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Directorate-General for Fisheries

Regional, Socio-Economic Study in the Fisheries Sector

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ABSTRACT

This study examines the size, distribution, strengths and weaknesses of the English and Welsh fisheries industry, exploring past and future socio-economic consequences of the Common Fisheries Policy (CFP) in dependent areas, and concluding by examining policy measures suitable for assisting areas, communities and individuals vulnerable to change.

A wide range of data sources was used, including MAFF and other industry statistics, and interviews and postal surveys of skippers, processing, ancillary and support companies in five major ports, together with dependency analyses of twenty-three key travel to work areas.

Total landings in 1989 by English and Welsh vessels were valued at £157.5 million; turnover in the processing industry was between £1.3 and £1.57 billion. The value of aquaculture production was estimated at £60-70 million. The size of the fisheries industry is some 37,000, both full and part-time employment, the industry is particularly concentrated in Yorkshire and Humberside and the South West.

The 1980s have seen great change, with loss of vessels, businesses and jobs. Fishing opportunities have fallen with declining stocks, cuts in quotas and extension of quotas to other species. In spite of some price increase, profitability is low. Processing is affected by uncertain supplies and economic recession; major companies have withdrawn or diversified, and smaller businesses closed. Ancillary businesses have also been affected; generalised firms have diversified, but the more specialised have been vulnerable. Only aquaculture has expanded.

The impact of the CFP cannot be isolated from other factors such as stock status, general economic conditions, operating costs and external market changes; however it is seen by the industry as having a major effect, principally through the quota regime, and its failure to prevent overfishing and the decline in stocks.

The fleet's future depends on the creation of a sustainable fishery; processing and support industries require stability of supply and operating activity. Capacity reductions are widely understood within the industry, less so the appropriate means. A smaller fleet and further rationalised processing and support industries will inevitably affect dependent areas and communities.

Dependency is associated with highly peripheral areas; Cornwall, W and N Wales, Northumbria and parts of Yorkshire and Humberside, or around major ports located in or near urban areas; Brixham, Fleetwood, Grimsby, Hull, Lowestoft and Plymouth. It is also linked with the existence of traditional communities, and availability of alternative employment. Assistance should be made available to affected areas, focusing upon individuals within the communities concerned.

ABSTRACT

La présente étude porte sur la taille, la dissémination, les atouts et les points faibles des entreprises de pêche anglaises et galloises, passe en revue les conséquences passées et futures de la politique commune de la pêche (PCP) dans les zones qui en dépendent et se termine par l'examen des mesures qui permettraient d'aider les zones, communautés et personnes sensibles au changement.

De nombreuses sources de données ont été utilisées, notamment les statistiques du MAFF (Ministère de l'Agriculture, de la Pêche et de l'Alimentation) et d'autres à caractère sectoriel. L'étude a été complétée par des entretiens et enquêtes par courrier auprès de patrons de pêche et d'entreprises et sociétés connexes , de soutien et de transformation de cinq grands ports, ainsi que par l'analyse du degré de dépendance de 23 zones de migration alternante clés.

Les mises à terre totales effectuées par les navires anglais et gallois en 1989 ont été évaluées à 157,5 millions d'UK£, le chiffre d'affaires des entreprises de transformation à un montant compris entre 1,3 et 1,57 milliards d'UK£ et la production aquacole à un montant de l'ordre de 60 à 70 millions d'UK£. Les entreprises de pêche offrent quelque 37 000 emplois, à temps plein et à temps partiel, et sont particulièrement concentrées dans le Yorkshire, l'Humberside et le Sud-Ouest.

Les années 1980 ont été marquées par de grands changements, caractérisés par une diminution du nombre des navires, des fermetures d'entreprises et des pertes d'emplois. Les possibilités de pêche ont régressé à cause du déclin des stocks, de la réduction de certains quotas et de la majoration de certains autres. Malgré une certaine hausse des prix, la rentabilité a été faible. Le secteur de la transformation a été touché par la fragilité des approvisionnements et la récession économique. Les grandes entreprises se sont retirées du marché ou se sont diversifiées et les petites ont fermé leurs portes. Les entreprises connexes ont également été frappées. Celles à vocation générale ont diversifié leurs activités mais les plus spécialisées sont devenues vulnérables. Seule l'aquaculture a prospéré.

On ne peut isoler l'incidence de la PCP d'autres facteurs tels que l'état des stocks, la situation économique générale, les frais d'exploitation et l'évolution des marchés extérieurs. Les représentants des entreprises estiment toutefois que c'est elle qui les affecte le plus, et en particulier le régime des quotas et son incapacité d'empêcher la surpêche et la diminution des stocks.

L'avenir de la flotte dépend du développement d'activités de pêche durables. Les entreprises de transformation et de soutien ont besoin de stabilité dans leurs approvisionnements et leurs activités. Si la nécessité de réduire les capacités est généralement bien comprise dans le secteur, il n'en va pas de même du choix des moyens. La réduction de la flotte et la poursuite de la rationalisation des entreprises de transformation et de soutien se répercuteront inévitablement sur les régions et communautés qui en dépendent.

La notion de dépendance va de pair avec celle d'ultrapériphéricité (les zones les plus touchées sont la Cornouaille, l'ouest et le nord du Pays de Galles, la Northumbrie, certaines parties du Yorkshire et de l'Humberside, ou encore les zones entourant les grands ports situés au sein ou à proximité de zones urbaines, tels que Brixham, Fleetwood, Grimsby, Hull, Lowestoft et Plymouth). Elle est également liée à l'existence de communautés traditionnelles et à la présence d'autres sources d'emploi. Une aide devrait être accordée aux zones touchées, et plus particulièrement aux membres desdites communautés.

Contents

1. INTRODUCTION

1.1 This summary presents the principal findings of a larger report investigating the socio-economic impact of the EC Common Fisheries Policy (CFP) on the fisheries industry of England and Wales. It concentrates upon the issues of economic dependency, past and future effects of the CFP and other factors, and possible policy measures to assist affected communities. The main report provides more details of the various sectors comprising the fishing industry.

1.2 The study has been undertaken on behalf of the Directorate Structures of DGXIV of the European Commission, by PA Cambridge Economic Consultants Ltd in association with Stirling Aquatic Resources of the University of Stirling. Work was undertaken between August 1991 and February 1992, the draft report completed by May 1992, and finalised by August 1992.

1.2 The fisheries industry is here defined as comprising the fish catching sector (ie the fishing fleet), aquaculture, the fish processing industry, and the ancillary and support sector. The study has the following four objectives:

- To assess the size, distribution, characteristics, weaknesses and strengths of the four sectors comprising the English and Welsh fisheries industry.
- To identify some of those areas of England and Wales which are particularly economically dependent upon the fisheries industry.
- To explore the possible socio-economic effects of the CFP since 1983, the possible future consequences for the industry, and the implications for economic dependence.
- To examine the policy measures most appropriate to assisting areas, communities and individuals which might be affected by changes to the industry in the future.

1.3 The structure of the report deals with each of the four objectives identified above.

- Chapters 3 to 6 are essentially descriptive and examine the size and distribution of the English and Welsh fishing fleet, the aquaculture industry, the processing industry, and the ancillary and support sector.
- Chapter 7, examines and assesses the economic dependency on the fisheries industry of 23 areas of England and Wales.
- Chapters 8 and 9 attempt to assess the effects of the Common Fisheries Policy on the fisheries industry, over the period 1983 to 1989.
- The final Chapter, 10, provides an analysis of the possible measures which could be used to assist areas, communities and individuals which might be affected by future changes in the fisheries industry. Finally the relative

merits of the 23 areas with regard to possible designation of Objective 6 areas are discussed.

2. METHODOLOGY

2.1 Given the multiple objectives of this study a range of methodologies has been employed. The methodology adopted utilises a wide range of data and information sources together with interviews and discussions with industry representatives and companies, and a survey of skippers, processing and ancillary and support companies. The latter were undertaken in five major ports: Hull, Grimsby, Lowestoft, Newlyn and Fleetwood. Where necessary and appropriate this was supplemented and further interpreted through the background industry knowledge of sector specialists in the study team.

2.2 The analysis of the size, distribution and activities of the fisheries industry has used published and unpublished sources. Data provided by the Ministry of Agriculture, Fisheries and Food (MAFF) and the Cardiff Register of Fishing Vessels relating to the fleet have been used. The assessment of the aquaculture sector has been based largely on desk study sources including trade journals, industry association data, and on data from a series of contemporary analyses undertaken by Stirling Aquatic Resources. There is no single, authoritative source to provide the background to the processing industry as a whole. A range of sources has been accessed including two earlier studies of the industry: the 1988 Seafish Industry Authority Report, "Fish Processing in the UK: an Economic Analysis", and the 1991 Mackay Consultants report "The Processing Industry of Fish and Aquaculture Products in the United Kingdom." There is little data which specifically refers to the ancillary and support industry serving the fishery industry. Not surprisingly given the fragmented and diverse nature of this sector no database of such companies exists. Examination of the sector has been largely based on information gained at the five ports including the results of the survey of ancillary and support companies.

2.8 The assessment of dependency of specific areas is based on Travel To Work Area (TTWA) statistics. 92 coastal zones have been identified as having some form of fisheries activity, though in addition various inland areas may be involved with the aquaculture, processing and ancillary and support sectors. The analysis focuses on the 23 local areas in which fishing is relatively important.

2.9 Assessment of the effects of the CFP over the period since 1983 draws upon the relevant data sources and quantitative information to comment on changes which have occurred in the three sectors and the possible causes.

2.10 An assessment is made of the measures to assist individuals, communities and areas tackle the socio-economic effects of further decline in the industry. This has drawn particularly upon the information concerning the programme of assistance utilized in the Blackpool, Hull and Grimsby TTWA and the expertise of the study team in this field.

2.11 The regions used are either standard regions or amalgamation of parts of standard regions. Wales, South East, South West and Yorkshire and Humberside are standard regions; the North West includes the standard North West region together with the county of Cumbria, whilst the East covers both East Anglia and the East Midlands, and the North is the standard region excepting the county of Cumbria. These regions are shown in Figure 1.

FIG 1 DEFINITION OF REGIONS USED IN THIS REPORT

3. THE ENGLISH AND WELSH FISHING FLEET

3.1 Introduction

3.1.1 The English and Welsh fishing fleet represents the primary sector of the fishing industry catching fish which are supplied to the processing industry. Whilst the processing industry is not wholly dependent upon the activities and catches of the English and Welsh fishing fleet it will be affected by its fortunes. These have been and will continue to be influenced by the CFP. The effects of the CFP and other factors are felt to a greater or lesser degree elsewhere in the industry via the landings of the fishing fleet.

3.2 Numbers of Fishing Vessels

3.2.1 In mid-1991 the English and Welsh fishing fleet was estimated to have comprised over 7000 vessels. This estimate is derived from the Cardiff Register of Fishing Vessels. 7217 vessels can be identified on the database as having either an English or Welsh homeport, or whose owner(s) have English or Welsh postal addresses. Whilst the figure may not be wholly accurate given the mobility of vessels within the UK and that the owner(s) address may not correspond to the homeport, it is believed to be representative of the potential maximum size of the commercial fleet.

3.2.2 The maximum potential figure of 7217 compares with a figure given by MAFF for 1989 of 5417. The difference between these figures is considerable but is primarily due to differences in the number of vessels of less than 40ft in length; the two sources differ by 28 in the number of vessels of 40ft or more. The MAFF figures may under-report smaller vessels, but not all these vessels will be used for fishing. Consequently the number of vessels fishing actively on a full time basis will be less than the figure of 7217. Information derived from the Sea Fisheries Committees suggests that as many as a half of vessels of less than 40ft in length do not fish full time. A higher proportion of the larger vessels can be considered to fish on a full time basis.

3.2.3 Table 3.1 sets out the distribution of the fishing fleet by length category, 89% of vessels are less than 40ft in length; only 11% are of 40ft or more in length.

Table 3.1 Numbers of English and Welsh fishing vessels by length category, 1991

Registered length of vessels

Under 20'	20' to 39.9'	40' to 79.9	80' to 109.9'	110' to 139.9'	140' plus	Total
1980	4452	623	105	44	13	7217
27%	62%	9%	1%	1%	0%	100%

Source: Cardiff Register of Fishing Vessels, 1991

3.2.4 An analysis of the age of the fishing fleet shows that only 35% of vessels were built in the last 10 years. Smaller vessels are generally smaller; 42% of vessels of less than 40ft in length were built in the 1980s. Larger vessels of 40ft or more are significantly older; more than two-thirds were built prior to 1970.

3.2.5 The engine power of the fleet totals 629,374 kilowatts and the tonnage 103,372 GRT. The majority of this engine power and tonnage is found in vessels of more than 40ft in length; this sector of the fleet accounts for 42% of engine power and 69% of the tonnage. This is reflected in the mean engine power and tonnage of different categories of vessel: the average KW of vessels of 40ft-80ft is 686 and the tonnage 186 GRT, in comparison the equivalent figures for vessels of 20ft-40ft are 198 kw and 40 GRT.

3.2.6 The distribution of this fleet around the English and Welsh regions is shown in Table 3.3. A third of vessels are located in the South West reflecting the fishing opportunities available and the tradition of fishing in coastal communities. A very high proportion of vessels in the South East are of less than 40ft in length. Thus although accounting for 22% of vessels the South East fleet forms just 16% of engine power and 10% of tonnage of the entire fleet. In contrast the fleet in Yorkshire and Humberside only accounts for 7% of the total fleet, but a third of these vessels are 40ft or more in length and consequently the regional fleet accounts for 14% of engine power and 24% of the tonnage of the English and Welsh fleet. Elsewhere the fishing fleets in Wales, North and North West are significant in terms of numbers but less so regarding engine power and tonnage. The fleet located in the East region is of significance to the English and Welsh fleet because of the power and size of larger vessels; this fleet comprises 9% of vessels but 11% of GRT.

Table 3.3 Distribution of the English and Welsh Fishing Fleet by Region

	No. of Vessels	% of Total	GRT	% of Total	Engine Power	% of Total
North	619	9	6472	6	47998	8
Yorkshire and Humberside	523	7	24401	24	91248	14
East	617	9	13915	13	70197	11
South East	1589	22	10340	10	98756	16
South West	2399	33	27766	27	200491	32
Wales	691	10	11552	11	63069	10
North West	376	5	5380	5	31858	5
Not Specified	403	5	3546	3	25757	4
Total	7217	100	103372	100	629374	100

Source: Cardiff Register 1991.

3.2.7 It is important to emphasise that just 10 ports in England and Wales account for 70% of vessels of 40ft or more in length and of a large proportion of the fleets' total engine power and tonnage.

3.2.8 An analysis of changes in fleet size since 1971 shows that the English and Welsh fleet has undergone a fundamental change from being a fleet dominated by distant water vessels to one where the smaller vessels are numerous and very large vessels are rare. Between 1971 and 1989 vessels of 40ft or more in length fell by 31% to 757. However, whilst vessels of 40ft to 80ft experienced a modest decline, vessels of 140ft or more in length dropped from 161 in 1971 to just 8 in 1989. Similar falls were observed in the vessels of 80ft to 140ft. The decline in the largest vessels is reflected in gross tonnage of the fleet which fell from 204231t to 52247t between 1971 and 1989. The loss of the largest vessels reflects the loss of distant water fishing grounds from the mid-1970s as national EEZs were expanded, the failure to find alternative grounds and the rise in operating costs following the oil shocks of the 1970s and early 1980s.

3.2.9 The above information shows the English and Welsh fishing fleet to have declined in numbers. Those vessels remaining have had to concentrate more upon fishing grounds surrounding the UK and consequently the fleet has become more diversified using smaller vessels than in the past, exploiting a variety of stocks.

3.2.10 A number of ports suffered from the loss of distant and middlewater vessels from the fleet. In particular those on Humberside and Fleetwood suffered badly. The principal fishing companies left Fleetwood in the early 1980s to concentrate upon Hull. Hull has continued to be the operational port for the largest vessels. Fleetwood, however, has experienced a decline not wholly offset by a rise in smaller vessels.

3.3 The Activities of the English and Welsh Fishing Fleet

3.3.1 The English and Welsh fishing fleet is characterised by the wide variety of fishing methods used and the species caught. The present fleet is more flexible than in the past; profitability demands seeking a greater variety of species over a more extensive range of fishing grounds than that traditionally exploited. The largest specialised vessels have left the fleet, those of 40ft to 110ft have become more powerful and as skippers have had to respond to falling traditional fish stocks.

3.3.2 Increasingly, the operations of the fleet are subject to the regulations and controls inherent within the CFP. These regulations and controls are intended to attain conservation objectives. Thus the quota regime determines the amount of different fish species which may be caught by the English and Welsh fleet, whilst the days-at-sea regulation controls the numbers of days vessels may spend at sea in any one month, licensing allows vessels of 33ft or more in length to fish and other technical measures such as net-mesh sizes, minimum fish landing-sizes apply at different national and regional levels.

Table 3.3 Take-up of UK Quotas for 1989 as a Proportion of the Allocation

Cod	93%	Sprat	195
Haddock	97%	Megrim	82%
Saithe	81%	Monk	95%
Whiting	66%	Redfish	24%
Plaice	78%	Greenland Halibut	0%
Sole	103%	Pollock	59%
Mackerel	107%	Nephrops	71%
Hake	92%	Ling & Blueling	-
Herring	97%	Sand Eel	43%

Source: MAFF

3.3.3 The major species of fish sought by the fleet are controlled by the quota regime. Over time the number of species regulated by quotas has grown and future additions can be expected. In total 69% of landings by weight and 60% of landings by value are subject to quotas. These quotas affect all fishing vessels whether directly, by limiting the amount caught, or indirectly by encouraging the diversification of fishing effort onto other species. Table 3.3 presents the proportion of particular quotas which were taken up by the UK fishing fleet in 1989. 93% of cod, 97% of haddock, 95% of monk and 78% of plaice quotas were caught and landed. This high level of take-up demonstrates that the fleet is at present operating up to the limits determined by the regulations, and suggests that there are few remaining profitable fishing opportunities available.

3.3.4 The MAFF data in Table 3.4 below shows that the majority of vessels fish for demersal species. Of the various methods the otter trawl is the most common. Comparatively few boats of this size fish for pelagic species. Shellfish techniques such as dredging are used by 15% of vessels primarily the smaller vessels which will operate inshore. Small vessels also tend to use lines rather more than the larger vessels, again reflecting the varied cost structures of different fishing methods.

Table 3.4 Fishing Methods of English and Welsh Vessels of 40ft and more in length 1989

	Number	Proportion of Total
Beam Trawl	188	13%
Demersal Pair Trawl	38	2%
Otter Trawl	491	34%
Demersal Seine	67	5%
Lines	81	6%
Gill Nets	108	7%
Other Demersal	26	2%
Total Demersal	999	
Total Pelagic	9	0%
Shellfish	214	15%
Unknown	242	16%
Total	1464	100%

Source: MAFF

3.3.5 An analysis of method by region reveals that the more effective and capital intensive beam trawl methods are used by vessels located in the South West, notably Brixham, and the East, principally Lowestoft. These both have more modern and younger fleets than the other major ports. Shellfish methods are found throughout England and Wales, but in particularly in the South West and East regions.

3.3.6 The English and Welsh fleet fishes predominantly on grounds around the UK. An analysis of the origin of fish landed in England and Wales shows that 39% of all fish, by weight, are caught in the North Sea, a further 22% in the Irish Sea and 20% in the English Channel. Over 50% of cod, haddock and most plaice are caught in the North Sea. Other fishing grounds include those to the south and west of England, the Bristol Channel, West of Scotland and Rockall. Fish caught in the more distant grounds along the Norwegian coast, Greenland and the Barents Sea now form only a small proportion of total landings.

3.3.7 There is a high degree of dependency of vessels upon the immediate fishing grounds. Given the costs incurred in steaming to the fishing grounds this is not surprising and over time is reflected in the quota track record of POs. For example, few vessels located in the North West region fish outside the Irish Sea, whilst the majority of vessels located in ports along the North Sea will only fish grounds in the North Sea itself. Only the larger vessels seek more distant fishing

grounds reflecting their greater fishing range and different operational constraints.

3.4 Numbers of Fishermen in England and Wales

3.4.1 In 1988 MAFF estimated that there were 8511 regularly employed fishermen and 4082 partially employed fishermen in England and Wales, a total of 12593. Partially employed fishermen are defined as part-time or seasonal fishermen and do not work full time or receive most of their income from fishing. There is no definition as to the proportion of time or income involved in part-time fishing, eg to determine those for whom fishing contributes an important part of total income, as opposed to those who fish on an occasional basis.

3.4.2 An alternative approach to estimating numbers of fishermen is to use average numbers of crew per vessel for different length categories of vessels and multiply these by the number of vessels in each category. On this basis, the crew estimates indicate the maximum total number of fishermen to be 14941. This estimate includes both regularly employed and part time fishermen. Assuming that 90% of vessels of 40ft or more in length fish full time, and that 75% in the 30 - 39.9ft range and 50% in the 20 - 29.9ft range do so total full time employment is about 9200. The remaining 5700 would then represent those who fish irregularly, seasonally or on a part-time basis.

3.4.3 The distribution of fishermen in England and Wales follows the distribution of fishing vessels. Thus there are few large concentrations of fishermen around the coastline; those that do exist in any area are associated with concentrations of larger vessels in major ports. The South West has the greatest number of fishermen, both regularly and partially employed, reflecting the number of vessels located in the region particularly Newlyn, Plymouth and Brixham. In the South East fishermen are distributed along the entire coastline; Portsmouth, Hastings, Brighton and Southampton are the primary locations. Although the number of fishermen in this region is the second highest there are large numbers of part-time fishermen. Fishermen in Yorkshire and Humberside are predominantly full-time concentrated in Hull and Grimsby. The East and North regions rank fourth and fifth with concentrations of fishermen found in Lowestoft and North Shields. Fleetwood in the North West accounts for over a half of fishermen. Numbers in Wales are open to conjecture because of the uncertainty concerning numbers of vessels operating from Milford Haven and the question of nationality.

3.4.4 An analysis of the change in numbers of fishermen reveals that in 1983 MAFF estimated that there were 13416 full and part time fishermen, 823 more than the 1988 estimate. Losses of total numbers of fishermen were experienced in all regions except Wales and the North East. However individual ports in other regions grew; for example Newlyn and Brixham, Whitby and Amble. The decline in the South West and South East regions is particularly marked, though heavily influenced by part-time numbers. A supplementary approach using changes in numbers of vessels and average crew data per vessel to estimate changes in employment shows a similar magnitude of losses. These are estimated

to have been 1020, with particularly high losses in the 40-80ft and 140ft plus groups.

3.4.5 In the past redundant fishermen were sometimes able to find employment crewing smaller vessels, or in the off-shore oil and gas industry working on support vessels or on the rigs. Others are known to have found work in other marine industries including the ferry and dock sectors, or have been absorbed into local growth industries. However, it is also known that significant numbers of fishermen were unable to find alternative jobs and became long term unemployed.

3.4.6 An examination of the age profile of fishermen using survey results and the Workforce Audit of the SFIA shows the ages of fishermen. Skippers tend to be older on average reflecting the time taken to gain the experience and finance necessary to skipper and own a vessel. Ages of crew show a balanced structure of long serving experienced members and new recruits. The latter are essential to the future of the industry. The majority of fishermen are recruited from areas in and around the fishing ports. The findings of the survey show that 90% of fishermen live within a five mile radius of their vessels home port. In these areas the fishing fleet provide jobs for local inhabitants.

3.4.7 The occupations of fishermen on most vessels can be divided into deckhands, mechanics, mates and skippers. The Workforce Audit estimates that 45% of fishermen are deckhands. In the past the skill requirements of the fishing fleet have been found relatively easily; the industry has traditionally required manual skills, together with a willingness to work long and unsocial hours. These qualities are still necessary but there is a growing requirement for business skills, electronic, electrical and mechanical operation and maintenance skills. Such skills will be necessary as vessels become more capital intensive and sophisticated.

3.4.8 The occupations and skills of fishermen have implications for their employment in other industries. Deckhands commonly have few transferable skills, and so find it difficult to gain work other than manual and labouring tasks. The skills of skippers and mates are marine industry specific and of little value outside this sector. Engineers have the most transferable skills but they form only 7% of the workforce.

3.4.9 The incomes of fishermen vary enormously according to the profitability of the vessel. The survey results show that skippers earning in excess of £50,000 and crew with incomes of £20,000 plus can be found. Similarly very low earning skippers and crew can be identified. However, the average incomes are much lower: skippers earn less than £20,000 per annum and crew between £10,000 and £15,000. These absolute incomes may seem to compare well with those paid for manual occupations in agriculture, manufacturing and construction, and compares favourably with many administrative occupations. But a more accurate comparison, taking account of the time worked, the hazardous nature of the job and the uncertainty of any income, undermines this perspective. Nonetheless in local areas where alternative employment is scarce, the fishing fleet provides a vital and sometimes the only source of employment and income.

3.5 Fish Landings In England and Wales

3.5.1 Landings of fish are the outputs of the activities of fishing vessels. The tonnage of fish landed is determined by a matrix of factors. The most important of these are quota controls regulating the amount of fish of different species which may be caught in one year and the regulations concerning catching seasons and days at sea. These regulations effectively control the size of catches. Fishing vessels operate within these bounds; but within these bounds the tonnage of fish caught and landed will depend upon the ability and the capacity of fishing vessels to find and catch these fish.

3.5.2 Data concerning fish landings past and present are available from MAFF in both published and unpublished format. This data is used to assess total landings in 1989 (the most recent year for which data is available for on a comprehensive basis) and for trends over time. Mention should be made that this data may not be wholly accurate.

3.5.3 Estimated catches of fish by English and Welsh fishing vessels in 1989 totalled £157,503,000 and 187214 tonnes. These figures comprise the value of landings by British vessels in England and Wales plus landings by English and Welsh vessels abroad. Although these catches are landed primarily at ports in England and Wales a significant proportion, 25% by weight, are landed elsewhere. These "external" landings include the majority of pelagic species, some shellfish and 15% of all catches of demersal species. Landings at foreign ports have grown considerably during the 1980s, especially to the Netherlands, Spain, Germany and Denmark. This trend reflects the skippers increased sensitivity to market prices which vary between countries.

3.5.4 The total volume of fish landed in English and Welsh ports in 1989 is estimated to have been 140354 tonnes worth £132,368,000. This fish was landed by British vessels, so includes landings by Scottish and Northern Irish vessels in English and Welsh ports. However, it is assumed that the majority of landings will have been made by English and Welsh vessels.

Table 3.5 Total Landings of Fish in England and Wales for 1989 by value and tonnage

	Value £000s		Weight (tonnes)	
	Total	%	Total	%
Demersal	100546	76	86431	62
Pelagic	1886	1	13263	9
Shellfish	29936	23	40660	29
Total	132368	100	140354	100

Source: MAFF

3.5.6 Broken down by broad categories of fish Table 3.5 shows that 76% by value and 62% by tonnage was accounted for by demersal species, 23% by value and 30% of tonnage by shellfish, with the remainder being made up by pelagic species.

3.5.7 Demersal species form the greatest proportion of landings. Cod is the single most important species in terms of both value and weight, accounting for 21% of the weight and 23% of the value of all fish landed. Plaice is the second most important species, 14% by weight and 12% by value. Other notable species include sole, lemon sole, hake, megrim and monk. These tend to be higher unit value species which although making 14% of the weight of demersal landings, account for a third of the value.

3.5.8 Pelagic species were of limited importance in 1989. However, landings have varied over time and this figure may not be representative. Shellfish have come to form an ever increasing proportion of landings. Two species, cockles and mussels are of importance in terms of weight. Of more interest are crab, lobsters, nephrops and scallop species which tend to be higher value and are critically important to smaller vessels in the fishing fleet.

3.5.9 There are distinct differences in landings by region. Two regions, the South West and Yorkshire and Humberside account for a half of the weight and value of landings. These landings are related to the size and capacity of the fleets in these two regions; the South West has the largest fleet whilst Yorkshire and Humberside has a high proportion of vessels of 40ft or more in length. The South West has a mixed fisheries, the most valuable in England and Wales. This reflects the landings of higher value species such as megrim, hake, sole and monk. The pelagic species of mackerel, pilchards and sprats constitute the largest pelagic fisheries in England and Wales. Shellfish landings are also substantial of which crabs and lobsters are important. In contrast Yorkshire and Humberside is the most important region for landings of demersal species; indeed it is highly dependent on just a few species. 64% of English and Welsh cod and over a half of haddock is landed in the region's ports.

3.5.10 The South East which has the second largest fleet in vessel numbers accounts for only 10% of landings by weight and 7% by value. Landings are mixed comprising cod and plaice, high value soles and lower value pelagic species. The landings of shellfish, especially cockles, scallops and oysters are of national importance. The East with a more modern fleet has 18% of landings by weight and 14% by value. However, species are dominated by plaice landed at Lowestoft. The region has a very successful and substantial shellfishery located in the Wash, mussels and cockles, and along the north Norfolk coast, crabs and lobsters.

3.5.11 Other regions, the North West, North and Wales are rather less important. The North accounts for 8% of weight and 9% of the value of fish landed in England and Wales. Cod is the prominent species together with plaice, lemon soles and haddock. The shell fishery in the region comprises high value crabs, lobsters and nephrops. North West landings comprise demersal species, notably cod and plaice, and shellfish. The latter includes nephrops, queens, scallops and cockles. Landings of fish in Wales reflect the regions mixed fisheries. Cod, plaice, monk, dogfish and skates and rays are significant demersal species. Shellfish landings are dominated by cockles and mussels, with some crabs and lobster.

3.5.12 Landings of fish have changed over time both in terms of weight and composition. Over the period 1970 to 1989 landings in England and Wales fell from 543,000 tonnes to just 140,000 tonnes, a fall of 74%. This decline reflects the loss of fishing grounds in the North Atlantic with the extension of EEZs, over-fishing in EC waters and the following imposition and reduction in quotas. These changes have affected landings of cod and haddock; by 1989 landings of cod stood at just 10% of the 1970 value whilst haddock had fallen to 8%. Only landings of species such as hake, megrim and monk have grown over the period, but this growth has had a minimal impact on the fishing opportunities available, an increase of 7400 tonnes compared to a fall of 327,000 tonnes of cod, plaice and haddock.

3.5.13 The change in weight and composition of landings has been varied in its impact. The loss of North Atlantic fishing grounds has been to the detriment of those ports and regions dependent upon landings of cod and haddock, most notably Hull, Fleetwood and Grimsby. Total landings in these ports have fallen dramatically. Their position relative to other ports has also changed. Lowestoft has experienced falls in landings but of a much smaller magnitude with the result that in 1989 it was the most important port in England and Wales, taking the place of Hull and Grimsby. The South West has seen its relative position also change as a result of the growth in landings at Newlyn and Brixham. These ports have seen a complete change in the composition of species from low unit value pelagic species to the high value demersal species of monk, sole, megrim and hake.

3.6 Strengths and Weaknesses

3.6.1 At the present time there are a number of serious problems besetting the fishing fleet in England and Wales which require resolution before there can be any realistic prospect of improvement in the welfare of the industry. Such a situation is not new to fisheries. However it is now generally accepted that a more radical solution to the problems are required than has been attempted in the past. Many of the problems are internal to the fishing fleet, the solutions for which lie within the industry and relevant authorities; but there are some, caused by external factors, which are beyond the control or either the industry or the authorities.

3.6.2 If the state of the English and Welsh fishing fleet is measured in terms of profitability than it is readily apparent that the present state of the fleet is a very unhealthy one. Profitability is marginal for the majority of vessels, indeed many vessels are operating at a loss and are running overdrafts with banks. It is inevitable that this situation affects the outlook within the industry; in some ports the situation can only be described as gloomy, whilst for some individual fishermen it is desperate. This situation affects, even if only to a small degree, the economy and the community of areas heavily dependent upon the industry, and even in other areas these effects exacerbate difficulties caused by problems in other industries. Whilst the present situation continues to be an unhealthy one it affects future prospects and discourages the necessary investment of both capital into the industry and new human skills, expertise and effort in the form of younger fishermen. The fortunes of the fishing fleet will only be changed if and when the issue of overcapacity is addressed.

The Opportunities

3.6.3 The future prospects of the English and Welsh fishing fleet are potentially considerable. The UK is adjacent to some of the World's potentially richest fishing grounds capable of yielding substantial quantities of fish for which there is a strong demand. So long as a sustainable balance of fishing effort and fish resources can be attained significant benefits should accrue to the English and Welsh fishing fleet.

3.6.4 The market for the fish caught by the English and Welsh fishing fleet has grown in the past and can be expected to grow in the future. The past decade has seen demand for fish in the UK as a whole increase. This reflects a number of trends which include changing consumer tastes. Consumers have become much more concerned with eating healthy foodstuffs of which fish is favourably perceived. In addition the 1980s saw a significant increase in exports to other EC and foreign markets. In all these markets there is a continuing demand for the catches of the English and Welsh fleet.

3.6.5 An encouraging feature of the increase in the demand for fish has been that this occurred in spite of rising real fish prices. A higher level of demand coupled with real price rises allowed a more profitable fleet, with the associated benefits of investment and higher incomes to fishermen. However, it is apparent that in

the current recession consumer unwillingness to pay higher prices has grown considerably. Moreover fish prices at the point of first hand sale have fallen back dramatically. If this becomes a permanent feature of future markets it represents a very significant threat to the fleet. Currently there is every sign that the cushion of high prices against reduced quota is deflating fast. Moreover skippers are faced with diminishing marginal returns from traditional options of more emphasis upon controlling costs and increases in efficiency in order to become profitable.

The Threats

3.6.6 The English and Welsh fleet faces a series of threats which will hinder the realisation of the opportunities if they are not tackled. It is apparent that these will only be effectively addressed if action is taken by the fleet as a whole; actions of individual vessels will have little impact.

3.6.7 The present size of the English and Welsh fleet is widely considered to be too large. The imbalance between the size of the fleet and its fishing capacity and the fishing opportunities available is generally perceived to be a cause of over-fishing. A reduction in the size of the fleet is a pre-requisite to an urgently needed improvement in the financial position of the fleet. Taking vessels out of the fleet should increase the opportunities to remaining vessels, and would lay the foundation of a sustainable fisheries industry.

3.6.8 The present financial performance of the English and Welsh fishing fleet is poor. Whilst some select elements of the fishing fleet are profitable, or very profitable, evidence from the SFIA data on costs and finances of 106 vessels in 1989 and discussions with industry representatives and fishing agents all point to a fleet which is marginally profitable at best, but which includes a substantial number of loss making and indebted vessels. The survey findings support this: whilst no vessels were operating at a loss in 1986, over a third were marginally or substantively loss making in 1990/91.

3.6.9 Although real unit prices of fish have risen during the 1980s, the fall in volume of fish caught and landed over the last decade has reduced these rises to little more than increases in costs. These increases compare unfavourably with rises in incomes experienced in the rest of the economy between 1984 and 1991.

3.6.10 The human capital of the English and Welsh fishing fleet in terms of labour, expertise and skills and experience is a critical factor in the operation of the fleet at present and will continue to be so in the future. There will continue to be large elements of the fleet which will rely upon traditional skills especially amongst the smaller, less sophisticated vessels. However, there will be a greater need for business skills, electrical and electronic maintenance skills. The fleet will need to look to recruit suitably skilled younger people and/or retrain existing labour.

3.6.11 The recruitment of younger people into the industry is essential to its future. Younger people are recruited into the industry, but what is of concern is the continued difficulty in recruiting enough recruits with business skills, and

electrical and electronic equipment maintenance skills. For young people entering the labour market the fishing fleet must compare unfavourably with other opportunities.

3.6.12 The SFIA Workforce Audit revealed an unusually high turnover of employees, indicating that high recruitment levels are necessary to maintain crew members. It also points to the short term nature of employment for many fishermen lasting a season or only a few years. Such a high turnover may be traditional but it is not conducive that the development of the skilled workforce required to operate the larger and more capital intensive vessels in the fleet. The reasons for a high turnover of fishermen are difficult to pinpoint but probably include the comparatively poor pay for long and unsocial hours of work.

4. THE AQUACULTURE INDUSTRY

4.1 Introduction

4.1.1 This chapter assesses the present size, characteristics and status of aquaculture in England and Wales. It describes the development of the sector, the problems encountered with markets and species diversification, and considers the prospects for the principal sub-sectors.

4.2 Background

4.2.1 Aquaculture in England and Wales is not as diversified as in Scotland or Ireland, largely for geographical and environmental reasons. Output is based almost entirely on the production of rainbow trout and salmon (mainly fry and smolts) and some carp, eels and crayfish in fresh water, and the production of mussels, oysters and clams in sea water. Rainbow trout is by far the largest sub-sector, amounting to some 90% of total ex-farm value. The aquaculture sector in England and Wales though far less diverse in products, is quite significant by comparison with the capture fishery sector, particularly in value terms. In 1989 this amounted to as much as £60 - £70 million (85-99 MECU), equivalent to some 15-18% of total UK capture fisheries (landing) value, or 38-45% of that for England and Wales.

4.2.2 Table 4.1 summarises the number of aquaculture businesses and the sites employed, according to production sector.

Table 4.1 Aquaculture in England and Wales

	England Businesses/Sites		Wales Businesses/Sites		Total Businesses/Sites	
Finfish	409	557	42	55	451	612
Shellfish :						
saltwater	104	160	12	12	116	172
freshwater	55	60	4	4	59	64

Source: MAGAP UK 1987

4.2.3 The development and expansion of the industry has been generally positive and successful. Shorter-term technical constraints have been or are being resolved, and overall efficiency of production has improved steadily over the last two decades. However, there are substantial longer-term marketing and environmental questions which may restrict the growth of sectors of the industry, particularly salmonid (e.g. trout) aquaculture.

4.2.4 Aquaculture supply has had increasing significance for the UK processing and distribution sector. While aquaculture products cannot be said to have supplanted

those from conventional fishery sources, they may often supplement existing ranges of product, and are often involved in the more innovative ends of the processing field, as aquaculture producers and their market organisations seek to extend and develop product opportunities.

4.3 Rainbow Trout and other Salmonids

4.3.1 The production of rainbow trout in the UK as a whole grew steadily in the 1980s, from only 3,900t in 1980 to 16,500t in 1989. This tonnage came from 400 producers working on 484 sites, and had an ex-farm value of around £35 million in 1989[1]. In England and Wales there are estimated to be 600 full time, 200 part time and 125 casual jobs directly attributable to trout farming. In the UK the vast majority of production is of rainbow trout raised in fresh water, though there are also are small amounts of both brown trout and sea-grown rainbows, and an increasing activity in recreational fisheries associated with aquaculture stocked waters. Almost all production in England and Wales is now in fresh water, mainly based on simple earth ponds or raceways, fed continuously by spring or river water. In addition, a number of farmers sell trout only for restocking, whether to "on-growing" farms or for recreational purposes.

4.3.2 Most rainbow trout farms are situated in either Southern and Western England with smaller concentrations of production in the Midlands, Northern England and South Wales. The industry is still very much weighted towards small companies: 390 companies produce less than 200 tonnes per year, while only 5 produce between 200 to 500t, and another 5 more than 500t. To date, the greatest part of production supplies the UK market. Thus, due to skilful management and promotion by the British Trout Association, the UK trout market has grown apace with production, increasing from a level of 3,000t in the early 1970s to an estimated 15,000t in 1990.

4.3.3 There is considerable uncertainty as to the potential for further expansion of supply within England and Wales, given escalating restrictions on the industry. Very few suitable sites remain to be developed. Furthermore, many English farmers face problems with low water flows during the summer months, and the pressure placed on already stressed water resources by large urban and industrial users in the south will only increase. Finally, the National Rivers Authority (NRA) is proposing a scheme that would include a levy on water abstraction for fish farms, which will put an additional and probably increasing financial strain on producers. Therefore, while market prospects look good for established trout farmers in England and Wales, prospective development may need to move elsewhere.

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[1] A figure of £60 million ex-farm value is frequently quoted in the trade press. However, the figures used here, based on a typical ex-farm price of £2.00 - £2.30 per kg, are considered to be more accurate, as representing the bulk of the sector.

4.4 Shellfish

4.4.1 Various types of shellfish are also produced in England and Wales, though this production usually takes the form of dredging and relaying of wild stocks rather than culturing right through from hatchery to table. The total number of shellfish "farming" businesses and sites registered in England and Wales in 1989 was 116 and 172 respectively. The two principal species are the Pacific Oyster produced primarily in the East, South East and South West regions, and to a lesser extent in Wales, and mussels which are harvested largely from wild stocks in discrete areas with the majority being in the South West and Wales regions.

4.4.2 Unlike the situation with trout, it is estimated that shellfish production in England and Wales uses less than 10% of the potential site area. Since the banning of certain toxic marine paints, the number of sites where shellfish can be grown has actually increased. However, growth in the industry is by no means certain.

4.4.3 The shellfish industry is fragmented, with most production coming from independent small-scale growers. There have been as yet few positive moves to form the marketing or producing co-operatives that have been so successful with trout. Supplies of domestic shellfish are irregular and low, whereas the establishment of consistent supply is probably one of the keys to developing the industry. Another and perhaps more serious problem is that of pollution, specifically sewage. Current EC regulations will designate shellfish growing areas into three grades according to the degree of pollution. It is estimated that if the draft regulations are passed the UK industry may need to spend up to £6.5 million to provide appropriate purification facilities. This cost would obviously place a heavy burden, especially on an industry marked by a lack of co-operation between producers.

4.5 Other species

4.5.1 A variety of other fish species is produced by the aquaculture industry, although these are of very limited importance. These include carp, tilapia, European eel, African catfish, flatfish and crayfish. In all cases production is small scale, markets are poorly developed and interest limited, conditions which are likely to remain for the foreseeable future.

5. THE FISH PROCESSING INDUSTRY

5.1 Introduction

5.1.1 The fish processing industry in England and Wales, as elsewhere, undertakes the essential function of transforming raw material into products which give value to fish consumers. The raw material may consist of aquaculture production, fish landed at ports in England and Wales, elsewhere in the UK or other countries, and may also incorporate non-fish components. As part of the supply chain the fish processing industry is affected by changes at either end, by demand from consumers and by supplies of fish from the producers. Due to the interdependence in the marketing system, any change therein will affect the fish processing industry to a greater or lesser extent. This applies no less to supplies of fish which can be affected by a variety of factors, including the CFP.

5.2. Activities of the Fish Processing Industry

5.2.1 A range of definitions has been used to identify different types of fish processing companies. This study defines fish processors to be all those companies which transform the product, thereby adding value, and which operate in any part of the supply chain between the points of fish landing and/or production and fish retail and consumption. This definition is wider than that used by some other studies, but is considered to be a more accurate determinant of the processing sector. As such this definition includes the four categories of fish processing companies outlined below:

a) wholesaling companies, whose activities include "break of bulk" and packaging;
b) primary processing companies, whose activities incorporate filleting and skinning.
c) secondary processing companies, which undertake a range of activities from smoking, freezing, canning, breading and salting to the preparation of convenience meals.
d) shellfish processing companies, which process shellfish through boiling, smoking, peeling, shucking, picking, canning, freezing and breading.

5.2.2 Not all studies categorise fish wholesalers as a processors. However, wholesaling companies have been included in this study because they are an integral part of the supply chain whose activities add value to fish and fish products. As with other processing companies, wholesalers are dependent upon supplies of fish and are affected by the same supply and demand issues which affect the other three categories of processors.

5.2.3 There is a question about how successful such divisions can be made and how relevant the categories are to processing companies. A number of processing companies undertake a combination of the four categories of activities, and some all four. The firms surveyed for this study were found to have a mix of activities; 75% of companies claimed to be wholesalers, including the largest

company; 77% undertook secondary processing activities, over half processed shellfish and a quarter filleted and skinned fish as primary processors. The latter proportion may be an underestimate as some companies class primary processing activities as wholesaling activities.

5.2.4 In an attempt to gain a more precise measure of the extent of diversification, firms were classified according to that activity which accounts for at least 70% of turnover. In the case of primary processing and wholesaling, around 25% of firms in each case could be identified accordingly. However in the case of secondary processing and shellfish the proportions are 8% and 1% respectively. This leaves 42% of firms which do not derive 70% of their turnover from any one category and may thus be classified as mixed.

5.3 Size of the Processing Industry

5.3.1 Using the British Business Database and lists of members of processor associations it is possible to identify 865 processing operations in England and Wales in mid-1991. The majority of these operations are single site operations, there are few multi-site companies. The figure of 865 is higher than estimates given in other studies, but these have tended to use a much narrower definition of processing operations, most notably excluding wholesalers.

Table 5.1 Distribution of Processing Companies by Employment Band and Employment Totals, 1991

	1 to 5	6 to 10	11 to 20	21 to 50	51 to 100	100 plus	Total
Number of Companies	450	202	105	69	21	18	865
Proportion of Companies	53%	23%	12%	8%	2%	2%	100%
Average Employment/ Company	2.5	7.5	15	34.5	75	(known)	
Total Employment	1125	1515	1575	2381	1575	4980	13151
Proportion of Total Employment	9%	11%	12%	18%	12%	38%	100%

Source: PACEC/Stirling Aquatic Resources

5.3.2 These 865 processing operations were estimated to employ a workforce of about 13500. This figure includes all workers and is not a full time equivalent figure. Table 5.1 sets out the employment by size categories of companies. Just over a

half of operations have between 1 and five staff, 20% 11 to 50, and very few more than 50. However, employment in the latter sized operations accounts for over a half of the industry employment. At any one time employment levels could be higher or lower because of the degree of seasonality in the industry.

5.3.3 The processing industry is distributed unevenly across England and Wales. 39% of operations and 59% of the workforce is located in Yorkshire and Humberside, notably in and around the ports of Hull and Grimsby. The largest companies in the industry are located in these ports; there are nevertheless numerous small companies. Consequently all processing activities, from wholesaling through to secondary processing, can be found in these ports. Elsewhere concentrations of the industry can be found in the South East, primarily London, and the South West especially in and around Newlyn and Brixham. The industry in the North, North West and East is concentrated near to the major ports of North Shields, Fleetwood and Lowestoft. Processing activity in the West Midlands and Wales is of minimal significance in terms of employment.

5.3.4 Estimates of the value of the processing industry's output vary between studies and sources. Variations can be attributed to differences in definition of the processing industry and method of estimation. Using average turnover per company or per employee the value of the output of the English and Welsh processing industry is estimated to be between £1.3 billion and £1.57 billion. The majority of this output is accounted for by secondary processing, however, primary processors and wholesalers are also important given the high value of fresh fish products. As would be expected the majority of turnover is accounted for by industry located in Yorkshire and Humberside.

5.4 Products and Markets

5.4.1 The processing industry in England and Wales is highly dependent upon the supply of demersal species, specifically cod, haddock and plaice. Shellfish are of less importance as are the pelagic species.

5.4.2 The product is overwhelmingly produced as a fillet in a variety of different forms. Whole, gutted and headed fish are of less significance. The preparation of fish in sauce and ready-meals is only undertaken by a few of the larger companies reflecting the capital intensive nature of this type of production.

5.4.3 The survey of companies demonstrates clearly that the majority of production, 86%, is destined for the UK markets primarily the conurbations of which the South East is the most important. Only 16% of survey companies output was sold to export markets. These findings reflect the findings of the 1988 SFIA and 1991 Mackay studies. The smaller companies tend to supply local or niche markets whilst the larger companies looked to supply national and export markets. In 1989 the SFIA estimated that the UK market for fresh and frozen fish products totalled 334500 tonnes.

5.5 Supplies

5.5.1 Supplies of fish from the UK comprise fish landed in Scotland and Northern Ireland and England and Wales plus aquaculture production. This compares with 77% estimated by the Mackay study and 75% for primary processing stated in the 1988 SFIA study. There is a question of whether supplies from the UK are really UK supplies. Processors may buy supplies from UK markets, but the supplies are actually supplied from non-UK sources. The SFIA study did note that for secondary processing companies the majority of fish and fish products were sourced from outside the UK. The survey of processors located on Humberside reveals similar findings. Thus companies in Yorkshire and Humberside access Icelandic and other non-UK fish imported or landed at Hull or Grimsby. Use of non-UK supplies are much greater in this area than in any other area. Given the dominance of the Humberside processing industry in England and Wales the above figures may therefore underestimate dependency upon non-UK supplies. Elsewhere in England and Wales the survey findings reveal a much higher dependency on UK and locally landed fish; in the case of those Cornish surveyed this was as high as 82%. The higher dependency rates for companies in the South West, East and North West have implications for the effects of any reduction in fish landings would have an activity and employment levels.

5.6 Characteristics of Fish Processing Companies

5.6.1 The processing industry is characterised by numerous small companies, but very few large companies. Not surprisingly therefore, 93% of companies surveyed were found to be either sole traders, partnerships or private limited companies. In contrast few companies, 7%, could be described as public limited companies; these for the most part are subsidiaries of multinational conglomerates.

5.6.2 The figure of 13500 employees is, as already mentioned, an average figure for the processing industry in England and Wales. There are significant peaks and troughs over the year amongst processing companies reflecting seasonality of supplies of fish and/or consumer demand. There is thus a significant proportion, as much as 20% according to the 1988 SFIA study, of part-time seasonal employees. These part-time employees tend to be women for whom part-time employment enables them to meet family commitments. The largest number of part-time employees is found in secondary processors most notably in Yorkshire and Humberside. Part-time and seasonal employment is of importance elsewhere in the country, very high proportions are reported in the South West and the North West.

5.6.3 The processing industry employs workers with a range of skills eg filleters found in primary processing companies and equipment maintenance and repair engineers employed in secondary processors. These highly skilled employees are in short supply throughout the industry. Unskilled posts also exist for a range of production line work.

5.6.4 Wages and salaries reflect the skills of the employee. The survey findings suggest that the average full time equivalent salary/wage is about £10,000 pa. However, the average skilled employees salary/wage is higher at £11,000 pa, whilst those for unskilled employees could be as low as £6000 pa. These salaries/wages compare, if slightly unfavourably, with national levels for similar types of employees. However, in areas of high employment with few employment alternatives these salaries/wages are vital to the well being of many families and communities.

5.6.5 The age and condition of premises occupied by processing companies is a cause for concern especially with regard to hygiene regulations. Modern premises meeting the newest regulations are the exception rather than the rule; only 18% of premises of companies surveyed were 5 years old or less. 58% of companies occupied premises which were more than 20 years old. Whilst some premises will have been modernised in recent years, it is clear that a third of companies occupying the oldest premises face future problems in complying with the newest hygiene regulations.

5.7 Past and Future Issues

5.7.1 A range of evidence points to a contraction of the English and Welsh processing industry over the past decade. Companies and jobs have been lost. The 1991 Mackay study estimates that employment in the UK processing industry fell 21% to 17600 between 1985 and 1989, whilst the number of companies declined by 9%. The survey findings show that 36% of companies lost full time employees and 21% part-time employees between 1986 and 1991. Elsewhere a comparison with data for Lowestoft's processing industry shows that employment fell by 65% between 1980 and 1991. An analysis of processor association membership also points to a decline in numbers of companies. The weight of evidence clearly shows that the English and Welsh processing industry has declined through both a loss of companies, merging of companies and contraction of existing companies.

5.7.2 The factors underlying the decline are complex and interdependent. A matrix of factors has affected and continue to affect both supply and cost of inputs and demand for and prices of outputs. The greatest problem affecting survey companies was seen to be the issue of supplies of fish and price of fish. A half of survey companies had encountered problems obtaining supplies of fish either of the right quantity and/or price. Relative scarcity of supplies has forced large secondary and mixed processing companies to seek a wider variety of species, from a wider range of sources, for example Alaskan Pollock. This substitution of supplies has enabled companies to continue operating. However, many companies have had to cut activity rates because of their inability to use frozen products or because of costs constraints, for example wholesalers. The reduction in supplies can be attributed to a number of factors including the failure of the CFP to balance available fish stocks and fishing fleet capacity.

5.7.3 In an effort to remain in business survey companies have adopted a variety of responses of which seeking supplies from other sources has been the principle

action. However, companies have also passed price rises on to customers, cut profit margins, attempted to reduce labour content and raise efficiency. Some companies have attempted to undertake more value added processing or process a wider variety of fish, and a number claim to have diversified into other food processing activities. Whilst these actions have allowed companies to survive, a third have been only able to do so by reducing overall activity and making redundancies. It is worthwhile noting that profitability of the survey companies has fallen markedly between 1986 and 1991, partly as a result of the present recession and partly because of the fish supply and cost problems.

5.7.4 The English and Welsh fish processing industry have a number of opportunities for market growth in the future. Nearly a half of the survey companies perceived there to be future market growth opportunities both in the UK and in the European Community. However, all companies noted that they faced a series of threats most notably from continued problems with supplies of fish and the advent of new hygiene regulations.

5.7.5 Quantity and reliability of supplies of fish and prices are perceived as the principle future threats to the processing industry. Companies were anticipating that they would need to seek increased supplies from ports other than the local port, from Scotland and Northern Ireland and from imports. It is questionable how successful companies will be in substituting locally landed fish with fish from other sources; competition for fish is growing not only in England and Wales but Scotland and Northern Ireland and other EC member states. Whilst some companies may be successful it is clear that some will lose out either through an inability to use frozen supplies and/or price of alternative supplies. Such companies will either contract or cease trading.

5.7.6 The stricter hygiene regulations are perceived as a threat by a half of survey companies. The costs of complying with the new regulations are the main cause for concern, especially with regard to updating old premises. A number of companies owned by people approaching retirement age state that rather than investing in better premises they will cease to trade. If these industry exits are repeated throughout England and Wales the loss of employment to the industry and local areas could be significant.

5.7.7 Additional problems are seen to exist in terms of future labour supply, especially a shortage of skilled filleters and maintenance and repair engineers. The SFIA Workforce Audit noted that labour supply issues and abnormally high turnover of all grades of staff were a cause for concern amongst companies. Skill shortages reflects lack of training in the past whilst high turnover rates may result from low wage rates, poor working conditions and increase in part-time or temporary employment.

5.7.8 The threats facing the processing industry must be addressed if the industry is to take advantage of the promised market growth. Some threats such as hygiene are short term which can be tackled, if at a cost, but others are more fundamental, notably supply of fish. This threat can only be countered with a better

management of fishery resources to ensure stability of supplies over the longer term. It is inevitable that even if output remains the same, constant competition and restructuring will lead to a loss of companies and jobs, however, the question of the size of the loss remains.

6. THE ANCILLARY AND SUPPORT INDUSTRY.

6.1 Introduction

6.1.1 The activities of the fishing, aquaculture and processing industries in England and Wales are supported by a range of ancillary and support industries. These industries provide inputs either in the form of capital equipment, or as consumables or services which are used in the production process, i.e. the activities of the fishing fleet, the farmed output of the aquaculture sector and the activities of the processing industries. These ancillary and support industries are essential to the primary sectors, are to varying degrees dependent on them, and may therefore be considered to be a part of the fisheries industry as a whole.

6.2. Activities of the Ancillary and Support Industry

6.2.1 The activities of the ancillary and support industry are many and varied, and range from the manufacture of one-off capital equipment to the supply of everyday services. As such there is no single identifiable ancillary and support industry, but a collection of enterprises, of which the common factor is some degree of supply to the fishery sector. Some of the equipment and services are specific to the needs of the fishing, aquaculture or processing, but others are non-sector specific and are supplied to other industrial sectors.

6.2.2 Fishing ancillary and support industries can be described as those supplying goods and services to the fishing fleet. Companies may supply the specifically to the fishing fleet or to the marine industry, or may be generalist supplying a range of industries. Such goods and services range from high value manufactures such as fishing equipment, nets, trawl and deck gear, to the provision of a range of consumables and services such as fuel, oil and lubricants, ice, chandlers stores, and services supplied by fishing agents, fish porters and harbour authorities and agencies. A range of companies provides the capital equipment for the industry; including ship builders, navigation and communication equipment manufacturers, and refrigeration and freezing equipment companies. In addition, companies undertake maintenance and repair of vessels and equipment.

6.2.5 The aquaculture sector, though smaller in scope and less established, calls on a similarly wide range of ancillary and support services. The aquaculture industry may source from fishing sector suppliers; in other cases generalist farm or engineering suppliers are used, for example tanks, cages and pumps, while in specialised areas, particularly for feeds, drugs, and husbandry equipment, sector-specific suppliers may be involved.

6.2.6 Unlike the fishing industry fewer of the inputs to the processing sectors are sector specific, its requirements being similar to those of the food industry in general. However there are clearly operations wherein the process demands fish specific capital investment. The operating costs of processors are dominated by purchases of fish, and salaries and wages. Other inputs generally form a small proportion of total operating costs, and include packaging, transport, energy, secondary

ingredients, maintenance and service supply, cold storage services, utilities such as water and telephones, and consumables such as stationery. Many of these are non-sector specific and consequently it is difficult to identify suppliers.

6.3 Size of the Ancillary and Support Industry

6.3.1 The size of the ancillary and support industry is difficult to determine. This arises from the fragmented nature of the industry and the lack of a comprehensive database. Nevertheless it is possible to estimate numbers of jobs supported by purchases made by fishing vessels, processing companies and aquaculture businesses using an econometric technique. Information on the types and value of purchases made by these sectors and average turnover per employee for different broad categories of ancillary and support companies allows an estimate of the total number of jobs supported to be made.

6.3.2 Using the above method it is possible to calculate the size of the ancillary and support industry as between 7500 and 8500. The bulk of these jobs are supported by purchases made by the fishing fleet, 3500 to 4000, and the processing industry, about 4000 jobs. Jobs supported by the aquaculture sector are small between 250 and 300. Manufacturers of capital equipment and maintenance and repair companies account for a significant proportion of this total.

6.3.3 The geographical distribution of the ancillary and support industry roughly follows the distribution of the fishing fleet and processing industries. The Humberside area is a principle location of many fishing and processing ancillary and support companies which serve local vessels and businesses and the country as a whole. In other areas the ancillary and support industry tends to serve local or regional markets, although a number of major companies can be found in the smaller ports.

6.4 Characteristics of Ancillary and Support Companies

6.4.1 Given the fragmented nature of the ancillary and support industry it is difficult to categorise the various components of the industry. However, by using the findings of the survey it is possible to highlight differences between small and large companies.

6.4.2 The survey sample was characterised by small companies employing 25 or fewer employees owned solely as private limited companies or by partnerships two thirds of survey companies had turnovers of less than £1 million. These companies tend to be either service companies for example fishing agents, electrical contractors and chandlers or specialist manufacturers such as marine engineers. The majority of these companies are characterised by high levels of dependency upon the fishing fleet or the processing industry. The average rate of dependency was 52%. Such companies have been and will be affected by changes in the volume of purchases by the fishing fleet and processing industry.

6.4.3 The larger companies employing more than 25 employees, in some cases more than 100 tend to be non-specialist manufacturing companies. These companies have turnovers of more than £1 million and are more likely to be private limited or public limited companies than sole ownership. These serve a variety of markets of which the fishing fleet and processing industry are of minor importance. Sales to these two sectors comprise a third or less of sales, in one case as little as 16%. These companies include boat builders and marine engineers serving the entire marine industry, and large scale manufacturers such as processing and packaging equipment manufacturers supplying a wide variety of food industries.

6.5 Past and Future Change

6.5.1 Time series data concerning the size of the ancillary and support industry at a national level does not exist. However, information for several ports including Fleetwood and Lowestoft and derived from the survey shows that the industry has contracted in size over a long time period.

6.5.2 Between 1986 and 1991 two thirds of survey companies claimed that they had lost jobs, primarily amongst marine engineering companies. The survey also showed that there had been some growth in employment although this was in the non-sector specific companies. Fleetwood and Lowestoft both experienced loss of jobs in the ancillary and support industry during the 1980s a time when the fishing fleet was contracting with the loss of the largest vessels in the fleet. Further support for the decline of the industry can be gained from an analysis of the change in vessel numbers in the fleet and the number of ancillary and support jobs these vessels would have supported. Between 1973 and 1989 445 vessels left the English and Welsh fleet; these would have supported about 4000 ancillary and support jobs. The large number of ancillary jobs reflects the number of the large vessels which left the fleet; 81 vessels were 110-140ft and another 156 more than 140ft in length, these supported significant numbers of ancillary jobs.

6.5.3 The survey findings support the evidence of a decline in the ancillary and support industry. From 1986 to 1991 over a half of survey companies noted that sales to the fishing fleet had fallen whilst a third of companies stated that sales to the processing industry had fallen. In response to these declining markets companies diversified, often into other marine markets and/or reduced total activities. The strength of the larger companies has been the ability to expand sales to non-marine and other marine markets. Smaller companies supplying specialist goods and services have been constrained to seeking growth in other marine markets. Furthermore such companies have often only been able to expand if local markets have been available, unlike larger companies they have not been able to seek new markets throughout the country.

6.5.4 The future of a large part of the ancillary and support industry will depend to a large extent upon the continued existence of demand from the fishing fleet and processing industry. Many small specialist and service companies heavily dependent upon these markets will grow or contract according to whether demand

increases or falls. It is possible that with a recovery from the current recession and in profitability of vessels and processing businesses demand for goods and services will pick up to the benefit of the supplying companies. However, if the size of the fleet is cut dramatically the loss of demand may outweigh any benefits derived from an increase in profits and activity of remaining vessels.

6.5.5 The future issues facing the ancillary and support industry are ones associated with potential overcapacity. 52% of those companies surveyed perceived a reduction in the size of the fleet as the major threat. If this does occur companies will be required to look to expanding into other markets. It is not clear that all companies, especially the smaller and specialist companies serving local or niche markets, will be able to do this. The largest companies are in a better position. A decline in demand from the fishing fleet would ultimately lead to some sort of contraction in employment in the ancillary and support industry.

7. THE MEASUREMENT OF THE DEPENDENCY OF AREAS ON THE FISHERIES INDUSTRIES

7.1. Introduction

7.1.1 The aim of this section of the study is, to outline a methodology for measuring the dependence of local coastal economies on the fisheries industries. This is followed by an empirical analysis of fishing areas in England and Wales to measure the degree of dependency.

7.1.2 It is necessary first to define the size of geographical area in which the analysis is to be conducted. From a conceptual viewpoint the most appropriate geographical area is that which provides coverage of the local labour market of the area. This is also the area definition which offers the best chance of obtaining reliable statistical information. Such areas in Great Britain are known as Travel-To Work Areas (TTWAs) and these are used for the basis of this study.

7.1.3 A total of 92 zones can be identified around the English and Welsh coast line as having some form of fisheries activity. In addition various inland areas can be identified which have some form of involvement with the aquaculture, processing and ancillary and support sectors. The greatest concentration is found in London where a large number of fish processing businesses are located. The analysis of dependency, however, focuses on the 23 local areas in which fishing is a relatively important activity, and which capture the bulk of such activity in England and Wales. (The TTWA comprising the zones are shown at the end of this chapter). We do not therefore cover all local areas, the majority of which cover smaller and more dispersed fishing communities, though useful inferences may be drawn from our analysis of similar communities amongst the 23 zones.

Table 7.1 Proportion of English and Welsh Fisheries Activity Accounted for by the Selected 23 Zones

Total Vessels	44%
Vessels less than 40ft in length	40%
Vessels of 40ft or more in length	80%
Fishermen	52%
Value of landings	68%
Processing Employment	77%
Ancillary and support employment	62%
Aquaculture employment	8%

Source: PACEC/Stirling Aquatic Resources

7.1.4 Table 7.1 sets out the proportion of various indicators of the fisheries industry accounted by the 23 zones. Although these 23 zones account for less than a half of the English and Welsh fishing fleet, 80% of vessels of 40ft or more in length, 52% of fishermen and 68% of the value of landings of fish in England and Wales are located in these zones. In terms of processing and ancillary and support employment the 23 zones are slightly more important 77% and 62% of employment respectively is located in these zones. Aquaculture employment is dispersed throughout England and Wales often at inland sites, because of this only 8% of employment is estimated to be located in these 23 zones.

7.2. The Measurement of Dependency

7.2.1 The measure of dependency sought is the economic activity and employment in fishing, fish processing and ancillary and support industries expressed as a proportion of all economic activity and employment in the local area. Three indicators or criteria are used, in combination, to make an assessment of the overall degree of dependency.

7.2.3 The first indicator is direct and comprehensive. It measures the level of employment and gross domestic product (GDP) in fishing, fish processing and ancillary and support industry, as a proportion of total employment and GDP in the area. The dependency ratio based on employment, relates to the year 1989, which is the last year in which reliable employment statistics are available for small geographical areas. The employment based measures of dependency are more reliable than the GDP based measure of dependency because the latter is an estimate based on regional GDP per capita figures (from official regional accounting data) applied to local employment figures by sector of economic activity. For the fishing industry GDP a crude estimate based on wages, salaries and profits earned by vessels which operate in each area, which are categorised into size groups. There are a number of irreconcilable inconsistencies between the GDP calculated by this method, and the MAFF data on value of landings in each port; this applies to all zones. The figures of GDP of the fishing fleet have been adjusted in line with the reported value of landings. This first indicator provides a good measure of local dependency upon fisheries activities and in the overall assessment, should be given most weight.

7.2.4 The second measure of dependency expresses those landings of fish in each of the 23 local areas which are subject to the quota regulations of the CFP quota regime as a proportion of all fish landings. This measure of dependency therefore provides a guide as to the degree of constraint on the fishing activity in the local area and the extent to which the controls represented by quota regimes threaten the future, in some cases even survival, of fishing in the local area.

7.2.5 The third indicator used for assessing dependency is the percentage of unemployment and long term unemployment which currently exists in the local area. This is included in the overall assessment because it indicates the degree of difficulty with which labour resources released from a decline in fishing could be deployed into alternative economic activity within the local area. The local

economy is deemed to be more dependent on fishing the more difficult it is to absorb labour resources elsewhere in the local labour market.

7.2.6 Indicators of dependency are, however, not the only issue to be considered in formulating an appropriate policy response to the actual and potential decline in fisheries activity. Account must also be taken of the absolute numbers of jobs which exist at each port. Large concentrations of fishing activity are likely to yield the largest absolute number of redundancies and it is the geographical concentration of these, as well as the areas' dependency on fishing activity, which will require attention from policies designed to alleviate the adverse consequences of decline.

7.3 Estimates of Fishery Dependency for 23 Local Areas

7.3.1 Table 7.2 presents empirical estimates of the three measures of dependency defined in section 7.2 for 23 fishing areas in England and Wales, and also shows the number of jobs in fishery related activities which are to be found in each local area. Table 7.3 sets out detailed data on each of the 23 areas. The 23 local areas are ranked according to the dependency indicator of percentage of total employment accounted for by fishing and related activities.

7.3.2 The first column of Table 7.2 shows fishery related employment in each of the 23 areas. Only one area, Grimsby, has current employment in excess of 5000. A further four areas, Hull, Newlyn, Lowestoft and North Shields have between 1000 and 5000 employees dependent on fishing but of these only Hull is significantly over 1000 employees. Five areas, Brixham, Plymouth, Poole, Fleetwood and Portsmouth have employment dependent upon fishing of between 500 and 1000. Some 15 areas have less than 500 employees and many of these are around the 300 mark.

7.3.3 It is employment in fish processing and ancillary trades which accounts for the large variations between areas in employment in fisheries and related activities. In Grimsby, over 90% of fish industry employment is in fish processing and ancillary activities and less than 10% in fishing itself. Similar proportions are found in Hull. There is less variation in the numbers of actual fishermen. Newlyn has 800 fishermen, Grimsby 500 and Hull 400. Most of the smaller fisheries areas have 200 to 300 fishermen. This is significant because it is amongst the fishermen themselves that the greatest problems of redeployment and diversification are likely to arise. Fish processors and ancillary trades may find diversification rather more easily than is likely for fishermen. However, in some cases at least, little opportunity for such diversification of processing and ancillary trades may exist. It is also likely that policies most appropriate for assisting the retraining and redeployment of fishermen may be different from those appropriate for assisting diversification in the fish processing sector and in ancillary trades.

7.3.4 The next two columns of Table 7.2 show dependency ratios based respectively on employment and output. Only Grimsby and Newlyn have dependency ratios in excess of 5%. A further 12 areas have dependency ratios between 1% and 5%

and 9 areas have dependency ratios of less than 1%. If only fishermen themselves were counted the employment dependency ratio for Grimsby would fall from 9.8% to 0.8% and that for Newlyn would fall from 8.2% to 5.0%. Again this highlights the importance of the processing and ancillary industry in Grimsby.

7.3.5 The size of these dependency ratios is governed not only by the size of fishery related activity but also the size of the travel to work area in terms of total employment and economic activity. Hull has 3500 people employed in the fisheries industry, but Hull is a large urban area with total employment of almost 200,000. The dependency ratio is therefore relatively low at 1.8%. Bridlington has, by contrast only 350 fishery related jobs but is a much smaller town of 20,000 employment, giving a similar dependency ratio of 1.7%.

7.3.6 The next two columns of Table 7.2 show the percentage of each areas catch governed by EC quotas, first by volume and then by value. These quotas cover, generally, a high proportion of the total catch, particularly for the larger fishing centres of Hull, Grimsby, Fleetwood, Newlyn but also for many of the smaller fishing ports. In fact, only three areas - King's Lynn, Poole and Weymouth - have less than 50% of their catch subject to EC quotas. This is because these ports concentrate on shellfish not subject to quotas. The implication of these figures is that the great bulk of fisheries in England and Wales are subject to EC quotas and that this will inevitably reduce viability and lead to decline across most, but not all, of the 23 areas defined.

7.3.7 The final two columns of Table 7.2 show the unemployment percentage of each of the 23 areas in June 1989 and the proportion of unemployment which is long term unemployment. UK unemployment in June 1989 was cyclically low at 6.3%. Even so most of the fishing areas were then already showing unemployment rates above the national average and five areas had unemployment rates in double figures, even at the top of an economic boom. The highest unemployment rates were found in those areas located in the peripheral regions whilst areas in South East England had lower unemployment rates. In 14 of the 23 areas long term unemployment accounted for over half of total unemployment and even in the more prosperous areas it was over 40%. These data suggest there will be a difficult redeployment problem in most, but not all, of the 23 local areas examined.

7.3.8 On the strength of the evidence presented in Table 7.2 difficult adjustment problems will occur in most of the 23 local areas examined. They will be most serious in Grimsby, Newlyn, Whitby, Lowestoft, Hull, Brixham and Fleetwood where concentrations of fishing activities are greatest. But many smaller fishing ports will suffer just as much in relative terms. Of the 23 local areas, only Weymouth, Kings Lynn, Portsmouth, Poole and Hastings can be expected to adjust reasonably well without assistance. These are fishing ports in more prosperous regions.

Table 7.2 Indicators of dependency

	Employment in fishery related activities (jobs)	% of economic activity in fishery related industries		% of catch regulated by EC quotas		Degree of unemployment	
		Employ Estimate %	G.D.P Estimate %	Volume %	Value %	Unemp total % June 1991	Long term unemp (share of total unemp June)
Grimsby	7166	9.8	9.2	78	77	8.1	55
Newlyn	1389	8.2	5.3	71	75	7.3	49
Whitby	306	4.3	2.6	83	78	7.0	56
Lowestoft	1199	3.8	3.0	92	87	5.7	51
Amble	317	2.9	2.0	76	79	9.2	59
Milford Haven[1]	736	2.4	0.9	52	58	8.0	48
Brixham	996	2.2	1.6	57	59	5.7	51
Hull	3591	1.8	1.8	99	99	7.9	55
Bridlington	344	1.7	1.1	77	71	6.7	48
Holyhead	290	1.7	0.7	23	29	10.3	59
Whitehaven	458	1.3	1.0	60	50	6.9	49
Scarborough	368	1.1	0.8	74	70	5.0	52
Hartlepool	323	1.0	0.3	56	46	13.7	56
Weymouth	397	1.0	0.3	8	6	3.4	43
Fleetwood	879	0.7	0.6	78	83	6.1	51
Hastings	351	0.7	0.3	81	84	4.1	44
Kings Lynn	296	0.6	0.3	0	0	4.7	41
Poole	633	0.6	0.1	45	7	2.3	45
Plymouth	653	0.5	0.2	69	53	7.6	52
Portsmouth	633	0.3	0.1	52	49	4.4	46
North Shields	1175	0.3	0.3	79	81	13.4	56
Blyth	158	0.3	0.2	51	47	11.1	56
Sunderland	277	0.2	0.04	84	88	13.1	55

Source: PACEC/Stirling Aquatic Resources

[1] The accuracy of Milford Haven employment figures is open to question because of uncertainty of the status of Spanish owned vessels.

Table 7.3

Zone Travel To Work Areas	General Features of the Zone			GDP		Number of Jobs in Fisheries And Related Activities				Added Value of Fisheries & Related Activities			Relative Dependence				Proportion of catch regulated by EC Quotas	
	Total Population '000s	Work Force '000s	Total No. of Jobs '000s	Total MECU	Per Capita ECU	Fisher-men only	Processing Jobs	Other Jobs	Total	Landings & First Handling MECU	Other Activities MECU	Total MECU	In Terms of Jobs (%) Fishing	Total	In Economic Terms (%) Fishing	Total	Volume (%)	Value (%)
	a	b	c	d	e (d/a)	f	g	h	i (f+g +h)	j	k	l (j+K)	m (f/c)	n (i/c)	o (j/d)	p (l/d)	q	r
Whitehaven	70	36	34	943	13500	74	288	96	458	1.3	7.8	9.1	0.0	1.5	0.0	1.0	60	50
Fleetwood	296	127	119	2629	8900	324	357	198	879	4.7	11.3	16.0	0.5	1.0	0.0	0.5	78	83
Holyhead	53	19	17	400	7500	214	23	53	290	1.4	1.5	2.9	1.5	2.0	0.5	1.0	23	29
Milford Haven	93	54	30	700	7500	486	38	212	736	1.4	5.1	6.5	1.5	2.5	0.0	1.0	52	58
Newlyn	53	19	17	400	7500	846	263	280	1389	9.9	11.1	21.0	5.0	8.0	2.5	5.5	71	75
Plymouth	339	145	133	3186	9500	493	68	160	721	3.1	4.6	7.7	0.5	0.5	0.0	0.0	69	53
Brixham	131	48	49	1043	8000	584	145	267	996	8.6	8.4	17.0	1.5	2.0	1.0	2.0	57	59
Weymouth	99	41	39	914	9000	328	15	54	397	1.1	1.4	2.5	1.0	1.0	0.0	0.5	8	6
Poole	192	77	74	1929	10000	352	47	54	453	0.4	2.1	2.6	0.5	1.0	0.0	0.0	45	7
Portsmouth	512	228	216	4100	8000	382	147	104	633	0.8	5.1	5.9	0.0	0.5	0.0	0.0	52	49
Hastings	146	51	49	1271	9000	261	45	45	351	1.8	1.8	3.6	0.5	1.0	0.0	0.5	81	84
Lowestoft	79	34	32	771	10000	541	350	308	1199	10.0	13.4	23.4	2.0	4.0	1.5	3.0	92	87
Kings Lynn	107	50	48	1129	10500	208	40	48	296	1.1	1.8	2.9	0.5	1.0	0.0	0.5	0	0
Grimsby	175	80	73	1543	9000	560	5026	1579	7165	7.1	134.5	141.6	1.0	10.0	0.5	9.0	78	77
Hull	403	213	196	4114	10000	336	2474	781	3591	6.4	66.3	72.7	0.0	7.0	0.0	2.0	99	99
Scarborough	82	37	34	643	8000	225	75	68	368	2.5	2.9	5.4	1.0	1.0	0.5	1.0	74	70
Bridlington	63	23	21	443	7000	235	38	71	344	2.1	2.2	4.3	1.0	2.0	0.5	1.0	77	71
Whitby	28	8	7	157	5500	244	18	44	306	2.8	1.3	4.1	3.5	4.5	2.0	3.0	83	78
North Shields	932	456	412	7967	8500	320	607	248	1175	4.1	17.4	21.5	0.0	0.5	0.0	0.5	79	81
Amble	37	12	11	229	6500	250	18	49	317	3.1	1.4	4.5	2.5	3.0	1.5	2.0	76	79

Table 7.3

Zone Travel To Work Areas	General Features of the Zone			GDP		Number of Jobs in Fisheries And Related Activities				Added Value of Fisheries & Related Activities			Relative Dependence				Proportion of catch regulated by EC Quotas	
	Total Population '000s	Work Force '000s	Total No. of Jobs '000s	Total MECU	Per Capita ECU	Fisher-men only	Processing Jobs	Other Jobs	Total	Landings & First Handling MECU	Other Activities MECU	Total MECU	In Terms of Jobs (%) Fishing	Total	In Economic Terms (%) Fishing	Total	Volume (%)	Value (%)
	a	b	c	d	e (d/a)	f	g	h	i (f+g +h)	j	k	l (J+K)	m (f/c)	n (i/c)	o (j/d)	p (l/d)	q	r
Blyth	134	53	48	1143	8500	132	5	21	158	1.3	0.5	1.8	0.5	0.5	0.0	0.0	51	47
Sunderland	421	170	150	3514	8500	204	33	40	277	0.2	1.5	1.7	0.0	0.0	0.0	0.0	84	88
Hartlepool	100	380	33	757	7500	237	33	53	323	0.7	1.8	2.5	1.0	1.0	0.0	0.5	56	46
All Other Zones						7105	2998	4092	14195	36.6	144.2	180.8					48	52
England and Wales	50719	24756	23379	603229	12000	14941	13151	8925	37017	112.5	449.4	561.9	1.0	2.0	0.0	0.0	61	67

Explanatory Notes for Table 7.3

1. Figures for Total Population, Workforce and Number of Jobs are all rounded to the nearest thousand.

2. All monetary values are in ECU or Millions of ECU. A conversion rate of ECU 1 to UK£0.7 has been used. Figures are rounded to the nearest 100,000.

3. Numbers of jobs in Fisheries and Related Activities are total jobs including part-time, and not full-time equivalents. "Other jobs" (column h) includes jobs in the ancillary and support industries supplying the processing and aquaculture industries as well as the fishing fleet.

4. Value of landings and first handling are based primarily upon 1989 MAFF data landings. The accuracy of this MAFF data is open to question. The figures for value added may be higher than those shown. If so then this has repercussions for estimates of total value added of the entire fisheries industry and for estimates of economic dependency.

5. Value added for "Other Activities" assumes a value added per FTE employee in the processing and other industries of ECU 21429 or £15,000. One processing job and other activities job is assumed to equal 0.95 full time equivalents.

6. Figures of relative dependence both in terms of jobs and economic terms have been rounded to the nearest 0.5%. Due to uncertainties regarding accuracy of MAFF data on value of landings, indicators of relative economic dependency may be incorrect and therefore should be treated with caution.

FIG 2 THE 23 ZONES CHOSEN FOR ANALYSIS

Zone Names and Corresponding TTWA for the 23 Zones Chosen for Analysis

Zone Name	Travel to Work Area Name(s)
Amble	Alnwick and Amble
Blyth	Morpeth and Ashington
Bridlington	Bridlington and Driffield
Brixham	Torbay
Fleetwood	Blackpool
Grimsby	Grimsby
Hartlepool	Hartlepool
Hastings	Hastings
Holyhead	Holyhead
Hull	Hull
King's Lynn	King's Lynn and Hunstanton
Lowestoft	Lowestoft
Milford Haven	(2) Haverfordwest and South Pembrokshire
Newlyn	Penzance and St. Ives
North Shields	(2) Newcastle upon Tyne and South Tyneside
Plymouth	Plymouth
Poole	(2) Poole and Wareham and Swanage
Portsmouth	(2) Portsmouth and Gosport and Fareham
Scarborough	Scarborough and Filey
Sunderland	Sunderland
Weymouth	Dorchester and Weymouth
Whitby	Whitby
Whitehaven	Whitehaven

8. ASSESSING THE SOCIO-ECONOMIC EFFECTS OF THE COMMON FISHERIES POLICY

8.1 Introduction

8.1.1 This chapter attempts to provide an indication of the past and present effects of the CFP upon communities and areas of England and Wales. A number of fundamental constraints preclude a fully detailed and prescriptive assessment of these effects. The relatively small size of the fisheries industry in nearly all areas of England and Wales, the lack of standardised reference for its status prior to the CFP, the difficulties of assessing the specific effects of CFP measures over time, and the problem of disentangling the effects of the CFP from other factors, all mean that it is difficult to identify whether, and if so to what extent, CFP measures have affected jobs, earnings and profitability, and the socio-economic consequences of these.

8.2 Socio-Economic Effects

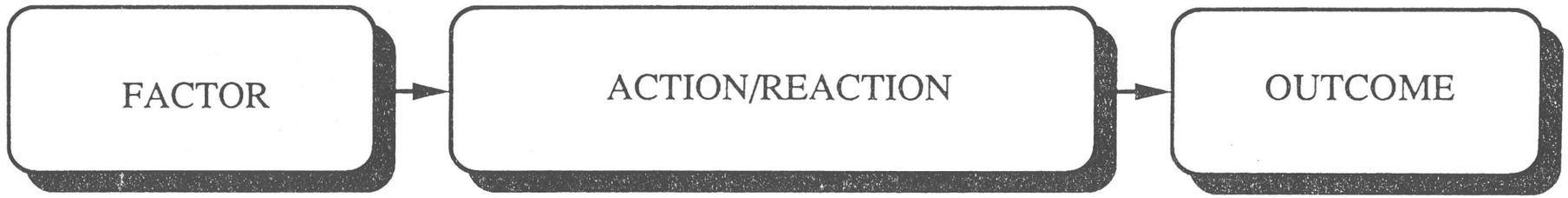
8.2.1 The effects of any policy on the economic and social characteristics of an area or community operate via a number of routes. The most important of these are via economic mechanisms such as employment, profitability and earnings, and within business phases of start-up, growth, decline and death. A collapse of business and a decline in employment might at least in the short term affect unemployment rates and the incomes of individuals and families. These may in turn affect social factors and may be observable as increased deprivation and poverty, as measured in terms of household and family income, and indices such as possession of consumer items.

8.2.2 While the above outcomes may be measurable through national and local statistical data, there is a problem of defining linkages between these and a single input factor such as the CFP. A definition of such linkages does not exist, either in the form of earlier analyses of the CFP and the industry, or even within sub-sectoral studies. This provides a substantial methodological challenge for the present study, and must inevitably restrict our scope.

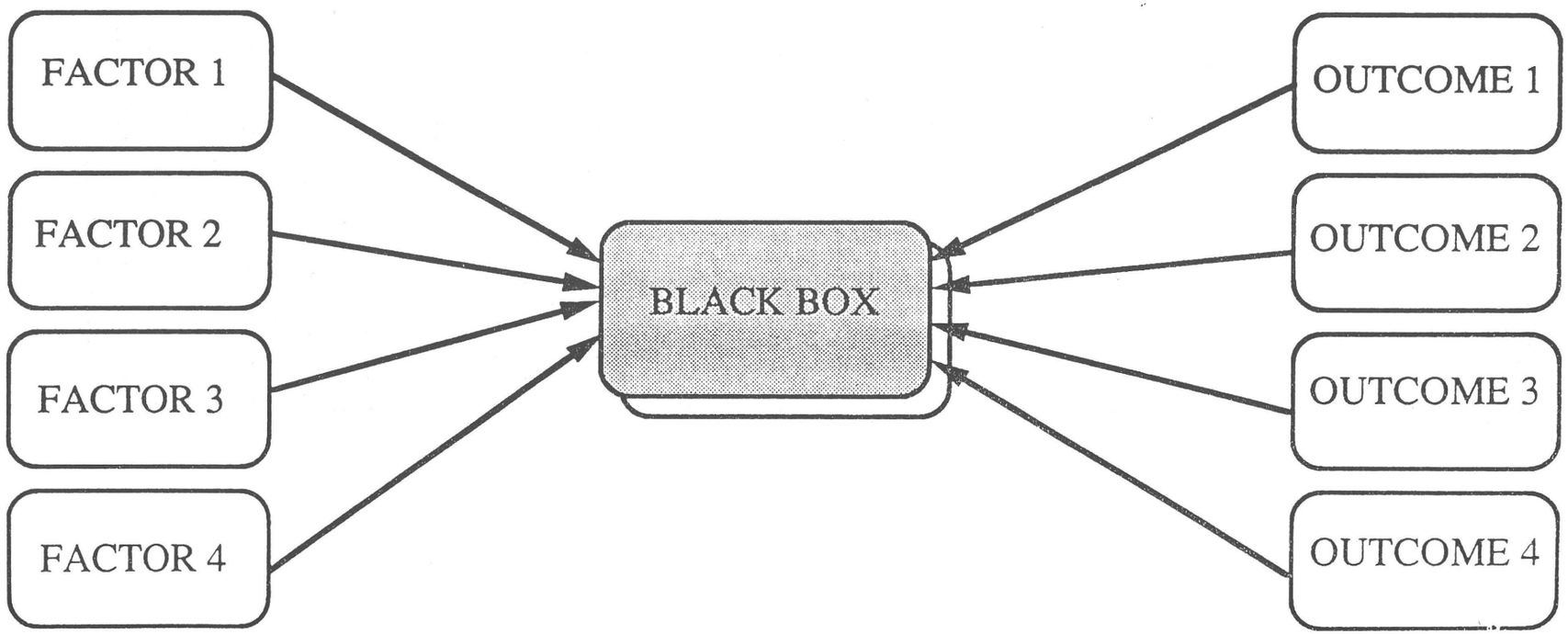
8.3 Approach to Assessing the Effects of the CFP

8.3.1 It would be simplistic and erroneous to assume a linear and deterministic progression from cause through to economic and social effects; ie the CFP acts via specified linkages through actions and reactions of the fishing sector to result in observable outputs such as degrees of profitability and numbers of employees. The actual processes operating over the past decade show that measures such as the CFP cannot be isolated from other factors such as market forces; they are only one of a number of interdependent factors acting to create the environment of the target group. Observable outcomes also vary enormously over time, with location, and between different types of businesses or individuals; these may be beneficial or detrimental, and may change.

FIG. 3 SIMPLISTIC CAUSE AND EFFECT



A MORE APPROPRIATE SCHEMATIC REPRESENTATION OF THE EFFECTS OF CFP



8.3.2 The mechanisms by which policy measures or other factors act to produce an outcome or effect are rarely completely understood; information is imperfect and usually incomplete in scope. A single policy measure may have one or more possible outcomes or effects; equally one type of outcome or effect may be caused by different measures or factors, or combinations of these. Inputs may be synergistic or antagonistic, or may vary in their combined effects. A more effective representation is that where input factors including policy measures, produce a series of outcomes, without definable internal linkages, but with some degree of underlying association.

8.3.3 This may be a more accurate representation of the factors acting on the English and Welsh fisheries industry during the 1980s. During the period 1983 to 1991 the CFP was only one of a number of factors creating a very dynamic if not positive environment. A range of outcomes have been observed including both increases and decreases in profitability. Although these could be monitored, the complex and changing situation make it impossible to state how and to what extent such changes were the result of individual factors.

8.3.4 Our approach is therefore to look at factors which are thought to have operated on the fishery sector, to determine how these might in theory have affected the industries involved, and then to examine known response patterns and the observed outcomes. This draws on a range of disparate information, including the survey results, to point to probable effects of the CFP. This is akin to a "weight of evidence" procedure, where if particular conclusions concerning the CFP can be drawn from a variety of different sources, it may be assumed to have had some effect upon the industry, even if these cannot be formally quantified.

8.4 Changes in the English and Welsh Fishing Fleet

8.4.1 Changes in the fishing fleet since 1983 can be highlighted using MAFF data. Although GRT is known for this portion of the fleet, engine power is not. Nonetheless GRT alone is useful in indicating trends, and as power to weight ratios are known to have increased in many cases, GRT changes may give a more accurate depiction of vessel capacity change.

8.4.2 Table 8.1 shows vessel numbers and GRT for four length categories for 1983, 1988 and 1989. Data for vessels of less than 40ft are not given because of uncertainty regarding accuracy. These two dates are chosen to emphasize the discontinuity between 1988 and 1989, and the quite different implications which might be drawn. Changes in the fleet have been minimal if 1983 and 1988 data are compared; there is little change in the 110 - 140ft category, but an increase by 50% in the 80ft to 110ft group. No change in GRT occurred in the 40 - 140ft sector of the fleet. However between 1983 and 1989 total numbers of vessels of 40ft or more declined 25% and GRT by 38%. In theory this points to improvements in the balance between capacity and fish stocks. However changes in GRT were largely influenced by dramatic reductions in vessels of 140ft or more, which declined by 18 in number and 18606 in GRT. 29 vessels of 110ft

to 140ft totalling 9398 GRT left the fleet to 1989. In contrast GRT of vessels of 40-80ft fell by 3716 and that of vessels in the 80ft to 110ft category by 540.

8.4.3 It could be argued that in spite of these changes little has changed over this time in terms of actual fishing capacity in UK waters. The loss of the largest vessels is mainly due to the loss of North Atlantic fishing grounds and these vessels' inability to fish economically around the UK. The change in capacity in UK grounds has therefore not been as great as Table 8.1 shows. Furthermore engine power per vessel would probably change in similar ways to that for GRT. The rise in average engine power per vessel may mean that the effective fishing capacity on the grounds around the UK may not have undergone significant change.

8.4.4 Changes in the fleet operating in UK grounds have been responses to a variety of factors rather than to a strategy for restructuring. Aging vessels, loss of access to grounds, and depressed earnings and profitability have probably been the major agents of change. Other than rules governing entry of new vessels into the fleet, there has been little evidence of a restructuring strategy, and so a progressive reduction in quotas has merely tended to put further pressure on the operations of the remaining fleet. There is therefore little evidence over this period to suggest that the CFP has improved the balance between fish stocks and fishing capacity and future prospects for the fleet.

8.4.5 The job losses associated with fleet changes from 1983 to 1989 can also be assessed by determining the crew and support jobs associated with each vessel. Just over 3000 jobs would have been lost; these would have been associated primarily with the largest vessels, 140ft plus, and the 40ft - 80ft categories. The loss of the largest vessels would have led to 1382 job losses, primarily in Fleetwood and Hull. However, as noted in Chapter 3 the market for off-shore oil and gas rig standby duty, and the growth in smaller vessel categories may have mitigated these losses to some extent in certain cases. The impact of the CFP since 1983 will have concentrated on smaller vessels, less on the 140ft plus categories, and will have resulted from quota reductions. However it may also be argued that the uncertainty, inter alia, created by the CFP has choked or discouraged investment which might otherwise have occurred such as the exploitation of new deep water fishing grounds to the West of the UK.

Table 8.1 Changes in Numbers and GRT of Vessels of 40ft or more in length in the English and Welsh Fleet between 1983 and 1988 and 1989.

Size Class		Change 1983-1988 No.	GRT	Change 1983-1989 No.	GRT
40-80ft	No.	-228	-4210	-211	-3716
	%	-27	-15	-25	-13
80-110ft	No.	+42	+7108	-1	-540
	%	+51	+53	-1	-4
100-140ft	No.	-2	-2715	-29	-9398
	%	-4	-16	-53	-56
140ft plus	No.	-16	-17847	-18	-18606
	%	-62	-70	-69	-73
Total	No.	-204	-17664	-259	-32260
	%	-20	-21	-25	-38

Source: MAFF

8.5 Factors Affecting Changes in the Fishing Fleet

8.5.1 During the period 1983 to 1991 the CFP has been one of a number of factors affecting the English and Welsh fishing fleet; the main influences of the CFP, and their potential effects have been through:

- quota regime - the progressive reduction in allowable catches for species such as cod and haddock, which may have observable effects in falling catches of fish per vessel, and/or changing catch composition from heavily restricted species to less restricted and non-quota species;

- days at sea regulation - would have reduced total effort of each vessel and should have resulted in a decline in catches for the species/vessel sector involved;

- technical measures - area designations would have altered opportunities, particularly in adjacent ports; gear and net size regulations would tend to result in catch reductions and changes in size distributions of landed fish;

The effects of all of these might be measurable in terms of stock parameters such as size, quality of year classes, and condition or spawning indices, in terms of supply and location of landings, and in earnings and profitability for vessels, ports and businesses involved.

8.5.2 However, while the CFP can be proposed to have defined the framework in which the fleet now operates, other factors would also act within this framework; a wider perspective might include;

- Changing operating costs; resulting in changing profitability of vessels, and where increased, in actions to increase efficiency through cutting operating costs and/or via capital investment;
- Changing real prices of fish; resulting in equivalent changes in real earnings and profitability of vessels;
- Falling fish stocks; with similar effect as the quota regime, with falling catches per vessel, and impacts on earnings and profitability;
- Competition from other vessels; not immediately apparent, but possibly resulting in reduced catches and lower quayside prices;
- Technical improvements to vessels; should result in increased efficiency, possibly higher catches per vessel, better returns; profitability would depend on investment and operating costs required.
- Changing quality requirements; may result in limits to trip duration, increased handling investment; possibly wider quality/price ranges; profitability would depend on cost/revenue balance.

8.5.3 A number of factors may have had the same effects, for example falling catches may have resulted from the quota regime or from technical measures, from falling fish stocks and from increased competition. Others may have interactive effects, eg falling supply may arise in a compensatory increase in prices; earnings and profitability might even increase. However, the net total effect of these factors over this period might be expected as:

- falling profitability
- falling catches of fish
- reduction in vessels
- reduction in crew members

8.5.4 Using the survey results and discussions with industry representatives we examined the factors which fishermen believe have affected their industry, their reactions to these factors and the actual observable effects of these. Nearly all skippers noted a range of problems which they believed resulted from the operation and management of the CFP. Over a half of skippers noted that the quota regime and its management had affected their operations (Table 8.2). The reduction in total allowable catches (TAC) for quota species had significantly reduced opportunities and catches. Concern was also raised regarding the management of the quota regime, particularly the mechanism for allocating quotas, and the unpredictability of "stop-go" management. This is claimed to lead

to excessive reduction of areas in which fishing vessels are allowed to catch quota species, and to uncertainty about future permissable levels of catches.

Table 8.2 Perceptions of Skippers and the Impact of the CFP upon their Fishing between 1986 - 1991

Quota regime: reductions and management	59%
Increase in competition from non-UK vessels	14%
Failure to prevent overfishing	14%
Bureaucracy and restrictions	7%
Others	7%

Source: PACEC/Stirling Aquatic Resources

8.5.6 Other comments regarding the CFP concerned the perceived increases in bureaucracy and restrictions, the increase in competition from non-English or Welsh vessels and the failure to prevent overfishing, so reducing available stocks still further. In general the CFP is seen as a policy which has reduced opportunities to catch fish and earn a living, whilst failing to resolve key issues of overfishing and declining stocks. Both issues are widely recognised and are causes for considerable concern amongst fishermen.

8.5.7 The CFP is perceived as a cause of problems for fishermen, but was not the only difficulty. Skippers also rate problems caused by rising operational costs; 57% stated that rising costs, including fuel, insurance, harbour dues and commission payments, bank charges and interest payments, had adversely or very adversely affected their fishing. Reduced profitability through falling catches and rising operational costs have not for most vessels been offset either by a rise in the price of fish, which 72% of skippers recognised as beneficial, or by increases in catches of less common species, for which 45% of skippers had noted a rise in demand. Technical improvements such as navigation and fish finding equipment have enabled efficiency to be improved, somewhat counteracting increases in operational cost, but not all vessels have been able to benefit from these improvements, primarily because of investment constraints.

8.5.8 Skippers have sought to counter these pressures by adopting a range of actions. These can be divided into four broad categories.

- Control and reduce operating costs; efforts have been directed at reducing crew numbers, and reducing maintenance and repairs to a minimum. The survey results show that 43% of skippers claim to have cut crew numbers.

- Increase efficiency and effectiveness; vessels have spent longer fishing, fished more intensively within the constraints of weather and days-at-sea, and where possible invested in capital equipment.

- Maximise catches and earnings; by fishing for non-quota species, although few skippers have been successful enough to radically alter the composition of their catches, by timing landings according to market conditions and landing at different ports, especially European ports which offer higher prices than English and Welsh ports.

- Supplement earnings; by seeking alternative marine work, or work ashore. However, the former is too sporadic to rely upon whilst the latter is often seasonal and poorly paid.

8.5.9 The evidence available from industry representatives and survey results suggest that the CFP in the form of the quota regime has, along with falling fish stocks and rising operational costs, been a major factor affecting the English and Welsh fishing fleet in the five years to 1991. Changes observable over this period are neither solely nor indeed necessarily the result of the CFP. It has however been a contributing factor to suppressing the profitability of the English and Welsh fleet and creating an aura of uncertainty regarding its future prospects.

8.6. Changes and Effects of the CFP upon the Processing Industry

8.6.1 The effects of the CFP upon the processing industry encounter the same assessment difficulties as those of the fishing fleet, plus the added difficulty of clarifying the downstream linkage between English and Welsh fish supply, and the activities and prospects of the processors. Other factors include the overall economic climate, rising operational costs, changes in the structure of demand, increasing competition in the industry, and rationalization and restructuring. As with the fishing fleet losses of jobs and changes in earnings and profitability will have had some socio-economic effect in the areas and communities dependent on the industry.

8.6.2 A range of information suggests that between 1986 and 1991 the processing industry in England and Wales experienced a decline in the numbers of companies, a fall in employee numbers and reduction in profitability. The Mackay study estimates that 4300 full time equivalent jobs were lost in the UK processing industry between 1985 and 1989. This estimate is based upon a narrow definition of the industry and has probably neglected smaller wholesaling and primary processing companies. Total losses over the period 1983 to 1989 were probably greater than this, and mainly in England and Wales; in 1985, 57% of UK processing jobs were believed by the SFIA to be located in England and Wales. Within England and Wales the majority of job losses will have been in Humberside; allowing for ancillary and support jobs, and basing losses on the Mackay estimate, as many as 1800 jobs could have been lost. Indeed the scale of these losses would tend to imply limitations on the extent to which diversification out of fish processing, earlier mentioned, may take place. Further heavy losses will have occurred in the East, South West and North East regions. The economic and social consequences of such job losses will have included increases in unemployment, especially in Grimsby and Hull.

8.6.3 The CFP might be expected to affect the processing industry primarily via the progressive reduction in supplies available for use at English and Welsh ports, and the possible change in species supplied. Supply has also been affected by falling stocks and by the growth in landings by English and Welsh vessels in European ports. Companies surveyed stated that quantity, regularity and price of supply had caused significant difficulties over the five years to 1991. The survey and discussions with industry representatives indicated that reductions in local supplies were forcing companies either to close down, or reduce operations and shed labour, and to seek supplies elsewhere in the UK or through imports.

8.6.4 A successful strategy adopted by many companies has been to substitute local supplies with fish from elsewhere. Large companies, especially high added-value processors have extensively pursued this option using supplies from Iceland or further afield. Imports of Icelandic fish into Hull had benefitted companies in both Hull and Grimsby. Job losses in processors in these ports may therefore be due to factors other than just supply. For example, the potential loss of 1000 jobs in a major processor in Grimsby had been driven by the restructuring aims of the international holding company involved. However, supply issues would necessarily figure in the restructuring plans.

8.6.5 Not all companies have successfully substituted for local supplies. Some have been constrained by high prices, others especially those processing fresh fish, have not been able or willing to source elsewhere in the UK, let alone imports, or over a period of time have not been able to find the required species. Such companies, identified in all regions, have then either ceased to trade or have reduced operations. The possible job losses are difficult to identify because of the generally small size of the companies affected. Anecdotal evidence suggests that although facing diminishing activity and profitability many such companies will only cease trading on the retirement of their owner. Nonetheless a loss of jobs will have contributed to unemployment in areas such as Cornwall and Fleetwood.

8.6.7 The foregoing discussion shows that supply shortages have resulted in job losses, particularly around those ports traditionally dependent upon local supplies, such as those in the South West, the North West and North region. However as with the fishing fleet this has been only one of several factors involved. The contexture of phenomena is such that it is impossible to wholly disaggregate the cause and effects. For example rising operational costs in particular were reported to be a major issue, but in part such increases in costs may be attributable to the shortfall in raw material supplies. Similarly the socio-economic effects of loss of employment in the processing industry cannot be apportioned wholly to supply issues, and hence to the CFP; but again each, inter alia, has contributed to these losses.

8.7. Changes and Effects of the CFP upon the Ancillary and Support Industry

8.7.1 Changes in the ancillary and support industry might also affect the social and economic characteristics of areas and communities dependent upon the fisheries industry. The reduction in demand from the fishing fleet and processing

companies can be expected to have resulted to a certain extent in job losses, company closures and depressed profitability and earnings. These would tend be more pronounced in those local service and small manufacturing companies having a high dependency on the fishing sector. Such effects have been observable, but for the reasons mentioned previously it is difficult to determine the relative importance of the effects of the CFP, or quantify job losses.

8.7.2 The observable changes which have occurred in the support industry up to 1991 can be attributed to a range of causes. Reduced levels of investment and expenditure on maintenance and repairs have been to the detriment of the ancillary and support companies supplying the fishing fleet. Again, reduced fish stocks and rising operational costs have contributed to the economic pressures on the fleet, and although not wholly, are in part attributable to the failure of CFP. Whilst companies may have faced reduced demand from the fisheries industry, some have successfully diversified. The effects of the current recession also cannot be ruled out, and this has been more of an issue for processing industry support companies. Consequently whilst the CFP must have had some effect upon the ancillary and support industry its importance as a single factor is not readily quantifiable.

8.8. Conclusions

8.8.1 The CFP has had some effect on the employees, communities and areas in England and Wales dependent upon the fishery sector, both through loss of jobs and through the impoverishment of the fishing fleet. The CFP has acted on the industry primarily via the operation of the quotas regime. But it is through the economic and social implications of these biological reductions that the fuller impact of the CFP has become manifest. Other related factors have also affected the industry, including the continued decline in fish stocks and a rise in operating costs, and limited increases in real revenues.

8.8.2 It may be argued that the most important impact of the CFP on the fisheries industry may lie in terms of what it has failed to do rather than what it has done. It has failed to resolve issues of overfishing, overcapacity, stabilization and availability of supplies, the creation of a modern efficient and productive English and Welsh fishing fleet, and to ensure a fair standard of living for the individuals, families and communities dependent upon the industry. The future prospects are very poor if the issues of overfishing and overcapacity are not resolved.

9. FUTURE EFFECTS OF THE COMMON FISHERIES POLICY

9.1 Introduction

9.1.1 The objective of this chapter is to assess future changes in the English and Welsh fisheries industry, and to determine how potential developments in CFP measures may take effect. The present state of the English and Welsh fisheries industry suggests that changes which further reduce catching opportunities and fish supplies will have economic and social effects for employees, communities and areas dependent upon the industry. A range of policy approaches might be considered, and these would act within a wider range of external trends. The effectiveness of specific measures would also depend on the response of decision-takers within the industry, their perception of the measure concerned, and its role within their own operating strategies.

9.2 The Need for Further Action

9.2.1 The 1991 Report on the Common Fisheries Policy[1] noted that in order for the CFP to achieve its objectives pursuant to Article 38 of the Treaty, a balance was necessary between fishing resources available and fishing fleets and capacities. However with decreasing fish stocks, it is impossible to achieve simultaneously the objectives of "increases in productivity, a fair standard of living for those dependent on fishing, market stability, security of supply and reasonable prices for consumers." Furthermore the Report of the Group of Independent Experts[2] of November 1990 makes it clear that a balance between fish stocks and European fishing fleets has not been achieved. It estimated that over the longer term, the European fleet would have to be reduced by as much as 40% to achieve the desired balance between capacity and resources.

9.2.2 Analysis of the English and Welsh fisheries industry shows that the processing sector, and to a lesser extent the ancillary and support industries, have undergone rationalisation and restructuring. Whilst it remains to be seen what further changes may yet come about in these sectors, it is certainly the case that further downward adjustment of the fleet capacity will be required. Substantial change has occurred with respect to fishing opportunities and fishing practices, the depressed profitability of many vessels, the impoverished state of earnings and working conditions, and limited investment in the industry point to widespread problems. It is most unlikely that the fleet can hope to be profitable in its present form and size, given the reduced fishing opportunities and widely acknowledged overcapacity.

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1 Report 1991 from The Commission to the Council and the European Parliament on the Common Fisheries Policy.

2 Report of an Independent Group of Experts on Guidelines for the Preparation of Multiannual Guidance Programmes in relation to the Fishing Fleet for the period 1992-1996. 19/11/1990

9.2.3 If a modern, efficient and more profitable fleet is to emerge, the industry will need to undergo extensive rationalization. Capacity will need to be reduced over the long term, and efficiency and flexibility be increased through new investment. Clearly while this could improve the longer term prospects, a cut in the size of the fishing fleet and its landings will in the short term adversely affect employees, communities and dependent areas.

9.3. Future Change in the Fishing Fleet

9.3.1 The desired balance between capacity and stocks would only be achieved via a mix of policies to conserve fish stocks and a programme to decommission vessels, permanently removing them from the fleet. Market forces have done little to achieve the required changes in the past decade. Vessels have withdrawn from the fleet, but it can be argued that aggregate capacity has not been sufficiently reduced. Moreover, uncertainty and lack of confidence has not encouraged the investment necessary to create a modern fleet.

9.3.2 In early 1992 the UK Government announced that it was to introduce a range of measures to achieve a better balance between the capacity of the UK fleet and the fishing opportunities made available in line with the objectives of the 1992-1996 Multi-Annual Guidance Programme. These measures are aimed at reducing the size, capacity and fishing effort of the English and Welsh fishing fleet so bringing it in line with the resources available.

9.3.3 The quota system would continue to operate as the fundamental means of managing fish stocks in spite of reservations concerning its conservation effectiveness. A further reduction in quotas can be expected and hence a reduction in the opportunities for vessels and ports dependent upon these, including a significant proportion of those in England and Wales. Various non-quota species may also be introduced into the quota regime, thereby further contracting the total opportunity.

9.3.5 The operation of these measures will be a component of the CFP, but will accompany other non-CFP factors including market issues of demand and supply, competition and rationalisation. The CFP will however define to a large degree the framework within which the fishing fleet must operate profitably. Profitability will depend upon efficiency and productivity, and upon controlling operating cost. Demand and price will also affect viability: a failure of quayside prices to rise in line with costs will reduce future profitability. This in turn will affect investment, whether external or from within the industry.

9.3.6 These changes will in turn link through to other parts of the fishery sector. Supply through the aquaculture sector may respond to catch deficits, either by direct substitution, or more commonly through providing alternative species. The potential for this will be subject to prices satisfying production costs within the sector. In spite of alternatives through importing or through diversification, the processing sector will continue to be dependent to varying degrees on the catching sector; its longer-term profitability, heavily dependent on security of supply, will

in turn bear on the workable margins between ex-vessel prices and onward sales, increasingly dominated by the multiple retail sector.

9.4 Possible Future Responses to the CFP by the Fishing Fleet

9.4.1 The effectiveness of the future CFP measures in achieving the desired changes in the English and Welsh fishing fleet will depend upon the perceptions of the owners of the vessels regarding the attractiveness of decommissioning and other programmes, and on the effect of the quota regime on fishing opportunities.

9.4.2 Our survey suggests that the overall perception of skippers is of considerable pessimism for the future of the fleet. A mix of falling fish stocks, increased competition for these from non-UK vessels, overcapacity in the existing fleet and rising operational costs reflect fears that catches will fall further in the next few years, and that earnings and profitability will be further reduced. However, many skippers wish to see a cut in the size of the fleet together with investment to improve efficiency, productivity and competitive position. The survey shows that the CFP ranks a close third as an issue causing concern, only slightly less important than overcapacity and increasing operational costs. Particular note was made of the quota regime and its management, which skippers view as meaningless if fish do not exist or are fished out by other fleets.

9.4.3 Opportunities are seen to exist, but are limited in comparison to constraints. Future market demand is not considered to be a limitation, and future prices of fish, both in England and Wales and in the EC in general offer the few optimistic outlooks. Increases in fish prices may to some extent help offset reduced catches and rising operational costs.

9.4.4 Skippers must respond to these threats if they are to remain in operation. However, the low profitability, the age of vessels, and adaptations and adjustments forced in the past may limit future scope. The survey shows a low level of positive response to specific actions, underlining the limited real options for the majority of respondents. Further cuts in costs are not an option for many vessels. Crew numbers have been reduced, wages are at a low level and maintenance and repairs are already being foregone. Vessels already fish most grounds available to them; although 38% will attempt to seek fish in other areas, it is questionable how successful they will be.

9.4.5 Improving earnings by landing in mainland Europe is possible, but many have already adopted this where it has been feasible. Increased frequency of landings might be made, but with improved distribution, it is questionable how much premium will be available in the future, not to mention the viability of incurring additional costs in extra steaming time. Investing in vessels and gear, increasing fishing intensity and productivity, is not necessarily feasible for many vessels. A further response might be to supplement earnings from elsewhere. 40% of skippers surveyed stated that they would seek other marine work, and just over half might try work on shore. It is questionable how successful this would be,

especially in a recession, when other marine work appears to be declining, and when flexible access to short-term or seasonal work might be limited.

9.4.6 Not every skipper can react in the ways described above, and not all skippers and crew who wish to remain in the industry will be able to do so. Nevertheless the commitment to the industry should not be underestimated, especially in areas where there are few alternative economic opportunities. If the size of the fishing fleet is to be reduced positive steps must be taken to provide alternative economic opportunities.

9.4.7 The operation of a decommissioning programme and measures to assist in realising alternative economic opportunities may help achieve some changes. The survey shows that half of the skippers would look favourably upon an early retirement scheme where pre-pension arrangements were available. This applies especially to older skippers. Alternative measures such as help with establishing a business or becoming self-employed, and the availability of suitable employment on shore would also be viewed favourably, and might assist in encouraging fishermen to leave the industry. Assistance with re-training is viewed with a great deal of scepticism; an unattractive option for which demand would be low.

9.4.8 The recently announced decommissioning programme was given a qualified welcome by fishermen, its success depends upon the incentives offered. Cuts will only be achieved by encouraging skippers/owners to leave the industry; redundancy cannot be enforced. The programme must be attractive if vessels are to be withdrawn. Financial incentives will be needed to cover all debts, the capital value of the vessel, a means of setting up a new business if appropriate or providing a retirement income and the provision of compensation to crew members who lose jobs. Where incentives are insufficient, desired reductions may not be achieved. Fishing vessels represent a means of earning a living which no matter how small, is more attractive than unemployment.

9.5 Changes in the Processing Industry

9.5.1 Losses of companies and jobs in the English and Welsh processing industry can be expected in response to a series of factors including stricter hygiene regulations, rising operational costs, uncertain supplies of fish and a general increase in competition. The rationalisation and restructuring in the industry observed in the 1980s will continue as supply characteristics change, as market and distribution changes occur and as productivity and efficiency rise. The industry may become more dichotomous with widely sourced large and medium companies serving national and international markets and smaller companies sourcing from local landings, serving regional and niche markets.

9.5.3 The impact of the CFP upon the supply of fish to the processing industry could be expected both via further cuts in quotas and via the structural objectives of cutting vessel numbers and fleet capacity. A reduction in quota allocations will reduce the amount of fish landed in England and Wales and be available for use by the processing industry. There may also be changes in the locational

distribution of landings. Even without quota reductions, cuts in fleet size and capacity may reduce landings if remaining vessels do not increase catches to compensate for catches "lost" as vessels leave the fleet. Although average catches per vessel should rise in response to greater opportunities for remaining vessels, this may not be fully compensated because of limited individual capacity, or a less than perfect ability to locate catchable fish.

9.5.4 The impact of smaller landings of fish in England and Wales may be offset by substitution with imports, or by wider access to aquaculture products. However, these options are restricted by a range of market preferences. There is also the question of how much further demand can be satisfied by imports. The growing problem of scarcity occurs in most other EC waters, and increasingly elsewhere. Even where fish is available, companies will face increased competition on the international market. Even if supplies remain stable, competition can be expected to rise as the EC processing industry as a whole seeks more supplies. It is clear that substitution of locally landed fish will not resolve all supply issues facing the processing sector.

9.5.5 A further reduction in size of the English and Welsh processing industry will affect those employees, communities and areas dependent upon the industry. Rising unemployment, loss of earnings and other effects can be expected. The extent to which these are longer term changes depends upon alternative economic employment opportunities available and the willingness and capability of redundant employees to take advantage of these opportunities.

9.6 Changes in the Ancillary and Support Industry

9.6.1 Further loss of employment in the ancillary and support industry will result from the continuing loss of orders and custom by the fishing fleet and processing industry, increased productivity, and limited opportunities to diversify. Specialist suppliers, or those which have not already diversified, may find reductions in the fleet and its activity to be a principal cause of employment loss. However, this may not be as great as expected. Orders from the fleet are depressed by low profitability, and if this increases demand may rise. If restructuring is accompanied by greater investment in the form of new vessels or in modernizing existing vessels, opportunities for this sector may rise. If vessels work harder, average operating inputs may increase, in spite of improved overall efficiency. These potential gains may at least help to offset further losses of employment.

9.6.2 Capital and operating inputs to the processing industry will only rise as output increases in terms of weight and/or value of products, subject to changes in efficiency and input ratios. Any resulting increase in inputs required will benefit the ancillary and support companies supplying these. By corollary, lower output levels will result in reduced orders and lower employment. However, as output is unlikely to decline dramatically, and the ancillary and support companies are rarely highly dependent upon the processing industry, there may not be substantial effects from changes arising in the CFP.

9.6.3 The support sector for the aquaculture industry is only rarely specialised, as the industry tends to draw materials and consumables from a wide range of generalist suppliers. Where traditional fishery suppliers are involved, this sector may offer a continuing, useful but not substantial, supplementary demand. Although the sector may be positively stimulated by longer-term demand arising from shortfalls from the catching sector, the effects of this on the fishery ancillary and support sector are not likely to be significant.

9.7 Conclusion

9.7.1 A series of factors including the CFP will operate in the next five years to reduce the size of the fisheries industry in England and Wales. Reductions in the size and capacity of the fishing fleet are necessary if a balance between fleet and fishing opportunities is to be achieved, and if the prospects and profitability of remaining vessels are to improve. Although it is questionable how this will be achieved, jobs will be lost. Similarly, an intensification of competition in the processing industry and potential supply constraints will act to reduce employment if not output.

9.7.2 The longer term impact of change in the fisheries industry on individuals, families and communities will depend on the ability to generate alternative economic and employment opportunities. Whilst some scope may exist for ancillary and support industries to diversify into other markets, and also for processing companies to move into other food activities, the opportunities for the alternative use of fishing vessels is limited. Any attempt at diversification will require assistance, with measures to create economic and employment regeneration opportunities.

10. POLICY RESPONSES

10.1 Introduction

10.1.1 This section examines possible policy responses to the job losses expected to arise in the 23 fishery areas as a consequence of the expected decline in the fishing industry. It deals with the more general responses needed to allow communities to redeploy their skills in the face of wider scale job losses. The importance of decommissioning schemes in providing effective "escape routes" has already been discussed; key factors include the realisation of investment, the funding of retirement for older skippers and crews, and the provision of at least a modicum of financial means to enable individuals and their families to cope with change.

10.1.2 The size and nature of these potential job losses in the context of the of their respective local economies has been discussed in Chapter 7. For all 23 areas the dependency ratios are not high by the standards of losses of geographically concentrated jobs in, say, the iron and steel industry or the shipbuilding industry. Grimsby has the highest dependency ratio of about 9% but many of the 23 fishery areas have dependency ratios of less than 1% - including not only jobs in fishing itself but in related jobs in fish processing and ancillary trades.

10.1.3 Externally-imposed reductions in the scale of fishery activities would not reduce dependency ratios overnight. The decline may take several years and even then some dependency will continue to the extent that fishing will be carried out within the EC quota limited species and for the catching of non-quota species. After allowing for early retirement and some redevelopment through normal market processes, the impact on employment rates is likely to be very small in many of the 23 areas, and in some cases only a fraction of one percentage point. In cold quantitative, though somewhat simplistic, terms the likely problems are modest and far from unprecedented.

10.1.4 In qualitative terms the consequences of fishery decline will be substantial, and may warrant more sophisticated quantitative assessment. Fishing communities, though now small in many locations, have a long tradition and have maintained a pronounced, independent social and cultural identity. These communities do not take easily to redeployment. Furthermore in many local areas, long term unemployment is already high for other reasons and the decline of fishing will increase this. Male unemployment in the 35-45 year age groups will be particularly prevalent and in ports with sparse rural hinterlands there will be a significant loss of purchasing power leading to increased net outward migration, a break-up of local communities and cultural vigour and in some cases a deterioration of image and increased demoralisation and physical dereliction.

10.1.5 Policy responses to the expected decline in fishing and related activities need to be on the agenda to tackle these acute but localised consequences. Although perhaps modest relative to policy initiatives, responses need to be tailored,

targeted and implemented so as to meet the precise needs of those groups primarily affected.

10.2 Types of policy response

10.2.1 One type of broad policy response would aim to improve the infrastructure, environment and image of these areas in the hope that this would generate growth and diversification in the private sector. This might in turn increase employment opportunities for people being released from the fishing industry.

10.2.2 The problems and limitations with this approach are:-

- infrastructure improvements sufficient to markedly increase private sector competitiveness and attract new firms would have a high public sector cost and may take some years to implement.
- there is no guarantee that firms would respond to improvements in infrastructure.
- benefits in terms of increased employment opportunities, if and when they emerged, would not necessarily accrue to redundant fishermen.

10.2.3 A second type of policy would aim to create business expansion and growth in a more diversified local economy in more direct ways through the creation of business parks and premises and the provision of financial inducements to expanding and incoming firms. This would be done to enhance alternative employment opportunities for redundant fishermen.

10.2.4 The problems with this approach are:-

- many of the local areas concerned are in remote, peripheral areas which are not suitable locations for many types of economic activity.
- other fishing communities are in or near to large cities and towns and to offer financial inducements in these areas could have a high public sector cost.
- over half the 23 local fishery areas are situated in existing Assisted Areas which already qualify for Regional Selective Assistance.
- the increased employment opportunities will not be targeted at redundant fishermen and any "trickle down" effects on redeployment of fishing communities might be quite small.

10.2.5 The third type of policy response is to tackle the problem in a more targeted way - by working with the individuals concerned to assist them to diversify within the marine industry, or to find alternative employment. The approach would be based on individual needs and aspirations. Some may still wish to diversify

within or around the fishing industry, while others may identify opportunities away from the industry, either becoming self employed or in starting up small businesses. In each case advice and financial assistance may be required to make this possible. Others may require training in specific skills, and projects could be established to give training in these. In larger towns, customised training projects linked to the specific recruitment needs of larger employers may be appropriate. Yet others may require assistance with early retirement.

10.2.6 Potential problems with this kind of approach are:-

- redundant fishermen, process or ancillary workers may not spontaneously take up any offers of this kind; incentives or a "hands-on" or outreach approach might well be necessary.

- the potential for diversification or business start-ups may be limited within the areas concerned, by the presence of existing businesses and/or depressed local demand in areas of higher unemployment.

- in some areas training will not lead to jobs because there are simply insufficient employment opportunities for the area as a whole. If redundant fishery sector workers do get jobs they will merely displace others who would then become unemployed.

- jobs which are available may be considered inappropriate for former fishing industry workers.

10.2.7 It is unlikely that any one of these three broad policy responses would satisfactorily address the problem of declining fishing areas on its own. In some areas all three policy responses may have a part to play. In the smaller more remote local areas the appropriate balance of policy response might be to both encourage business growth and address the training and enterprise needs of redundant fishermen and if possible to link the two via customised training initiatives. In larger towns and cities which already have a diversified economic base and a reasonably buoyant labour market more emphasis might need to be placed on the third type of policy response which aims to meet the small business and training needs of the fishing community.

10.3 Earlier Assistance to the Industry; Hull, Grimsby and Fleetwood, 1986 to 1989.

10.3.1 Assistance to the fishing industry in England and Wales has previously been limited to a scheme of assistance to three larger ports - Hull, Grimsby and Fleetwood which was made available under Council Regulation No. 3638/85, 17 December 1985, between 1986 and 1989. The overall cost of this scheme was £26 million spread over the five year period.

10.3.2 This took the form of the first two broad types of assistance outlined in section 10.2, namely assistance with infrastructure and business growth including the development of tourism activities. Matched funding was required for this

assistance. This caused problems for Grimsby and Fleetwood where it was difficult to find. In all three areas the scheme was used amongst other things to develop museums and other heritage attractions in an attempt to raise tourism activity in these areas and to broaden the base of the economy.

10.3.3 This initiative has not been subject to detailed evaluation of costs and benefits, or of the incidence of benefits. However, interviews at ports undertaken for this project suggest that many of the direct employment and other benefits did not accrue to those being declared redundant from the fishing industry. If this is the case the main deficiency appeared to be the scheme's failure to target specifically on the problems of groups directly affected by the decline in fishing. No doubt there were some "trickle down" effects, but there is no evidence to suggest that these were other than very small.

10.4 Policy Recommendations for the 1990s

10.4.1 Our main recommendation is that a scheme of assistance is warranted for local areas experiencing a rapid decline in fishery related activities in the 1990s. This might not adopt the ambitious objective of tackling all affected localities but should be geographically selective and closely targeted on the specific needs of those being made redundant in areas of high local impact. The numbers of redundant fishermen may not be all that large, compared with historical job losses in fishing and other economic sectors which have suffered long term structural decline. Nevertheless some local areas already have serious problems, and the concentrations of likely fishing redundancies would require a targeted initiative.

10.4.2 Of the 23 local fishing areas studied, several were distinguished on the basis of large numbers of possible job losses and/or relative importance of job losses in economically small zones. The case for assistance is strongest in two types of areas:-

- Highly rural and remote peripheral areas such as Cornwall, West and North Wales, Northumbria and parts of Yorkshire and Humberside. Of the 23 zones these include Newlyn, Milford Haven, Holyhead, Amble and Whitby. Scarborough and Bridlington and Whitehaven could be included, but these are marginal. Zones additional to the 23 may also need to be considered on the above criteria.

- The larger fishing ports, in large or peripheral urban areas such as Lowestoft, Fleetwood, Hull, Grimsby, North Shields, Brixham and Plymouth some of which are already in Assisted Areas (Objective 2 regions) for purposes of ERDF and ESF.

Using criteria based on these two groupings a new policy initiative might be targeted on only 16 of the 23 local areas listed in table 2.3. Those excluded would be along the East Anglian and South Coasts of England. Of the 16 areas suggested, eleven are in existing Assisted Areas and five are not.

10.4.3 It is difficult to justify including the remaining zones (of the 23 studied) in any Objective 6 areas designated by the EC. Weymouth, Poole, Hastings, Portsmouth and Kings Lynn are not highly dependent upon fisheries and would not see significant job losses. They are located in East Anglia, the South West and South East regions, which over the past three decades have been amongst the fastest growing in the UK. Notwithstanding the recent economic downturn, unemployment is still low compared to the national average, and all could expect to cope with any changes caused by the CFP. By contrast, Blyth, Sunderland and Hartlepool have significant problems resulting from the decline of other industries. Though not highly dependent upon the fisheries industry, and unlikely to experience substantial job losses, so great are these problems locally that some additional support might be justified, if only to arrest further decline and demoralisation.

10.4.4 Whilst the designated areas for assistance might be quite large and based on Travel to Work Areas, it is important that delivery of assistance is undertaken at the local level, where the needs of local concentrations of redundant workers can best be identified. This suggests that local authorities should play an important role in making individual applications for assistance, as was the case with the previous fishery assistance initiative for Hull, Grimsby and Fleetwood.

10.4.5 A relatively new policy dimension in England and Wales is the establishment of locally based Training and Enterprise Councils. These private sector led bodies are charged with meeting the training and enterprise needs of client groups within their local areas. They administer the Government's youth training and employment training schemes and have some funding for addressing special needs within their areas. In the context of developing a policy initiative for declining fishery areas the TECs should have a central role to play because of their expertise in delivering training and enterprise assistance to particular local client groups, often related to the recruitment needs of local employers.

10.4.6 Since we are also urging that any new fishery assistance policy initiatives should correct the main faults of the previous one and change the balance of assistance significantly away from infrastructure improvements towards specific projects for the retraining of fishermen (including assistance in becoming self-employed or starting up small businesses), it is important that TECs are heavily involved in the new policy initiative. Their involvement should be secured at the early stage of preparing the local case for assistance as well as in the later stages of implementation. A partnership approach between the local authority and the Training and Enterprise Council matching ERDF or ESF funding would probably be the preferred option.

10.4.7 Given the range of localities involved, their varied physical, social and economic characteristics, and the targeted nature of the support we propose, it would not be relevant to discuss specific areas in which alternative employment could be identified. However, most local authorities have already carried out a wide range of skill surveys, opportunity studies and feasibility assessments, and would be reasonably well placed to identify the more promising potential within and around the communities they serve.