

European Communities

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DOCUMENT 1-950/82

REPORT

drawn up on behalf of the Committee on Agriculture

on the development of fisheries in Greek bays, lagoons
and inland waters

Rapporteur: Mr Efstratios PAPAEFSTRATIOU

OR:EN

PE 79.958/fin.

English Edition

At its sitting of 11 March 1982, the European Parliament referred the motion for a resolution tabled by Mr Kyrkos on the development of fisheries in inland seas (Doc. 1-6/82) pursuant to Rule 47 of the Rules of Procedure to the Committee on Agriculture as the committee responsible and to the Committee on Budgets for an opinion.

At its meeting of 25 May 1982, the Committee on Agriculture decided to draw up a report and appointed Mr Efstratios Papaefstratiou rapporteur.

The committee considered the draft report at its meetings of 2/3 November 1982 and 23/24 November 1982. At the last meeting it adopted unanimously the motion for a resolution as a whole.

The following took part in the vote: Mr Curry, chairman; Mr Papaefstratiou, rapporteur; Mr Battersby, Mrs Castle, Mr Cottrell (deputizing for Mr Howell), Mr Diana, Mr Gatto, Mr Gautier, Mr Helms, Mr Hord, Mr Jurgens, Mr Kaloyannis, Mr Kirk, Mr B. Nielsen, Mr Papapietro, Mrs Pery (deputizing for Mr Sutra), Mr Provan, Ms Quin, Mr Stella (deputizing for Mr Ligios), Mr Tolman, Mr Vernimmen, Mr Vgenopoulos and Mr Woltjer.

The Committee on Budgets has decided not to deliver an opinion.

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The Committee on Agriculture hereby submits to the European Parliament the following motion for a resolution, together with explanatory statement:

MOTION FOR A RESOLUTION

on the development of fisheries in Greek bays, lagoons and inland waters

The European Parliament,

- having regard to the motion for a resolution by Mr Kyrkos (doc. 1-6/82),
- having regard to the report of the Committee on Agriculture (doc.1-950/82),

- (a) whereas as fisheries has an important role to play in providing employment in the more peripheral regions of the Community,
 - (b) whereas the principal areas of Greek fisheries in coastal, Mediterranean and long distance waters have declined in recent years,
 - (c) whereas The Community is seeking to reduce regional imbalances by means of special medium term programmes suited to the needs of the Mediterranean,
1. Stresses the fact that inland waters, lagoons and fresh and salt water fish farming offers the most optimistic possibility for the development of fisheries in Greece;
 2. Considers that inland waters and aquaculture can provide an important contribution to improving incomes in the rural areas, as well as improving supplies to consumers and the processing industry;
 3. Points out that climate and hydrological conditions particularly favour fish farming and that the Gulf of Amvrakikos, the Lagoon of Mesolongion and the Gulfs of Gera and Kallonis on Lesbos are inland seas which offer great scope for fish production;
 4. Calls on the Commission to speed up the preparation, in cooperation with the Greek authorities, of programmes to encourage the development of fisheries in Greek inland waters, and to consider the following:

- (a) investment in fish farming;
- (b) producer organisations, including increased incentives for their establishment and operation;
- (c) improvement in methods and the introduction of new techniques;
- (d) the prevention of pollution and action to clean up already polluted waters;

5. Instructs its President to forward this resolution to the Commission and the Council.

B

EXPLANATORY STATEMENT

Problems facing Greek fisheries

Fisheries in Greece make a particularly low contribution to the national economy compared to other countries of the Community. This is largely because of the extremely narrow continental shelf around Greek waters compared to other seas around the globe. The seabed structure consists largely of rock beds unsuited to trawling. The coastal areas are exploited therefore by small inshore boats whose low output is aggravated by the over-exploitation of the fisheries reserves in these waters and by pollution. These coastal fisheries account for only 15 - 20% of Greek catches.

The volume of catches in coastal zones has declined considerably over recent years, for example over 35% in the period 1968 to 1975, due mainly to amateur fishermen and pollution.

In the past the main sector to show a significant development had been the deep sea fleets. These, however, due to the nature of Greek waters had been obliged to concentrate their activities outside national waters, and principally off Tunisia, Libya and West Africa. Greece pioneered the development of the East Central Atlantic fisheries, sending freezer trawlers to the Saharan bank as early as 1952.

Since the early seventies Greek trawler owners have found increasing difficulty in securing continuity of access to fishing grounds beyond the Mediterranean. They have also faced tough competition from Spanish, Japanese, Russian and other fleets.

There are at present some 27 overseas trawlers and 18 shrimp vessels. The overseas fleet is now very outdated. The newest trawler was built in 1960!

The offshore Mediterranean fishery has suffered particularly from the extension of fishing limits in Libyan waters. Although Libya operates a 50 mile extended fishing limit a joint Greek/Libyan company with 11 vessels was formed to operate within Libyan waters. However,

performance of this company has been poor and landings in Greece from the venture amount to as little as 500 tonnes per year.

Roughly one quarter of Greek catches were taken by deep sea ocean vessels and 60% by Mediterranean deep sea boats.

With the extension of 200 mile zones by these countries, the Greek deep seas fleet has over the last 10 years also suffered a decline, which has only been reversed in recent years by agreements negotiated with Mauritania, Libya and Guinea Conakry.

As we can see from the following table, catches have shown no increase in recent years:

	<u>MI</u>
1971	107,100
1972	95,000
1973	96,000
1974	92,019
1975	94,766
1976	105,620
1977	106,439
1978	102,177
1979	105,535
1980	105,535

INLAND WATER FISHERIES

The important role to be played by inland fisheries

The one area where a certain degree of optimism can be expressed is in the production of fish in inland water. Climatic and hydrological conditions particularly favour aquaculture.

The production of inland waters today exceeds 24,000 t. per annum, but there is a considerable potential to increase this figure, given the demand for fresh fish which cannot be met by the present fleet.

The plan drawn up by the Greek Centre for Planning and Economic Research lays heavy emphasis on the inland waters and aquaculture to satisfy the demand for fresh fish.

Estimated production 1985

	<u>Production</u>			<u>Share of Production</u>	
	<u>1980</u>	<u>1985</u>		<u>1980</u>	<u>1985</u>
Ocean fisheries	21,800	31,610	145	20	16.6
Med. fisheries	47,000	56,400	120	43.1	29.7
Inshore fisheries	29,000	34,349	118.5	26.6	18.1
Inland waters	9,800	19,600	200	9.0	10.3
Fish farming	14,000	48,041	333.1	1.3	25.3
	<u>109,000</u>	<u>190,000</u>	<u>74.3%</u>		

This table demonstrates clearly the importance attached to production on fish farms, lagoons and inland waters.

Inland waters: the need to improve production methods

The fisheries carried on in brackish water, lagoons - including the culture of shellfish and extensive aquaculture - catches from lakes and, the production of freshwater fish farms, form the smallest sector of the Greek fishing industry, accounting for about 8,000 to 10,000 tonnes per year, and consisting mainly of carp, tench, perch, pike, roach and mullets - a decline from the 11,000 tons of 1963.

Fundamental reasons of the steadily decreasing production of natural fish stocks are:

- primitive fishing methods leading gradually to depopulation of many water bodies,
- insufficient feeding with fresh water of some lagoons,
- progressive pollution of several lakes leading to gradual degradation of the quality of catches,
- short-term leasings of public waters for fishing, preventing tenants from carrying out important works intended to increase production, and
- overfishing of and lack of protection for the various fishery resources.

The annual - per capita - net income from inland fisheries varies between US\$ 990 and \$2760.

Traditional methods are often followed without the use of artificial reproduction and supplementary nutrition of fish. The absence of important infrastructural works constitutes a serious obstacle to the improvement of the yields in brackish water husbandry. Development has been delayed mainly because of a lack of fisheries organisation and a shortage of trained staff.

Developments so far

Production from aquaculture amounts to 1700 tonnes (1392 tonnes trouts, 80 tonnes carps, three tonnes eels and 225 tonnes various shellfish). There are 145 trout farms, two carp farms and one eel farm.

Trout farming - the most important branch of intensive fish culture - flourishes mainly in Epiros. A successful experiment with eel cultivation was carried out in the neighbourhood of Salonica in 1976. The raising in a small cement pond (80m³) of 11,000 undersized eels, weighing 680 kg produced a total quantity of fish amounting to 3800 kg.

In the Evros delta and the Bay of Salamis there are two mussel parks. An oyster farm in the estuary of the River Axios is producing 40 tonnes of oysters a year.

A pilot project of carp rearing ponds, 15 km south-west of Arta, is under construction. The land on which it is sited is unsuitable for agriculture and the whole area is adjacent to a drainage canal with a water supply of 4200 m³/h, which is to serve for the feeding of the ponds. It is planned that part of this farm will be devoted to eel culture.

Possible developments

Carps. Over 9000ha of saline or alkaline uncultivable soils are suitable for aquaculture. Rearing of carps and similar species is possible in earthen ponds fed by fresh or sub-saline waters. The cultivation of carp in an area of 100ha, flooded by water in a depth of 0.90-1m, can produce 280-300 tonnes a year as long as the raising is combined with fertilizers and supply of additional fish food.

Mulletts. Several marine sites are suitable for raising mulletts unmixed in intentionally constructed ponds, or together with other fish.

Salmonids. Planning of a gradual and long-term development of trout production is procured by the C.P. E.R. (Centre of Planning). A well organised trout farm with a pond area of 8000m² and water supply of 1.5m³/sec could secure an annual income of more than \$180,000. Rough calculation of operational costs amounts to \$165,000. The programme will seek to put into practice trout culture in marine waters.

Aquaculture projects

Among the most important aquacultural projects are:

Region of Arta. Pilot carp farm located in a large flood plain of the Aracthos River. Pond stock would include carps, mulletts and ducks.

Another pilot project of eel ponds is planned.

Amnrakicos area. Conversion of the lagoon Tsukalio into smaller, more manageable units by sub-division of the existing area and building levees and canals, deepening bottoms and installing more fishing traps.

Enclosing a small bay of Amnrakicos, by artificial barrier, with a view to transform it into a sea farm.

Planning of a shrimp farm for the local species *Penaeus keraturus*, near Preveza.

Euvoicos area. Project to use warm cooling water, discharged from the power plant of Aliveri, for the rearing of shrimps. The present plan, estimated to cost \$160,000, provides for three tanks of 1400m² to be built initially and six larger ponds to be constructed later.

Evros delta. Combine fish and cattle farming in swamp and firm land. Pond stock would include common, silver and grass carps together with mullets and ducks.

Enlargement of the brackish lake Mikrolimni by incorporating this with the estuarine zone situated south of the lake. A proper arrangement would permit the installation of cement basins and indoor tanks for rearing fingerlings of sea bass.

Establishing a modern mussel farm near the lake of Drana.

Lesvos Island

Geras area. Mixed fish and cattle farm in firm land near the seashore. An alternative proposal is a model eel and mullet rearing complex.

Floating fish farm in the Bay of Akoth. Net cages supported by pine wood and floating drums are to be used for culture of sea bass.

Rearing of shrimps. A saline swamp is identified near the Larsos' warm springs. This water is potentially valuable for the growing of *Macrobrachium rosenbergii*, the large freshwater shrimp.

Kalonis area. The Mesa saline swamp was identified to be converted to mullet and cattle-duck rearing farms.

A model farm near the Scala of Polychnitos is projected with a view to producing 200 tonnes a year. The thermal springs of Polychnitos are valuable as heat exchangers for extending the growing season of the shrimp, *Penaeus keraturus*.

A floating scallop farm for the Bay Cumcu was proposed. The above mollusc would be reared in plastic net baskets suspended between depths of 0-3m, a minimum of 0.5m from the sea bottom, to provide protection from disease, competition and low oxygen during fattening.

Design and construction of fish farming enclosure for the Bay of Apotiki estimated th cost \$210,000.

The role of the Government

The Government has recently switched its attention to the support of aquaculture other than trout. Attention has been focussed on the Amvrakikos gulf area, its associated lagoons and freshwater resources. Consultants have been engaged to study the area and prepare development plans.

In view of the poor maritime resources and the difficulties of securing access to the waters of other nations, the inland fisheries are an area of particular interest to the Government.

The Government is in the fortunate position that it owns the springs used for the production of trout and can grant exclusive rights for use of the coast for fish and shellfish culture. The products also have good export potential. The state operates two fish breeding stations, one at Louros and one at Edessa, with a third station under construction at Drama. Here trout fingerlings are produced and freely

distributed to private fish breeders. Production of trout has risen from the estimated 1,000 tonnes in 1976 to 1,600 tonnes in 1978. Although there has been no promotion of trout on the local market consumption has been encouraged by controlling the retail price. There has also been a small subsidy on processed trout exports and exports of fresh trout.

The Government is also anxious to encourage the export of eels which have few outlets on the Greek market. There are eel trapping stations, for instance, at Porto Lago near Kavalla from where fresh eels are dispatched to North West Europe. The trade, however, is small and plays only a minor part in the eel trade of the major importers.

Table 1: Imports of Eels from Greece 1978
(tonnes and local currency)

	<u>Volume</u>	<u>Value</u>	<u>Percent of total imports</u>	
			<u>Volume</u>	<u>Value</u>
Netherlands	152	1,936,000 gld	3.0	4.2
GFR	110.6	1,550,000 DM	2.2	2.5

Exchange rates 1978: £1 = 4.0225 gld
£1 = 2,6150 DM

	<u>IMPORTS</u>		<u>EXPORTS</u>	
	<u>MT</u>	<u>1000 US\$</u>	<u>MT</u>	<u>1000 US\$</u>
1977	1185	958	80	353
1978	4223	4288	364	2605
1979	2822	2884	144	854
1980	2113	2284	155	905

GREECE/GRECE

TABLE I/TABLEAU I

FISHING FLEET ACCORDING TO CATEGORIES/FLOTTE DE PECHE SELON LES CATEGORIES

1978 & 1979

	1978	1979
Long-distant fishing/Pêche lointaine	46	47
Mediterranean fishing (dragners and engine seiners)/Pêche méditerranéenne (dragueurs et senneurs à moteur)	830	835
Coastal fishing (with and without engines, sports vessels, etc.)/Pêche côtière (avec et sans moteur, navires pour la pêche sportive, etc.)	25.200	25.000
<u>Number of fishermen/Nombre de pêcheurs</u>		
Total number of fishermen/Nombre total de pêcheurs	45.500	
Full-time/A plein temps	31.500	
Part-time/A temps partiel	14.000	

GREECE/GRECE

TABLEAU II/TABLE II

FISHING PRODUCTION/PRODUCTION DE POISSON

1978 & 1979

Volume : tonnes
Val. : '000 Dr.

	1978		1979	
	Volume	Val.	Volume	Val.
Long-distant fishing/Pêche lointaine	19.000	1.005.000	27.570	1.804.000
Mediterranean fishing (engine draggers and seiners)/ Pêche méditerranéenne (dragueurs et senneurs à moteur)	59.000)	4.400.000	58.000)	4.400.000
Coastal fishing/Pêche côtière	30.000)		30.000)	
Inland waters (lakes, hatcheries, rivers, aquacul- ture)/Eaux intérieures (lacs, vivariums, rivières, aquaculture)	12.000)		12.300	
TOTAL	120.000	5.405.000	127.870	6.917.000

GREECE/GRECE

TABLE III/TABLEAU III

INTERNATIONAL TRADE/ÉCHANGES INTERNATIONAUX

Volume : tonnes
Val. : '000 Dr.

	IMPORTS/IMPORTATIONS				EXPORTS/EXPORTATIONS			
	1.9.77/31.8.78		1.9.78/31.8.79		1.9.77/31.8.79		1.9.78/31.8.79	
	Volume	Val.	Volume	Val.	Volume	Val.	Volume	Val.
Total fish and fish products Total poisson et produits de la pêche	30.549	1.556.994	33.511	1.846.783	6.756	497.957	8.912	620.2
Fresh, chilled, frozen fish/ Poisson frais, réfrigéré, congelé, etc.	2.685	116.768	7.083	384.786	1.104	120.795	721	102.3
Salted, dried, smoked fish/ Poisson salé, séché, fumé ..	10.540	650.647	12.726	850.800	772	25.846	676	22.26
Shellfish, molluscs (fresh, chilled, salted, frozen)/ Crustacés, coquillages, mol- lusques (frais, sur glace, salés, congelés)	4.720	245.084	5.680	223.641	3.125	189.309	5.728	303.70
Prepared or canned fish, shellfish and molluscs/Pois- son, crustacés et mollusques préparés ou en conserve	12.604	544.495	8.022	387.556	1.755	162.007	1.787	192.012

MOTION FOR A RESOLUTION (DOC. 1-6/82)
tabled by Mr Kyrkos
pursuant to Rule 47 of the Rules of Procedure
on the development of fisheries in inland seas

The European Parliament,

- whereas the fisheries sector is of great importance for guaranteeing an adequate and healthy food supply for the population of the Community,
- whereas an organized fishing industry plays an important part in ensuring lasting employment,
- whereas fish stocks in the Mediterranean are continually declining as a result of increasing marine pollution,
- whereas fish-farming based on scientific methods offers great possibilities,
- whereas the Commission plans to pursue a policy aimed at reducing and/or eliminating disparities in the regions of the Mediterranean by means of special medium-term programmes adapted to the needs of these regions¹,
- whereas it is desirable to reduce the Community's and Greece's dependence on imports of fish from third countries,
- whereas it is desirable to exploit and make use of all the resources of the Community,
- whereas the utilization of inland seas, lagoons and salt-water inlets in the Mediterranean countries is of paramount importance for the supply of fresh fish and fish products for the population in these areas,
- whereas, in the case of Greece, the Gulf of Amvrakikos, the lagoon of Mesolongion and the Gulfs of Gera and Kallonis on Lesbos are inland seas which offer great scope for fish production to meet the needs of the Greek population,
- whereas scientific exploitation of the above-mentioned areas of water in Greece will help to revitalize six medium-sized towns and a number of smaller villages in the districts of Aitolia and Akarnania, Arta and Preveza, the towns of Amfilokhia, Arta, Preveza, Vonitsa, Mesolongion and Aitolikon, and also the towns of Kalloni and Plomarion and a number of small villages on Lesbos,
- whereas the implementation of integrated programmes for the utilization of the above-mentioned natural resources will make a significant contribution to the development of the regions of Aitolia and Akarnania, Arta, Preveza and Lesbos, which have to contend with serious problems connected with emigration, low incomes and the restructuring of their economy,

1. Requests the Commission to adopt specific Community measures and to implement as soon as possible, in collaboration with the Greek government, integrated programmes for the exploitation of the above-mentioned natural resources in Greece;

these integrated programmes should comprise the following:

- the organization of production by the farming of shellfish, eels and other species of fish; to this end it would be sensible to drive the dolphins from the Gulf of Amvrakikos into the open sea,
 - the setting-up of producer associations with a view to organizing production, trade and the industrialization of the fisheries sector; to this end greater incentives are needed for the setting-up and operation of producer associations,
 - training of fishermen to make it easier for them to adapt to new scientific fishing and fish-farming methods,
 - training of young people with a view to employment in the fisheries sector,
 - the setting up of an institute for the development of fishing in inland seas, in the region of Aitolia and Akarnania,
 - the protection of inland seas from pollution; in this connection it is considered advisable to stop the dumping of oil in the Gulf of Amvrakikos and to clean up the waste discharged by factories and towns into these waters;
2. Requests the Commission to enter a specific heading in the 1983 budget for the implementation of these programmes;
 3. Instructs its President to forward this resolution to the Commission, the Council and the Greek government.