

**Input-Output and Global Equilibrium:
Data, Modeling, and Policy Analysis
Brussels, September 2-4, 2004**

**Application of Input-Output methods for the study of the Galician fishing
in 1999**

Garcia-Negro, M.C.(*), Doldán-Garcia, X.R.(*), Chas-Amil, M.L.(**), Zotes-Tarrío, Y. (*),
Carballo-Penela, A.(*), Nogueira-Moure, E. (*), Villasante-Larramendi, S.(*)

(*) Department of Applied Economics

(**) Department of Quantitative Methods

University of Santiago de Compostela –Galicia (Spain)

Abstract. The increased concern with regional economic planning has been common in almost all countries. Governments have shown more interest in planning for individual regions and this interest has created a great demand for information. Input-output analysis is potentially an excellent descriptive device and a powerful analytical technique. The recently presented project entitled “Input-Output methods for the study of Galician fishing in 1999” involves an analysis of the Galician fisheries (Spain) using a well-known economic technique. The Galician fishing sector is the most important in Europe, in terms of employment, income, fleet, catches and landings. This economic importance demands the use of the input-output method because it is a more useful tool than any other technique using conventional statistical sources. After analyzing the results of our study we should point out that the integration of this sector in the Galician economy and the industrial character of this activity is higher than the level considered so far.

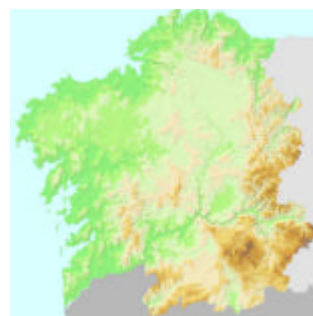
Keywords : input-output, fishing, Galicia.

1. INTRODUCTION

Spain is one of the leader countries in fisheries in the European Union (UE) with the highest number of processing factories for fish canning and other marine products. Galicia, in the North West of Spain, is, together with Andalusia and Canary Island, a Spanish region where fishing takes on the most importance. There are more than 8.000 fishing enterprises with a wide range of different fleet segments. The greater number of vessels in fleet is made up of the inshore vessels which include the aquaculture auxiliary vessels; however it is necessary to point out the great importance of the Galician deep sea fishing and the high sea fishing fleet, especially the freezing fleet transforming frozen fish products in one of the major fish products. Traditionally the fish processing sector has been based



Map 1: Localization of Galicia (Spain)



Map 2: Galicia

on fish canning. However, nowadays a new processing activity is growing in economic importance. In the last few years the Galician fishing sector has undergone considerable restructuring resulting in fewer but more cost efficient companies, again the region of Galicia predominates in terms of catches and processing by volume and by value (Table 1).

For a leader in fishing such as Galicia, it's clearly essential to be able to accurately gauge how the fishing and the preserved fish sectors, as well as all of the other related activities, function in both, quantitative and qualitative terms.

2. INPUT OUTPUT ANALYSIS

Input-Output tables provide a complete picture of the flows of products and services and the interdependences of industries. Supply and Use balances are the basis for the Input-Output tables, which provide separate analysis of the uses of domestically produced and imported goods and services. The 1999 Input-Output tables for the Galician Fishing sector are the latest in a series which began with 1995 tables, published in 1997. Moreover, this is the first set of fishing tables to be compiled under the European System of Accounts 1995.

2.1 Input-Output framework (ESA95) INPUT

The input-output framework is made up of three kinds of tables as described in the European System of Accounts 1995 (ESA 1995), i.e.:

- 1.- Supply and use tables.
- 2.- Tables which bring together the supply and use tables on the one hand and the accounts for the sector on the other.
- 3.- Symmetric input-output tables.

The supply and use tables give a branch-by-branch and a product-by-product breakdown, providing an overview of the internal production processes and the goods and services operations within the economy. The grids show the branches of activity in the columns and the products in the rows, thus providing the following information:

- a.- The structure of the production costs and the income generated by the production processes.
- b.- The flows of goods and services produced by the Galician economy.
- c.- The flows of goods and services with the rest of the world

Supply tables show the goods and services on supply on a product-by-product basis together the suppliers, differentiating between domestic branches of activity and imports (Table 2).

Use tables show how goods and services are used on a product-by-product basis according to the different types of usage, i.e. as intermediate consumption (for each branch of activity), final consumption, gross capital formation and exports. In addition, these tables also show the components which make up the gross value added (GVA), i.e. employees' salaries and other taxes minus production subsidies, net mixed income, net operating surplus and fixed capital consumption (Table 3).

The supply and the use tables can also be combined and presented as one single table. In order to do this, all that is needed is to add two new rows to the use table in order to include production and imports. A symmetric input-output table brings together resources and uses in one single table and acts as an array variable or variables table showing a product-by-product and branch-by-branch break-down and providing a detailed description of the internal production processes as well as the goods and services operations carried out within any given economy. What this means in practice, therefore, is that when drawing up symmetric input-output tables either a product-based classification or an activity-based classification is applied to both axes of the grid, i.e. the rows and columns of the table (Table 4).

Most of the statistical information obtained from the production units indicate the type of goods and services produced/sold as well as the products bought and used, albeit to a less detailed extent. The format for the supply and use tables was tailored to accommodate this kind of statistical information, i.e. branches of activity for each-product. However, the product-by-product and branch-by-branch information needed to draw up symmetric input-output tables is not usually available. What this means in practice is that the information contained in the supply and use tables serves as the basis before going on to put together the more analytic information contained in the symmetric input-output tables.

The supply and use tables and the symmetric tables provide a detailed overview of the sources and usages of goods and services together with the corresponding labour input and primary income. The tables and ratios which can be extracted from them, e.g. productivity figures, play an important role in economic analyses.

In the supply table, the flows of goods and services are measured in terms of basic prices whereas in the use table they are measured in terms of purchasers' prices¹. The value added is expressed in terms of basic prices as the net production result in basic prices minus intermediate consumption in purchasers' prices.

The use table can also contain additional information, i.e. gross fixed capital formation, stocks of fixed assets and labour input by branches of activity.

In practice, Supply and Use tables are the basis for the Symmetric table, which provides separate analyses for domestically produced and imported goods and services, product by product tables, industry by industry tables.

3. GALICIAN FISHING INPUT-OUTPUT TABLES

The Input-Output Tables 1999 were the result of collaboration between the Galician Department for Fishing (Galician Government-Xunta Galicia) and the University of Santiago de Compostela. They will become an useful tool whenever there is the need to highlight the important role these activities play in Galicia as well as their internal potential.

3.1. Methodology

Galician fishing Input-Output (I-O) tables have taken into account international recommendations and methodology, as it was explained before, the data availability and the desegregation needed to achieve the objectives of the study. In this section the methodology and results of the Galician fishing I-O tables will be explained briefly.

All explained above must be applied when drawing up the input-output tables for an economy as a whole, although certain modifications have to be introduced when dealing with a sectorial analysis. Thus, the intersection points between the activities and the products which include the values for intermediate consumption (I.C.) do not actually correspond to one square (or rectangular) array variable or grid, but rather to the type of lay-out presented below where the shaded area corresponds to the information not included in these tables. (Table 5)

As the aim of our study is to quantify the relationships between the different branches of activity involved in the Galician fishing sector, the columns of this variable table include the following branches of activity:

¹ Basic prices is the amount receives by the producer for a unit of goods or services minus any taxes payable plus any subsidy receivable on that unit as a consequences of production or sale. As a result the only taxes included in the basic price are taxes on the production process which are not specifically levied on the production of a unit of output. Basic prices exclude any transport charges invoiced separately by the producer.

1. Extractive fishing:
 - 1.1. In-shore fishing includes companies involved in traditional fishing mainly practicing on board shellfish collecting and fishing with traps and pots, as well as involved with traditional fishing using several different kinds of fishing gear.
 - 1.2. Coastal fishing includes companies whose catches are destined to be sold as fresh fish, made up of fishing units operating off the coasts beyond the estuaries.
 - 1.3. Deep-sea fishing involves industrial fishing operating in the **Grand Sole** and in the Canaries-Saharan fishing grounds.
 - 1.4. High-sea fishing is made up of companies with an average tonnage of over 500 Gross Registered Tonnage (GRT) involved in industrial high-sea fishing.
2. Marine aquaculture is mainly specialised in the mussel production or “miticulture”.
 - 2.2. Mussel farming and others
 - 2.3. Other aquaculture activities
3. Shellfish collecting
4. Tinned and new processed products covers the production of tinned products as well as other processed fish and fisheries products, including preserved fish and seafood (e.g. dried, salted and tinned products), fish and shellfish-based products (e.g. cooked fish, roe, caviar, imitation caviar, etc.), and fishmeal (e.g. using fish, shellfish, and any other kind of seafood, destined to be sold for human consumption). These new processed foods involve the industrial production of foodstuffs using fish and fisheries materials different to those traditionally used in the tinning and preserves industry, and share the following characteristics: They are destined for human consumption; They are industrially-made products; They are non-fresh products; They are packaged and labelled with a brand name.

On the other hand, the rows show the uses of the products for each branch of activity.

For reasons explained above, information is not provided concerning branches and/or products not related to the fishing sector. This should not, however, constitute a serious obstacle to integrating this information into the Galician input-output table, despite the greater level of disaggregation of the fishing activities.

3.2. The scope and classification of the input-output tables for the Galician fishing and preserved fish sectors 1999

Purchasers' prices: the prices paid for products at the point of sale, after the addition of any taxes less subsidies on products and after the addition of any other costs such as distributors' trading margins.

When defining the scope of the tables it was decided to respect existing international guidelines and the statistics available. The tables cover 73 different groups of products/ 73 homogeneous branches of activity which is actually well above the levels required by EUROSTAT as described in ESA 1995 and whose fulfilment is compulsory for all EU countries, i.e. min. 60 branches and/or groups of products.

Branches of activities and products are related to the standard classification used in Spain (CNAE-93 for industries and CNPA-97 for products) and in Europe (NACE Rev. 1 and CPA, respectively). The classification used is the result of a functional classification tailored to fit our analytical needs and the economic policy. It is important to point out that it does not coincide exactly with the standard classification when is referred to frozen fish. In this work, frozen fish is considered as fish because it is immediately frozen on-board.

There is a direct, one-to-one relationship between each product and one of the different branches of activities (Table 6).

3.3. The phases involved in drawing up the input-output tables

. In this case, the input-output tables were drawn up over the period June 2000 to November 2001 and involved the following phases:

- The basic preparatory work prior to data collection
- Direct and indirect data collection, process monitoring and resolving data compilation problems
- Data processing, draft tables, data debugging and scale estimates

Taken together, these three phases involved the following working stages:

1. Drawing up a list of the production units
2. Training the people responsible for carrying out the questionnaires
3. Preparing the sample and drawing up the questionnaires. Its main characteristics (unit surveyed, stratification variables, number of strata and population size) are shown in Table 7.
4. Fieldwork: carrying out the questionnaires
5. Statistical data processing of the sample. Reviewing the sample in order to offset failures. New surveys.
6. Setting up a survey of the units in the services sector involved with the fishing sector:
 - a. Fresh product retailers

- b. Frozen food retailers
 - c. Refrigerated foods
 - d. New processed products
7. Drawing up the tables
 8. Verification and correction of errors.

3.4. Results

These tables show that fishing is very much alive as an economic activity, i.e. it is growing in economic terms. The observable growth in the period 1995-1999 takes place within the fishing sector itself in line with the laws of economic growth, which means that while certain sub sectors may be very dynamic, others may well appear to be at a standstill. The general overview of the situation provided by the input-output tables means that the standstill suffered by certain parts of the economy becomes irrelevant within the wider, overall observable climate of growth.

This economic growth registered in the fishing sector should also be seen as the indirect driving force behind the growth of the other related economic sectors.

It is, therefore, correct to say that the growth of the fishing sector leads to a growth in the effective demand, via an increase in the available income, both within the Galician economy itself as well as the rest of the world.

Intermediate inputs

The relationships which exist between the different sub sectors of the fishing sector, ranging from shellfish collecting and mussel farming to tinned and preserved foods and new processed foods are clearly reflected in the symmetrical variables table, whereby the cross-over values of the fishing sector amount to a total of 348,306,270 € representing the exchanges which take place within the fishing sector itself. Each sub sector depends upon all of the other sub sectors for its own economic survival, whether it be for the supply of bait or of the intermediate inputs needed to be transformed into finished goods.

As far as agricultural, livestock and forestry goods are concerned, no actual value is given regarding their relationship to fishing owing to the fact that the goods produced by these sectors of the economy find their way into the fishing sector via the products referred to as TIOPP 8 (Tinned fish and shellfish and other processed foods), TIOPP 13 (Miscellaneous food and drinks), TIOPP 14 (Spices, sauces and preservatives), TIOPP 15 (Other foodstuffs) and TIOPP 16 (Tobacco), all of which are essential intermediate inputs for the fishing sector, amounting to a grand total of 62,426,570 €

The whole of the textile manufactory industry also supplies essential input for the fishing sector, as is the case for the Cables and netting sub sector which is also involved in all of the fishing sub sectors, with the logical exception of marine fish-farming.

Containers and packaging and other wooden items (2.42 million €) occupy an important place in the mussel farming sector and in the tinned/preserved food and other processed foods sector. The scale of this particular type of input becomes relatively less important in the case of extractive fishing due to the regulations currently in force and also due to the use of containers and packaging provided by other sectors.

The paper, paper processing and cardboard industry (products TIOPP 23 and TIOPP 24) also accounts for a significant part of the input used in the fishing sector, 10.51 million €

Products from the oil refinery sector (TIOPP 27) are found throughout absolutely all of the sub sectors involved with the fishing sector. Such products account for most of the intermediate input for in-shore, coastal, deep-sea and high-sea fishing, taking third place in the case of mussel farming and coming second in the case of shellfish collecting. The fact that this type of input is to be found in all of the different processes that fishing involves further stands to show that fishing is indeed an industrial activity.

The whole of the chemical industry plays a very important role as a source of intermediate input. The product supplied by this sector can be found to varying degrees in all of the fishing sub sectors, amounting to an overall total of 11,731,860 €

The relationship between the fishing sector and the industry which supplies electronic and mechanical equipment is also important and can be seen to affect all of the sectors involved with the fishing sector.

Ship and boat-repairs services (TIOPP 43) play a very important role in deep-sea fishing and high-sea fishing. It should also be pointed out that this section only includes notes in the company's accounts which refer to repairs and running costs and which feature as expenses rather than investments because fixed capital investments do not appear when annual consumption is included in the intermediate inputs. The building of new boats and reform work carried out in order to incorporate new technical improvements are not included in this section, which explains why the true impact of fishing on the ship-building industry is in fact far greater than the present tables would tend to indicate.

Despite the apparently low total for electrical energy and gas (TIOPP 46) at 4.55 million € these items nevertheless play an important role in the fishing sector. It should be remembered that this figure refers to consumption levels for land-based installations within the Galician economy for all of the companies in operation.

Ice (TIOPP 47) and soft water (TIOPP 48) both constitute essential input for all of the fisheries sub sectors. Once again it is worth noting the industrial nature of the industrial fishing sectors which should really be dealt with in terms of floating production factories where the supply of fresh water fulfils the same function as in any other land-based installation.

The following items also play a very important role as far as the sub sectors involved with the provision of services are concerned: transport services (TIOPP 59), advertising (TIOPP 67) and services provided by financial intermediaries (TIOPP 64), followed by services provided by public administrations (TIOPP 68) and other services provided by business organisations (TIOPP 69), which together account for 166,933,220 €

Services provided by the transport sector are particularly important for high-sea fishing and the processed food sector, although such services are also used by the whole of the fishing sector.

Primary inputs

The heading covering payments made to workers is made up of all of the gross wages and salaries plus the insurance contributions paid out by each of the production units. For example, payments to workers involved in shellfish collection amounting to a total of 0.69 millions € made up of gross wages and salaries plus the social contributions paid by the shellfish collectors to their employees (biologists, wardens and guards, etc.). Income for shellfish collectors and self-employed workers employed in in-shore and coastal fishing and mussel farming amounted to 145.16 million € which is accounted for as mixed income on the grounds that the owners of these particular types fishing production units are also workers (Table 8).

In this case, the ways the income is shared out also very much reflects an increasing trend geared to bringing this sector into line with standard practices for the industrial sector at large.

Finally, the total for equivalent imported products is also given. These imports should be seen in two different ways. Firstly, they represent a part of the product captured outside EU waters by Galician fishing units and which the European regulations do not recognise as domestic catches, and secondly, they should be taken as a gauge for what we refer to as the *import capacity*, which characterises a dynamic and mature primary transformation and commercialisation sector which was able to replace the supply of products captured in

domestic waters by imported products in order to fulfil markets demanded which prize Galician fish.

These items are labelled *h* in the table 8 and, barring the exception of marine fish farming for which no information was available, they accounted for 1.05 thousand million € in 1999.

The distribution of fisheries products

Fisheries products are defined as all of the goods destined for human consumption which the market recognises as coming from the sea

The way these products are distributed is best understood by looking at the components which make up the final demand, covering domestic consumption by both the residents population (371.61 million €) and the non-resident population (2.5 million €), as well as exports (2,253 million €) (Table 9).

It is also of particular interest to highlight the role played by consumption (intermediate demand) in the distribution of fisheries products via the catering and hotel trade which affects all of the segments involved. In fact, it is clear that a substantial part of the demand for in-shore fishing comes from a particular sub sector of the catering and hotel trade specialising in fresh fish of a kind which will soon become classified as a luxury good. Furthermore, exports to the rest of Spain and the rest of the world reflect the dynamic, competitive and innovative nature of the Galician fishing sector, where the final demand for exported goods actually exceeds domestic consumption. The scale of exports would be seen to be even greater were an analytic instrument available capable of detecting the flow of products exported by Galician companies beyond the European Union to the rest of the world.

4. CONCLUSIONS

Galician fishing is an economic sector with a very strong pull as clearly indicated above, with a strong, positive knock-on effect acting on a network and/or cluster of different industries and services covering a wide range of sectors. This direct knock-on effect is expressed by the relationship between fishing and the 74 other sectors shown in the tables, whilst at the same time also being indirectly affecting all of the sectors which in turn depend on the latter.

Galician fishing is quite clearly an industrial type of economic activity, whereby in order to produce a unit of fisheries products it relies inevitably on the backing of many other sectors which form part of the overall economic industrial tissue as well as service sectors. Owing to

the chain-reaction effect which exists between all of these activities, any changes will inevitably lead to a far-reaching series of knock-on effects.

The vital role played by those elements which go to make up the intermediate consumption in fishing is not only quantitative but also qualitative. What this means is that as well as the positive knock-on effect that it has on the rest of the industry, it also functions as a creative pole by generating demand for essential activities. For example, despite the fact that the net-making sub sector of the services sector occupies only a small place in the overall economy in quantitative terms, the fishing sector still relies on it as a vital service. Therefore, as long as Galician fishing grows and remains alive in the economic sense of the term, it acts as a focus serving to increase the effective demand within the Galician economy as a whole.

Within the Spanish market, Galician fishing acts as a supplier of a product destined for human consumption, i.e. a foodstuff, which must be clearly distinguished from fishing for other kinds of seafood destined to be transformed into fishmeal.

Based on what we have already said, the Galician fishing sector has been able to provide a fisheries product of a quality and in quantities in line with the level of the domestic Spanish market, either in the form of catches caught by the fleet itself or in the form of imports. The situation described would seem to follow this order of events:

1. An increase in the Spanish demand for fish
2. The fishing capacity of the Galician extractive fleet operating in its traditional waters suffers a set-back or is depleted
3. An increase in the imports sub sector responsible for supplying the domestic Spanish market with products from Galicia.

It is also clear that Galician fishing also constitutes a competent and modern economic activity, capable of quickly and efficiently incorporating new technologies in the areas of detection, information, security and communications, whilst at the same time lagging somewhat behind in other areas such as association-based financial relations and marketing techniques.

Galicia fishing is an innovative economic sector in itself, creating new products and inventing and creating marketable goods based on resources not used in that market. The last few years have shown how new offers are easy to introduce into a market eager for Galician fish, especially fresh, wild and/or frozen fish, in this case reputed for its guarantee of freshness.

Galicia also exports large quantities of goods to the rest of the world, with this particular item calling for a more in-depth analysis of its own because at the present time it is not

possible to examine the question of Galician exports markets with the same detail as the Spanish markets. It should be pointed out that one third of the values given are generated by exports of tinned products and other processed foods, with frozen high-sea fishing goods accounting for 60%. What this means in practice is that Europe as a whole depends, in part at least, on Galician fishing (0.46 thousand million €).

5.- REFERENCES

- Eurostat. Sistema Europeo de Cuentas. SEC 1995. [The European System of National and Regional Accounts – ESA 1995] 1996.
- Garcia Negro, M. C. (dir.). Táboa Input Output Pesca Conserva Galega 1995. [Input-output table for The Galician Fishing and Preserved Fish Sectors 1995] Galician Government. 1997
- Garcia Negro, M. C. (dir.). Táboas Input Output Pesca Conserva Galegas 1999. [Input-output tables for The Galician Fishing and Preserved Fish Sectors 1999] Galician Government. 2003
- Instituto Nacional de Estadística (INE). Clasificación Nacional de Productos por Actividades 1996 (CNPA-96). [Spanish Institute of Statistics (INE). National Classification of Products by Activity 1996]
- Instituto Nacional de Estadística (INE). Clasificación Nacional de Actividades Económicas 1993 (CNAE-93). [Spanish Institute of Statistics (INE). National Classification of Economic Activities 1993]
- Xunta de Galicia. Táboa Input-Output e Contabilidade Rexional de Galicia 1998 [Galician Government . Input-Output Table and Regional Accounts for Galicia 1998].

Table 1. Galicia & European Union (EU)

	Extractive Fishing	Shellfish collecting and Marine Aquaculture
Employment	41,600	13,000
% Galicia/EU	(18.28%)	(24%)
Fishing enterprises	8,811	-----
% Galicia/EU	(8.18%)	
Production (tonnes)	440,000	256,000
% Galicia/EU	(7.14%)	(23.46%)
Production (million €)	760	146
% Galicia/EU	(10.13%)	(7.40%)

Source: European Commission. Ministerio de Agricultura, Pesca y Alimentación. Táboas input-output pesca-conserva 1999

Table 2: Simplified supply table

Supply	Branch of activity	Rest of the world	Total
	(1)	(2)	(3)
Products	(1) Production per product for each of the different branches	Imports for each product	Total supply per product
Total	(2) Production per branch of activity	Total imports	Total supply

Table 3: Simplified use table

Uses	Branch of activity	Rest of the world	Final consumption expenditure	Gross capital formation	Total
	(1)	(2)	(3)	(4)	(5)
Products	(1) Intermediate consumption per product for each different branch of activity	Exports	Final consumption expenditure	Gross capital formation	Total uses per product
Components of the value added	(2) Value added per component for each different branch of activity				
Total	(3) Total input for each different branch of activity				

Table 4: Simplified symmetric input-output table

	Products	Rest of the world	Final consumption expenditure	Gross capital formation	Total
	(1)	(2)	(3)	(4)	(5)
Products	(1) Intermediate consumption	Exports	Final consumption expenditure	Gross capital formation	Total uses per product
Components of the value added	(2) Value added				
Rest of the world	(3) Imports				
Total	(4) Total supply per product				Total supply = total uses

Table 5: Symmetrical sectorial input-output table

Products	Homogeneous branches of activity							Total intermediate demand
	1	2	3	4	5	6	7.....n	
1	Intermediate consumption at basic prices							A
2	by product							
3								
4								
5								
.								Sum A
.								
n								
Intermediate consumption at basic prices								Intermediate demand

Source: Táboas input-output pesca-conserva 1999

Table 6: Products and branches of activities

Products		Branches of activity	
TIOPP ₂₁	Fishing products: In-shore fishing	TIOPR ₂₁	In-shore fishing
TIOPP ₂₂	Fishing products: Coastal fishing	TIOPR ₂₂	Coastal fishing
TIOPP ₂₃	Fishing products: Deep-sea fishing	TIOPR ₂₃	Deep-sea fishing
TIOPP ₂₄	Fishing products: High-sea fishing with freezer-ships	TIOPR ₂₄	High-sea fishing
TIOPP ₃₁	Mussel farming	TIOPR ₃₁	Mussel farming etc.
TIOPP ₃₂	Other aquiculture products	TIOPR ₃₂	Marine fish-farming
TIOPP ₄	Shellfish	TIOPR ₄	Shellfish collecting
TIOPP ₈	Tinned fish and shellfish and other processed products	TIOPR ₈	Tinned fish and new processed products

Source: Táboas input-output pesca-conserva 1999

Table 7: Main characteristics of the sectors studied by sample

Fishing sectors	Unit surveyed	Stratification variables	Strata	Population size
Extractive Fishing	Fishing companies	Gross Registered Tonnage (GRT)	5 strata:	
			0-5 GRT	6,512
			5.01-30 GRT	1,025
			30.01-150 GRT	354
			150.01-500 GRT	316
> 500 GRT	30			
Mussel farming	Mussel rafts owners	Number of mussel rafts per owner (mr)	3 strata	
			1-2 mr	1,817
			3-9 mr	223
>9 mr	25			
Tinned and Preserved Fish and Shellfish	Tinned and Preserved Fish and Shellfish companies	Turn-over in 1999 and 3 geographic area	9 strata	
			≤ 4,808,096 €	22
			4,808,100-18,030,363 €	11
>18,030,363 €	13			
Shellfishing	Shellfish collectors' associations	Turn-over in 1999	6 strata	
			6,010-84,141 €	9
			84,141-180,303 €	10
			180,303-420,708 €	5
			420,708-601,012 €	6
			601,012-1,202,024 €	4
1,202,024-2,404,048 €	5			

Source: Táboas input-output pesca-conserva 1999

Table 8. Symmetric Table: Primary Inputs
Figures quoted in thousands of Euros
Basic prices

Homogeneous branches of activity	TIOPR2.1 IN-SHORE FISHING	TIOPR2.2 COASTAL FISHING	TIOPR2.3 DEEP-SEA FISHING	TIOPR2.4 HIGH-SEA FISHING	TIOPR3.1 MUSSEL FARMING, ETC	TIOPR3.2 MARINE FISH FARMING	TIOPR4 SHELLFISH COLLECTING	TIOPR8 PRESERVES AND NEW PROCESSED FOODS	TOTAL	
a	INTERMEDIATE CONSUMPTION AT PURCHASER'S PRICES	28,200.53	28,278.36	125,330.62	97,519.00	23,442.70	10,123.86	2,475.92	705,701.09	1,021,072.08
b	WORKERS' WAGES AND PAYMENTS	22,743.18	39,832.47	121,274.81	60,400.84	8,783.92	4,346.68	688.69	79,695.09	337,766.57
c	OTHER NET PRODUCTION TAXES	2064.43	681.84	2,162.92	161.18	8,651.81	173.04	17.18	195.16	14,107.57
d	GROSS OPERATING SURPLUS	0.00	3,309.61	57,836.36	92,498.70	56.86	9,411.77	0.00	381,644.59	544,757.91
e	MIXED INCOME	67,059.77	10,480.44	0.00	0.00	266.09	0.00	23,350.25	0.00	101,156.55
f=b+c+d+e	GROSS VALUE ADDED IN BASIC PRICES	91,867.39	54,304.36	181,274.10	153,060.72	427.74	13,931.48	24,056.12	461,535.72	980,457.65
g=a+f	PRODUCTION IN BASIC PRICES	120,067.92	82,582.72	306,604.72	250,579.72	94,612.94	24,055.35	26,532.04	1,167,236.81	2,072,272.22
h	TOTAL IMPORTS	6,312.47	9,614.88	120,817.08	777,654.78	2,902.03	-	39,781.77	97,970.85	1,055,053.86
i=g+h	TOTAL RESOURCES IN BASIC PRICES	126,380.39	92,197.61	427,421.80	1,028,234.50	97,514.97	24,055.35	66,313.81	1,265.66	3,127,326.08

Source: Táboas input-output pesca-conserva 1999

Table 9. Symmetric Table : Final demand
 Figures quoted in thousands of Euros
 Basic prices

TIOPESCA		A	B	C	D	E	F=D+E	G=B+C+F	H=A+G
Code	Products	TOTAL INTERMEDIATE DEMAND (I.D.)	TOTAL FINAL CONSUMPTION COSTS	GROSS CAPITAL FORMATION	EXPORTS TO THE REST OF SPAIN	EXPORTS TO THE REST OF THE WORLD	TOTAL EXPORTS	TOTAL FINAL DEMAND	TOTAL USES
TIOPP2.1	FISHING PRODUCTS:IN-SHORE FISHING	28,805.67	54,765.24	0.00	41,015.65	1,793.84	42,809.49	97,574.72	126,380.39
TIOPP2.2	FISHING PRODUCTS: COASTAL FISHING	36,225.31	34,005.78	0.00	7,129.35	14,837.16	21,966.51	55,972.29	92,197.61
TIOPP2.3	FISHING PRODUCTS: DEEP-SEA FISHING	85,471.83	136,001.27	0.00	155,597.52	50,351.18	205,948.69	341,949.97	427,421.80
TIOPP2.4	FISHING PRODUCTS: HIGH-SEA FISHING	241,853.76	69,671.08	0.00	250,398.93	466,310.74	716,709.67	786,380.75	1,028,234.50
TIOPP3.1	MUSSELS	60,602.72	8,087.35	0.00	8,216.99	20,607.90	28,824.89	36,912.24	97,514.97
TIOPP3.2	OTHER AQUACULTURE PRODUCTS	6,580.20	10,574.15	0.00	6,901.00	-	6,901.00	17,475.15	24,055.35
TIOPP4	SHELLFISH	16,137.37	11,237.32	0.00	31,346.23	7,592.88	38,939.11	50,176.43	66,313.81
TIOPP8	PRESERVED FISH AND SHELLFISH AND OTHER PROCESSED FOODS	2,3876.93	49,757.79	599.68	968,048.70	222,924.55	1,190,973.25	1,241,330.73	1,265,207.66
TOTAL		499,553.80	374,099.99	599.68	1,468,654.25	784,418.25	2,253,072.61	2,627,772.28	3,127,326.08

Source: Táboas input-output pesca-conserva 1999