

Fishing management experiences on the Faroe Islands since 1977

Rolf Guttesen

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Before 1977 the Faroese fishing fleet took most of their catches on distant fishing grounds: in the North Sea, Barents Sea, and off Greenland, Iceland and Newfoundland. After the world wide establishment of the 200 nm EEZ the Faroese fleet has gradually lost most of the rights on the traditional grounds, and turned to intensive exploitation of the local waters. The article deals with this change in resource exploitation, the serious problems that have arisen, and with different efforts to implement a managementsystem. Until 1989 these efforts have not been successful.

Keywords: *Marine geography, Fisheries, Resource Management, North Atlantic, Faroe Islands, Exclusive Economic Zones (EEZ).*

Rolf Guttesen, associate professor, Institute of Geography, University of Copenhagen, Øster Voldgade 10, DK-1350 Copenhagen K.

The Faroe Islands are situated in the North Atlantic, between Iceland, Norway and Shetlands. (62° N, 7° W.) Here the frequent passages of cyclones give a windy and rainy climate, with mild winters and cool summers. The oceanographic polar front between the relatively hot west wind current (the Gulf Stream) and cool arctic water in the Norwegian Sea produces a zone of mixed water rich in nutrients for biological life.

The population has been steadily growing for a long period, and by the end of 1989 it numbers 48,000. In the 70's and 80's there was a considerable nettoimmigration. The basic industry has in this century been fishery and fish processing. More than 90 % of the export is fish and fish products. So it can be stated, that this island society today is totally dependent on marine biological resources. Fluctuations in these, access to and a proper management of them are crucial for the Faroese society.

The political context

Among the strategic political questions, that have been crucial in the political thinking and discussions on the Faroe Islands in the years after the 2nd World War, there has been consensus about the fishing limit, or more exactly – about the attempts or struggle to expand the the exclusive zone.

But on the question of tactics the political differences among the parties became visible. The radical wing in social and national questions would follow the Icelandic

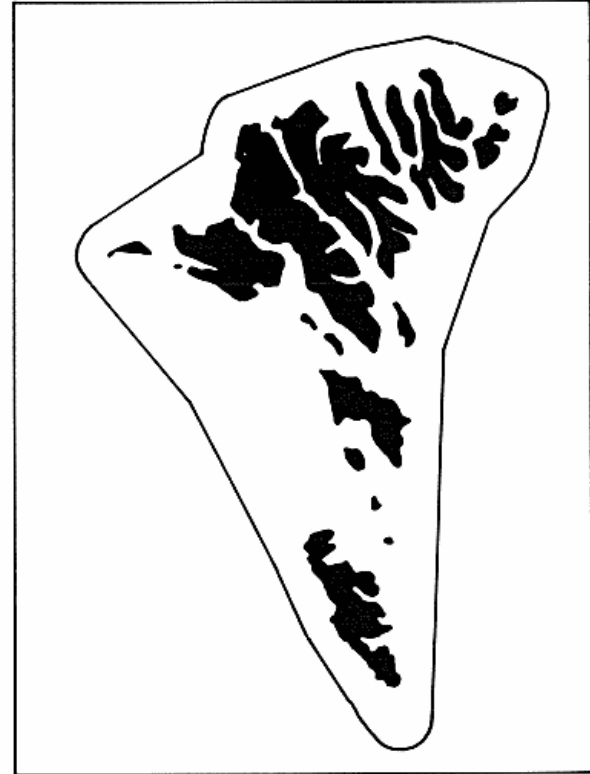


Fig 1. The Faroese 3 nm fishery limit from 1955, without baselines, but with certain extensions especially to the west. (Source: Nolsøe, 1963)

Fig 1. Den færøske 3 sømile fiskerigrænse fra 1955 uden basislinjer, men med visse udvidelser, især mod vest.

example, while the moderate or conservative wing were more expectant.

It shall be mentioned that the Faroe Islands obtained Home-rule inside the Kingdom of Denmark in 1949. But the foreign policy was, of course, still run by the Danish Ministry of Foreign Affairs in Copenhagen. As the most important Danish export commodity, bacon, was exported mainly to Great Britain, and the British on the other hand were those who took advantage of the rich fishing grounds around the Faroe Islands, the conflict became clear. In the political discussions on the Faroe Islands the radicals accused the "Danes" of selling the Faroese fishing grounds for Danish bacon, etc., etc.

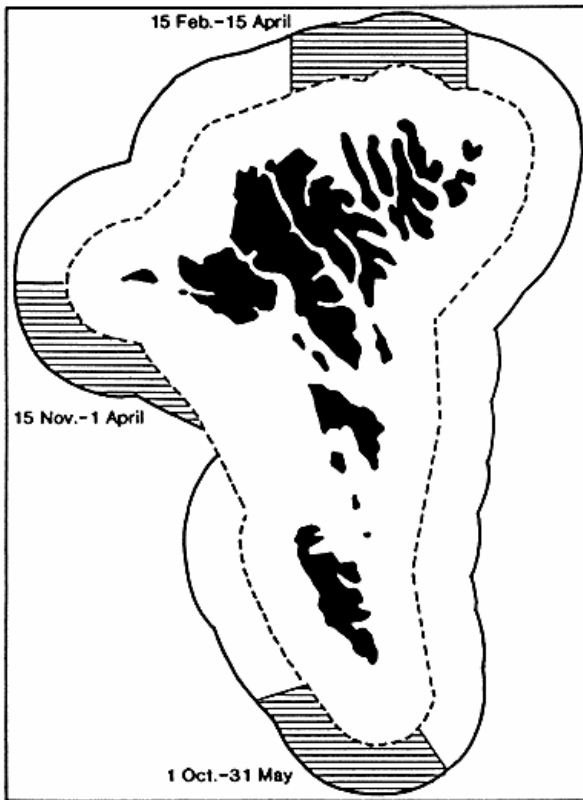


Fig 2. The 12 nm fishery limit from 1959 without baselines. The British were allowed to fish in to 6 nm (stippled line). Hatched area: only long- and hand-line fishery in the mentioned periods. (Source: Nolsøe, 1963)

Fig. 2. 12 sømile fiskerigrænsen fra 1959 uden basislinjer. Britiske fiskere kunne fiske ind til 6 sømil, den stiplede linje. Skraveret område forbeholdt lang- og håndline fiskeri i de angivne perioder.

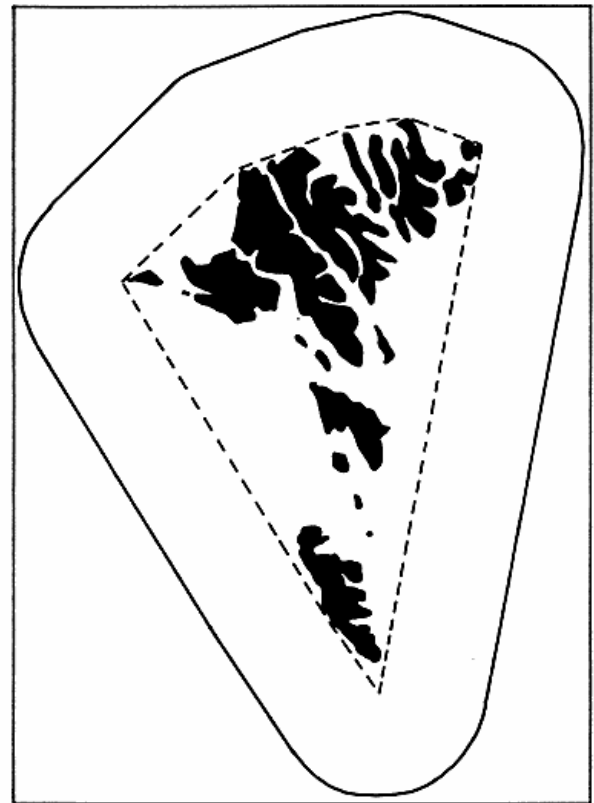


Fig 3. The 12 nm fishery limit from 1964 with straight baselines. (Source Nolsøe, 1963)

Fig 3. 12 sømilegrænsen fra 1964 fra lige basislinjer.

	(1000 t)			(in percent)		
	Faroese	Foreign	Total	Faroese	Foreign	Total
1955	14	74	88	16	84	100
1960	20	76	96	21	79	100
1965	20	64	84	24	76	100
1970	32	67	99	32	68	100
1975	37	83	120	31	69	100
1980	72	9	81	89	11	100
1985	124	16	140	89	11	100
1988	144	12	156	92	8	100

Table 1. Demersal catches on Faroe Grounds 1955-1985. (Sources: Færøernes Landsstyre, dif.yrs)

Tabel 1. Fangster af bundfisk ved Færøerne 1955-1985.

Demersal, pelagic and prawns 1000 t					Percent			
	1956	1965	1975	1985	56	65	75	85
Faroes	14	20	40	169	12	14	14	45
Iceland	18	9	15	8	16	6	5	2
Greenland, W	32	66	11	1	28	46	4	0
Greenland, E	0	0	0	66	0	0	0	18
Newfoundland	0	16	10	4	0	11	4	1
Barent, Sval	29	0	28	43	25	0	10	11
Norw. Sea	23	31	0	0	20	21	0	0
North Sea	0	3	178	74	0	2	63	20
Baltic	0	0	0	6	0	0	0	2
Misc.	0	0	1	4	0	0	0	1
Total	116	145	283	375	100	100	100	100

Table 2. Total catches by Faroese vessels 1956, 65, 75, and 85. (Sources: Guttesen, 1980; Færøernes Landsstyre, dif.yrs)

Tabel 2. Færøske fartøjers samlede fangst 1956, 65, 75 og 85.

Historical background

The first result of these efforts came in 1955. To a high degree it succeeded the Icelandic expansion to 4 nautical miles (nm) 3 years earlier. The old 3-nm fishing limit from 1901 was drawn simply from the nearest coastline, without any baselines. The 1955 limit was also a 3-nm limit. But it was drawn from baselines, although they were not straight (fig. 1).

When Iceland in 1958 expanded to the 12 nm limit, which was followed by the "First Cod War", it once again had a positive spin-off on the Faroese situation. The following year, 1959, the Faroe Islands obtained a 6+6 nm fishing limit, but from less advantageous baselines than before. Nations with "historical rights", the British, could fish to 6 nm (fig. 2).

The 12 nm limit and its consequences

These mentioned expansions were results of Danish-British negotiations. But from now on the British side refused to negotiate further changes/expansions. As a result of Faroese political press (the local government on the Faroe Islands was in these years made up of so-called self-government parties) the Danish Government in 1964 unilaterally proclaimed a 12 nm fishing limit from straight baselines around the Faroe Islands (fig. 3).

The British countermeasures were import restrictions. In reality it was a landing ban for Faroese fish in the British fishing harbours Aberdeen, Grimsby, and Hull. In the previous years the landings of Faroese iced fish, especially during the winter months, were very important for the Faroese economy. New fishing grounds were won, but the most important market for iced fresh fish was lost. This was the situation, that created the conditions for the new Faroese land-based fishing industry. By now, a period began of intensive investments in modern filleting-

and freezing plants on the Faroe Islands. Subsequently the landings were switched to these new plants. In 1965 only 10,500 t of fresh fish were landed on the Faroe Islands, but the following ten years this amount quintupled (table 1).

The landings to these factories are processed as frozen fillets or as saltfish depending on species, sizes and the price relation between the end products. At the same time the fisheries off West Greenland ebbed away. Off Iceland the same happened, to a lesser degree, and for other reasons. But in the North Sea the Faroese fishermen took increasing catches, and this was a zone without any Faroese fishing traditions (table 2)

Changes in the 70's

As an intermediate arrangement, six countries accepted an agreement in 1973 which reduced the fishing effort and the catches in five "boxes" outside the existing 12 nm limit (fig. 4).

The following years, the international situation ripened for radical changes in the exclusive fishing zones, and in 1976 the UN Convention on the Law of the Sea (UNCLOS 3) was adopted by the participants. Then, on March 1st 1977, the 200 nm EEZ came into force around the Faroe Islands, and almost simultaneously other countries around the North Atlantic took the same step. This situation introduced a new era for the Faroese fishing in foreign as well as in local waters (fig. 5).

Subsidies and price system

Before we can go on with the evaluation of this new era some other important conditions or mechanisms must be mentioned. There has never been a free fishmarket of the Faroe Islands. In the 1950's the different buyers fixed the prices themselves. Later a committee was set up, that

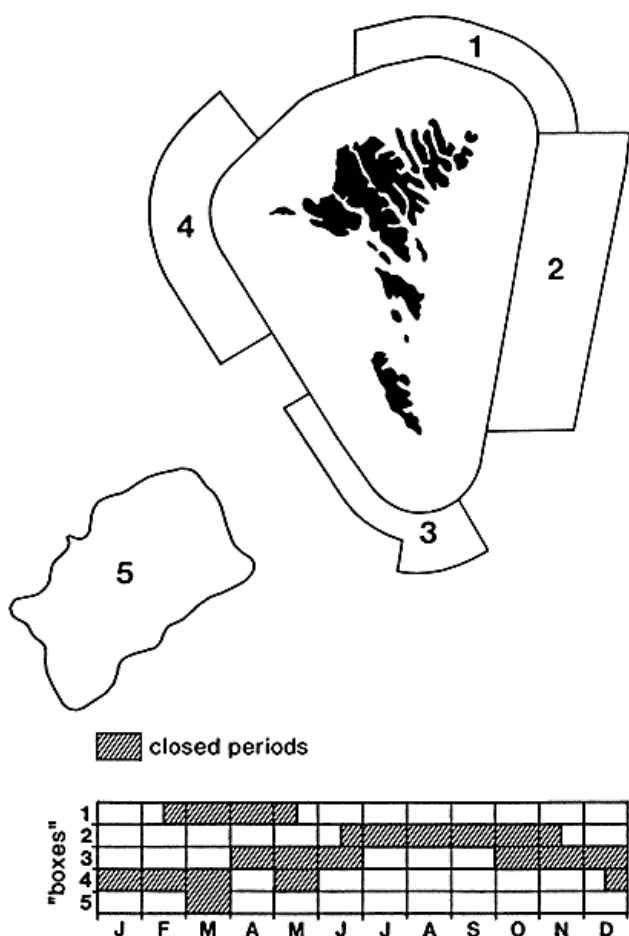


Fig 4. The arrangement from 1975. The 5 boxes outside the 12 nm limit are closed in certain periods. (Source: Guttesen, 1980)

Fig 4. Arrangementet fra 1975 med 5 områder udenfor 12 sømilmilgrænsen, som i visse perioder var lukkede.

fixed the prices for the whole country. These prices followed the prices on the main foreign markets.

In 1975 a new price system was introduced (see Guttesen, 1980). By then the fish prices were so low that the local fishery stopped. The new system, that is still in use, fixes a landing price for a period of 4 months for all species and sorts. This is the price that the vessel and crew receive for the catches landed. The intention was that it should be profitable to fish all species and in this way release the pressure on the traditional cod and haddock stocks.

Buyers, i.e. the processing plants, however, are paying another, usually lower price for the catches, a kind of clearing price that fluctuates with the world market price, but on a lower level. The difference between the landing price and the clearing price is provided by a fund (the Raw Fish Fund) that gets its means from the Budget. One of the original intentions were popularly said, that expensive

fish sorts should pay for the cheap ones. If the clearing price was higher than the landing price, the difference should be paid into the fund (fig. 6).

In theory it is a system that should be able to:

- balance in itself
- even out the fluctuations on the world market
- direct the fishing effort away from the valuable, traditional and overexploited sorts, cod and haddock, to cheaper, less exploited and perhaps newly discovered sorts.

The second and the third points have been fulfilled to a certain degree. But absolutely not the first one, which is documented in table 3.

Mentioned in brief the items under the heading "subsidies" are subsidies for:

- the Raw Fish Fund
- the guaranteed minimum wage for fishermen
- small-scale fishers' incomes
- landing iced fish on Faroe Islands
- trash fishing
- fuel oil
- bait for long-liners
- the general working of the ships
- other fisheries, transportation, etc.

The different items have changed in weight during the years. It seems very difficult to get rid of arrangements that are introduced as provisional or temporary in critical situations. Only the oil and bait subsidies were by 1989 brought down to zero, cf. Rigsombudsmanden (1989).

In the case under discussion a part of the explanation should be found in the fact that both social sides – the fishermen with their rather strong union, and the owners of ships and fillet factories – are interested in maintaining the price system and all the subsidies. They all have short-term views to defend, and they are powerful social groups.

The fishing fleet

As the Faroese were ousted from other areas, especially the North Sea and Icelandic grounds, the vessels were converted to operate in the expanded Faroese EEZ, and new ones were built both on the Faroe Islands and abroad (Guttesen, 1983 b). The result was unavoidably an overcapacity, too many ships with a bad economy, and rising crew problems. Especially the trawler fleet grew considerably, while the long-liners decreased in number (table 4).

The results can easily be understood and explained by using the Shaefer or Beverton-Holt model (Andersen, 1979). Measures that raise the landing prices as well as measures that lower the costs for the fishing vessels both tend to increase the fishing effort, while the economy is only bettered momentarily.

This is what has happened in the Faroe Islands' case. After 5-10 years with severe economical problems in the fleet that exploit the demersal stock on Faroese EEZ, and

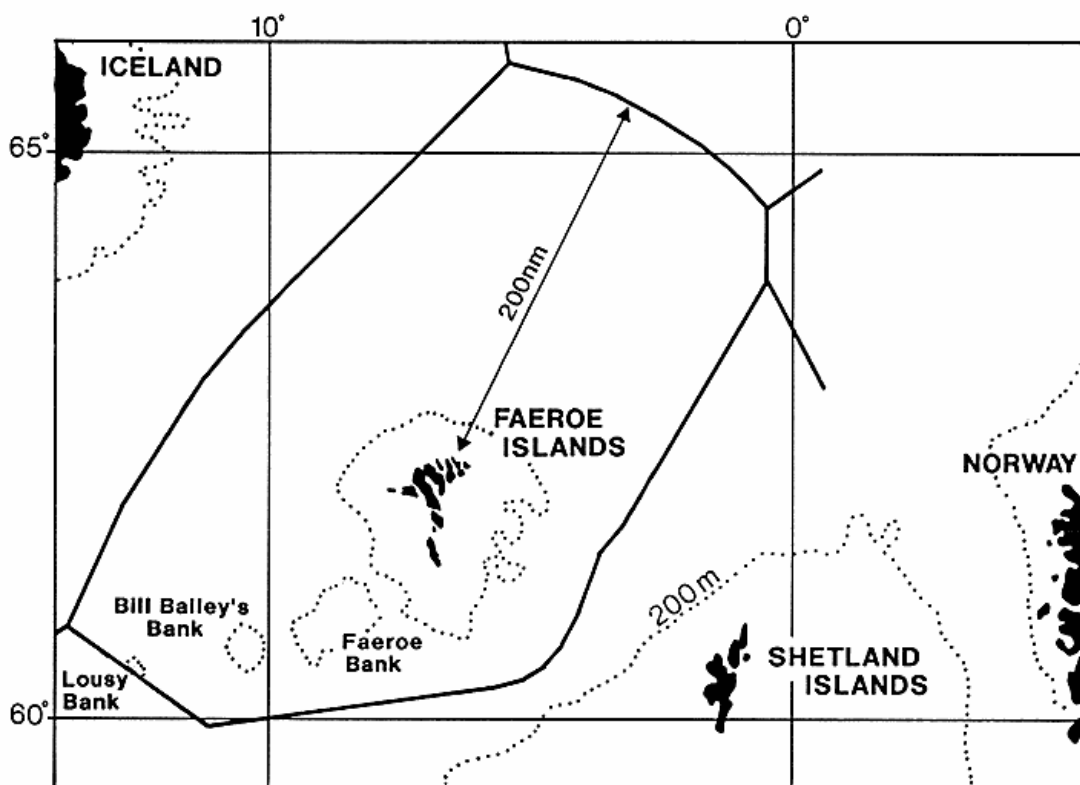


Fig. 5. The 200 nm fishery limit (EEZ) from 1977. (Source: Guttesen, 1980)

Fig 5. 200 sømle fiskerigrænsen fra 1977.

a governmental management system that has turned out to be inadequate, there is now a growing understanding of the severe situation. Marine biologists and geographers have for years said that the fleet was up to 30-40 % too large (Anon, 1979; Guttesen, 1983; Jákupsstovu, 1988), but the local government has been very slow to take adequate measures. The TAC's recommended by ICES were exceeded several times. For saithe sometimes with more than 100 % (table 5).

Measures to limit the effort

The local government has never fixed any max-quotas on Faroese grounds. But for some years closed area measures have been in use, partly to separate different fishing gears, partly to protect the spawning areas, fry and young fish. By 1989 the minimum mesh size for demersal trawls was raised from 135 to 155 mm.

Fig 6. The price system as it functioned when it was introduced in 1975 for two sizes of cod and for saithe. The thin line is the clearing price, the fat one is the landing price. (Source: Guttesen, 1980)

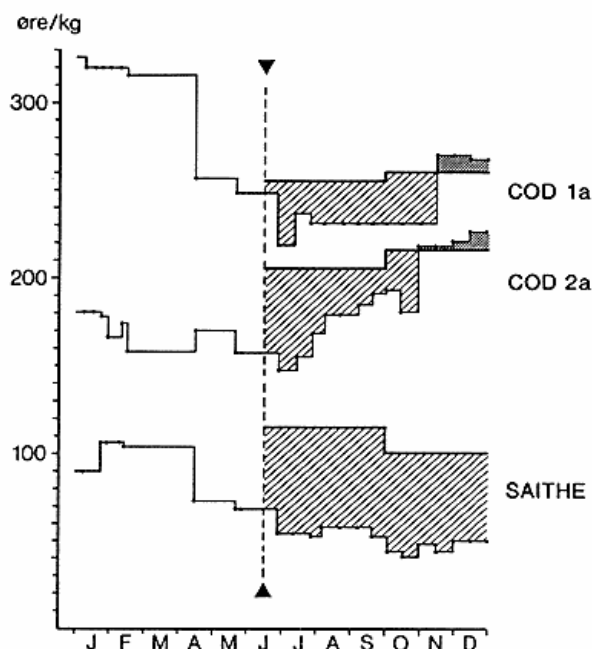


Fig 6. Prissystemet som det fungerede ved indførelsen i 1975. Den tynde linje viser afregningsprisen, den tykke indhandlingsprisen.

	1977	81	84	87	88
Subsidies, Mill. DKr	47	200	413	266	407
Subs. in % of local government income.	11	23	29	12	17
Subs. in % of export value of fish commod.	6	18	25	14	20

Table 3. Subsidies for the Faroese fishery. (Sources: Det rådgivende udvalg, dif.yrs)

Tabel 3. Subsídier til det færøske fiskeri.

The first slender attempt to limit the preponderant fleet was a policy to ban import of further fishing vessels, which led to a sharp rise in prices on vessels on the local market. It was followed by a rule "one ship in, one ship out". It hadn't any effect. The last few years it has been tightened up to "one effort unit in, one effort unit out", and this seems to work better. But it don't decrease the effort. Furthermore two laws are recently adopted (Anon, 1989). One demands that all fishing vessels shall have a fishing license. The licenses are not yet restricting the catches, but they are as principle introduced. The other is a condemnation law that shall further the break up of old ships. Until the end of 1989 it has only had a minimal effect, but it can possibly be the tool that brings the surplus effort down (Kristiansen, 1989).

Two new attempts. Blue whiting and fish farming
The Atlantic blue whiting that migrates along the Faroe Islands two times a year in enormous shoals were for some pioneers the "promised" stock that should solve all problems imposed by the restrictions in foreign waters. It is easy to fish it as trash fish. But to process it to the world market for human consumption is very difficult. The first experiments were made with older reequipped big factory trawlers, later new ones (cost about 100 million DKr) were built for the purpose. The result of both first and second round was fiasco. All went bankrupt, and everything was sold. The local government has had enormous losses on these experiments.

Fish farming has also been seen as one of the few possibilities to compensate for lost rights in foreign waters. Some of the Faroese fjords are well suited for fish farming, but the total area is very restricted. Today 50-60 stations with salmon and trout are in operation, and the export is expected to manifold in the coming years - 1988: 3600 t, 1990 12,000 t (expected). It looks like the fish farming can turn out to be one of the relative successes in the Faroese

fishing industry, if properly managed. But this new industry is also in troubles p.t. (1990).

Concluding remarks

The agelong Faroese struggle to "be masters in their own house (waters)" came true with the 200 nm EEZ in 1977. But the EEZ came evidently as a surprise and the local government was unprepared to cope rationally with the situation. The fishery on Faroese grounds expanded to a point far above a biological optimum. The economic optimum is quite out of sight. After 10-12 years under these new conditions something that looks like the beginning of a management system is coming into sight. The price system and the subsidies in all facets of the fishery have made every real economic calculation opaque and nearly impossible. Enormous amounts of local government (tax payer) money have been poured into this bottomless system. Millions of DKr are lost on unsuccessful experiments. The year 1989 was a year of general economic crisis, and the newly installed conservative regime has proposed radical steps (Landsstyrid, 1990), but they are not yet implemented or in effect.

Resumé

På baggrund af en redegørelse for udviklingen i fiskerigrænseproblematikken på Færøerne giver artiklen et billede af de ændringer, der er sket som følge af udvidelsen af den eksklusive økonomiske zone, EEZ, til 200 sømil i 1977. Forinden havde færøske fartøjer været engageret i forskellige fiskerier, i Nordsøen, ved Island, Grønland og Nordnorge. Men relativt hurtigt skete der en omstilling til udnyttelse af fiskeressourcerne i den ny zone. I begyndelsen var der på dette område ingen restriktioner for færøske fiskere. I løbet af kort tid førte det til et betydeligt overfiskeri med nedgang i fangsterne og faldende og ofte negativ rentabilitet for fartøjerne. De umiddelbare forholdsregler fra Landsstyrets side var forskellige støtteordninger, som hjalp på kort sigt, men som på lidt længere sigt ikke kunne redde situationen, og som blev til en tung økonomisk byrde for Færøerne.

Denne udvikling kunne ud fra forholdsvis enkle fiskerimodeller forudsiges. Men den nye situation kom åbenbart bag på lokalregeringen, som ikke var i stand til at opstille effektive styringsmekanismer på dette helt afgørende område. Først efter 12-13 års skæv udvikling er man blevet tvunget til at gennemføre skrappe forholdsregler, der kan lempe presset på fiskebestandene og muligvis føre til et fiskeri, der kan klare sig uden store subsidier.

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Type	1975				1987			
	Nr.	GRT	GRT/N	Age	Nr.	GRT	GRT/N	Age
Saltfish Trawl.	4	2057	514	8	4	3329	832	14
Freshf. Trawl.	10	4250	425	6	82	21665	264	14
Other Trawlers	35	9831	281	10	27	18464	684	8
Longliners	31	7707	249	13	27	6576	244	22
Purse-seiners	19	7672	404	8	13	10680	822	11
Freezers	16	5346	334	8	5	1664	333	11
Longl./trawlers	97	5184	53	37	101	5570	55	37
Other/out of use	10	2132	213	34	8	683	85	22
Total	222	44179	199	15	267	68631	257	15

Table 4. Faroese fishing vessels 1975 and 1987. (Sources: J. Davidsen (ed.), dif.yrs)

Tabel 4. Færøske fiskefartjer 1975 og 1987.

Year	COD			HADDOCK			SAITHE		
	Catch	TAC	Diff.	Catch	TAC	Diff.	Catch	TAC	Diff.
1975	39			21			41		
76	42	28	14	26	17	7	33	50	-17
77	36	32	4	26	23	3	35	40	-5
78	31	32	-1	19	25	-6	28	45	-17
79	25	27	-2	12	21	-9	26	31	-5
1980	21	25	-4	15	20	-5	25	34	-9
81	24	16	5	12	15	-3	30	29	1
82	24	22	2	12	14	-2	31	29	2
83	40	25	15	13	10	3	39	26	13
84	39	27	12	12	14	-2	54	23	31
1985	43	25	18	15	12	3	44	19	25
86	36	22	14	14	14	0	41	27	14
87	26			16			40		
88	26			12			43		

Table 5. TAC and catches in 1000 t on Faroe grounds. All nations 1975-88. (Sources: Færøernes Landsstyre, dif.yrs)

Tabel 5. TAC (totalt tilladte fangst) og fangst i 1000 t i færøsk farvand. Alle nationer 1975-88.

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Type	1975				1987			
	Nr.	GRT	GRT/N	Age	Nr.	GRT	GRT/N	Age
Saltfish Trawl.	4	2057	514	8	4	3329	832	14
Freshf. Trawl.	10	4250	425	6	82	21665	264	14
Other Trawlers	35	9831	281	10	27	18464	684	8
Longliners	31	7707	249	13	27	6576	244	22
Purse-seiners	19	7672	404	8	13	10680	822	11
Freezers	16	5346	334	8	5	1664	333	11
Longl./trawlers	97	5184	53	37	101	5570	55	37
Other/out of use	10	2132	213	34	8	683	85	22
Total	222	44179	199	15	267	68631	257	15

Table 4. Faroese fishing vessels 1975 and 1987. (Sources: J. Davidsen (ed.), dif.yrs)

Tabel 4. Færøske fiskefartjer 1975 og 1987.

Year	COD			HADDOCK			SAITHE		
	Catch	TAC	Diff.	Catch	TAC	Diff.	Catch	TAC	Diff.
1975	39			21			41		
76	42	28	14	26	17	7	33	50	-17
77	36	32	4	26	23	3	35	40	-5
78	31	32	-1	19	25	-6	28	45	-17
79	25	27	-2	12	21	-9	26	31	-5
1980	21	25	-4	15	20	-5	25	34	-9
81	24	16	5	12	15	-3	30	29	1
82	24	22	2	12	14	-2	31	29	2
83	40	25	15	13	10	3	39	26	13
84	39	27	12	12	14	-2	54	23	31
1985	43	25	18	15	12	3	44	19	25
86	36	22	14	14	14	0	41	27	14
87	26			16			40		
88	26			12			43		

Table 5. TAC and catches in 1000 t on Faroe grounds. All nations 1975-88. (Sources: Færøernes Landsstyre, dif.yrs)

Tabel 5. TAC (totalt tilladte fangst) og fangst i 1000 t i færøsk farvand. Alle nationer 1975-88.