1. Decommissioning in the UK context

1.1 Introduction

1. As part of an overall commitment to reduce fishing capacity, and by implication effort, in the European Union fleet, the UK Government introduced a decommissioning scheme in 1993. This followed a period where decommissioning had not been in operation as a policy tool. This was a consequence of heavy criticism from the Public Accounts Committee of the House of Commons Review which had concluded that the 1983 - 86 scheme "was grossly expensive for what it achieved". It should be noted that decommissioning schemes have formed a central part of other member states' policy commitment to the European Union to reduce capacity in their own fleets.

2. The UK sought to reach its fleet capacity reduction targets as agreed under MAGP II (an overall reduction of 7 per cent in tonnage and 5 per cent in engine power), through the operation of natural wastage. However, the fleet expanded and the UK failed to reach its MAGP II targets by 11 per cent. The shortfall was carried forward to the MAGP III scheme under which the UK was required to achieve an overall reduction of 19 per cent in GRT and engine power.

3. This figure is, however, currently under review as preparatory work for the next MAGP (MAGP IV) has revealed anomalies in the underlying calculations. These relate to inconsistencies in fleet tonnage measurements, discrepancies between the UK and EU registers of fishing vessels, and a re-appraisal of the fleet segments. An examination of these discrepancies is outwith the remit of this report.

4. The MAGP objectives are set in terms of tonnage and engine power for pre-defined segments. The basis for segmentation is linked to the requirement to reduce fishing effort in certain categories of fishing vessels, defined according to the pressure on the key target species (Appendix 1.1). Each member state is required to set its own segments linked to the definitions stipulated by the European Commission. These segments, or any adjustment to them, have to be approved by the Commission.

5. The UK has defined 10 segments:

- pelagic purse seine / freezer trawlers (largely targeting herring and mackerel)
- demersal trawl / seine (largely targeting cod, haddock, whiting and hake)
- beam trawl (largely targeting plaice, sole and megrim)
- nephrops trawl (targeting *Nephrops norvegicus* but with a by catch of gadoids)
- nets and lines (largely targeting cod, hake and monkfish)
- shellfish mobile (predominantly scallop dredge and shrimp trawl)
- shellfish static (potters / creel fishermen)
- distant water trawlers (fishing predominantly in zones outwith UK waters such as in North Norway, Greenland and Svalbard)
- non active / non TAC vessels
- under 10 m vessels

6. The targets for these segments are a 20 per cent reduction in fishing capacity for those vessels using bottom trawls, a 15 per cent reduction for those vessels using beam trawls to fish for 'benthic' stocks, and no increase in any other segment. The targets were applied equally to segment tonnage and engine power. The segments were identified by the predominant fishing method in any one year. This examined the days fished by each method.

7. Whilst the foundation for the 1992 scheme had been laid down by successive elements of Community legislation, meeting these targets by the end of 1996 became mandatory by virtue of Council Regulation 94/15. The UK introduced a package of measures to implement this Regulation. The overall fleet target required a reduction in tonnage and engine power equivalent to 10.5 per cent and activity reductions equivalent to 8.5 per cent of fleet capacity (tonnage and power).

8. The four elements of the package comprised the following:

a) Decommissioning schemes involving expenditure of £25 m divided equally over three years. The target was to reduce fleet tonnage and engine power by 6 per cent

b) Limitations on days at sea whereby fishing effort was to be frozen in 1993 at its 1991 level. This was to be followed in 1994 to 1996 by a sufficient reduction in days at sea to meet the 8.5 per cent target set (this element has not been applied to date)

c) Rules governing the transfer of vessel licences were to be amended to increase the penalty for licence aggregation and to include penalties to other forms of licence transfers

d) Restrictive licensing was introduced for vessels of 10 m and under in length, in order to freeze the size of this segment

9. An additional £28 M was set aside in January 1995 for a two-year extension of the decommissioning scheme.

10. The latter three elements of policy are outwith the scope of our study but will be referred to where there is a direct correlation in policy terms to any of these other elements. The most significant influence on the operations of the fleet has undoubtedly been the introduction of a restrictive licensing regime in May 1990. For vessels in excess of 10 m, the changes can be broken down as follows:

- the introduction of restrictions for the aggregation of licences as from 5 April 1990 and subsequent changes which increased penalties on the transfer of licences to 20 per cent in 1992, and 30 per cent (December 1994) when involving three or more vessels

- revision of the rules on licence aggregation (February 1996), whereby neither the gross tonnage nor the engine power of a vessel onto which one or more licences are transferred or aggregated will be allowed to exceed the combined total tonnage and combined total power of vessels from which the licences were transferred. This restriction was intended to prevent an increase in tonnage occurring at the expense of engine size

- the removal in July 1993 of the ability to retain licence entitlements without actually attaching these to vessels

- the simplification of the rules on licences in 1995 into three basic categories (A, B and C)

- the attachment of quota (track records) to licences in 1995

- separate rules for the application of licence aggregations in the pelagic sector entitled them to supplement licence units from whitefish vessels in order to increase capacity in the pelagic sector.

11. During this period there were other minor adjustments to the licensing regime aimed at preventing expansion in particular groups / segments. One such adjustment was the establishment of a separate licence for North Sea beam trawlers (July 1992) which included additional restrictions on aggregation (such as limiting aggregations up until 1994 December 1994, and restricting engine sizes to no more than 1500 kW).

1.2 Operational characteristics of the UK decommissioning scheme.

12. The UK decommissioning scheme operates on the basis of competitive tendering, whereby vessel owners submit a value per Vessel Capacity Unit (VCU) at which they are prepared to decommission their vessels and surrender their fishing licences. Each vessel has a value which is calculated on the basis of (length) x (breadth) + (0.45 x engine power). Bids are ranked in ascending order in terms of £/ VCU and bids are accepted up to the point where Ministers agree that the tenders represent good value for taxpayers' money. Successful applicants are paid the amount they bid. Applicants are also required to satisfy a number of qualification conditions (Appendix 1.2). These stipulate that the vessel:

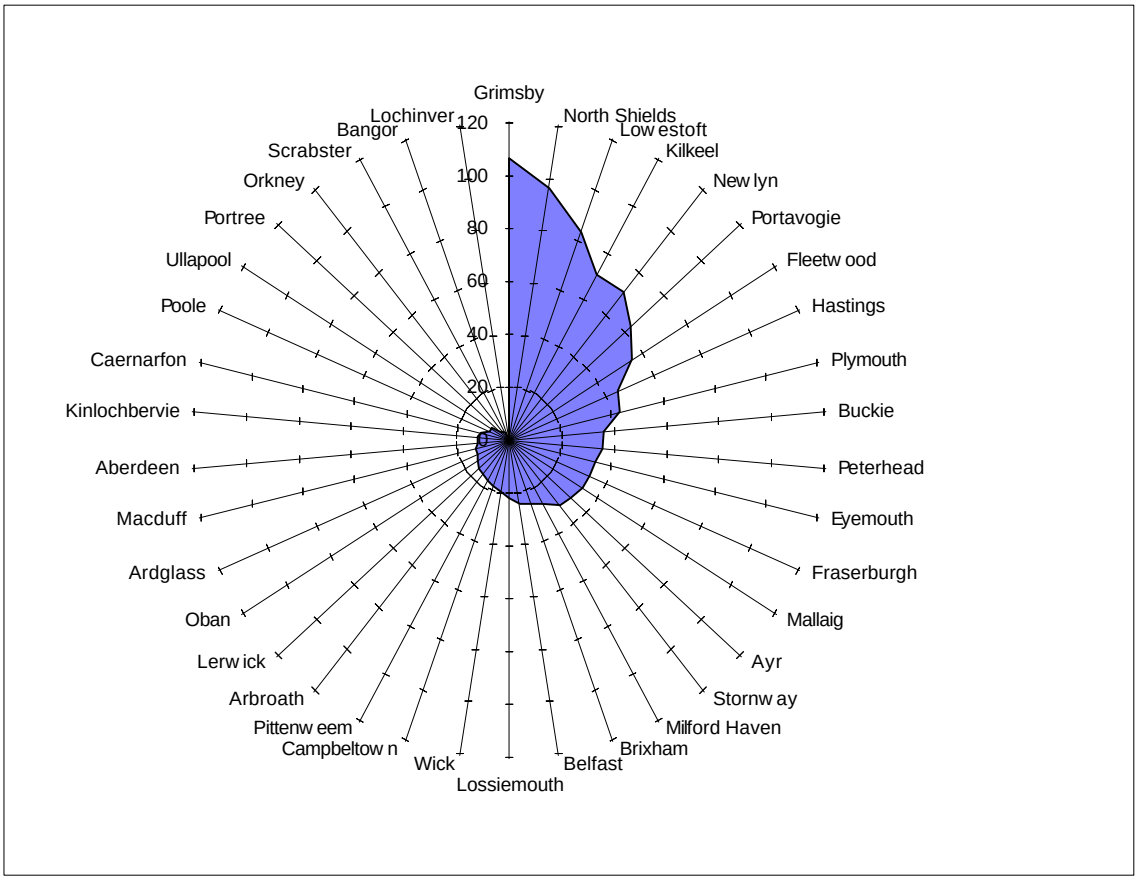
- has been at sea in the two preceding years for at least 100 days per annum (relaxed to 75 days in 1996)
- has a Certificate of Registry and a Qualified Safety Certificate for vessels in excess of 12 m in length
- is in excess of 10 years of age
- is excluded from the scheme for certain categories of vessels (set according to whether vessels had met with the specific set MAGP targets)
- is disqualified from application if successful and subsequently withdrawing the bid in the preceding tranche

13. The scheme was administered centrally by MAFF in London with support assistance from the other UK Fishery Departments both at the central offices in Edinburgh, Belfast and Cardiff and at port level by the District Inspectors.

1.3 Trends in decommissioning

14. There have been four schemes to date. Over this period there have been 1,408 applications. These applications include: 582 from England, 411 from Scotland, 200 from N. Ireland, and 27 from Wales. 49 per cent (689) of these applications were repeat applications. For the years 1993, 1994, 1995 and 1996, the schemes attracted 331, 431, 203, and 255 eligible applications respectively. During these years a total of 187 applications were ineligible and two vessels sank. The number of vessels decommissioned totalled 578. The number of applications withdrawn totalled 71 (10 in 1993, 10 in 1994, 26 in 1995 and 25 in 1996). The numbers of unsuccessful applications were 186 in 1993, 259 in 1994, 38 in 1995 and 88 in 1996. The average £/ VCU of successful applicants was £332, £346, £436 and £536 respectively by tranche. Figure 1.1 illustrates the spread of applications amongst the fishing ports / districts.

Figure 1.1: Distribution of eligible applications for decommissioning, 1993 - 1996.



Source: MAFF

15. The detailed distribution of applications by port / district are shown in Appendix 1.3. These are divided into groups of applicants who were successful, unsuccessful or chose to withdraw.

16. Regional distribution is summarised in Tables 1.1.1(successful), 1.1.2 (unsuccessful), and 1.1.3 (withdrawn). The rationale for the regional selection shown in the tables takes account of the key fishing areas and similarities in the composition of the fleets in the various sub regions. The main regions are:

- East Scotland: east and north east coast of Scotland - *Eyemouth to Lossiemouth and Shetland, covering vessels fishing primarily in the North Sea and West of Scotland grounds*
- Highlands and West Scotland: *North and North West coast of Scotland - Wick to Troon and including the Western Isles, covering vessels fishing almost exclusively off the west coast of Scotland*
- Northern Ireland, *covering vessels fishing in the Irish Sea*
- Wales, *covering vessels fishing in the Irish Sea, Bristol Channel, Celtic Sea and Western Approaches*
- North West England - *Fleetwood to the Solway Firth, covering vessels fishing almost exclusively in the Irish Sea*
- Southern England: *south west and south coast of England - Bristol to Kent, covering vessels fishing almost exclusively in The English Channel, Celtic Sea and Western Approaches*
- East and north east coast of England - *Lowestoft to North Shields, covering vessels fishing almost exclusively in the North Sea*

Table 1.1.1: Distribution of successful applications by region, 1993- 1996

Region	*1993*	*1994*	*1995*	*1996*	*Total*
Eastern Scotland	32	24	14	21	91
Highlands and Western Scotland	13	26	23	24	86
Northern Ireland	28	15	10	16	69
North West England	10	9	4	12	35
Wales		5	8	5	18
Southern England	17	36	34	26	113
Eastern England	35	47	46	38	166
Total	**135**	**162**	**139**	**142**	**578**

Table 1.1.2: Distribution of unsuccessful applications by region, 1993- 1996

Region	*1993*	*1994*	*1995*	*1996*	*Total*
Eastern Scotland	48	51	8	15	122
Highlands and Western Scotland	30	41	3	15	89
Northern Ireland	27	61	8	29	125
North West England	7	8		2	17
Wales	1	3	2	3	9
Southern England	29	38	10	15	92
Eastern England	44	57	7	9	117
Total	**186**	**259**	**38**	**88**	**571**

Table 1.1.3: Distribution of withdrawn applications by region, 1993-1996

Region	*1993*	*1994*	*1995*	*1996*	*Total*
Eastern Scotland	3	1	6	6	16
Highlands and Western Scotland	0	1		6	7
Northern Ireland	1	0	2	3	6
North West England	0	2	1		3
Wales	0				0
Southern England	0		8	3	11
Eastern England	6	6	9	7	28
Total	**10**	**10**	**26**	**25**	**71**

Source: MAFF

17. On a district-by-district basis, the areas with the highest rate were:

In England:

- North Shields, where a total of 66 vessels were decommissioned, and where a large number of nephrops vessels applied together with some medium sized and small-scale (cobble) demersal trawlers / seiners

- The Grimsby district (including Grimsby northwards to the port of Whitby), with a total of 56 successful applications, mostly from the port of Grimsby (rather than to the outlying ports of Bridlington, Scarborough and Whitby), where a large number of anchor seiners and smaller-sized trawlers applied

- Newlyn, with 39 decommissioned vessels, and where a number of small demersal trawl / seine net and gill net vessels applied

- Fleetwood, with 35 decommissioned vessels, and where a large number of demersal trawlers applied. These vessels were registered mainly in the port of Fleetwood, but applications from the outlying ports of Whitehaven and Maryport were also significant

- Lowestoft, with 44 decommissioned vessels, associated with a significant reduction in beam trawl (large and small) capacity as well as some demersal trawlers

In Northern Ireland:

- Kilkeel (30 decommissioned vessels) and Portavogie (29), linked primarily to the decommissioning of nephrops trawl vessels

in Scotland:

- Stornoway, with 25 decommissioned vessels, linked primarily to nephrops trawlers, demersal trawlers and some small-scale shellfish (mobile and fixed) vessels

- Ayr, with 17 decommissioned vessels, linked primarily to the reduction in both demersal trawl and nephrops trawl vessels

- Eyemouth, with 17 decommissioned vessels, most of which were active in the nephrops trawl sector

18. North East Scotland did not feature highly amongst the number of successful applications. Nevertheless Lossiemouth and Buckie, decommissioning 14 and 15 vessels respectively, accounted for more than half of the total number of vessels decommissioned throughout North East Scotland.

19. Figure 1.2 shows the distribution of VCUs by region and by segment. The diagram also illustrates the disproportionate level of reduction that has taken place in eastern England from the Lowestoft to North Shields District inclusive. Those ports located around the Irish Sea and along the south coast of England also experienced high levels of reduction. Scotland, by comparison, not only failed to see a major reduction in the number of active vessels, but also experienced a smaller reduction in capacity terms than other UK regions. This factor is attributable to the higher marginal rates of tender which were largely forthcoming from the north east of Scotland.

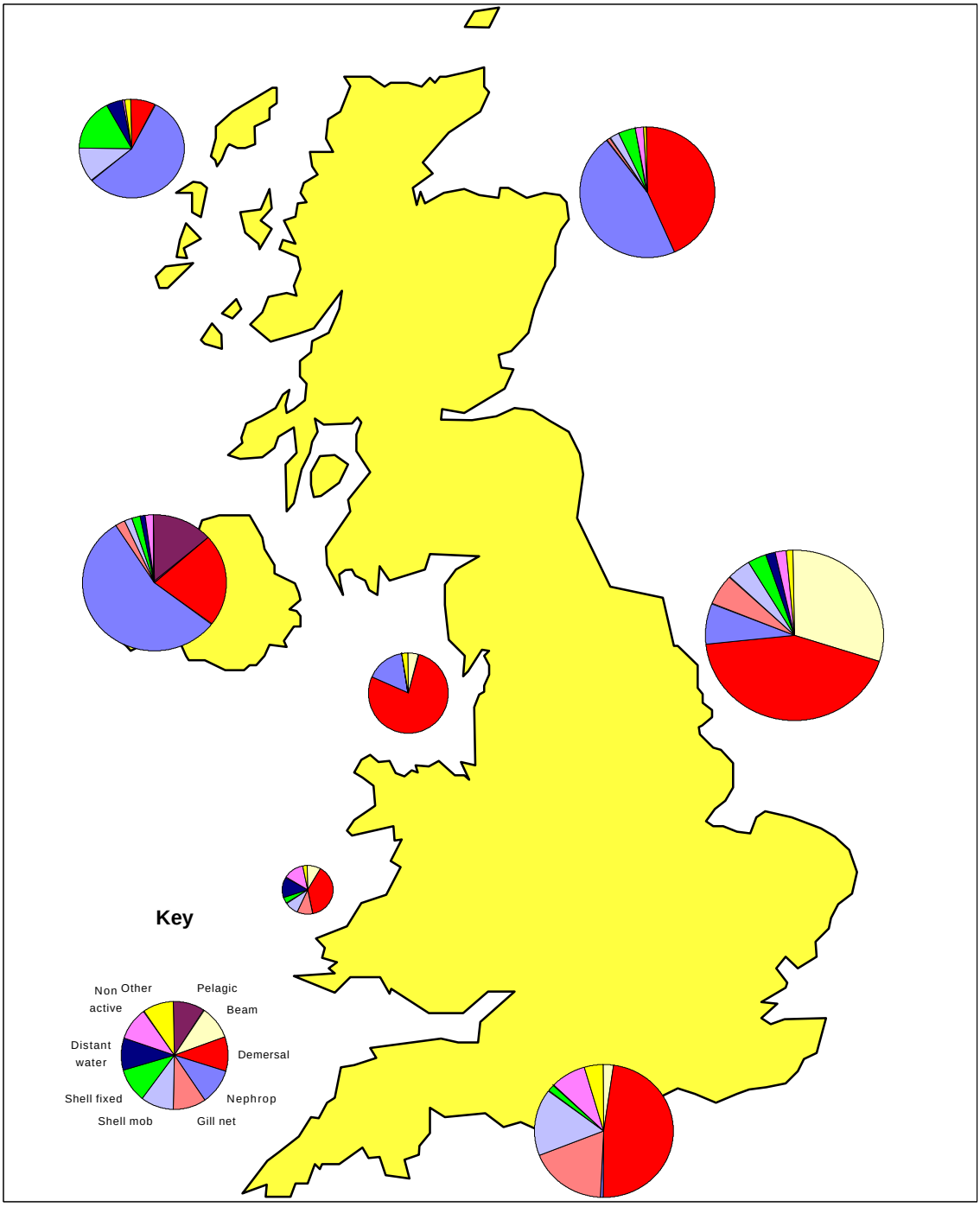
Table 1.2: Distribution of VCUs by region and segment (1993 to 1996)

	East Scotland	*Highlands and West Scotland*	*Northern Ireland*	*Wales*	*North West England*	*Southern England*	*East and North East coast of England*	*Total*	*Per cent*
Pelagic			1,864					1,864	2.1
Beam trawl				178	258	377	7,067	7,879	9.0
Demersal	7,107	739	3,348	719	3,888	6,656	11,116	33,573	38.4
Nephrops	7,704	5,968	8,783		850	113	1,893	25,311	28.9
Lines and nets	83	65		192		2,538	1,684	4,563	5.2
Shell mob	408	379	349	165		2,299	1,075	4,674	5.3
Shell fixed	661	2,464	206	86		268	777	4,462	5.1
Distant water	77	450	276	270			487	1,561	1.8
Non active	309	83		256		1,202	498	2,348	2.7
Other	88	193		53	148	481	334	1,297	1.5
Total	16,438	10,342	14,826	1,918	5,145	13,932	24,931	87,532	100.0
Per cent	18.8	11.8	16.9	2.2	5.9	15.9	28.5	100.0	

Source: MAFF

Figure 1.2 clearly illustrates the dominance of either demersal / seine net sector in certain areas (eastern Scotland, north west England, eastern England, and southern England) or the nephrops sector (Northern Ireland and the Highlands and West of Scotland). Decommissioning from the pelagic sector was achieved in Northern Ireland only. Decommissioning from the beam trawl sector took place in eastern England only where it accounted for approximately 30 per cent of the total exits within the region. This reflects the importance of this particular fishing method to the East Anglia district. By contrast, there were few applicants for decommissioning from southern England, the other UK region where the same fishing method is prevalent.

Figure 1.2: Distribution of vessel capacity units decommissioned by region according to segment



21. A brief comparison of the vessels in each port at the beginning of the decommissioning period shows that decommissioning had greater impact in some districts than in others. Table 1.3 shows that the highest proportion of exits were in North Shields (34 %), Arbroath (33 %), Portavogie (33 %), Stornoway (30 %) and Fleetwood (29 %). Other districts witnessing high rates of exit, proportionate to the remaining fleet, included Hastings, Grimsby, Kilkeel, and Plymouth (20-24 %); and Lossiemouth, Eyemouth, Newlyn, Lowestoft, Ayr, Ardglass, Buckie, Milford Haven and Oban (15 - 19 %). Ports / districts experiencing insignificant decommissioning (less than 10 %) included Kirkwall and Macduff (less than 5 %); Lerwick, Aberdeen, Poole and Caernarfon (between 6 and 9 %). Success was enjoyed mainly by nephrops trawlers (Northern Ireland and Stornoway), trawlers / seiners (Fleetwood, Grimsby, Hastings Lossiemouth and Plymouth), and gill netters and shellfish mobile gear vessels (Plymouth and Newlyn). Significantly vessels in these ports, tended to have low gross earnings.

Table 1.3: Distribution of vessels from 1992 to 1996

	number of vessels over 10 m, 1992	***number of vessels decommissioned, 1992-1996***	***percentage reduction from 1992***
Brixham	123	15	12.2
Fleetwood	120	35	29.2
Grimsby	241	56	23.2
Hastings	116	27	23.3
Lowestoft	244	44	18.0
Newlyn	225	39	17.3
North Shields	201	66	32.8
Plymouth	113	24	21.2
Poole	110	8	7.3
Total England	**1,385**	**314**	**22.7**
Caernarfon	56	5	8.9
Milford Haven	82	13	15.9
Total Wales	**138**	**18**	**13.0**
Ardglass	29	5	17.2
Belfast / others	39	5	12.8
Kilkeel	128	30	23.4
Portavogie	89	29	32.6
Total N. Ireland	**256**	**69**	**27.0**
Aberdeen	27	2	7.4
Arbroath	33	11	33.3
Ayr	98	17	17.3
Buckie	91	15	16.5
Campbeltown	67	10	14.9
Eyemouth	94	17	18.1
Fraserburgh	136	12	8.8
Kinlochbervie	8	3	37.5
Kirkwall	46	2	4.3
Lerwick	61	4	6.6
Lossiemouth	80	14	17.5
Macduff	96	3	3.1
Mallaig	71	16	22.5
Oban	32	5	15.6
Peterhead	122	7	5.7
Pittenweem	44	6	13.6
Portree	na	1	na
Scrabster	na	2	na
Stornoway	85	25	29.4
Ullapool	20	2	10.0
Wick	28	3	10.7
Total Scotland	**1,257**	**177**	**14.1**
Total UK	**3,036**	**578**	**19.0**

Source: UK Fishery Departments

1.4 Fleet Size Developments

22. Whilst measuring the impact of the scheme on the various ports and regions is important from a socio-economic perspective, the purpose of the decommissioning scheme is to reduce the capacity of the fleet among certain groups or segments within the fishing industry. Table 1.4 identifies the levels of reduction that have taken place from decommissioning per segment.

Table 1.4: The number and physical vessel characteristics decommissioned by segment.

SEGMENT	vessels	VCU	GRT	KW	Average year built
Pelagic	7	1,864	437	850	1965
Beam Trawl	24	7,879	2,138	9,791	1964
Dem. Trawl / Seine	209	33,573	6,916	25,805	1962
Nephrops Trawl	159	25,311	5,174	17,134	1959
Gill Net	40	4,563	841	3,849	1967
Shellfish Mobile	42	4,674	713	4,539	1967
Shellfish Static	42	4,462	697	3,735	1970
Distant Water	17	1,561	228	1,214	1969
Non Active	23	2,348	344	2,567	1966
Unknown	15	1,297	156	642	1954
Total	578	87,532	17,643	70,126	1964

Source: MAFF

23. Reductions through capacity savings resulting from licence transactions for over 10 m vessels (Table 1.5) has amounted to 39,737 kWs.

Table 1.5: Capacity savings resulting from licence transactions for over 10 m vessels: 1992 to 1996

Year	Number of inheriting vessels	Donors' kW	Inheritors' kW	Saving (Per cent)
1992	72	42,721	37,932	11
1993	69	39,968	34,557	14
1994	63	27,165	23,290	14
1995	109	59,513	52,175	12
1996	84	63,111	44,787	29
Total	397	232,478	192,741	17

Source: MAFF[1]

24. As a result of this measure, the average saving over the five-year period has been 17 per cent. The most notable increase in the effectiveness of the scheme occurred in 1996 following additional changes to the rules on licence aggregation. The number of inheriting vessels totalled 397.

25. The overall changes in capacity, including those from licence aggregation and decommissioning, have not yet been calculated. The issue is further complicated by the fact that the basis used for measuring tonnage has changed from Gross Registered Tons (GRT) to Gross Tons (GT), and vessels previously unassigned to the segments are now incorporated into one of the 8 main groups. In addition to the adjustments to licences, Northern Ireland introduced a separate decommissioning scheme which removed a further two vessels from the nephrops segment. Collectively, these vessels accounted for just 92.5 t, 282 kW and 333.09 VCUs, representing 0.5 per cent of total GRT and 0.28 per cent of kWs. Table 1.6 identifies the capacity of the fleet in both 1992 and 1996.

[1] The picture is not straightforward for a number of reasons:
(i) the penalties levied have varied over the course of MAGP III. The penalty applying to any single transaction is not necessarily that in force at the date of transaction; (ii) the basis of measuring tonnage has changed for some vessels, with donor vessels being measured in GRT and inheritor vessels measured as GT. This materially affects any calculation of the tonnage contribution from licence transactions; (iii) power figures are more readily available to estimate the contribution. There are problems with the measurement of power, whilst some transactions have traded power in favour of increasing other dimensions.

Table 1.6: Size of the fleet in 1992 compared with the size of the fleet in 1996

	1992			***1996***				***% change in segment***	
	Number	GRT	kW	Number	VCU	GRT	kW	GRT	kW
Pelagic	88	25,178	80,858	71	63,796	31,490	79,845	25	-1
Beam Trawl	200	23,062	107,542	220	92,858	27,331	118,917	19	11
Demersal trawl / seiners	1,379	71,956	368,194	1,126	293,236	73,023	330,634	1	2
Nephrops trawl	648	18,140	100,142	568	90,079	16,834	92,607	-7	-8
Netters / liners	343	12,121	58,503	239	46,403	14,358	51,574	18	-12
Shellfish mobile	169	6,007	34,725	143	25,759	5,145	28,691	-14	-17
Shellfish fixed	137	2,636	18,397	241	26,023	4,095	26,842	55	46
Distant water	17	10,987	23,829	17	14,777	11,035	19,439	1	2
Others	892	20,208	132,102	586	93,042	21,815	108,184	8	-18
Total	**3,873**	**190,295**	**924,292**		**n/a**	**205,126**	**883,424**		

Source: UK Fishery Departments

26. It is apparent from the above table that there are three groups of vessels. Namely:

- segments that have exceeded their MAGP targets: the nephrops trawl and shellfish mobile sector
- the segments that are near compliance with their targets: the demersal trawl segment, nets and lines and, the distant water segment
- the segments that are under target: pelagic, beam trawl and shellfish potters (fixed)

27. Broad inconsistencies exist between the trends in tonnage and engine sizes, particularly in the pelagic segment. The figures also hide the levels of movements that take place between the segments.

28. It is difficult to attribute changes to decommissioning or to fleet aggregations. However, there are a number of trends that we have surmised from a cursory analysis of the MAFF data base and which Fisheries Departments have subsequently confirmed. These include:

- little reduction in the size of the pelagic segment through decommissioning but a significant growth in GRT through changes from the aggregation of licences (acquired from other sectors)
- a growth in the beam trawl segment despite correspondingly high rates of decommissioning (in part due to the introduction of the specific beam trawl licence in 1992, whereby financial commitments made prior to the licensing decision were respected, and new entrants were allocated beam trawl licences which had previously been accumulated by other segments)
- a growth in the shellfish fixed segment despite large scale reductions through decommissioning (probably as a result of the re-allocation of vessels from other groups or transfers in fishing activity)
- some substitution of vessels leaving the nephrops segment through decommissioning with vessels transferring segment from the demersal trawl sector
- a steady reduction of the demersal segment through a combination of factors, such as decommissioning, licence aggregations and transfers into the nephrops segment
- the distant water and shellfish mobile segment being broadly in line with the MAGP targets.

29. With the exception of the distant water and pelagic sectors, decommissioning has had a strong impact in every group, but especially in the demersal trawl and nephrops segment. The impact of decommissioning has been reduced considerably where fleet licensing policy has failed to curtail sector expansion as is the case in the beam trawl and pelagic segments.

30. Table 1.6 also identifies considerable interchange between the demersal and nephrops trawl segments. This also occurs, but on a more limited scale, between the shellfish mobile segment and beam trawling. A separate study, undertaken by MAFF[2], identified around 600 vessels transferring fishery / segment each year. Movements between demersal and nephrops trawl were in either direction, although the change between the demersal trawl and nephrops sector was altering in favour of the latter. There is also a tendency to increase the average size of vessels in the nephrops sector. This suggests that vessels now classified nephrops trawlers are predominantly multi-purpose and not specialising in nephrops fishing for most of the year.[3]

31. The combination of decommissioning and the UK's over 10 m fleet aggregation policy bought the fleet's number of registered vessels to 3,211, following the 1996 decommissioning scheme. This represents a reduction from 3,873 vessels registered prior to the commencement of the decommissioning scheme. 578 of these vessels have gone out as a result of decommissioning. In addition, there have been up to 1,500 licence transfers and aggregations. Table 1.7 below shows the extent to which decommissioning has contributed to fleet reduction by segment. The residual transfers are due both to movement between the sectors (including some re-definition from the non-active / unknown segment) and reduction in the number of vessels resulting from fleet aggregations and acquisition of licence units.

Table 1.7: Reductions in the number of vessels in the fleet by segment, 1992 to 1996

Segment	*vessels: 1992*	*vessels: 1996*	*decommissioned vessels*	*other changes*
Pelagic	88	71	-7	-10
Beam trawl	200	220	-24	+44
Dem. Trawl / Seine	1,379	1,126	-209	-44
Nephrops Trawl	648	568	-159	+79
Gill Net	343	239	-40	-64
Shellfish Mobile	169	143	-42	+16
Shellfish Static	137	241	-42	+146
Distant Water	17	17	-17	+17
Non Active / Unknown	892	586	-38	-268
Total	**3,873**	**3,211**	**-578**	**-84**

Source: Table 1.6 & MAFF

32. The bulk of overall fleet reductions is derived from the decommissioning of fishing vessels. A further 10 per cent of fleet reductions came as a result of a combination of UK licensing policy (but not specifically fleet aggregations) and natural wastage.

33. The above developments demonstrate a change in the structure of the fleet, where those groups accounting for the largest percentage of overall fleet capacity are gradually increasing in size (GRT). Changes in fleet size by length also demonstrate the gradual movement to larger vessels. This feature may also be applicable to engine sizes, as opposed to just GRT, since many vessels have de-rated their engine sizes following the aggregation of licence units. The de-rated engine may not reflect the engine's true power which may be equivalent to the efficiency originally stated by the manufacturers. This would justify the introduction of additional licence restrictions in February 1996 to prevent such manipulation of the VCU scheme.

[2] Internal study conducted by the Fisheries Statistics Unit.

[3] When fishermen were interviewed there appeared to be some inconsistency in the apportioning of one sector to the next. The same could be said for the differential between demersal trawl/seine and lines and nets (gill net vessels operating in the North Sea in particular).

1.5 Other features associated with decommissioned vessels

1.5.1 Vessel age

34. Many within the industry considered the improvement in the age structure of the UK fleet to be one of the benefits of the decommissioning scheme. Others felt the scheme had been a waste of money since it had only eliminated a large number of 'old scrap' from the fleet and had not been targeted towards the most modern vessels capable of catching more fish. It is generally accepted that older vessels catch fewer fish than younger ones (Seafish, 1989)[4], but equally, the levels of amortisation have markedly increased amongst the fleet as a whole, in some cases to beyond 25 years. Older vessels also frequently receive major re-investments. As such, it could be argued that it is increasingly less obvious to just target the newer vessels. There are also strong differences in the age structure of the fleet according to each segment. Vessels fishing for nephrops have historically been older than others, whilst both pelagic and distant water vessels are fairly modern (less than 20 years). Clearly, without an appraisal of the relative efficiencies, it is difficult at this stage to formulate definitive conclusions.

35. As in other EU countries, the average age of UK vessels now lies between 25 and 35 years with the fleet growing older. The average age for UK vessels prior to the start of the scheme was 25 years. The current average age of the remaining fleet is now 23 years, illustrating a marginal improvement in the age profile of the UK fleet. Table 1.6 shows the age distribution of the decommissioned vessels. The average year of build of the decommissioned fleet was 1962. The average year of build of vessels not achieving decommissioning was 1966 for those where the tenders were considered to be too high and 1982 for those whose owners subsequently refused decommissioning.

36. Table 1.8 illustrates by segment, the age distribution of vessels, decommissioned between 1993 and 1996.

Table 1.8: Distribution of age of vessels decommissioned

Year built	*Number of vessels*	*Per cent*
1908 - 1959	251	43.4
1960-1975	241	41.6
1976 +	86	15.0
Total	**578**	**100.0**

Source: MAFF

37. Table 1.9 shows the current age profile of the fleet. These tables show that most vessels applying for decommissioning were, on average, more than 30 years old. The benefits to the age structure of the fleet was only marginal, i.e. between 1 and 3 years.

Table 1.9: Changes to the age profiles of the fleet (average year built), 1992-1996

Segment	*1992*	*Decommissioned vessels*	*1996*
Pelagic	1976	1965	1978
BeamTrawl	1972	1964	1973
Demersal Trawl	1973	1962	1975
Nephrops Trawl	1967	1959	1970
Nets & lines	1972	1967	1973
Shell mob	1971	1967	1972
Shell fixed	1975	1970	1975
Distant Water	1973	1969	1977
Other	1974	1966	1975
Total	1972	1954	1974

Source: MAFF

[4] Tucker, C E, Study of proposed amendments to the UK fishing vessel licensing system, 1989

1.5.2 Vessel size distribution

38. The distribution by size of decommissioned vessels (Table 1.10) shows that more than a third of vessels decommissioned come from the under 12 m group. The bulk of these vessels were registered in England, particularly along the south coast as well as with East coast 'cobbles'. More than half those vessels decommissioned in Scotland were between 15 and 24 m in length. Ninety three per cent of the vessels decommissioned from N. Ireland and 40 per cent from England were from this group. Very few large vessels were decommissioned.

Table 1.10: Size distribution of vessels decommissioned

	England	*N. Ireland*	*Scotland*	*Wales*	*Total*	*Per cent*
10-11.99 m	138	1	43	8	**190**	32.9
12-14.99 m	49	3	33	8	**93**	16.1
15-23.99m	115	63	98	2	**278**	48.1
24-34.99m	7	2	3	0	**12**	2.1
35m +	5	0	0	0	**5**	0.9
Total	**314**	**69**	**177**	**18**	**578**	100.0

Source: MAFF

39. Table 1.11 shows the size of the over 10 m fleet in 1992 compared with that of 1996. The tendency is for the average size of vessels over 10 m to increase. In 1992, the average number of vessels in excess of 24 m represented 13 per cent of the fleet. It now represents 26 per cent. Equally, the overall composition of vessels under 12 m has fallen from 40 to 32 per cent over the same period.

Table 1.11: Changes to the size of the fleet, 1992 -1996

Size/ Year	*10-12m*	*12-17m*	*17-18m*	*18-24m*	*24-30m*	*30m+*	*Total*
1992	1,361	751	220	657	210	243	3,442
1996	970	565	168	492	261	510	2,966
% change	-28.7	-24.8	-23.6	-25.1	24.3	109.9	- 23.8

Source: MAFF

1.5.3 Days at sea

40. There was a basic requirement that any vessel applying for decommissioning had to be fishing for more than 100 days. This requirement was relaxed to 75 days to encourage more applicants to make the scheme more competitive. The tendency has been for vessels with fewer days at sea to apply (Appendix 1.5). Table 1.12 illustrates the breakdown in the average number of days for each segment. This shows comparatively fewer days than for vessels currently active in the fleet (extracted from the Nautilus survey). The tables show that many of the decommissioned vessels were not as active as those which chose not to apply.

41. Similarly, a comparison between those that applied and were refused and those that applied and subsequently withdrew (Table 1.13), shows that, on average, the more active vessels were less likely to achieve decommissioning than the less active.

42. In addition to the above assessment, the Seafish Industry Authority has historically argued that a more appropriate way of measuring of effort is to incorporate the days at sea per vessel with the VCUs. This will be explored at a later stage in the report. However, Table 1.14 confirms the fact that those vessels with greater capacity and more days were less able to achieve decommissioning. Similarly, the table shows that the average VCU days for the decommissioned vessels remained stable at between 25,000 to 26,000. This was the case until 1996, when the qualification criteria were relaxed.

Table 1.12.1 Average number of days recorded for decommissioned vessels (where vessels supplied data)

	1993		*1994*		*1995*		*1996*		*1996 *active fleet*	
Segment	Avg.	vessel	Avg.	vessel	Avg.	vessel	Avg.	vessel	Avg.	vessel
Pelagic	153	4	89	1	214	2	-	-	213	33
Beam	148	4	195	5	151	6	100	6	270	66
Demersal trawl	148	53	157	65	157	61	136	27	238	125
Nephrops	139	48	166	46	182	11	158	52	195	43
Gill net	180	3	119	5	121	15	115	17	216	29
Shell mob	162	6	86	17	153	14	118	4	203	19
Shell fixed	127	6	55	2	156	19	122	16	190	44
Distant water	177	4	132	6	191	5	138	1	271	9
Non active	0	0		0	166	5	107	18	164	50
Other	141	7	0	0	117	1	94	1	-	

Source: MAFF / *Nautilus* survey*

Table 1.12.2: Comparison between vessels activity (average days at sea),

Segment	*Decommissioned fleet 1993-1996*	*Active fleet 1996*	*Per cent difference*
Pelagic	161	213	-24.3
Beam	146	270	-45.8
Demersal trawl	152	238	-36.2
Nephrops	156	195	-19.9
Gill net	123	216	-43.2
Shell mob	123	203	-39.3
Shell fixed	135	190	-29.2
Distant water	162	271	-40.2
Non active	124	164	-24.7

Source: MAFF / *Nautilus* survey*

Table 1.13: Comparison of days for vessels applying for decommissioning

Status	*1993*	*1994*	*1995*	*1996*
Decommissioned	147	149	156	134
Unsuccessful	193	182	193	177
Withdrawn	160	186	171	160

Source: MAFF (vessel data available in 1993=325, 1994=407, 1995=197, 1996=252)

Table 1.14: Average VCU*days at sea, 1993-1996

GROUP	*Year*	*avg. vcu*days*	*Avg. VCU*
Decommissioned	1993	25,014	165
	1994	26,364	158
	1995	26,331	157
	1996	18,183	130
Unsuccessful	1993	43,170	242
	1994	37,664	200
	1995	37,344	208
	1996	41,585	221
Withdrawn	1993	41,867	290
	1994	65,890	331
	1995	33,251	206
	1996	34,410	188

Source: MAFF

1.5.4 Measuring vessel catches

43. The vessel track records (catch levels, averaged over the three previous years) were not available to the consultants. Nevertheless, it was considered, as part of the need to measure impact, that an assessment be made of the catch levels of those vessels decommissioned from the fleet in comparison with the vessels remaining. This information was difficult to obtain since many skippers were unaware of their official track records. Furthermore, many skippers who had been aware of their track records at the time of decommissioning were unable to recall the figures. Nevertheless, responses were achieved from 15 per cent of the skippers / companies who had decommissioned, 38 per cent from vessel owners that had been refused and 83 per cent of those skippers who had chosen to withdraw their applications. It is also true that particular groups namely, the beam trawlers, pelagic and some of the demersal vessels, were more aware of their track records than others (Appendix 1.6). Track record data was also gathered from the active fleet. Whilst in some cases namely the pelagic and beam trawl segments the sample is considerably robust providing answers to the question on track records caution has to be applied when making comparisons.

44. Appendix 1.6 shows that for some segments, beam trawl and nephrops trawl, track records were quite significant, averaging at 217 t for North Sea plaice and 30 t for North Sea sole (from 6 to 8 vessels) and 97 t for nephrops (from 5 vessels). However, the track records in the demersal segment were comparatively small, averaging at 50 t for North Sea cod, 113 t for North Sea nephrops, 115 t for haddock and 33 t for Area VII hake. It is also worth noting (Appendix 1.6) that vessels withdrawing from the scheme in 1996 had generally high track records with a high market value. This was particularly the case in the beam trawl sector and among some larger demersal trawlers.

1.6 Expenditure on the UK decommissioning scheme

45. Tables 1.15 and 1.16 highlight total expenditure by segment (Table 1.15) and in each region / country (Table 1.16). The total expenditure over the period has amounted to £36 m, of which 45, 32, 18 and 5 per cent have been in England, Scotland, N. Ireland and Wales respectively. Just under 40 per cent of the awards have been made to vessels categorised in the demersal trawl segment and 30 per cent to those vessels classified as nephrops trawlers. Beam trawlers, shellfish vessels (fixed and mobile) and lines and nets have accounted for only 5 to 8 per cent of the total expenditure per segment. Expenditure on pelagic / distant water vessels has accounted for only 1.8 and 1.5 per cent respectively. Areas exhibiting the highest uptake in expenditure include Northern Ireland, eastern England (mainly Humberside), South West England, Highlands and Islands (mainly Stornoway), North West England (mainly Fleetwood), Northumberland (North Shields) and Grampian (Lossiemouth being the most significant port in Scotland). Areas with the smallest degree of uptake include Shetland, North East Scotland and Wales.

46. On average, the highest tenders (Table 1.17) came from North East Scotland (Peterhead, Fraserburgh and Aberdeen), western Highlands (Stornoway and Mallaig) and N. Ireland. The highest tenders, by segment (Table 1.18), came consistently from demersal and nephrops segments. The lowest tenders came from North Shields and Ayr. These vessels were in either the nephrops (North Shields and Ayr) or shellfish mobile segments (Ayr).

Table 1.15: Distribution of decommissioning expenditure (£) by segment, 1993 - 1996

SEGMENT	1993	1994	1995	1996	Total	Per cent
Pelagic	311,500	81,300	265,000		657,800	1.8
Beam Trawl	261,500	1,263,900	987,000	265,500	2,777,900	7.7
Dem. Trawl / Seine	3,084,630	3,767,766	4,619,226	2,298,978	13,770,600	**38.0**
Nephrops Trawl	2,797,016	2,577,086	919,709	4,823,263	11,117,074	**30.7**
Gill Net	316,500	178,500	667,244	873,245	2,035,489	5.6
Shellfish Mobile	89,450	552,023	976,586	275,850	1,893,909	5.2
Shellfish Static	374,770	49,000	806,870	688,145	1,918,786	5.3
Distant Water	142,900	173,315	180,360	42,000	538,575	**1.5**
Unknown			244,300	873,355	1,117,655	3.1
Non Active	171,940	131,000	22,050	88,347	413,337	**1.1**
Total	**7,550,206**	**8,773,890**	**9,688,345**	**10,228,683**	**36,241,125**	**100.0**

Source: MAFF

Table 1.16: Distribution of decommissioning expenditure (£) by region, 1992/3 - 1995/6

REGION	1993	1994	1995	1996	Total	Per cent
East Scotland	1,802,980	1,701,699	1,852,757	1,729,949	7,087,385	19.6
Highland & West Scotland	578,009	1,051,519	1,302,889	1,605,247	4,537,664	12.5
N. Ireland	1,965,650	1,040,891	1,239,114	2,087,576	6,333,231	17.5
North West England	407,337	514,503	282,500	981,243	2,185,583	**6.0**
Wales	1,061,092	227,025	326,500	236,651	1,851,268	**5.1**
Southern England		1,418,370	1,784,883	1,593,315	4,796,569	13.2
Eastern England	1,735,138	2,819,884	2,899,703	1,994,702	9,449,427	**26.1**
Total	**7,550,206**	**8,773,890**	**9,688,345**	**10,228,683**	**36,241,125**	**100.0**

Source: MAFF

Table 1.17: Average price of tenders paid in decommissioning awards by region, 1993-1996

Average of £/VCU	PHASE				
Region	1993	1994	1995	1996	Grand Total
East Scotland	347.71	**366.36**	518.64	535.56	**422.28**
Highlands & West Scotland	335.45	343.52	436.95	553.22	**425.81**
N. Ireland	320.79	352.92	**519.16**	**618.76**	**425.62**
North West England	292.54	343.60	500.54	570.26	**424.66**
Wales		344.47	414.35	464.48	**408.86**
Southern England	**353.78**	349.92	425.74	525.63	**413.74**
Eastern England	327.31	332.33	398.90	497.32	**387.49**
Grand Total	**332.34**	**345.98**	**436.29**	**536.30**	**411.27**

Source: MAFF

Table 1.18: Average price of tenders paid in decommissioning awards by segment, 1992/3 - 1995/6

Average of £/VCU	PHASE				
SEGMENT	**1992/1993**	**1993/1994**	**1994/1995**	**1995/1996**	**Grand Total**
Pelagic	284.31	299.85	**565.15**		**366.77**
Beam Trawl	**396.82**	320.18	461.47	405.79	**389.68**
Dem. Trawl / Seine	341.84	355.37	446.01	567.10	**406.76**
Nephrops Trawl	346.43	**355.43**	500.43	570.80	**433.18**
Lines & nets	318.44	331.04	399.54	509.44	**431.60**
Shellfish Mobile	230.61	327.20	457.66	512.71	**374.55**
Shellfish Static	360.42	301.62	390.33	508.54	**424.05**
Distant Water	330.85	313.45	421.85	542.22	**362.88**
Non Active			352.18	482.38	**454.08**
Unknown	224.27	329.12	346.32	**594.97**	**299.06**
Grand Total	**332.34**	**345.98**	**436.29**	**536.30**	**411.27**

Source: MAFF