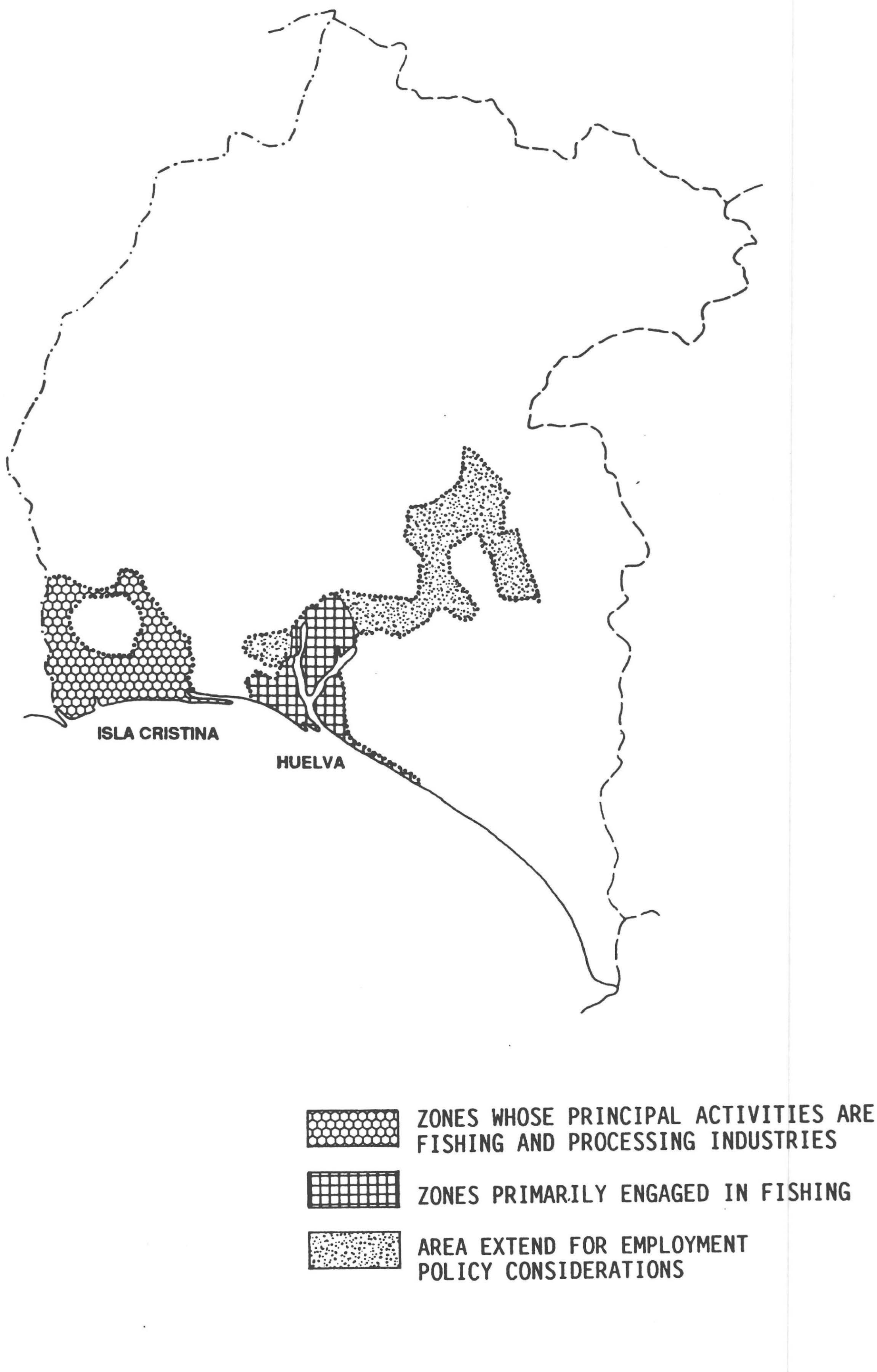


FIGURE 7

ZONES OF APPLICATION

REGION E.2: CADIZ

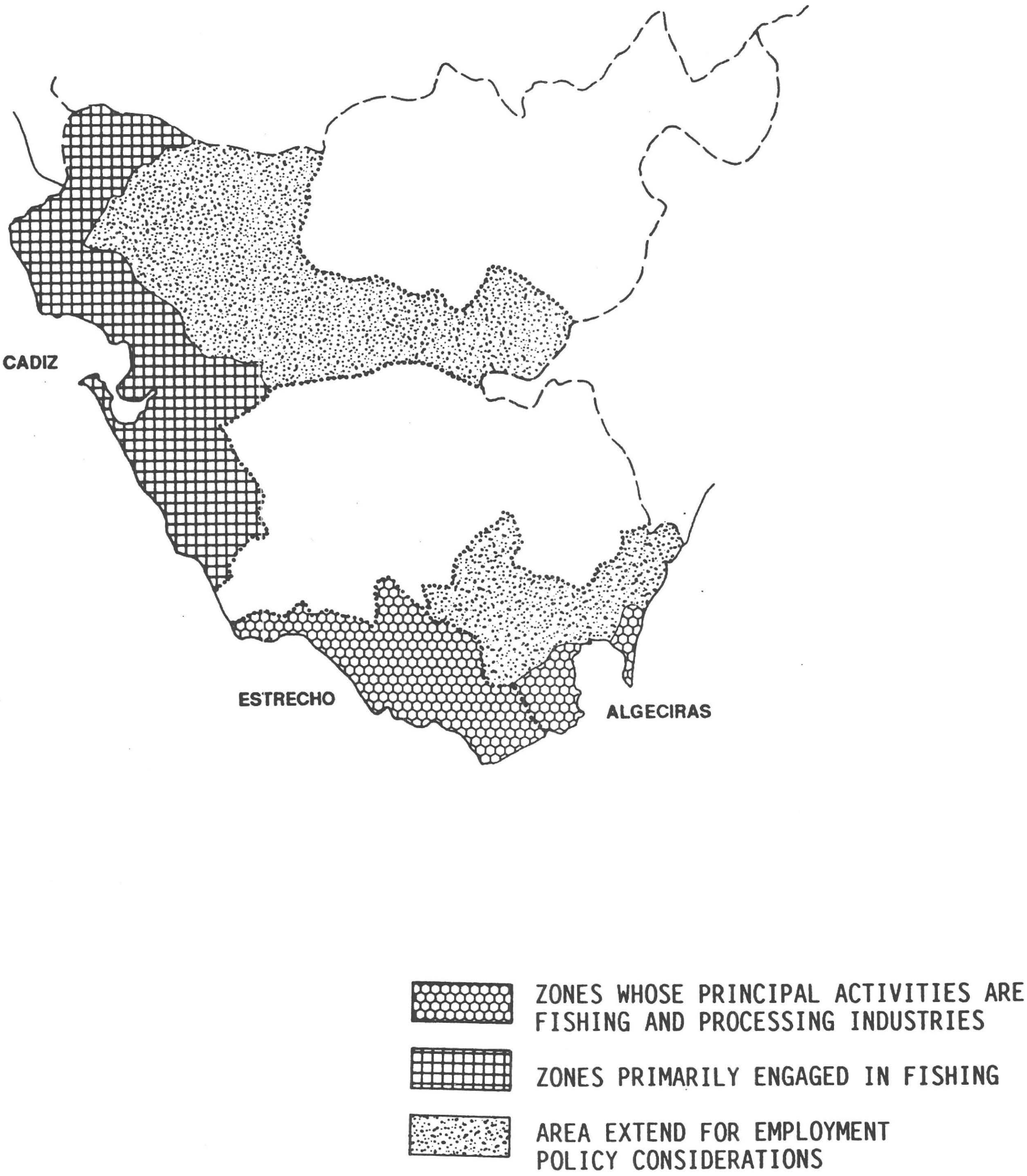


FIGURE 8

ZONES OF APPLICATION

REGION E.2: CANARY ISLANDS

LAS PALMAS

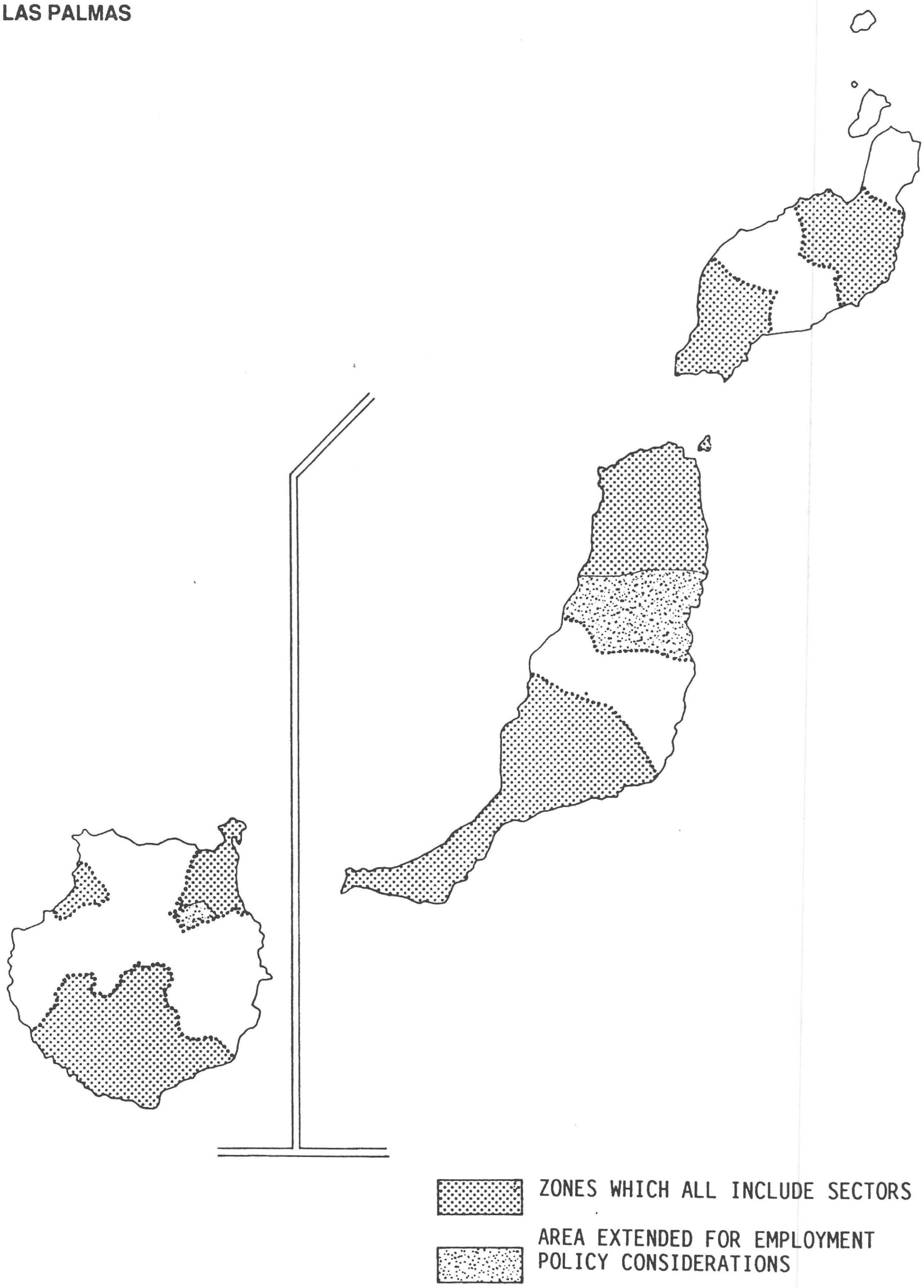
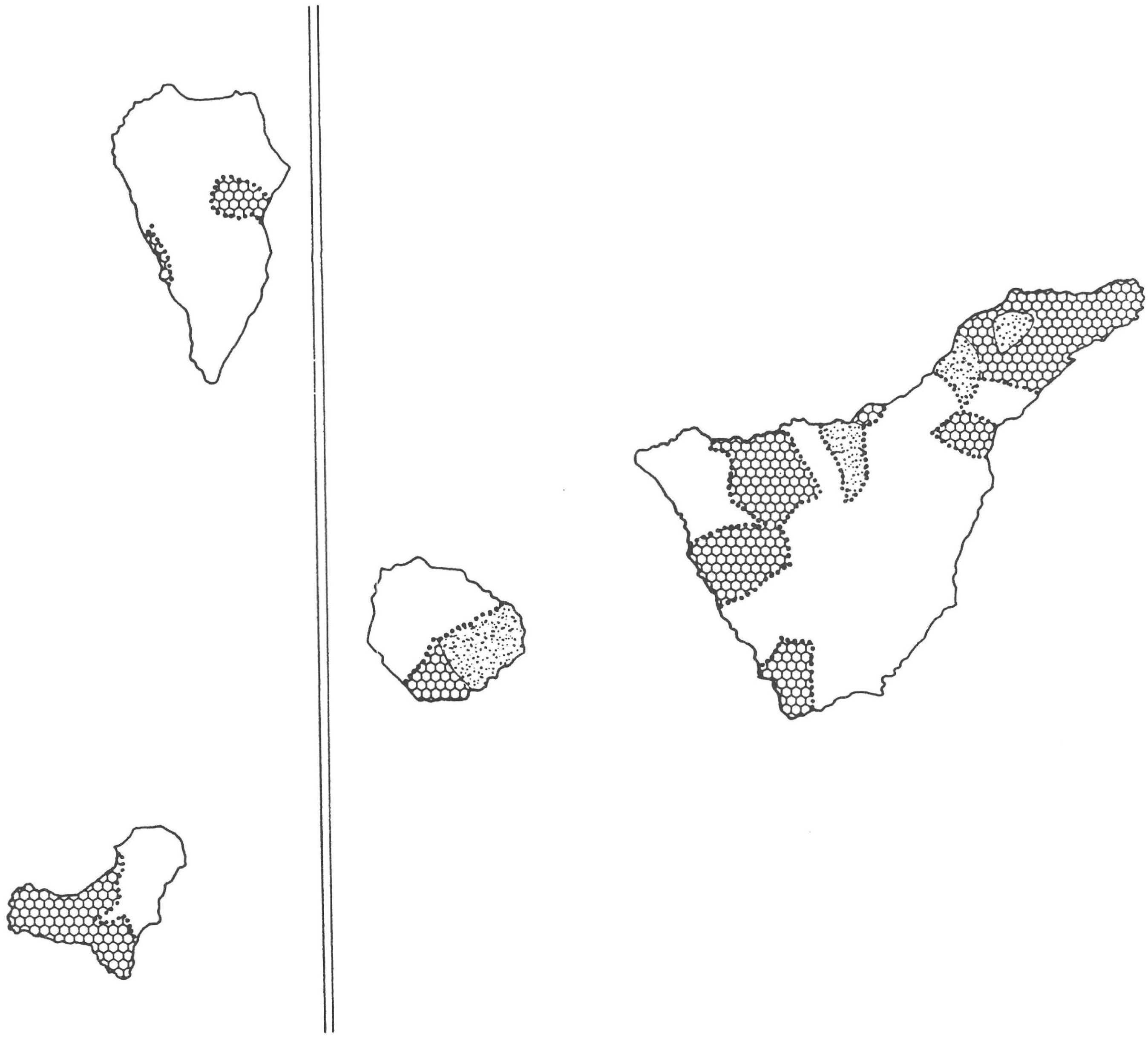


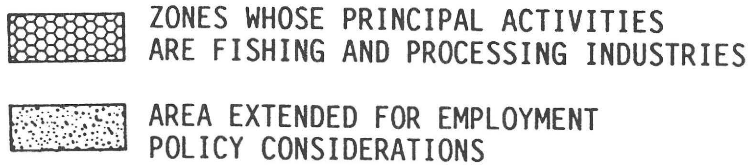
FIGURE 9

ZONES OF APPLICATION

REGION E.2: CANARY ISLANDS

STA.CRUZ OF TENERIFE





MAIN SOURCES

* Banesto Bank. Spanish market yearbook.
Survey on income levels by municipalities. 1988.

* Bilbao-Vizcaya Bank. Survey on the Provincial Incomes in Spain. 1987.

* CAMERDATA statistics - 1990

* CISE The fishing and aquaulture processing industry produts in Spain 1989.

* "Constrution Naval". Ministry of Industry and Energy (several years).

* EEC

  - 1991 Commission Report to the Council and the Parliament on Common Fishing Policy. 1992.
  - Community Framework for Assistance.
  - Regulations
    . 170/83
    . 4028/86
    . 3094/86
    . 2506/88
    . 4042/89
    . 3944/90
    . 3944/90
  - Decision 88/149

* INE (National Institute of Statistics). Active Population Survey. 1990.
Statistics (several years)

* INEM (National Institute of Employment) Registered uneployment statistics by municipalities (1986 and 1991).

* I.S.M. (Marine Welfare Intitute) statistics (1990).

* M.A.P.A.
  - Fishing Yearbook (several years).
  - Statistics Monthly Buletin. 1988-1991
  - Aquaculture. Sectorial Plan 1990-94.
  - Programme for the improvement and adaptation of facilities in Spanish ports 1989-93.

* "Mar" Technical magazine (Several months, 1990-91).

* MOPU Report on activities of the general directorate of ports. 1990.

* "PEDECA" Technical Publications. June 1991.

* Provincial Government of Cádiz. Fishing sector in the province of Cádiz. 1990.

* Canarian Government. Satistics 1983-1990.