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Subsidies in Argentine Fisheries

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Subsidies in Argentine Fisheries

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Introduction

Subsidies are an essential dimension to the situation facing global fisheries today given that they have been linked to unsustainable practices and over - exploitation of marine resources. Argentine fisheries face a crisis situation currently. In this country, fisheries exploitation has been subsidised from both international and to some extent national sources, making this an intricate part of the problem. Fisheries exploitation in Argentina has grown at unprecedented rates in recent years, and this has been one of the country's most dynamic economic sectors in the past 15 years. Value added has grown steadily and exports grew 478 per cent between 1985 and 1995 (while in comparison total exports increased 159 per cent in the same period). A significant shift from overall under-utilisation to over-exploitation of some fishing resources took place in the 1990s. A clear connection with international markets is present as a result of: the transnationalisation of capital in the fisheries industry; the issue of permits to foreign boats to operate in Argentine jurisdiction; and by the fact that up to 90 percent

[1] The author would like to thank Graciela Gutman for her assistance with and review of this paper.

of production is exported in some periods. A notable alteration also occurred internally given the high degree of growth of fisheries exploitation from Patagonian ports.

In the early part of the decade, charter agreements with fleets from Asian countries were signed, mainly for the capture of squid. Another major change experienced in relation to Argentine fisheries was the agreement with the European Union, negotiated and ratified in the early 1990s and in place until the late 1990s. This accord, the first of the so-called "second generation" agreements on the subject signed by the European trade bloc, involved the participation of joint ventures and temporary associations of companies of Argentine and European capital in the fisheries industries. These changes, as well as global transformations in the fisheries sector, have radically modified the way that fishing activities are conducted in the country.

The above processes took place in a context of deep economic change. Although the opening-up of the economy began in the 1980s, the major transformations of the regulatory context took place in the 1990s with a new set of policies that combined stabilisation programs with structural reforms and liberalisation of trade. Its main components were (a) stabilisation program: fixed foreign exchange rate, tight monetary policy; (b) commercial openness (trade liberalisation); (c) state reform: privatisation of public utilities; and (d) deregulation of markets and economic activities.

The opening up of trade occurred within this structural reform context, paving the way for a series of effects. Among the effects some are more salient, such as: an initial increase of foreign direct investment; increases in domestic consumption, production, productivity, investments and exports; access to new technologies on process and products, logistics and communication; organisational innovations; as well as modernisation of infrastructure and services. At the same time, however, these profound transformations have resulted in an economic system that remains increasingly dependent on the supply of foreign capital, inputs, and capital goods. In addition, some negative trends can be pointed out, such as (a) higher rates of concentration and transnationalisation of the economy, with the crowding out of many small and medium size firms; (b) “de- clustering” processes in many industrial chains, as a consequence of the substitution of national productions by imports; (c) high rates of

unemployment and under employment and deterioration of labour conditions; (d) worsening income distribution; (e) higher pressures on natural resources, without appropriate institutional, legal and organisational rules and control systems; (f) increasing fiscal deficit and foreign indebtedness.

Fisheries exploitation was one of the sectors of the economy that experienced the highest growth during the first years of economic structural adjustment policies. This sector grew at unprecedented and rapid rates, benefiting from a series of national and international economic policies and due to a set of environmental circumstances, among them diminishing resources in developed countries' seas.

The result regarding fisheries however has been mixed. Although the sector has had positive growth rates in the early years of fisheries exploitation expansion, the latter years have been characterised by economic losses, overcapacity, unemployment, social unrest, increased fishing effort and decreasing fishing stocks (for some species amounting to virtual collapse).

The current paper will try to provide a first approximation to an assessment on the relation between subsidies and fisheries exploitation in Argentina in the 1990s, paying particular attention to the international dimension. This work will attempt to survey direct and indirect subsidies in the fisheries sector in Argentina, and to assess inter-linked ecological, social and economic impacts of these subsidies.

Subsides and natural resource exploitation: The case of fisheries

Definitions and identification of subsidies

Subsidies and perverse incentives in relation to natural resources are increasingly being analysed due to their adverse effects on ecological variables and economic distortions. The case of fisheries, although far from conclusive as of yet, is one where there is a general consensus as to the large extent in which this sort of economic activity is subsidised, as well as

an increasing recognition of the negative impacts that these subsidies have on sustainable development.

First of all, in order to frame conceptually the following examination, a definition of subsidies must be noted. This is not an easy task given that defining what is and what is not a subsidy is one of the points of contention among and between policy-makers and/or analysts. The issue is further compounded when subsidies are characterised or perceived according to outcomes or aims (for example, when they are masked under multifunctional goals). In the ensuing literature some definitions are quite simple, such as indicating that subsidising is the "practice of providing governmental support to the fishery sector."[2] Other definitions are more thorough, taking into account the differences between production and consumption subsidies. For example, "*subsidies comprise all measures that keep prices for consumers below the market level or keep prices for producers above the market level or that reduce costs for consumers and producers by giving direct or indirect support*".[3]

There have also been attempts to operationalise concepts in order to unravel the intricate pattern of subsidies and perverse incentives impacting on natural resource use. The OECD has tried to do this through a typology that classifies subsidies according to some of their characteristics, as indicated below with some of the examples of each:

1. budgetary subsidies
    a) direct (such as: grants or payments to consumers or producers);
    b) fiscal policies (such as: fiscal credits, exemptions, allowances, exclusions and deductions, rate relief, tax deferrals, and preferential tax treatments);

[2] See, for example, "Towards Rational Disciplines on Subsides to the Fishery Sector: A Call for New International Rules and Mechanisms", World Wildlife Fund, September 1998.

[3] See de Moor A.P.G., "Perverse Incentives Subsidies and Sustainable Development: Key Issues and Reform Strategies", Institute for Research on Public Expenditure. The Hague, The Netherlands.

2. public provision of goods and services below cost (for example, provision of infrastructure and complementary/utility services or research financing);
3. capital cost subsidies (such as, preferential loans, loan or liability guarantees, debt forgiveness);
4. policies that create transfers through market mechanism
    a) domestic - oriented policies (such as price regulations, quantity controls, government procurement policies)
    b) trade - oriented policies (for example, import and export tariffs and non-tariff barriers).[4]

Other subsidies (general and specific) commonly transferred from governments to the fisheries sectors have also been identified. These are, for example:

- fuel credits
- payments for access to foreign fisheries
- subsidisation of vessel construction
- price support for fish products and products derived from fisheries
- preferential loans and/or grants for transport of fish products
- preferential loans and/or grants for processing of fish products
- unemployment benefits and other social benefits for people employed in fisheries
- worker retraining programs
- export promotion programs

- sponsored vessel insurance
- construction or running of harbours and related facilities
- vessel-buy back.

As stated earlier, there is no set agreement conceptually on what a subsidy to fisheries is, and other organisms are drafting different definitions in search of commonly agreed ground. For example, FAO has recently launched debate around four sets of subsidies defined as follows:

1. Set 1 Subsidies: Government financial transfers that reduce costs and/or increase revenues of producers in the short -term.
2. Set 2 Subsidies: Any government interventions, regardless of whether they involve financial transfers, that reduce costs and / or increase revenues of producers in the short term.
3. Set 3 Subsidies: Set 2 subsidies plus the short-term benefits to producers that result from the absence or lack of interventions by government to correct distortions (imperfections) in production and markets that can potentially affect fisheries resources and trade.
4. Set 4 Subsidies: Government interventions, or the absence of correcting interventions, that affect the costs and/or revenues of producing and marketing fish and fish products in the short-, medium-, or long-term.[5]

The WTO's Agreement on Subsidies and Countervailing Measures ("SCM Agreement") comprises more concise and circumscribed definitions. The SCM Agreement defines "subsidy" with three primary components. A subsidy is defined as a financial contribution by a

[4] OECD (2000) as quoted in *op cit.*

[5] See FAO "Report of the Expert Consultation on Economic Incentives and Responsible Fisheries," Fisheries Report No. 638, December 2000.

government or any public body that confers a benefit. For an instrument to be defined as a subsidy it has to meet all three of the elements.[6]

Impact of fisheries subsidies

It is agreed by most sources that fisheries are a highly subsidised economic endeavour. One of the most cited estimates (FAO's) regarding fisheries subsidies (including by-passed state revenues and direct expenditures) calculated on the basis of revenue versus operation costs is of 54 billion US dollars annually world wide. This is not a direct calculation of subsidies incurred and, therefore, has been scrutinised as an estimate that could grossly overestimate or underestimate reality with regard to fisheries subsidies. Nevertheless, this first approximation by FAO has to a certain degree impelled more finite studies on the magnitude of fishing subsidies world-wide and what impact they have on the use of marine resources. Other more conservative analysis also exists. They indicate that subsidies range between 11 -21 billion, that represents some 25 percent of commercial fisheries' total annual income (Milazzo, 1997).

Yet, although the unravelling as to the genuine quantity of fisheries subsidies is a first step, integrated assessment of these subsidies is a crucial point to examine in order to be able to determine actual consequences. That is, an integrated assessment must be indicative of the impact that subsidies cause on socio-economic variables and on natural resources. Clear indicators attest that subsidisation is one of the reasons for overcapacity in fisheries exploitation affirming that the overcapitalisation of the fishing industry at the international level has been one the driving forces for the currently unsustainable levels of capacity. Together, with other issues, such as the lack of real regulation of fisheries, unclear property rights, and the very nature of the resource itself, subsidies is a paramount problem to contend with when dealing with global

[6] The Government of Argentina (GOA) follows for its policy the definition of subsidies set by the SCM Agreement. The Argentine Government sustains that this agreement is applicable to fisheries given that this industry is not covered by the agricultural agreement. Also in this order, the GOA maintains that a subsidy has be specific to an enterprise or industry branch to considered as such, as stated in Article 2 of the SCM Agreement. (Communication of the Ministry of Foreign Affairs, International Trade and Religion to CEDEA, February 5, 2001).

fisheries crisis. Furthermore, falling profitability of the fishing industry and social problems (such as unemployment resulting from mismanaged fisheries) creating pressure for more subsidies (explicit or implicit ones), creating a vicious circle and a more difficult issue to solve. (Milazzo, 1997)

It has been indicated that the main impact of fisheries subsidies can be divided into three outcomes (Porter. 1998):

1. Drawing more enterprises and capital to the industry than would have occurred in a non-distorted and non-subsidised situation.
2. Impelling enterprises to increase and up-grade fishing technology that increases catch.
3. Discouraging exit from industry when resource exploitation at previous levels is not sustainable any longer.

However, interpreting the levels of subsidies, their impact and how they inter-relate with other variables in fisheries exploitation is by no means an easy task. First of all, fisheries subsidies respond to public policy decisions, mainly through pressure from private interests, and thus are an intricate part of a particular country's or region's economic system. The lack of definition as to what constitutes subsidies and the lack of transparency make this type of transfer difficult if not impossible to unravel. In particular in the case analysed (subsidies in the Argentine fisheries) the examination is further hindered by a lack of thorough studies on the subject to date.

The specific issue of subsidies in Argentine fisheries can be basically approached from two perspectives: foreign subsidies and national ones. Subsequently some aspects of these two types of subsidies will be explored.

Foreign Subsidies

As it has happened throughout many regions of the world, overexploitation and fisheries collapse in developed countries as well as increasing consumption in international markets led to a shift in fishing activity from developed countries to the Argentine Economic Exclusive Zone. Additionally, this has been possible due to the opening of the national economy. As stated elsewhere, these changes were mainly instrumented by bilateral agreements between Argentina and third countries or with the European Union bloc.

European subsidies for access to Argentine waters are of different kinds. The main one analysed to date has been the type classified as budgeted subsidies for foreign access.[7] Other types of subsidies, such as cross–sectoral and non-budgeted subsidies, will also be acknowledged in this analysis. (CEDEA, 2000)[8]

From the European side, the EU–Argentina accord was preceded in the early 1990s by internal regulations of that trade bloc to transfer fishing capacity to distant fleets. The norms that preceded the formal EU–Argentina agreement[9] specifically stated that the creation of joint ventures between European firms and partners from third countries responded to an explicit aim

[7] This is a classification acknowledged by Milazzo, Mateo J. “Reexamining subsidies in world fisheries” (1997). Nevertheless, Milazzo states that these are mainly government – to – government payments for access to distant waters. In the Argentine case the situation differed given that the only payment granted from the EU to Argentina was in the area of “scientific – technical co-operation”, due to the fact that this accord is what is called a “second generation fishing agreement” involving joint ventures. All other compensations were given directly to European companies that fished in Argentine waters with a local partner.

[8] See Centro de Estudios Ambientales (CEDEA), "Environmental Impacts of Trade Liberalisation and Policies for Sustainable Management of Natural Resources: Draft Report for Country Study on Argentina's Fisheries Resources" Report presented at UNEP's ETU Meeting on October 2000.

[9] Regulation (CEE) No. 3944/90 of the European Council of December 20 1990 and Regulation No. 4028/86 as quoted in Godelman E. et.al. op cit.

to “equilibrate exploitation of EU waters” and broaden supply sources. The maximum subsidies prescribed in these norms ranged from 75 000 ECU to 487 500 ECU, varying according to age of the vessel (the newer vessels receiving larger subsidies) and varying according to ships' dimensions. Based solely on this type of allowance, it has been estimated that total subsidies (for the 23 ships that operated in Argentine waters under Rule 3944/90 before the EU accord came into place) were 82 million ECU or 100 million US dollars.

The Argentina-EU Accord also included specific items dealing with subsidies that European companies would receive when entering into joint ventures or other types of allowed associations with Argentine companies. Here the prescribed maximum amounts vary also according to vessels age and tonnage, ranging from 450 000 ECUs to 2 430 000 ECUs for joint ventures (other types of subsidies were also prescribed for temporary associations between European and local companies allowed to operate in Argentine waters). For ships that operated under these arrangements in the 1990s, it has been estimated that total subsides were in the amount of 80.5 million ECUs or 96 million US dollars to joint venture and temporary enterprises.

Furthermore, explicit subsidies were also been paid to the Argentine government for what the accord classified as scientific and technical co-operation. The amount of subsidy paid was in the sum of 28 million ECUs or 33.6 million dollars.

Therefore, just for EU-Argentine joint venture of one sort or another, a total of subsidies for 230 million US Dollars for the 1990s can be identified. These were subsidies paid solely by the EU to enterprises with European capital for distant water access of its fleet.

These are estimates based solely on explicit (budgeted) subsidies deriving from European Community norms and records from the European accounting office (Godelman, et. al. 1999). However, these calculations do not include other types of international (i.e. non-Argentine) subsidies. For example, cross-sectoral subsidies for shipbuilding have been identified, indicating that this is a highly subsidised activity in OECD countries. Therefore, a series of national (or even regional and provincial in the case of Europe) subsidies for shipbuilding and infrastructure have been identified such as: construction subsidies, export

credits, tax exemptions, or fiscal benefits. Infrastructure subsidies have also been recognised in the areas of fishing ports construction and maintenance.

The extension of the above mentioned subsidies have been impossible to fully identify yet at the global level, but are extensive. Some of the subsidies can be inferred from other data collections . Estimates of government financial transfers to marine capture fisheries in OECD countries that operate in Argentine waters[10] have been accounted for at the following levels (in US Dollars millions for 1997)[11]:

Figure 1

Government Financial Transfers to Marine Capture Fisheries in Selected OECD Countries

Country/Trade Block	Infrastructure	Management, research, enforcement, and	Access to other countries waters	Decommissioning of vessels and licence retirement	Investment and modernisation	Income support and unemployment insurance	Taxation exemptions	Other	Total
E U	67	592	245	288	144	4	3	91	1434
Japan	2165	628	-	25	21	-	-	107	2946
Korea	164	73	-	30	-	-	-	72	342
Spain	16	37	-	196	80	-	-	15	345
TOTAL	2412	1330	245	539	80	4606	3	285	5067

[10] The most important foreign capital in the sector comes from Spain, but there is also Japanese capital (in surimi fisheries); South Korean capital (squid), Norwegian capital (squid and longlines), plus capital from the US and China. Fishing permits are periodically granted to foreign flag vessels, mainly from Japan, China, Korea and Taiwan.

[11] Extracted from OECD (2000).

The EU, together with Japan, Korea and Spain account for 80 per cent of all budgeted subsidies for ocean fisheries in OECD countries. Even if all of these subsidies are neither perverse nor all underpin intervention in Argentine fisheries, it can be clearly seen that some of the most subsidised fleets operate either directly or indirectly in Argentine waters.

Within the EU, it has been established that Spain, being the largest fishing fleet of the EU, is a key nation-state for setting European policy as well as for receiving the greatest amounts of subsidies. Forty-six percent of EU subsidisation to its total fleet went to Spanish vessels in the period 1994-99 while 90 percent of European financial transfer for the support of foreign access agreements (such as the one operating between the EU and Argentina in the 1990s) was transferred to this country and its fishing industry. Spain is a net importer of fish and fish/seafood products, and Argentina has been in recent years the second largest source (after Morocco) of these kinds of products entering the Spanish market from waters outside the EU.[12] Spain is, of course, the main recipient of total Argentine fisheries products.

The situation vis-à-vis subsidies and fleet from Asian countries is not as clear. The main assessments have been carried-out for European capitals (that is, in direct relation to Argentine fisheries). And the main type analysed is quantifiable budgeted subsidies in the form of funds transferred for access to other countries' waters. However, this practice is not obvious in the Asian countries case since there is no accord of the type signed between the EU and Argentina. Asian cases have not been studied from this perspective as fully as the EU agreement in relation to fisheries in Argentina. Since subsidies are not transferred to joint venture enterprises, information is not as easily quantifiable, nor are they properly reported and therefore not as transparent.

Asian fleets (from Japan, Korea, China and Taiwan) are generally granted permits to fish squid in Argentine waters in exchange for fishing fees. As these countries' markets are practically closed to Argentine products, Argentina's strategy has been to open fisheries for

[12] "Spain Annual Seafood Report" AGR Number: SP5039, U.S. Embassy, Madrid, 1995.

distant water fleets. The degree of subsidies involved for these countries have not been reliably evaluated; yet in them the shipbuilding industry is highly subsidised. The development of specialised and highly efficient vessels (squid jiggers) in Asian countries has permitted a specialisation in squid harvesting. Distance water fleets from Asian countries operating in Argentine waters and harvesting squid vary in the period analysed since fishing rights/permits are temporary. Yet, each vessel typically pays a cannon of 150 to 200 thousand US dollars per year, which for the end of the decade entailed some 10 million US dollars yearly in income. The degree of subsidies for foreign access for the Asian countries involved is not reported, yet the literature indicates that these governments do subsidise foreign access (Milazzo, 1997)[13].

In the case of Japan, a strong direct transfer to Argentina has also been present in the form of co-operation funds for research, technology development and collaborative analysis with Japanese organisations. These have been instrumentalised directly and indirectly from Japan via grants from the World Bank financed by the Japanese Government, JICA, or the Overseas Fisheries Cooperation Foundation, among other sources.

There are whole other sets of subsidies that are implicit or not budgeted. The concrete magnitude of these transfers at the global level has been estimated, but is impossible to determine at the time (Milazzo, 1997). Yet it can be stated that, for the foreign fleets and enterprises operating in Argentina, several prevalent unbudgeted or implicit subsidies, such as subsidised lending, tax preferences, fiscal benefits, export support, and others exist. [14]

[13] For example, just for Japan it has been calculated that the Fisheries Agency of Japan (FAJ) spends 100 million US dollars per year on distant - water dealings.

[14] For example, for fleets and capital operating in Argentina's fisheries (EU, Spain, US, Norway and Japan) subsidised credit has been recognised for fishing endeavours. Tax preferences have also benefited this industry from the countries operating in Argentina (in addition to the countries mentioned, also fishing industry originating in Taiwan receives this type of unbudgeted subsidy). See Milazzo, 1997. One of the major areas of tax preferences has been fuel tax.

Domestic subsidies

Domestic subsidies are even more intricate to unravel, considering that many of them are not explicit in Argentina. Also, many of these transfers are not domestically defined as subsidies, but are just characterised as "incentives" in policy-making, creating diverging interpretation in local debates as to what is a subsidy and what is an incentive. Furthermore, no study to date has fully analysed the issue in relation to fisheries. Therefore, there is no absolute quantification as to the amount involved or as to the actual real disbursement by government of subsidies prescribed by norms.

Although the levels of subsides are not nearly as great as those applied in developed countries and are non - actionable under WTO rules due to their characteristics, the fishery industry operating in Argentina with different capital origin has received a series of explicit and implicit subsides as well as environmental subsidies in the 1990s.

These incentives are both general subsidies (or production incentives applied to the fisheries industry and others, i.e. providing benefits to all other industries) as well as specific subsidies just for fisheries. [15]:. These occurred during the period analysed and they were: [16]

[15] For this analysis, reimbursement or remittal of national taxes to the producer of exported products has not been considered a subsidy, given that this is a mechanism used to avoid "exporting" taxes.

[16] According to the Government of Argentina, and following the definition of subsidy and guidelines set by the WTO's Subsidies and Countervailing Measures Agreement, many of these economic instruments are either not definable as subsidies or definable as subsidies admitted under the WTO. The Argentine Government states that these subsidies cannot be challenged multilaterally (and they have not been) nor be subject to countervailing action. That is, they are non-actionable (or "green") due to their characteristics, such as their assistance to disadvantaged regions, applied by a developing country. Although some are export subsidies, the amounts fall within prescribed specifications. (Communication of the Ministry of Foreign Affairs, International Trade and Religion to CEDEA, February 5, 2001).

It is presumed by WTO rules that these types of subsidies are considered extremely unlikely to cause negative effects or are considered to be of particular value and not to be discouraged.

1. Reimbursements for fisheries processed products exported.
2. Reimbursements for exports from Patagonian harbours.
3. Fuel tax subsidy for Patagonian activities.
4. Environmental subsidies.

Several general and specific subsidies will be analysed individually, and implicit subsidies will be explored. The level of application of each will also be determined whenever possible. For this purpose, subsidies will be defined as governmental transfers (direct or indirect/budgeted or unbudgeted) to the fisheries industries or funds which should have been collected for fisheries exploitation and the state has forfeited.

Export promotion: Reimbursements for exports from Patagonian harbours, for on-board processed products and others

From 1983 onward[17], a special system for refunds of exports through Patagonian harbours has been in place, with an increasing percentage of reimbursement the further South is the port's location. The reimbursement applied to all fisheries products until 1996 and from then on just to products processed on land. The mechanism used is a payment by Customs to

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That is, they are not actionable under WTO rules because in theory they are beneficial and not perverse subsidies.

[17] These subsidies were instrumented by several subsequent norms, such as: National Law No. 23 018 and National Law 24 490. Although these are generally applied to all products, in 1996 the Executive Power contended that since resources are extracted from the ocean they are not Patagonian per se, and this decision was upheld by the Supreme Court (Circular de Aduana Nacional No. 1229/96). A more recent norm re-established subsidies but only to those products elaborated on land (i.e. not on board).

exporters on the basis of FOB export value declared for products in natural state or manufactured in the Patagonian region. The total subsidisation, including all products and not only fisheries, was 92 million dollars per year.[18]

Although the level of direct impact is impossible to determine given the multiple variables involved, it should be noted that export-oriented fish and seafood production was one of the most dynamic components in the Patagonian region and a major growing element in total exports from that area in the period analysed. From 1988 to 1993, the Patagonian provinces experienced a growth in their exports of fisheries products of 275 percent, while during the same period all exports (including fish products) from this region increased 141 percent. In comparison, in the only non-Patagonian province with maritime coast (Province of Buenos Aires) exports only grew 31,6 percent. [19]

Other programs for general export promotion have been implemented throughout the decade here analysed (either in semi - permanent levels or sporadically) involving financial support, promotion through trade missions and partnerships between public and private sectors. For example, the PROMEX project for the export of non-traditional products was created in 1992 with the goal of increasing Argentine exports of non-traditional agricultural products (such as fish and fish products) in foreign markets. [20] The program activities included funding for enterprises to participate in exhibitions and/or commercial fairs in order to boost non-traditional agricultural product exports. Throughout the 1990s, federal government also offered credit lines

[18] Government of Argentina (1996), "SUBSIDIES NOTIFICATIONS PURSUANT TO ARTICLE XVI.1 OF GATT 1994 AND ARTICLE 25 OF THE AGREEMENT ON SUBSIDIES AND COUNTERVAILING MEASURES " World Trade Organization, Committee on Subsidies and Countervailing Measures, G/SCM/N/3/ARG. 25 March.

[19] "El Sector Pesquero Argentino: Informe General (Preliminar II)" Universidad Católica Argentina, November 1999.

[20] This program, as many of the type, have been financed by loans from the World Bank and the Inter-American Development Bank. It has been reported that other financing of export promotion schemes (in particular fairs participation) has been through funds received via the EU - Argentina accord current until the late 1990s and slated as funds for scientific and technical co-operation in the international agreement.

to several exporting complexes, among them the fisheries industries, mainly in order to promote exports.

Specific export subsidies in the form of reimbursements for the fishery industries have oscillated between 0 and 10 percent depending on products without taking into account harbour of origin. Export promotion reimbursements vary from year to year and from product to product. From the mid-1990s these are applicable to on-land processed products (not processed on board).[21]

Fuel tax subsidy for Patagonian activities

Fuel tax has been subsidised during the preceding decade for all Patagonian activities. Although, as in other cases presented here, it cannot be said that fuel tax subsidies in this region have been exclusively used for fisheries activities, fisheries exploitation is one of the main endeavours of this regional economy. Fuel taxes have been subsidised in the 1990s, through a tax exemption granted to fuel sold in Patagonia.

Environmental subsidies

Subsidies on the use of resources themselves have been identified in studies on fisheries subsidies. This occurs when access to fleets is granted at a very small portion of the

[21] Resolución No. 420/1999; Resolución 967/1999, Resolución 257/2000; Resolución 1004/2000 and others.

catches' commercial value.[22] That is, the removal of a publicly owned natural resource, such as fisheries, is being extracted with little or no cost to the industry.[23]

In the case of Argentine fisheries, rent extraction mechanisms for the exploitation of fisheries resources has been practically non-existent in the period analysed. Only few funds have been levied from licences or from other sources in relation to the value of the product. Not even catch fees have been levied until recently, although they are indeed contemplated in norms current during the last decade.[24]

Some conservative estimates indicate that fisheries income should recuperate, at least, costs of control, surveillance, administration, and research, even when not dealing with any net revenue. In the case of Argentina, the amount of management costs recovered from fees and royalties only covered an estimated 14.5 percent of the annual fisheries management budget for some periods of time. This indicates that an annual subsidy of 15 million dollars to the industry can be identified solely in the area of management for certain years.[25]

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[22] See Gareth Porter, Fisheries Subsidies Overfishing and Trade, Environment and Trade 16, United Nations Environment Programme, August 1998.

[23] Some nations have estimated that 15-20 percent of the commercial value of catch should be levied as fees, in order to share the economic rent of natural resources (Porter, *op cit*). In the case of Argentina, however, the State tends to oppose levying such a high level of rent extraction mechanism.

[24] Catch fees have only been implemented since early 2001, for an estimated total income from fishing rights that will amount to some USD 11 million at the national level (i.e. not including provincially levied - fees which amount to some US 6.5 million a year). They have met with opposition of industry. At the same time, international concern has been expressed, because the non-application of fees has been interpreted as hidden subsidies to the Argentine fishing industryin comparison with capture fees already implemented in most countries around the world. (Source: www.fis.com)

[25] See Schonberger and Agar (1999) where it is estimated that for 1996, when Argentina's gross fisheries product was in the order of 1 500 million US dollars, only 4.3 million US dollars were recovered for management purposes when the annual fisheries management budget for that year was roughly 30 million US dollars.

In the Argentine case, as in most if not all intensive natural resource use instances, a strong environmental subsidy is present. The commodity's price is distorted due to the market failure that neglects the full-cost accounting of the natural resource.

Other Subsidies

Other subsidies identified, following internationally agreed categorisations to date, are:

- employment and other social benefits for people employed in the fisheries sector, and
- worker retraining programs.

Impact Assessment

The incidence of subsidies on fisheries has been moderately explored in the literature. The crucial question to be answered in this particular case is as follows: What are the effects that subsidies have had on Argentine fisheries?

Overall, important changes occurred throughout the period of deep transformation that fisheries industries have had in Argentina. These can be summarised as follows:

POSITIVE IMPACTS	NEGATIVE IMPACTS
(a) Increase in fisheries production. (b) Increase in exports; (c) Increase in employment in some areas (Patagonia and harvesting activities); (d) Improvement and growth of the fisheries fleet; (e) Technological innovation in the sector; (f) Increased research facilities and skills; (g) Opening of new markets and trade exchanges; (h) Increase in public income; (i) Regional infrastructure investments (ports, other infrastructure, new firms, etc.)	(a) Degradation of fisheries biomass; (b) Negative ecosystem impact (removal of primary and secondary productivity) (c) Increased costs for fisheries regulation and control; (d) Increased operation costs; (e) Increasing fishing effort, (f) Fiscal costs (subsidies); (g) Corruption practises; (h) Non diversification of catches; (i) Investment oversizing (overcapitalisation of fleets, ports, etc.) (j) Increasing unemployment in some areas (Buenos Aires and processing activities) (k) Decline in work conditions (l) Social unrest

Positive and negative impacts have been weighed in a cost-benefit analysis for just one species (*Merluccius hubbsi*, or Argentine hake, the most exploited and most near stock collapse). This examination determined that policy as carried out in the preceding decade had a direct net cost for the economy of about US 500 million dollars (CEDEA, 2000).

The direct impact of subsidies per se cannot be differentiated from other practices leading to overfishing in most countries. This is a condition for all fisheries not only in the Argentine case. However, although it is not possible to determine whether subsidies are the cause or effect of mismanagement, there is no doubt that they exacerbate the situation leading to overfishing and mismanagement of marine resources.

In inferring causality, an instance where there can be a clearer link is the area of overcapitalisation (the Argentine case being a reflection of the same situation in the global fishery industry). For example, direct budgeted subsidies for distant water access was one of the tools employed in the EU-Argentine accord and other agreements current in the 1990s. Hence, while ice trawlers and coastal ships roughly maintained total horsepower, freezer boats with much larger capture potential greatly increased the capacity from about 39 000 HP in 1990 to 207 000 in 1995 (See chart below).[26] Freezer ships almost exclusively began to operate in waters under Argentine jurisdiction via the EU - Argentina accord and other norms of the type signed with the European Union in the early 1990s and received direct budgeted subsidies for distant access to Argentine waters.

[26] Godelman, et.al., 1999.

Figure 2

Total Horsepower of Freezer Ships Operating in Waters under Argentine Jurisdiction (1990 - 1995)

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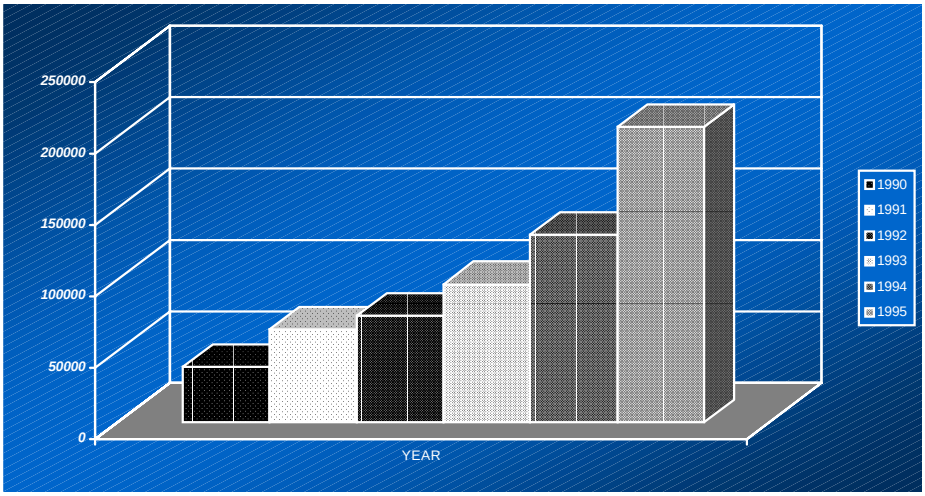

One of the usual indications of overfishing and overcapacity is the excess harvested over total allowable catch (TAC) in relation to maximum sustainable yield (MSY).[27] In the Argentine case, overfishing has been reported in up to 111 per cent of TAC for some years. When captures of *Merluccius hubbsi* species (the main fish species captured and an essential indicator) are analysed for 1997 and 1998, harvesting appears to have greatly exceeded TAC. For 1997, the maximum capture was set at 395 000 metric tons, yet official landing reporting arrived at over 584 000 tons. Just the reported landings, therefore, are 47 per cent beyond

[27] Maximum Sustainable Yield (MSY) is the biological maximum of harvesting possible without decreasing fish stock. If levels of harvest are maintained while increasing effort, the probable final outcome is fisheries collapse. Hence, fishing beyond the MSY is considered overfishing. Total allowable catch (TAC) is a sort of normative figure established by public control agencies that, in theory, should be comparable to MSY.

maximum prescribed capacity. However this is a rather conservative figure. Estimates indicate that this amount falls short of reality given that by-catch, discards, and unreported landings are not computed. When these types of catch are estimated, and high seas landings are added, it is found that total estimated catch for hake for 1997 reached 834 000 metric tons in waters under Argentine jurisdiction. This is more than twice the amount of prescribed maximum capture (111 percent).[28] For 1998 the same pattern continues. Due to decreasing stocks, TAC for *Merluccius hubbsi* was lowered to 289 000 metric tons for that year. Yet reported landings greatly surpassed that amount again, with accounted for capture reaching 395 000 tons. This is 36.6 percent greater than maximum prescribed capacity. The pattern is quite similar with other species.[29]

Conclusion

The analysis of fisheries subsidies and their relation to sustainable development still lacks many pieces, not the least being working definitions accepted by all if not most parties involved. First, a thorough analysis is missing on what is the amount of subsidies involved today in fisheries exploitation, including a whole set of non-budgeted or non-evident subsidies that must be taken into account.

The failure by states to recuperate the full economic rent in trade of publicly owned resource rights is one of the most pervasive issues in natural resource exploitation and subsidies, and one of the most difficult ones to unravel at this stage. As has been pointed out, subsidising natural resource production through the sale of access at such a low price that the rent is transferred from the state to the producer, is one of the most ubiquitous forms of

[28] See Godelman, et.al. (1999); Schonberger and Agar (1999) and CEDEA (2000).

[29] World Bank, 2000, *Country Assistance Strategy.*

subsidies in natural resource exploitation (including fisheries).[30] This has been the case in Argentina.

Furthermore, the issue of subsidies when dealing from a sustainable development perspective also appears to be analysed differently from “where one stands” and even from confined or localist analysis. Further global analysis on this issue needs to be done, given that fisheries subsidies sometimes are classified as “good” subsidies when perceived as having an environmentally-friendly perspective. Two instances of unsound classification of "good" subsidies can be found in the Argentine case. First of all, the European subsidies employed for access to distant waters (in the case of the EU - Argentina accord as well as previous agreements of the type) were categorised as positive subsidies given that they reduced pressure on natural resources in European waters. Nevertheless, as can be seen in this case, the outcome has been a transfer of the problem of overcapacity to distant waters.

Another subsidy catalogued as positive is the use of government funds for vessel buy-back schemes in order to reduce capacity, an example of which is the Canadian buy-back scheme for the closed cod fishery. Nevertheless, this program shifted excess capacity from one region to another because vessels retired from this type of exploitation were sold to other countries. These were mainly developing countries, among which Argentina.

As can be seen, from analysis and from a policy setting point of view, work still needs to be done regarding the impact subsidies have on the unsustainable use of marine fisheries. Nevertheless, the evidence is clear that they play a negative role in overfishing practices.

[30] See Porter, 1998.

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