

***Boletín del Instituto  
de Investigaciones  
Pesqueras***

**'New Trends in Planning and Management  
of Fishing Port Facilities'**

Gustavo Güida Lansot

Boletín nº 15, 1997

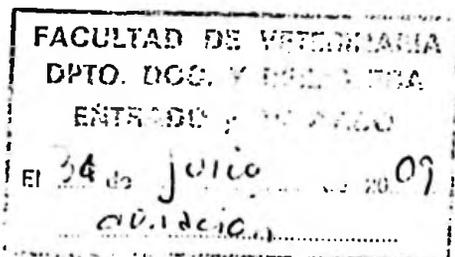
*Montevideo - Uruguay*



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## Preface

In view of the interest in fishing ports subjects showed by both fishermen and fishing industry our Institute is very glad to present this technical report. This report was made thanks to the cooperation of the Japan Government through their specialized agency "JICA".

For the fisheries in Uruguay, the services provided mainly by the port of Montevideo are essential for the interaction between the catches made by the fishing fleet and the marketing system.

With reference to the fishing port of Montevideo our experience has detected that there is a great demand for improving several operational works. For example the safeness of the valuable cargo that is handled during the operation of unloading must be reinforced; services for fresh water supply, oil supply and lighting conditions must be redesigned; lack of depth in the fishing quay "Mántaras" leads many fishing vessels to land in commercial areas not suitable for fishing landing operations and is time to develop a plan to minimize the environmental impact of this activity and made it sustainable both at sea and in the fishing port.

At last, one of the main problems not yet sorted out by the fishing authorities is the construction of a fishing market in order to improve the quality of the fish supply to the local market and thus the development of new fishing companies.

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## Introduction

The present technical report was made during a Seminar about Planning and Management of Fishing Port Facilities and Marketing Systems that was held in the Kanagawa Fisheries Training Centre of the Japan International Cooperation Agency and took place during January and February of 1997.

Japan is a country with 3.000 fishing ports, which are subject to the Fishing Port Law and are located along the 34.000 km of Japanese coastline. The country has a very long tradition in this area, and we pretend to transfer part of the knowledge and experience acquired in this period as a contribution for the fisheries in Uruguay.

We consider the fishing port included in the fisheries as a whole system that also includes the marine resources, the fishing activity by itself, the fishing companies, the aquaculture, the fishermen and the consumers.

The final product is the seafood, one of the basic products and food supply for human being. The supply of seafood to the world population is the result of a very big chain which one of the main actors are the fishing ports.

In this technical report we pretend to remark the most important requirements of the fishing ports to be considered in future investments and management planning of fishing ports in Uruguay.

## General considerations

Description of the principal features of a fishing port

### Situation:

A fishing port must be situated in a protected area and provide for the fishing boats calm anchorages for their refuge, a safety entrance for their going out and coming in, and enough space for their smooth maneuvering in port. A second point to be considered is the distance, both to the main fishing grounds and the fishing markets.

### Water Operations:

The main sea operations of the fishing vessels must be guaranteed in any kind of weather, despite the rough sea conditions. The most important ones are the entrance of the port, the navigability through the waterways and the correct situation of the quays for landing.

In order to rationalize the water operations it is necessary to divide the quays as follows:

- |                    |  |
|--------------------|--|
| Preparation quay - | Place where the fishing vessels are prepared for the next fishing activity and this preparation consists in washing the deck and chambers of the fishing vessel, supplying of oil, potable water, ice, food, and also the preparation of the fishing gears and the bait. |
| Landing quay -     | Commonly, the area for landing the fish that is beside the handling shed, where the fish is prepared for marketing.  |
| Idling quay -      | Once finished the landing operations the fishing vessels goes to the idling quay or rest quay where they are left in a perpendicular position waiting until the next departure.  |
| Slipway -          | Sort of quay suitable for parking the fishing vessels on land.   |

## Operations in land:

The main operations in land are related with the fishing facilities available in the port, but the most common ones are the following:

- Handling shed - Covered area where the fish is landed, weighed, classified and sold for distribution purposes. We must consider the possibility of an auction area and the movement of forklift trucks for the transportation of the fish.
- Internal roads - They must be constructed allowing the easy movements of the goods, people and also for a quick access in case of accidents.
- External roads - The communication with the markets requires suitable infrastructure of roads for trucks of heavy weight.
- Open file yard - Used by the fishing companies, the fishermen, the people in charge of the services of the port and also for the preparation of the fishing gears.
- Supply of water and ice- An easy access to potable water is very important for the correct operation of cleaning of the fishing vessels and for the marketing of the seafood. Also we must provide ice flake directly from an ice factory inside the port. A correct distribution of ice is very important for the supply both to the fishing vessels and, in the handling shed, for the marketing of the fish.
- Oil supply - Correct planning of the oil supply in order to have an easy operation and to prevent accidents like marine oil spills or fire.



- Coldstorage - Chamber of cold temperature with ranges from 0°C to 5°C for chilled fish.
- Frozen coldstorage - Chamber of cold temperature normally of -25°C for frozen fish. Chamber for sashimi products that requires a temperature of -60°C.
- Office management - With easy access to be in touch with the logistic demands of the fishermen and the fishing companies.
- Processing factory - If we have this facility in or near the fishing port is important to consider the demand of water and the control of the sewages. Water treatment systems should be constructed to prevent the water pollution in fishing ports.

#### Environment:

If the role of the port is the supply of fresh fish, the center of the community and a recreation place, the environmental aspects play a major interest. That is why in the management of a port we must take into account the correct circulation of the sea water, oil disposal facilities, as well as a correct evacuation of solid and other liquid pollutants present in the area.

#### Data requirement:

The basic statistics data required are related to meteorological and sea conditions ( at least 30 years). The most important factors are bathimetry, currents, tides, waves, water bacteriological indicators, litoral drift, wind and fog. It is also important to keep a record of marine accidents and the origin of the accidents in order to prevent them.

## Fishing Port Market

The market in the fishing port involves the marketing of the fish by the fishing companies the fishermen, the middleman and the supply to the wholesalers, the fishing industries and other consumer markets. The principal activities and infrastructure required are the following:

### *Activities*

- \* Handling of fish catches, sorting, washing, weighing and packing in boxes with ice.
- \* Selling by direct negotiation, auction or bidding.
- \* Transport (Temporary storing in coldstorage/ loading to a transportation)
- \* Fish inspection
- \*Activities for public good and welfare
- \* Management and administration
- \* Commercial transactions

### *Infrastructure*

- Preparation hall, storage yard for fish boxes, fish containers, ice supply shop and potable water supply facility
- Auction hall (fish catches display room, bidding room)
- Forklift trucks, packing and temporary storing hall, parking zone, truck platform, fresh and frozen coldstorage.
- Inspection office for the health authorities
- Lodgings, bathrooms, toilets, dispensary, shop dealing with fishing implements for fishing boats and daily necessities, conference room.
- Management office, drainage and sewage disposal facilities, lighting and illumination facilities, dumping ground.
- Offices for administration

The activities of the market in the fishing port are very important but they must be connected with central wholesale markets (consumer market) in the principal cities. The central wholesale markets are generally established by the local government. Standing between the producer and the consumers, they promote the smooth distribution of perishable foods through wholesalers and retailers.

With this system the fisherman is assured of a reliable sales outlet regardless of the quantity of the consignment and the retailer is assured of a stable, reliable source of stock through which he can meet the needs of the consumer and contribute to a balanced diet.

#### Role of the Central Wholesale Market:

- \*Collection - A wide variety of fish is collected in large quantities from all over the country and from abroad.
- \*Price formation - Fair prices reflecting supply and demand are set on the basis of auction dealings.
- \*Distribution - Goods are quickly distributed to the retailers.
- \*Settlement of accounts - Payment of expenses is made quickly and accurately.
- \*Reduction in distributing costs - Freight charges and other cost involved in distribution can be reduced by handling goods in large quantities.
- \*Transmission of information - Accurate information concerning distribution of perishable foods is gathered and transmitted.
- \*Hygiene inspection - Hygiene checkings are carried out from time to time by the Sanitary Inspection Office.

## New trends

In the design of a fishing port we must take into account the generalities described in this technical report as well as the new trends, such as fish as a healthy food, the importance of aquaculture, new equipment available, new transport facilities, the importance of sustainable development and the preservation of the environment.

### Fish as a healthy food

Actually the prevention of cardiovascular diseases, the healthy diets and the recommendation of eating fish twice a week in order to improve our health, demands more fish and better quality. A suitable distribution of fresh fish is now very important to every population and it is expected an increase in the marketing of seafood products. The fishing ports are the first step in this distribution system and we have to start thinking in the correct supply both to the industry and directly to the consumers.

The medical recommendation is based in the following scientific data founded in 100gr of edible portion of fish products

#### *Biochemical condition*

- \* High quality of protein.
- \* Lipids with large amounts of UFA 65-85% (Unsaturated fatty acids).
- \* High presence of EPA 50-1400 mg (Ecosapentoic acid)
- \* High presence of Taurin

#### *Beneficial action*

- Aminoacid score of 100.
- Involved in prevention of cardiovascular disease.
- Involved in prevention of cardiovascular disease.
- Involved in prevention of blood high pressure.

## Aquaculture

The importance of this activity is increasing in the total world catches (20%) due to the production of fish products in large quantities as carps, seaweeds, prawns, mussels, yellow tail, abalones and salmons. Another factor is the propagation of juveniles that is being done in several fisheries in order to restore the biomass for increasing the coastal fisheries. The aquaculture requires specific infrastructure in the fishing port on land and in the protected waterways areas. Also, the new demand for live fish requires specialization keeping the fish in water cages with oxygen, both at the fishing port and the transport in charge of the distribution operations

## New equipment

At present, new types of high speed fishing vessels of FPR can do dailly callings from the ports to the fishing grounds; new selective fishing gears are able to catch the target specie with the size requested by the market; new preservation technologies like vaccum pack and modified atmosphere can maintain the fish more days in a fresh way without the practice of frozen on board; and new rational fishing gears with little space required on board, reduces the sizes of the fishing vessels. All this changes must be considered in the planning of a fishing port.

## New transport facilities

A new transport era is coming, starting from the landings that are made in containers with forklifts to decrease the hand labour cost, to the widely use of refrigerated containers both in ships and in air cargo planes. Nowadays, a common practice in the fishing ports is the preparation of fresh fish and life fish to be sent to the nearest international airports.

## Sustainable development and preservation of the environment.

The fishing port is the center of many activities that potentially may spoil the quality of water of the waterways of the port. Due to this reason it is very important to take into account before the construction of new ports the creation of the water flow, and, if necessary, make a water removal system by the construction of holed breakwaters and, if it is not enough, build water treatment plants.

No one can afford the success of the fisheries activity without a sustainable development, but this new concept must be done with the direct actors that are the fishing companies but principally the fishermen. They must learn about the ecosystem, the importance of the marine mammals, marine birds, the no contamination of the waters, the careful handling of fishing gears (long line traps, trawling nets) that can be loose in the fishing grounds (ghost fishing), the damage of the fishing bottom by trawling, and also to be involved in the direct managing of their own area.

The fishermen and mostly the coastal fishing must change their behaviour with their area the fishing authorities must give them priority in the capture of their local area of settlement. The fishing port is the natural place for making this educational work in direct contact with the ONG's and the local community.

Also in this point we have to be aware of the construction in reclaimed land. We have to be very careful in this item because it is one of the common solutions to enlarge the land area. A environmental study is highly recommended to be done in order to take the correct decision.

## Roles of Fishing Ports in Uruguay

We have to clearly define in the planning of the fishing port facilities in Uruguay, the roles that must play the port in the community. Is for this purpose that we made the following tables.

### *Present role*

- Landings fresh and frozen fish by the fishing vessels
- Distribution of the seafood to the fishery processing industry and wholesalers
- Mooring the fishing vessels
- Preparation and reparation of the fishing gears
- Supply of electricity, oil, ice and potable water
- Fresh and/or frozen coldstorage facilities
- Refrigerated containers facilities

*Possible new roles*

- Increase the supply of seafood products for the population for a healthy diet
- Grading and icing the fresh fish
- Marketing of the catches in a sheltered area
- Center of the community in the fisheries villages
- Place for ocean recreational activities
- Place for the education of the fishermen
- Security for all type of marine activities

*Roles for the future*

- Key factor of development of regional economy
- Production base for propagation and aquaculture
- Seafood auction market for wholesalers and retailers
- Terminal for the distribution of live fish
- Sealife museum, place for learning about the sea

## General Recommendations

The future of the fisheries in Uruguay must be based in a better knowledge of the marine ecosystem, a better managing of the resources, the revalorization of the fishermen in the the fishing industry and also as a supplier of a healthy food product for the community.

We must reconsider the importance of the fishing ports and the seafood markets in order to improve the quality of fish for the population, for the seafood industry, and make more clear and reliable the price of the fish. In any kind of fishing development we must consider the institutions, the technicians as well as the local people that must build the future of the fisheries.

The national and international government institutions in contact with private companies must finance fishing port development. The high investments, the time required, the lack of private financial sources make essential the public nature of the development of the harbour facilities that have interest, not only for the fisheries but also for the community, for the tourism and for the supply of a healthy food.

From a practical point of view we recommend some general aspects to be studied in a near future in the case of the fishing ports of Montevideo, La Paloma and the villages of artisanal fisheries.

## About Montevideo Fishing Port

- \* Requirement of a specific area for the fishing port, both for the national and international flag vessels.
- \* Operational areas according to the services required:  
Preparation quay, landing quay, Idling quay and handling shed  
Ice factory and distributing system to the vessels.  
Shelter areas for the landing of the fresh fish and marketing of the seafood.  
Shelter areas for landing of frozen products from the fishing vessels and new methods of discharging like vertical conveyer belts.
- \* Refrigerated container facilities
- \* Market study for a coldchamber of -60 centigrades, for the handling of sashimi products.
- \* Management offices and display room with frozen seafood products, nearby the fishing port area.
- \* Facilities for the people involved in the fishing port.(communication, toilet and dinning room)
- \* Fish market in Montevideo city for the retailers and consumers

## About La Paloma Fishing Port

La Paloma is the second port of importance in Uruguay and during the eighties had an annual landing average of more than 25.000 MT of fresh fish. Nowadays in La Paloma area there are two factories with large processing capacity, but with no activity at all, due to economic problems and bad management.

Some hints may be:

- \* Utilization of the infrastructure available
- \* National Fishing Terminal for high price fish as tuna, sword fish, sharks, red crabs, flounders, topshell and shrimps.
- \* Use of the ice factory in the port
- \* Landing facilities for the artisanal fishing vessels
- \* Construction of a fish market
- \* Leisure facilities for sport fishing and yachting

## About Fishing villages

The artisanal fishery in Uruguay consists in about 1000 fishing vessels with an annual catch of 5.000 MT. It is a very important activity from the social point of view. The suggestions are:

- \* Introduction of the concept of Exclusive Managing of their own fishing area.
- \* Improvement of the social conditions. house, education, health care.
- \* Facilities for the operations in the slipways
- \* Establishment of fishing market facilities for a better presentation, handling, and quality care of the fishing products.

## Appendix I

### Present situation of fisheries in Uruguay

#### Natural condition

Uruguay is located in the south of Latin America, bordering with Argentina to the west and with Brazil to the northeast. It has a low population 3,160,000 (1996) with a good quality of life, according to the United Nations report. The country has a land area of 176,215 sq km and 87% of its is suitable for agriculture and livestock.

There are several rivers in the countryside and there is a coast line of 500 km along the River Plate and the South West Atlantic Ocean with a territorial water and EEZ of 125,057 sq/km. The climate is temperate with maritime influence in the south of the country, an average annual rainfall of 1,100 mm and mean low and high temperatures of 6°C and 32°C respectively.

The habitat of the maritime area is conditioned principally by the warm currents of Brazilian waters, by the cold current of Malvinas (Falkland Islands) and by the fresh water coming from the River Plate. Most of the actual fishing grounds are in the marine platform and there are divided in two a) the fishing grounds of hake in Atlantic Ocean and b) the fishing grounds of croaker in the River Plate.

#### Fishery statistics

The fish catch during 1995 was 126,495 MT. The major aquatic resources of the country are: hake (*Merluccius hubbsi*), white croaker (*Micropogonias furnieri*) and sea trout (*Cynoscion striatus*). This three species represent the 80% of the total fisheries catches in 1995.

The aquaculture of sturgeon and frog is just starting from a commercial point of view. For inland fisheries the only remarkable catch is Characin(*Prochilodus sp*) with 500 MT. The rest of the catches are catfish and silversides. All the inland fisheries are part of the artisanal sector which is important from a social point of view.

The national annual consumption is about 16,000 MT, that is 5 kg/ per capita.

*Catches of principal fish species in 1995.(INAPE)*

<u>English name</u>	<u>Local name</u>	<u>Scientific name</u>	<u>Metric tons</u>
Hake/whiting	Merluza	<i>Merluccius hubbsi</i>	57,874
White Croaker	Corvina	<i>Micropogonias furnieri</i>	29,513
Sea trout	Pescadilla	<i>Cynoscion striatus</i>	13,417
Squid	Calamar	<i>Illex argentinus</i>	4,181
White porgy	Castañeta	<i>Cheilodactillus bergii</i>	3,033
Blackbelly rosefish	Rouget	<i>Helicolenus dactylopterus</i>	2,733
Croaker	Pargo	<i>Umbrina canosai</i>	1,708
Skate	Raya	<i>Rajidae</i>	1,468

Another species of economical importance with less of 1000 MT are the red crab (782 MT), sword fish (502 MT), topshell (323 MT) and mussels (300 MT).

The principal figure trade are the fishery exports with 65,352 MT and U\$S 82,113,000 during 1995. The fishery imports during the same year were 1,261 MT and U\$S 2,900,000. The ratio of export/import is of 28/1.

*Exports by principal countries of destination in 1995. (INAPE)*

<u>Country</u>	<u>Metric Tons</u>	<u>U\$S/FOB Montevideo</u>
China, People's Republic	18,367	15,144,000
Brasil	16,811	13,861,000
USA	6,483	13,816,000
Italy	2,891	9,009,000
Japan	5,348	6,351,000
Others	15,452	23,932,000

*Principal export products in 1995. (INAPE)*

<u>Type of Product</u>	<u>Metric Tons</u>	<u>U\$S/FOB Montevideo</u>
Frozen fillets	17,183	37,274,000
Whole frozen	28,638	24,466,000
Frozen H&G	5,468	8,975,000
Fresh fish	11,304	6,908,000
Other frozen	1,540	3,964,000
Fish meal	1,144	505,000
Others	75	71,000

The fleet with fishing licences consists of 545 vessels, 452 artisanal vessels (from 0 to 9.9 GRT) and 93 industrial vessels (from 10 to 1,999.9 GRT). Trawling is the main fishing method used in the industrial fishery, responsible for the 94% of the annual catches during 1995. Landings are checked by official inspectors of INAPE. Isothermal trucks pick up the fish as soon as arrived and transported to the processing plants located near the port. There are about 15 processing plants which elaborate frozen products in different forms: whole fish, headed and gutted, fillets, fish blocks, coated and other meals ready for direct consumption.

#### Legal system and organization for Fishery Administration

On December 18th 1975 was created the National Fisheries Institute (INAPE), depending from the Ministry of Livestock, Agriculture and Fisheries. The main role of the Institute is the conduction of the National Plan for Fishery Development. The Institute is the authority which performs the fishery policy and the scientific, legal and economic rules in the fishery area, being in charge of the orientation, advice, development and control of the fishery activity and related industries.

The legal system is based in the next laws and decrees; Law nº 10.653, 13.833 and 14.484 and the following decrees nº 711/971, nº 443/979, nº 15/983, nº 663/987, nº 95/994, nº 597/994 and nº 315/994. At present two new decrees related to the fishing industry were approved by the government nº 149/994 and nº 213/994.

In 1974 an historical agreement "The agreement of the River Plate and its Maritime Front" signed between Uruguay and Argentine. This agreement was the principal reason for defining clear rules for the development of the fisheries in Uruguay. Since then, both countries have a Common Fishing Zone(CFZ) located in waters beyond the River Plate.

The legal support allows vessels only of Uruguayan and Argentinian flag operating in the CFZ with quotas of fishing that are divided among both countries as well as the regulatory fishing operation for the protection of the natural resources. The Uruguayan vessels need licences to make fishing trawling, longline of tuna and red crab or whatever other fishing operation. There are restrictions mainly for the trawling system and the factory fishing vessels are prohibited. Most of the processing activity is done in land.

### Fishery Cooperative

Although there is a large tradition in Uruguay with the cooperative system in agriculture, dairy products, and wool industry, there was no economic success in the development of cooperatives in fisheries, both at industrial and artisanal level.

## Appendix II

### "Montevideo fishing port"

Although Uruguay has an extensive coastline along the Atlantic Ocean, the River Plate and the Uruguay River, the most important port is located in Montevideo the national capital city (34° 54'S, 56°12'W). Historically the reason of the foundation of the city by the Spanish colony was the natural harbour suitable for vessels, located in the middle of the principal routes between South America and Europe. At present, the port is managed by the National Administration of Ports, but most of the services are private and operate 24 hours a day, all year round.

#### Principal features:

- \* Entrance draft channel 36'(11m) with normal tide brackish water
- \* Breakwater opening entrance of 300m
- \* Inner waterways with room for 5/7 vessels or 20 fishing vessels
- \* 12 docking piers with a total length of 4300 meters.
- \* Refinery basin
- \* Fresh water and bunkers available all grades
- \* Several warehouses for commercial operations under free port regulations.127,000 sqm unde roof capacity and 220,000 sqm of open space for storage of goods.
- \* Container terminal, 278m in length and 10m of depth (138.000 containers annually)
- \* New Passenger terminal (1 million passengers annually). Fast catamaran type cruises with capacity of 650 passengers and 110 vehicles.
- \* Specialized docks render immediate service to passenger vessels, container traffic, fishing ships, bulk cargo and coastal navigation ships.
- \* Private operating companies under a regime of free competition take care of services to ships goods and passengers.
- \* Specialized areas for general cargo, frozen cargo, ship maintainance and repair. Anchor zones inside the port complement dock activities, allowing easier transhipments of goods.

The commercial port of Montevideo has widespread large areas for the service of the fishery activity. For better understanding we classify as: international fishing terminal and national fishing terminal.

#### International fishery terminal

We must consider Montevideo as a service port to the fishery fleet that operates in South Atlantic and Antarctic Ocean. Foreign tuna longliners, squid jiggers and trawlers from Taiwan, Korea, Spain, Japan, Chile and Portugal have used this port as a fishing base for the last twenty years. We can estimate an annual income of U\$S 100.000.000 for activities such as frozen cargo operations, transit of general merchandise and sales of electric and electronic equipment, packing materials, miscellaneous goods, food, fresh water, bunkers, coldstorage and reparations at the floating docks. This figure is higher than the annually income for fishery exports.

Close to the docking fishery area, the port has a private operated coldstorage with three chambers of  $-30^{\circ}\text{C}$  with a capacity of 8,460 cubic meters each, suitable for sea-frozen products, as frozen squid, frozen tuna and baits. About 10 km outside the port it is also situated a new frozen coldchamber for containers with a capacity of 500 containers operating automatically by computer. There are various port operators that can handle and store the frozen cargo also providing insulated and refrigerated trucks, as well as packing operations ashore, providing quality master cartons as well and any other kind of packaging materials.

There are naval repair companies operating in the port with the largest floating dock in the zone plus two dry docks.

Certificates for seafood as origin, health/sanitary, sensorial analysis, laboratory analysis, weight, counting, measurements, for "In transit" frozen products can be obtained locally, by official or private services.

Tankers and supply vessels operate 24 hours in the River Plate area, in definite zones in High Sea loading bunkers and delivering fresh water and provisions upon request. They are suitable to carry different types of liquid cargoes and are equipped with Yokohama fenders. The total annual bunker market in Montevideo is of approximately 180.000 metric tons.

### National fishery terminal

The national fishery terminal is situated in a pier called "Mantaras" and serves for the national fishing fleet that operates for trawlers and longliners. Montevideo, represents 92% of the national landings in 1995. There is no industrial facility at the port so when the ships arrives at the terminal, the fish is unloaded in the fresh form and isothermal trucks carry fish to the fishing industry.

The other operations in the terminal are the cleaning of the ship, and the supply of ice, potable water, bunk and miscellaneous for the next departure. In the case of the longliners the landings of tuna and swordfish are done with a correct packaging for airflight delivery to USA, Europe and Japan.

### Statistical information collection system

The ANP (National Port Administration) has annual statistics(1995) for the entrance of vessels to the fishing port with the figure of 1982 fishing vessels with 501,798 of GRT.

The fishery products statistical information collecting system is done by INAPE (National Fisheries Institute) and they consider only the figures of the fishing vessels of national flag:

Nºof industrial fishery vessels (Uruguay)	:	93
Annual landings of fish (Montevideo)	:	116,223 MT
Annual landings by fishing gear involved	:	94% trawlers
Average price of fish landed (Uruguay)	:	343 U\$S/MT
Nº of fishermen (Uruguay)	:	3,471

More than 90% of the catches are exported so the internal market is very small. There is lack of statistics about % of distributions at retail (supermarkets, street markets and others)

### Services

The services that are provided by the ANP are berth activities and anchor areas that allows the transshipment of goods. Also if is need the ANP provides water, electricity and communications, but at present most of the services are provided by private operators working under a free competition system.

### Marketing System

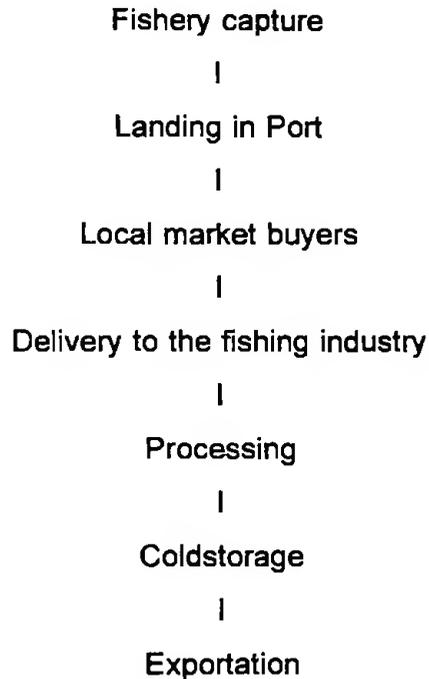
There is no fishing market neither in the port nor in the city. The six biggest companies that operate in Montevideo are vertical integrated with their own fishing vessels, transportation system, industrial plant and marketing.

The fishery industry is mainly an exportation industry. More than 90% of the products are sold outside the country. The commercialization of the fish in the internal market is made mainly at the supermarkets, seafood-restaurants, and street markets. There are few specialized shops in seafood products. Supermarkets also handle imported seafood products as canned tuna and anchovy, smoked salmon and dried cod.

Exports and imports are done freely between private operators and there is no commercial restriction of any type - there are no quotas. The only restriction is for sanitary reasons. Most of the business are made between the national fishing industry and brokers that trades mainly in Uruguay, United States, Spain, Japan or Hong Kong. Sometimes the business is done directly by the Commercial Manager of the fishing company.

Most of the fishing exports consist in commodities, so there is little presence of labelling of our products in the international markets. When there is presence of Uruguayan labels the managers of the fishing industries make promotion at Boston Seafood Show, Sial or Anuga and make a well defined program of deliveries with the customer.

*Flow chart of the marketing system*



**Constraints**

The fishing area is one of many activities of the port. There is no global management for this area, both national and international. As far as we know, despite the great incomes that provides to the country there are no professional managers specialize in fishing port facilities and marketing systems, from the public sector. There are general problems as seawater pollution, fire risks, personal security, old operation system of unloading, lack of ice factory in the port, lack of bathrooms, and few capacitation of the people that works in the area. The other big problem is the absence of a fishing market.

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Instituto de Investigaciones Pesqueras

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