

Technology and Employment, New ways of organising Production and Labour. Modernisation of traditional economic industries: The Fishing in Galicia (Spain). The Public Administration as Advocacy Actor.

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Modernisation of traditional economic industries: the fishing in Galicia.
The Public Administration as advocacy actor**

I. INTRODUCTION

The purpose of this paper is analyzing the reform and modernization process of fishing industry in Galicia (Spain)¹ during the 1989-1998 period in the framework of the Autonomous Community and the European Union Administrations performance.

The fishing industry is identified as a strategic sector in the Galician economy, either in the direct way for its contribution to the GNP (9 %), to the employment creation and balance of trade, or indirect in the generation of an important volume of complementary and services activities. The fishing relevance as a productive activity must be considered also, valuing its multiplier effect over the coastal economies. Fishing industry involves: distant water fishing (in international and third countries waters), coastal and inshore fishing (in interior and community waters), aquaculture (including shellfishing), companies dealing with processing of sea food (canneries, refrigerating companies, frozen products companies, etc.), auxiliary sector (shipyards, raw material suppliers, packaging, machinery...) and marketing sector.

The wide range of sectors has taken us to select a case study, shellfishing², based on three reasons: i) in the power distribution between the Spanish Government and the Autonomous Community of Galicia, shellfishing constitutes an exclusive domain of the later, that allows an analysis of its performance in the industry ordination and promotion; ii) it's one of the most traditional and rooted socioculturally sector in Galicia; iii) the primitive development of its exploitation model.

II. PERSPECTIVE ON POLICY ANALYSIS

The adopted perspective of analysis is the *public policy analysis and evaluation*. The public policy analysis pose as a result of the exchange between politic and administration, as well as

¹ Galicia is an Autonomous Community located in the northwest of Spain. The population of Galicia is about two and half millions, being generally concentrated on the coast. There are around 1.195 coastal kilometers. Galicia has been declared Region Objective 1 (GNP by inhabitant inferior to 75% of the community) in the context of the European structural policies.

² The shellfish concept, in an economic perspective, is a market notion that includes the group of marine resources that are marketed for human consumption formed by crustaceans and mollusks (García Negro, M., 1999).

another actors. It deals with focus of Political Science that pursues an empirical approximation³. What and *why* public authority are making, what *consequences* have *their actions in social reality*, are basic issues. In the different theoretical focus of this approach yield an agreement around the *action*, that reflect the concern to improve the capability of public authority to answer to the collective problems, and with plausibly reconsideration of means and goals. The theoretical focus adopted is the *Posrational* or *Critic* (Lindblom, Wildawsky, Lowi, etc.), that allows to analyze how the key issues of Political Science –resources structure, social distribution of winners and losers, power relationships, cultural and symbolic hegemonies- discern and settle in the process of policy making (Brugué & Gomà, 1998).

The policy of “reform and modernization” of *fishing industry* have a mainly regulatory nature; in the regulatory policies, intended to discipline and control some activities, prevalence the conflict, emerge winners and losers variably, and have more potential to engender regular alliances. Through the applies policies analysis about fishing industry the decision gauges try to board (problem definition, how the problem enter in the public agenda⁴, how the goals of the policy are established) and through the public policy evaluation shapes the gauges of implementation over a pluralist approach: analysis of political context -institutional structures and interaction among the different actors, actors' analysis –resources, targets and relationship nets-. The changes taken place in the socioeconomic context, the processes of incorporation/opposition of the different actors to the policy, and the appearance of new requirements and demands imply a dynamic conception of the process.

III. SHELLFISHING EVOLUTION, FROM A TRADITIONAL ACTIVITY TOWARDS A PROFESSIONAL ACTIVITY

The evolution process from a traditional activity towards a professional one is clearly conditioned by the departure situation. In the case of shellfishing, the initial diagnosis, at the beginning of the 90's could be synthesize in the following way:

- a) A dense coastal population's existence that lacks -in general - of socio-labor alternatives, what generates an untenable social pressure on the marine resources.

³ . The public policies take root in empirical research, and don't forgot involves for the action (Meny & Thoenig, 1989).

⁴ They are key features: the relevance of fisheries and shellfish in the socioeconomic structure of our country, and the patent intervene of public administration to regulate and organize this sector with a philosophy of rationalization and modernization

- b) This population possesses a very low training degree, lacking a professional tradition likewise: lack of marketing tradition, faulty product manipulation and presentation products, scarce technological development, etc.
- c) The dominant mentality is the sea consideration and exploitation as a collective and endless good, of free access. The exploitation is dominated by no-cooperative strategies.
- d) The activity is defined as marginal and complementary and some terrible labor conditions and a low level in the quality of the workers' life characterizes it.
- e) Framework legislative absence that defines a policy with clear goals for this sector. It's manifested a deficiency of provision mechanisms and appropriation rules of the resource.
- f) Deficit of shellfishing sector articulation-and of the whole industry-, inefficiency of their organizations, fragmentation and shortage of resources, etc.

Everything is reflected in an economic model of production of scarce profitability, based on the exploitation in natural bank system and very intensive in manpower. This model exercises a resources overexploitation, closes the possibilities, and perpetual the marginal and subsidiary conditions in the rents configuration of this economic activity workers.

The shellfishing conditions at the beginning of the 90's contrasts with the performances developed to that moment by the different Public Administrations that, in spite of beginning in 70's, they concentrated in regulative policies with practical measures deficit that supposed an effective advance toward the sector professional achievement⁵. It will be in the 90's when concrete measures are adopted, mainly dedicated to become a professional activity, the evolution toward the semi cultivation, the quality product attainment and the operative and effective framework design (legislative and administrative) for the achievement of these goals. Definitively, treats of evolving from what we could denominate as primary sector towards an industrial sector characterized by the fixed capital sophistication, skilled manpower, the market and marketing structure degree of knowledge, etc.

⁵ This aspect is approached specifically in Autonomous Administration as advocacy actor analysis.

A. THE APPLICATION OF TECHNOLOGY TO A BASICALLY HANDMADE PRODUCTION.

In the policy frame developed by the Autonomous Administration, one of the pillars key is the technology incorporation to a basically handmade production. Synthetically, we can highlight the following elements:

1. Introduction of **aquaculture techniques**, especially "semi cultivation", opposite to the exploitation in natural bank system. The semi cultivation techniques are based on the product natural conditions modification by means of: i) the control or modification of the environment; ii) the control of resource competitors and predators; iii) the administration and the population's handling; iv) parasites and pathological agents control. Likewise, extensive cultivation techniques have been applied, being distinguished of the semicultivation in the industrial (and not natural) resources production. These techniques have allowed an excellent increase of production⁶, a substantial improvement in the product quality, a bigger possibility of work planning and structuring, and bigger workers' responsibility in the resource conservation, management and exploitation.

2. **Computerization activities**. The initial work has been to endow of necessary infrastructures to the organizations and professionals' associations, as well as to provide the necessary training for computer tools application. The computerization activities has been centered in management and marketing activities, although its establishment should overcome the sector reticence. At the moment, the first marketing (rashers) develops a global project of fish and shellfish auctions computerization. The sales computerization allows: i) a bigger agility in the sale process that is automated; ii) a bigger product quality, that is not manipulated by anybody from the moment of their extraction until the auction; iii) community normative application over fresh fishing products labeling; iv) the provision of statistical data to the Information Fishing Service of the Autonomous Administration. This Information Service, in turn, provides data about quantities and prices in rashers, prices orientation, captures forecast, etc.; it constituted a fundamental tool for market best

knowledge -of producers and buyers - and the development of a competitive commercial strategy. As regards activities, the final challenge is the installation of e-business. Nevertheless, this system outlines difficulties in a market in which the visualization of the merchandise is one of the basic approaches.

3. **R&D services creation.** These services, developed by the Autonomous Administration and the three Galician Universities, provide Technical Attendance and Applied Investigation, as well as technologies transfer to the fishing sector companies and organizations. This way, it is sought to promote the technological development of the sector, in a wide range what involves from the banks detection via satellite to the machinery design that reduces the workers manual effort⁷.

4. Use of an **integrated approach** as basic **instrument of resources management**. The physical-biological management approach⁸ has demonstrated its limitations: in the measure in that is centered only in the state of the resource, it is unable to give answer to the interest conjugation, and it outlines numerous difficulties as the degree of knowledge of the different stocks. The general tendency in fishing resources management has gone towards a different models aggregation, being summed up in a bio-socio-political-economic combined approach that designs fishing global policies guided to: the search of profitable biological but also economic of the stocks, management, limitations establishment and Administration guardianship, total allowances of captures and sanctions, public incentives to economic agents, public performances on the markets, etc.

5. **Marketing systems introduction** (product differentiation, marks' creation, quality products, etc.) of these where the success of the production will depend. Marketing demands to prepare a concrete offer to increase product profitability and added value.

B. ARTICULATION OF MECHANISM OF WORKERS' SELF-ORGANIZATION.

⁶. We have incorporate in the annex concrete data on resources production and value increase.

⁷. As example, we could mention a bomb of water designed to remove beaches sand and facilitate the clams extraction.

Galician fishing sector presents a clear division among big companies -that concentrate on distant water fishing, marketing and canning industry, and family or singular company on coastal, inshore and shellfishing. This division is reflected in the organization degrees of its professional associations: fundamentally distant water fishing and canning industry are organized in potent cooperative and associations with a solid and stable structure that allows them to exercise representation and defense of their interests; fresh water and inshore fishing have formed, in occasions, producers organizations; but the great majority of coastal and inshore fishing is integrated in the traditional associative structures, the brotherhoods of fishermen.

The brotherhoods of fishermen are Corporations of Public Right that integrate workers and entrepreneurs in oneself organization. Their purpose is economic and professional interest representation and its organizational formula is extended all over the whole coastal of Spain, having a great tradition and cultural ingrained . Nevertheless, it has been necessary a deep retraining and modernization of these structures to adapt them to the new dynamics of the market and a managerial administration with efficiency and effectiveness approaches.

In this organizational landscape: what does it happen to shellfishing?. Shellfishing was initially in the brotherhoods of fishermen, but without any recognition of specificity of their activity. Later on, and by initiative of the own workers and the Autonomous Administration, proceeded to shellfishing groups formation for areas that -if well they continued in brotherhoods- endowed their own representation and executives organisms for their specific interests development and promotion.

This organization mechanism articulation completes a double purpose: on the one hand, it allows workers to add their interests in an own structure; and in the other, it facilitates responsibilities in product management assumption, a rational exploitation and competent administrations collaboration. As taste of it, starting from 1993 shellfish resources Exploitation Plans elaboration through which the Organizations present a plan that contains: fishing effort, total of captures, and probable days of capture. The plan of exploitation elaboration:

i) Grants autonomy to professional associations that define their strategy (in function of the demand, in function of the price, etc.) by virtue of their own interests and expectations.

⁸ . Based on marine species population control, maintenance of some certain levels of captures (TACs) and stocks, the introduction of biological criteria for stocks recovery and performances controlled in the different levels of food chain.

- ii) Generates a bigger responsibility in resources management, making participant to the own workers.
- iii) Works that imply to the whole community settles down and redound in common and individual benefit (cultivation, surveillance, seeds, etc.) increasing profitability and production.
- iv) Shell fishermen strategic position -between production and market- has been reinforced incorporating value added to products and marketing stabilization contributing, as long as strategies of planning and commercialization can be developed.

IV. ANALYSIS OF PUBLIC ADMINISTRATIONS ROLE AS ADVOCACY ACTORS.

The fishing industry economic and social relevance in Galicia has not had, paradoxically, a proportionate translation through its presence in Public Administrations organization and resources distribution (Losada, A., 1998), shellfishing situation is even more patent. And the few measures carried out, centered fundamentally in activity regulation, had a practical implementation defected that endows of effectiveness.

Indeed, the shellfishing sector modernization first initiative took place in the 70's, with the promulgation of Ordenation Shellfishing's Law (Law 59/1969) and the Ordinance 1238/1970 for which the Exploitation Shellfishing Plan of Galicia was approved and shellfishing interest areas was declared. Previously, by means of Order of April 16 1963 was made the shell fishermen identification card, obligatory for all that was devoted to shellfishing tasks as well as requirements settled down for their obtaining.

Once approved the Spanish Constitution of 1978 the transfer powers' process begins to the Autonomous Communities. The Galician Autonomy Statute⁹ (Organic Law 1/1981) recognizes as exclusive sphere the shellfishing matters. Starting from this norm, a series of activity regulation was developed. Nevertheless, the balance of the years 1970-1990 (like we have seen in the shellfishing diagnosis of situation) was not very positive in the sector modernization process. The factors that could explain this scarce success are the sector traditional weakness (organizational, of resources and of leaders able to exercise a solid and

⁹. The current legislation contemplates the possibility of marine resources economic use, although they are considered common goods to effects of public domain. According to the state and international juridical mark, the State exercises rights of sovereignty on the platform to natural resources exploration and exploitation effects

coherent pressure), mimicry with regards to State Government that has dominated and it dominates the Autonomous Structure design impeding adaptation to real and specific necessities of each one of them, and technical and legal complexity of most of the fishing problems.

Starting from 1990 we can identify an inflection point in the process. The Autonomous Administration undertakes a fishing sector's global process, with a proactive performance and a vision of fishing problem as opportunity. The reasons that could explain this change in public performance trajectory are: incorporation as Fishing Administration holder of a technician with a high training degree and a long linking to the fishing world; creation of a technicians and administrators team with grateful prestige; and the maneuver capacity (budgets, available resources, support) of Fishing Administration in the Autonomous Government's group. In terms of public policy analysis, we could affirm that fishing problem -and concretely shellfishing- enters for the first time in the public agenda.

Next, we synthesize policies general lines developed during 1990-1998 in shellfishing matters, philosophy that underlies, objectives and carried out concrete actions.

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GUIDELINES

- MODERNIZATION
- PATTERN OF EXPLOITATION AND PRODUCTION CHANGE
- RATIONAL RESOURCES MANAGEMENT
- LEGISLATIVE AND ADMINISTRATIVE GENERATION FRAME

ACTORS

- EUROPEAN COMMISSION
- STATE GOVERNMENT
- AUTONOMOUS GOVERNMENT
- PROFESSIONAL ORGANIZATIONS
- ENVIRONMENT

POLICY PHILOSOPHY:

- . REGULATION
- . PROFESSIONAL ACTIVITY
- . EXCLUSION
- . EFFICIENCY
- . OPPORTUNITY
- . COOPERATION

CONFLICTS AND CHALLENGES

- INFORMATION
- ARTICULATION OF SECTOR AND CHANGE
- RESISTANCE
- EXCLUSION

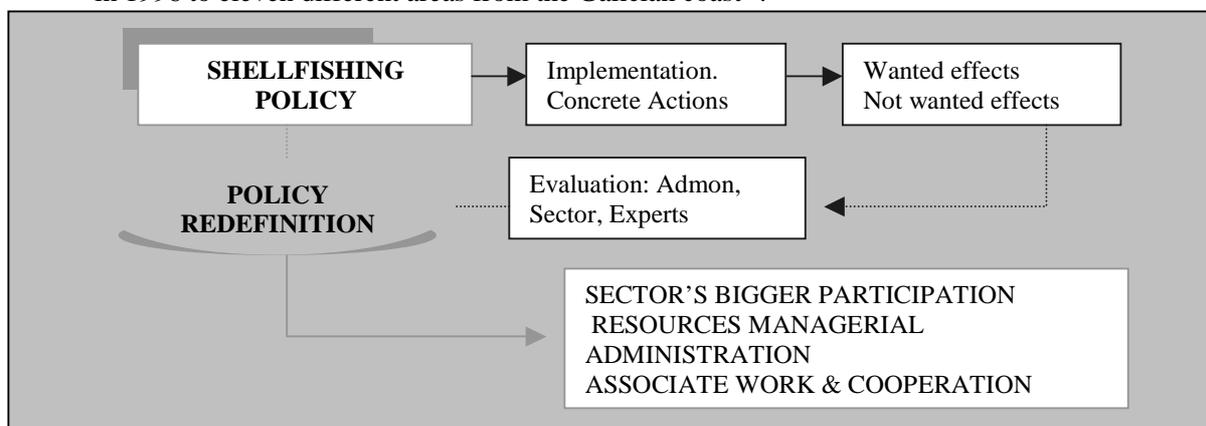
ACTIONS

1. **SHELLFISHING SECTOR ANALYSIS:** problems and characteristic identification.
2. **ECONOMIC PRODUCTION PATTERN DEFINITION:** semi cultivation and extensive cultivation.
3. **EXPLOITATION SYSTEM CHANGE:** from prohibitions and campaigns to Exploitation Plans.
4. **NORMATIVE APPROBATION:** legal instruments and troops.
5. **EXPLOITATION PERMITS REGULATION:** normative rigid application. Ratepayer to Social Security as central element of professional activity
6. **CULTIVATION TECHNIQUES INCENTIVE:** banks profitability increase (mud and waters cleans, substrata removal, seeds plantation, etc.)
7. **UNPRODUCTIVE AREAS RECOVERY.**
8. **HATCHERIES CONSTRUCTION:** seeds industrial production.
9. **GALICIAN INSTITUTE IN AQUACULTURE TRAINING:** training that improves the conditions of activity development.
10. Creation of a **CENTER OF THE MARINE MEANS QUALITY CONTROL:** Quality of the water as fundamental factor in the shellfishing production.
11. **TECHNOLOGY INCORPORATION and MARKETING FINANCING:** machinery and new technologies as indispensable tools in natural banks arrangements works, as well as products presentation in a competitive situation.
12. **RASHERS COMPUTERIZATION:** better market knowledge and activity planning.
13. **PROTECTION OF RESOURCES SERVICE REORGANIZATION AND ENDOWMENT:** fights against the illegal activity by means of Inspection and Surveillance Service.
14. **FISHERMEN'S BROTHERHOODS MANAGEMENT IMPROVE.**

The shellfishing sector's public policy implementation has to met with serious obstacles. Its nature of regulative politics with a marked exclusion character had to face two aspects key:

1. Limitation in activity access, until then -more or less - exercised with total freedom and without restrictions. This has generated a high degree of conflict in coastal areas and the margin of the legality practices continuity. In this aspect it weighs shellfishing traditional mentality as a marginal, complementary activity.
2. Lack of a clear conscience on what means the exploitation of some resources that take place in the public domain, neither those rights and duties imply to be regular of an Authorization or administrative Concession for their exploitation, neither up to where the responsibilities of the concessionaires arrive and the Administration in this respect.

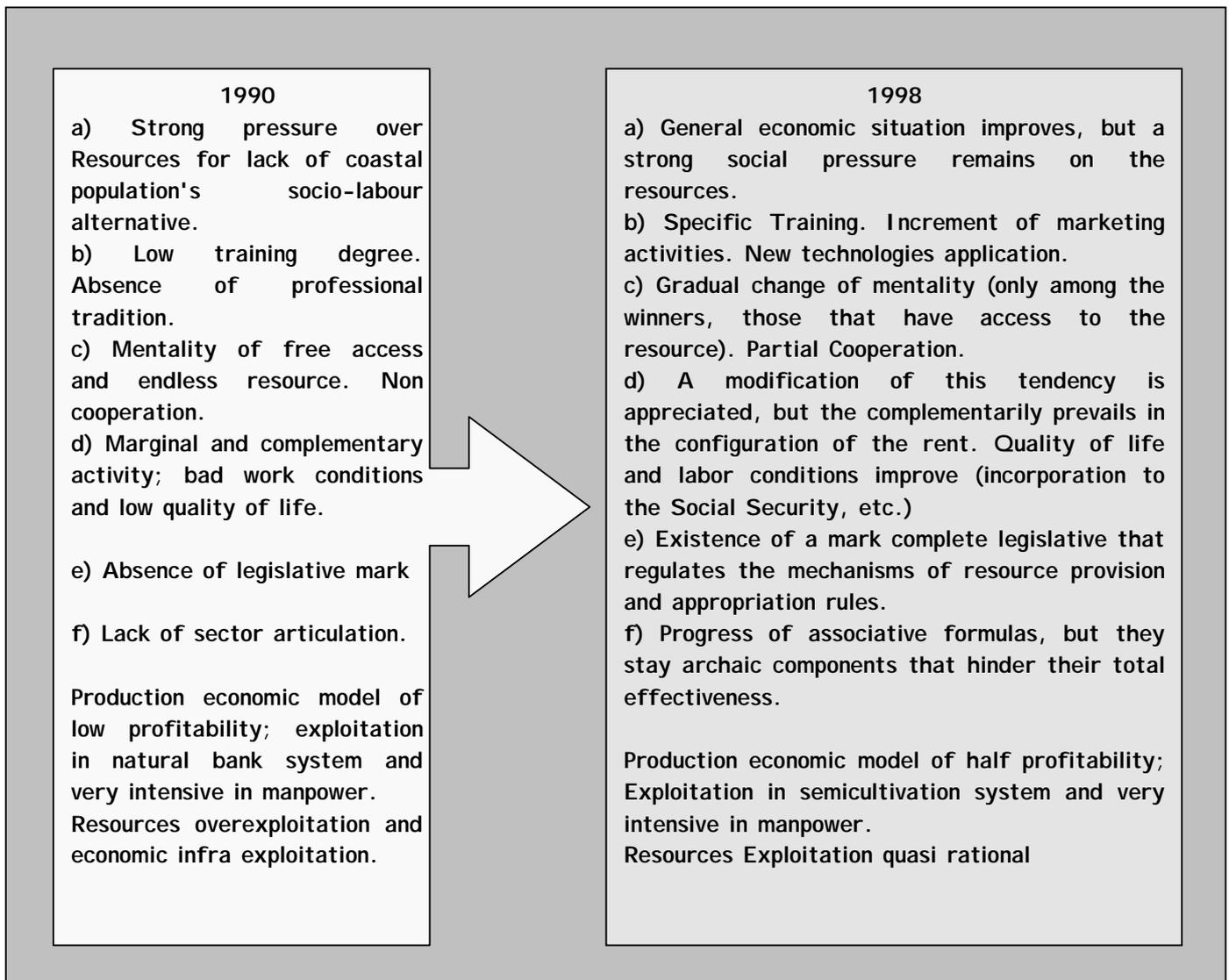
In the acting of the rol as advocacy actor, the Autonomous Administration developed a process of policy feedback, through the organization of Shellfishing Congresses (in 1990 and in 1994) in those that members of the sector, experts and administrators participated. In them the cost of become a professional activity, and conversion was assumed from the shell fishermen of mere harvests to farmers by means of training and technological, productive and organizational structures improvement. The elected instrument was the *Productive Development, Professional and Organizational Shellfishing Program* that it had already been developed in an experimental way in four concrete areas, and that it incorporated the angular stone of the whole process: the empiric demonstration -and own shellfishermen confirmation- of activity growing profitability by means of their professional exercise. The professional organizations' active participation was increased, extending the project denominated Plan 10 in 1996 to eleven different areas from the Galician coast¹⁰.



Galicia.

GLOBAL BALANCE 1989-1998

The Autonomous Administration performance has modified the diagnosis made in 1990. The basic objective is the evolution from harvests that exercise a non rational and non cooperative exploitation, to farmers that carry out a professional activity of rational and cooperative resources exploitation. The instrument that channels this evolution is shellfishing transformation in a professional activity , as soon as it generates selective incentives for the cooperation and it introduces control mechanisms to exclude those that remain to the margin of the legality.



At the present time, public policy evaluation is conditioned by the continuity of the process. Nevertheless, changes and conflicts are appreciated that could condition their evolution. The partial success of the experimental project applied in 1996 generated an amplification from the project to other areas, passing to be denominated "*Plan Galicia*". This extension was carried out assisting to approaches non objectives, giving place to a plan over-dimension and a deterioration of its effectiveness. Everything increased management and existent logistics difficulties and, spoiled project philosophy and it destroyed the generated expectations of success. For it, it is coming to a new configuration from the face Plan to the 2000.

The shellfishing policies has achieved: i) creation of infrastructures for future (cultivation material, technology, etc.); ii) shellfishing communities responsibility on the productive process; iii) reinforce associative entities' organization and workers training; iv) of the productivity, quality and it values added increase. The success key would be in the growing profitability of the product by means of the "investment" in a resource that before was only picked up. Nevertheless, a policy wicked effect that questions its later development exists: the perception for the sector that the increment of the production and the profitability supposes an increment of the number of workers.

The Administration autonomous rol interaction with the one developed by the European Union Administration. The performance of this last one has been fundamental in three aspects: 1. The shellfishing inclusion –thanks to the negotiates of the Autonomous Administration - in aquaculture activities, what has facilitated the access to the funds dedicated for this activity; 2.fishing dependent areas recognition¹¹ (community initiative PESCA); 3. The full integration in the mark of the Common Fisheries Policy and development of global initiatives of industry improvement and modernization.

¹¹ . Based on: captures, fishing, shellfishing and their induced activities populations number, business volume, etc.

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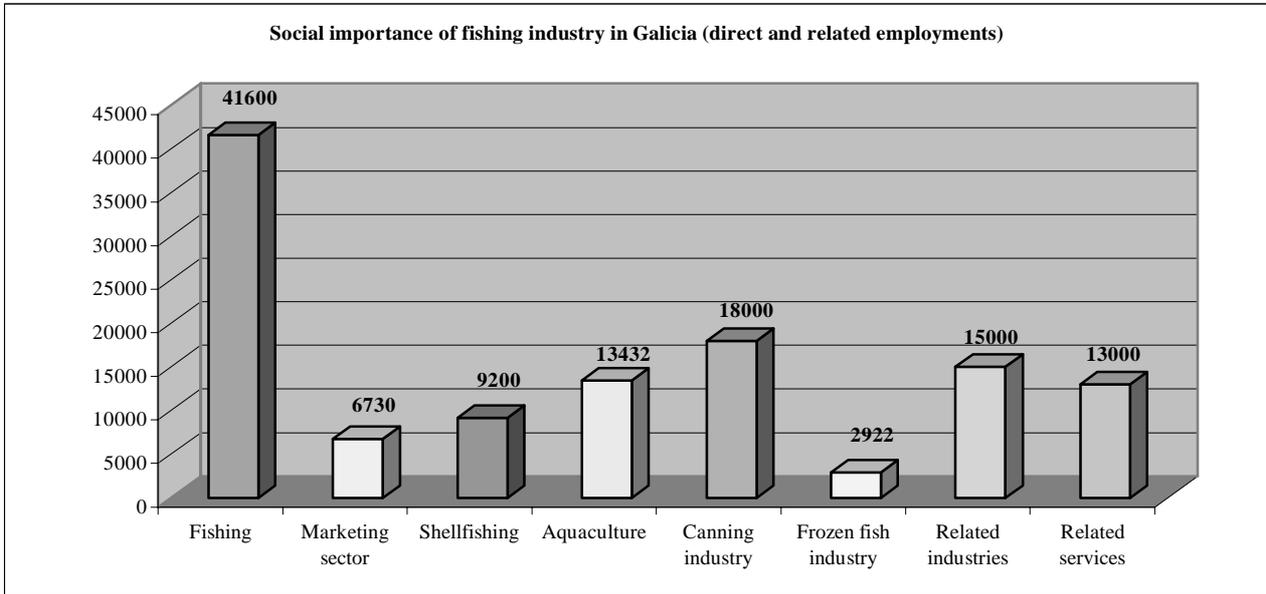
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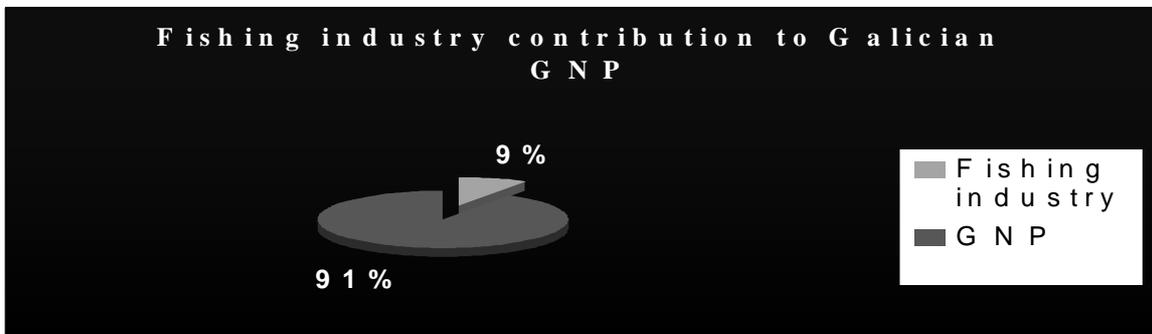
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VI. ANNEX

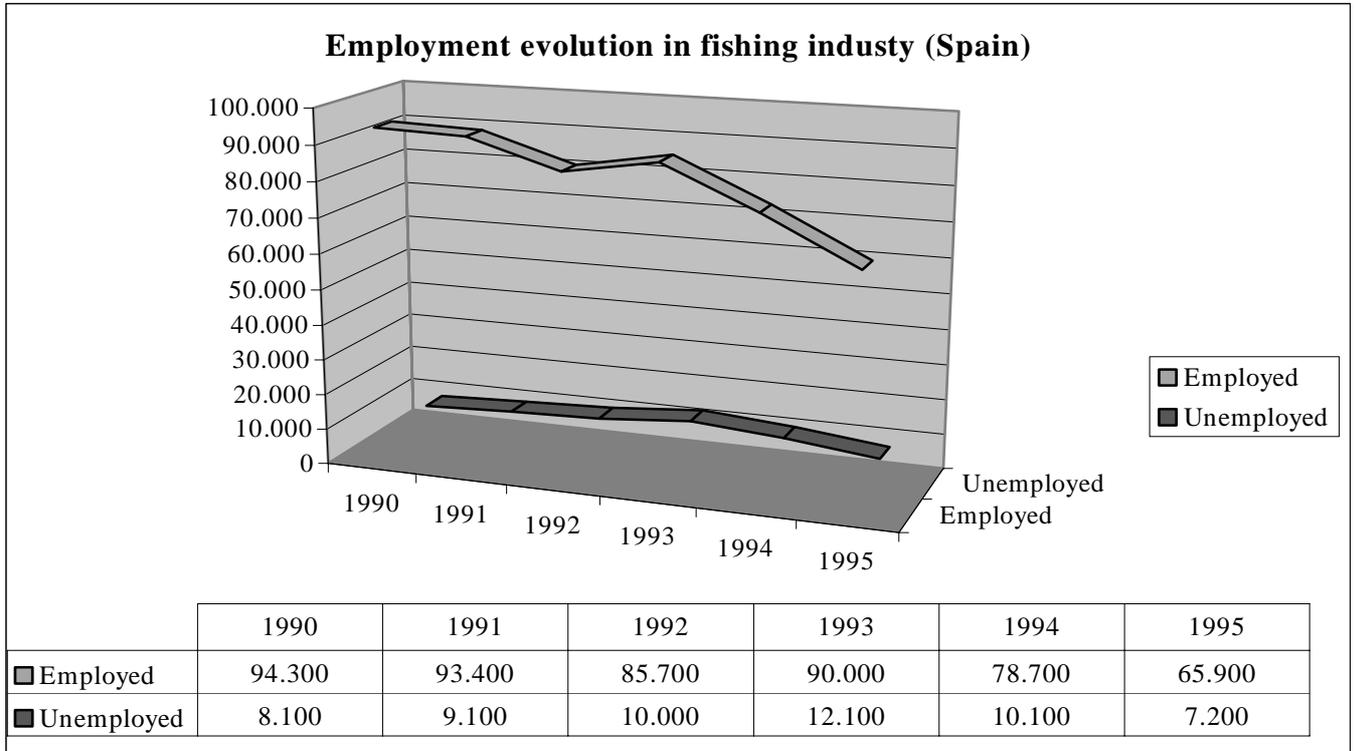
Graphic 1.



Graphic 2.

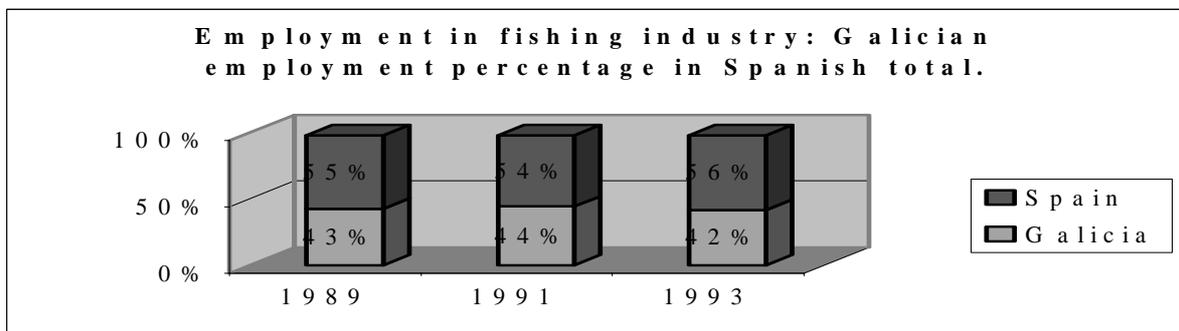


Graphic 3.

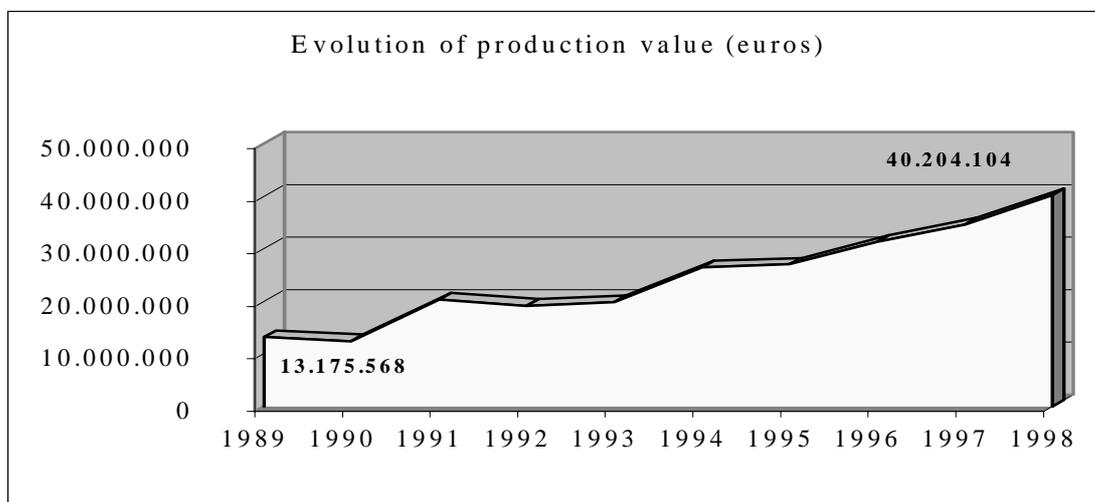


Note: this graphic reflect direct employment only.

Graphic 4:

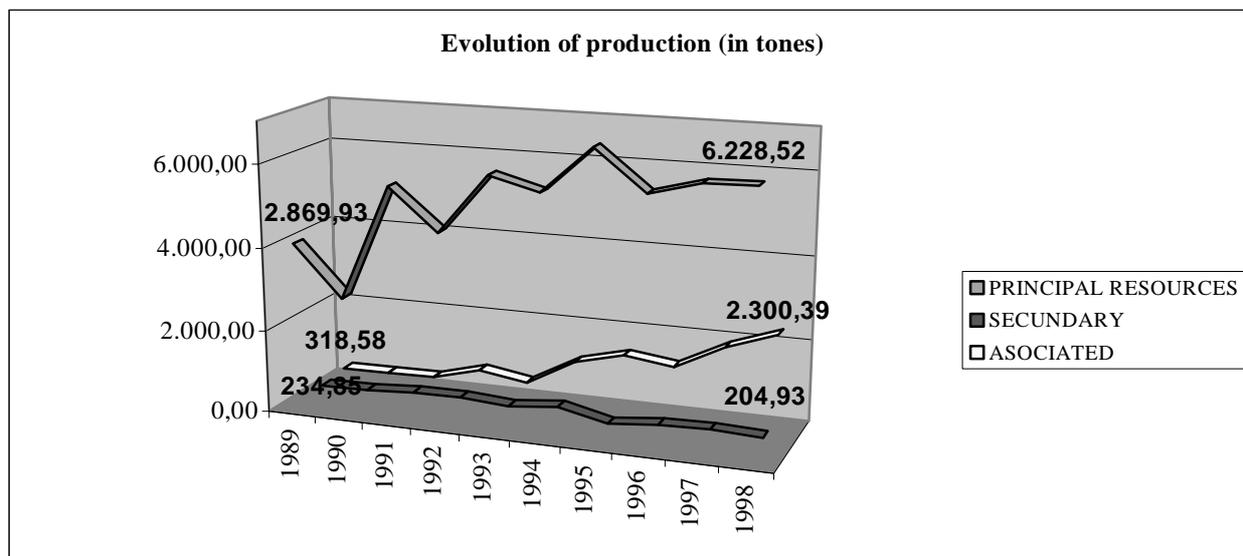


Graphic 5.



Years	Value (pts)	Value (euros)
1989	2.192.230.000 pta	13.175.568
1990	2.057.410.000 pta	12.365.283
1991	3.389.350.000 pta	20.370.404
1992	3.186.760.000 pta	19.152.813
1993	3.302.830.000 pta	19.850.408
1994	4.410.200.000 pta	26.505.836
1995	4.495.220.000 pta	27.016.816
1996	5.207.550.000 pta	31.298.006
1997	5.757.850.000 pta	34.605.375
1998	6.689.400.000 pta	40.204.104

Graphic 6: Evolution of Shellfish production in tones.



YEARS	PRINCIPAL RESOURCES	SECONDARY	ASOCIATED
1989	4.086,57	234,85	318,58
1990	2.869,93	259,1	337,56
1991	5.616,53	327,47	348,93
1992	4.637,35	343,88	667,71
1993	6.049,59	265,98	472,98
1994	5.739,87	383,05	1.121,24
1995	6.821,08	109,22	1.418,43
1996	5.883,79	235,04	1.269,13
1997	6.208,16	265,32	1.880,55
1998	6.228,52	204,93	2.300,39

Note:

Graphic 7: Evolution of shellfish production value (euros)

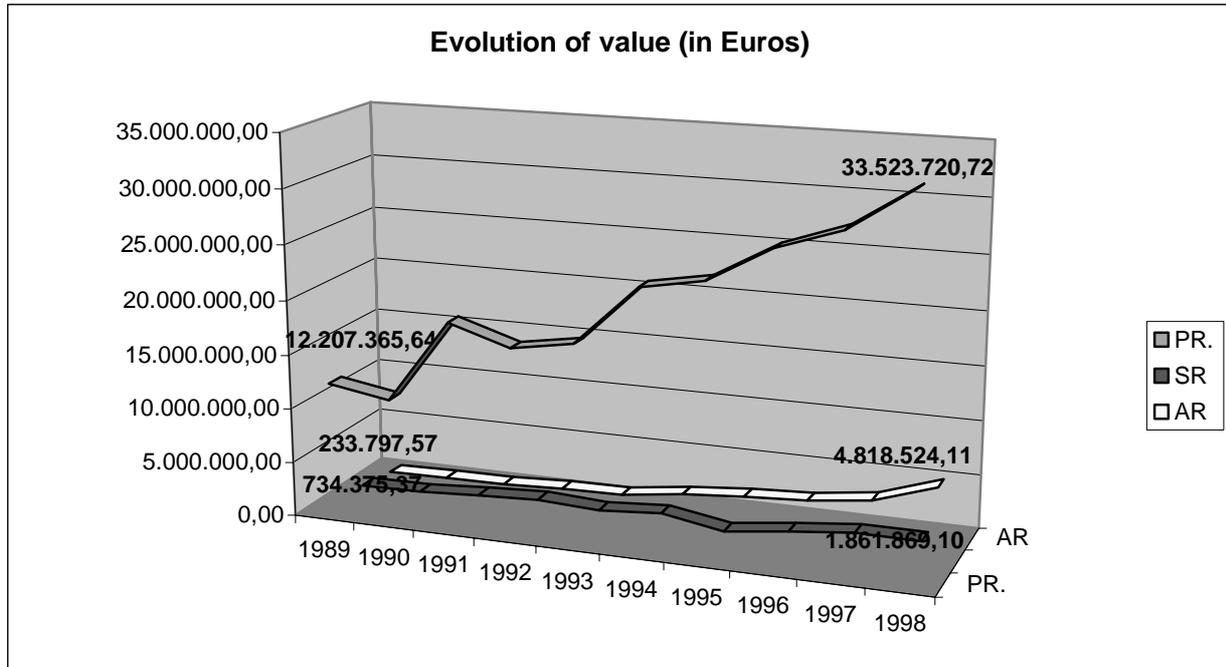


TABLE 7. EVOLUTION OF VALUE BY MAIN SPECIES (In euros)

YEARS	PRIMARY	SECUNDARY	ASOCIATE
1989	12.207.365,64	734.375,37	233.797,57
1990	12.161.165,46	819.693,68	284.406,14
1991	18.862.753,14	1.154.082,85	353.539,47
1992	17.107.664,13	1.429.225,64	615.941,05
1993	18.046.114,52	1.133.962,24	670.338,00
1994	23.537.592,88	1.547.660,43	1.420.571,20
1995	24.457.496,75	581.320,33	1.887.982,48
1996	27.780.769,13	1.311.255,13	2.205.954,11
1997	29.755.160,46	1.914.416,83	2.935.822,10
1998	33.523.720,72	1.861.869,10	4.818.524,11