Country report: Morocco

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SUMMARY – The aim of this report is to give a concise description of how the supply and consumption of seafood have been evolving in Morocco. Information comes from both official and academic sources. Divergence between them is indicated and explained wherever it arises. The most reliable source is later chosen.

Key words: Morocco, fishery, aquaculture, seafood, supply, consumption.

RESUME *– "Rapport national : Maroc". Le but de ce rapport est de présenter une description concise de l'évolution de l'offre et de la consommation d'aliments de la mer au Maroc. L'information provient aussi bien de sources officielles qu'académiques. Les éventuelles divergences entre ces deux sources sont indiquées et expliquées. La source la plus fiable est ensuite retenue.*

Mots-clés : *Maroc, pêche, aquaculture, produits de la mer, offre, consommation.*

Statistical evaluation method

Production

Fishing and aquaculture statistics are mainly generated and managed by the Ministry of Sea Fisheries (Ministère des Pêches Maritimes, MPM) through different regional and central bodies. Other bodies, such as the Port Exploitation Office (Office d'Exploitation des Ports, ODEP), that depends on the Ministère de l'Equipement, provides the MPM with statistics on the landings of seafood in ports whose management is delegated to them.

Each year the MPM publishes "*The Sea in Figures*". This statistical bulletin lays out a quantified balance of the achievements of the fisheries and aquaculture sector in terms of production and catches. This report makes up the main, if not only, complete reference in fisheries statistics.

Data are presented according to a relatively detailed nomenclature, based either on the main commercial fish families (pelagic, benthic, industrial fish, fresh sea fish, cephalopods, crustaceans, etc.), or the main types of activity (high sea fishing, coastal fishing, artisanal fishing, aquaculture, harvest, etc.). Furthermore, the statistics drawn up by the MPM come from different sources and the levels of reliability vary according to the type of fishing practice.

For high sea fishing, the statistics are drawn up from shipowners' reports submitted to the different Sea Fishing Delegations (Délégations des Pêches Maritimes, DPM) detailing the different quantities caught, classified by species and by commercial size. Controls are carried out periodically by special commissions. In global terms this statistical source is still relatively reliable, since cross-checking with foreign trade statistics gives approximately the same values.

The coastal fishing products are marketed through two different commercial structures: the fish market, on one hand, where fresh sea fish and sometimes the so-called industrial fish are traded, and the Authorized Industrial Fish Counter (CAPI), on the other, reserved exclusively for the trading of industrial fish destined mainly for the processing industry. The statistics for coastal fishing are very biased and not a reliable reflection of the amounts landed at the ports. This is due to several factors, in particular, fish that is not taken into account by statistics, distortion of data when transmitted from one

body to another, weighing errors and understatements at the moment of sale and, finally, sales outside the official circuits. For all these reasons, it is necessary to introduce a correction coefficient in order to obtain more realistic figures.

The products from small-scale artisanal fishing almost completely escape control. In fact, most landings are made on the beaches where there are no authorities to collect the statistics. Therefore, the figures represent a very weak estimate of production.

Aquaculture is practised by a limited number of companies. Production data is precise enough.

Foreign trade

Foreign trade statistics are drawn up by the Foreign Exchange Office (Office des Changes, OC). This body is a reliable reference for import-export statistics. Morocco is in fact an overall exporting country; the volume of seafood imports is negligible. The OC uses a unified nomenclature according to product type. This classification means that it is not possible to distinguish between the different parts of fishing activity. This is a drawback, since the other statistical sources continue to make this distinction.

Consumption

On the contrary to production, consumption statistics are scarcer. Two main statistical sources exist for the consumption of seafood: the National Household Consumption Survey (Enquête Nationale sur la Consommation des Ménages, ENCM), the latest version of which is from 1985, and the annual MPM report, already cited.

In the absence of a recent ENCM, only "*The Sea in Figures*" can provide an available updated reference. Even so, the figures provided by the MPM are very general, and simply present the total amount of fish destined for fresh consumption, and the consumption per capita must be estimated from there. The amount destined for fresh consumption is calculated by the difference between total production and amounts destined to other outlets: the canning and semi-preserve industry, the by-product industry and for freezing. Therefore, it is clear that the errors made in estimating production will have repercussions on the estimation of consumption, which is, thus, underestimated. This method of evaluating consumption depends fundamentally on the supply.

Another method consists of carrying out direct surveys among consumers in order to evaluate the consumption through demand. This was the object of a study carried out in 1998 by the Fishery Research Department of the Agronomic and Veterinary Institute Hassan II of Rabat (Département Halieutique de l'Institut Agronomique et Vétérinaire Hassan II de Rabat). This survey will be used as main reference to address aspects of seafood consumption in Morocco.

Total production and supply of seafood products

Introduction

Moroccan fishing resources are deployed over a maritime area of more than 1 million km². The sustainable production potential is estimated at between 1.5 and 2.5 million tonnes per year, 700,000 tonnes of which are sardines and 100,000 tonnes are cephalopods.

According to the results of recent work on the contribution of the fishing sector to the national economy (MPM, 1998), the added value generated by the capture, conditioning, processing and sale of fishery products amounted to 7.7 thousand million DH, in 1996. This value making up 2.41% of the GDP of the same year.

For 1999, the official statistics of the sector show a total fishery production of the order of 758,000 tonnes, or rather the equivalent of 4.9 thousand million DH. This gross production is dominated by pelagic species, which represent 70% of landings.

According to their level of production, the maritime regions are regrouped into two differentiated zones (Naji, 1996):

(i) One zone situated south of Agadir. This zone, with a strong production, includes the large ports of the Atlantic and supplies the whole country with seafood products.

(ii) A zone situated north of Agadir. This part of the country corresponds to the Atlantic and Mediterranean ports whose production does not cover local demand.

The fishing fleet making use of the fishery resources belongs to the three large branches of activity: high sea fishing, coastal fishing and artisanal, small-scale fishing.

High sea fishing is practised by large industrial units equipped to freeze on board. Coastal fishing, qualified as traditional, is the result of a group of professions, including sardine fishing, trawling and long-line fishing. Sometimes a third form of fishing is included – artisanal, small-scale fishing, which is practised by a myriad of boats off the beaches.

Regarding national production outlets, the landings of high sea fishing are almost all destined to the foreign frozen-fish market. However, coastal fishing production targets both the local and the export markets. Forms of sale are more varied: fresh consumption, preserved and semi-preserved, frozen and by-products.

Throughout 1999, the exports of the fishing sector reached 6.7 thousand million DH. This amount represents 16% Moroccan exports and 55% agro-food exports. The UE is Morocco's main customer, with 60% of the export value, followed by Japan with 29% (MPM, 1999).

Total production per fishing type

The annual mean progression of the total production over the last ten years was 4.78% in volume and 4.41% in value (MPM, 1995; MPM, 1999). According to campaigns, the production has undergone the adverse effects of important hydroclimatic changes which have given rise to considerable fluctuation in supply, especially of pelagic species.

Figure 1 shows that fish production, during the first half of the decade, has grown steadily. After 1995, this production has, on average, become stable. The evolution of production is governed mainly by coastal fishing. The contribution made by high sea fishing and other types of activity is relatively constant.

In value terms, high sea fishing imposes its rate of evolution over the rest of the sector (Fig. 2). The other components of production have a limited influence.

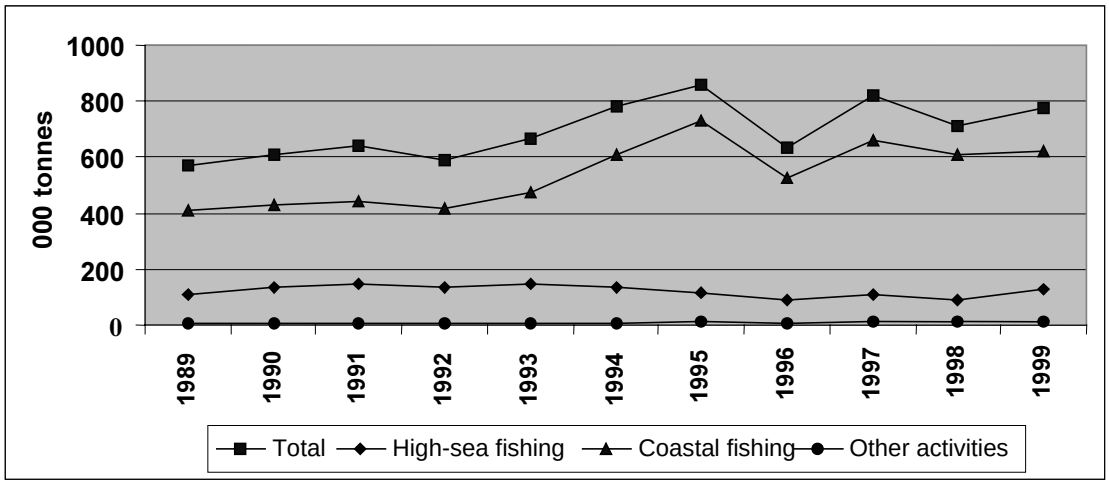

Fig. 1. Evolution of fish production volumes (MPM, 1995; MPM, 1999).

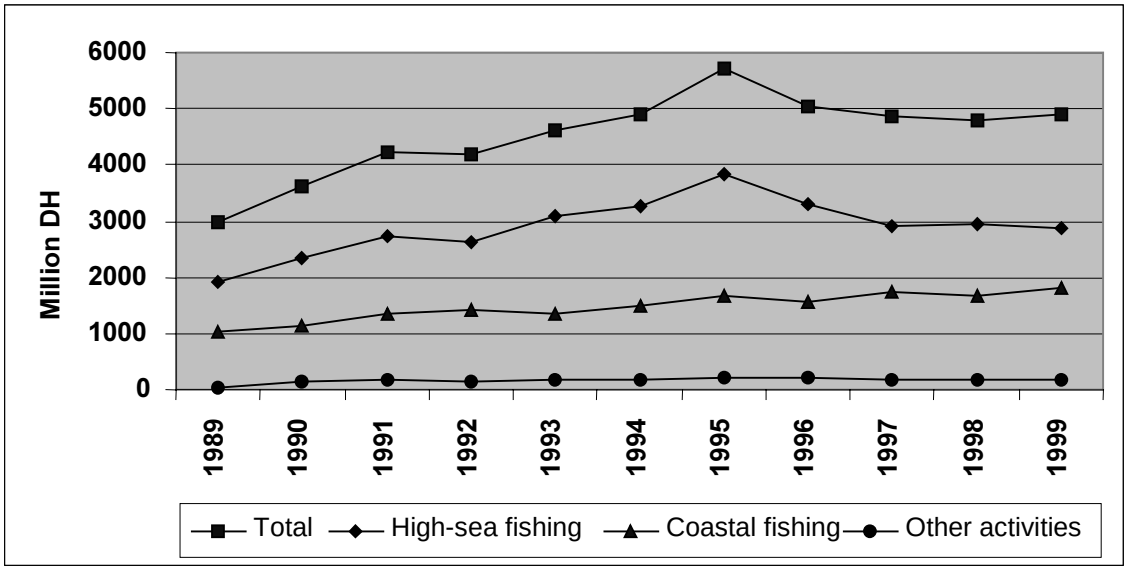

Fig. 2. Evolution of the value of fishery production (MPM, 1995; MPM, 1999).

High sea fishing

According to the official statistics, high sea fishing is considered the main supplier of the export market. Its products have a high market value. The fact that this type of fishing is highly capital-intensive makes it relatively dependent on port facilities.

The high sea fishing fleet is made up of 454 vessels that in 1999 landed 125,000 tonnes, for a value of 2.9 thousand million DH. The evolution of this fleet's landings during the last decade was 2.77% per year, in volume and 3.36% in total value (Fig. 3). In comparison with the coastal fishing, the subsector of high sea fishing employing about 10,500 people, has shown slower progress.

In 1999, the contribution of high sea fishing was 14.5% in weight and 59% in value of the total production (Fig. 4). The species landed are essentially cephalopods (octopus, cuttlefish and squid), white fish, prawns and tuna. Octopus is the dominant species.

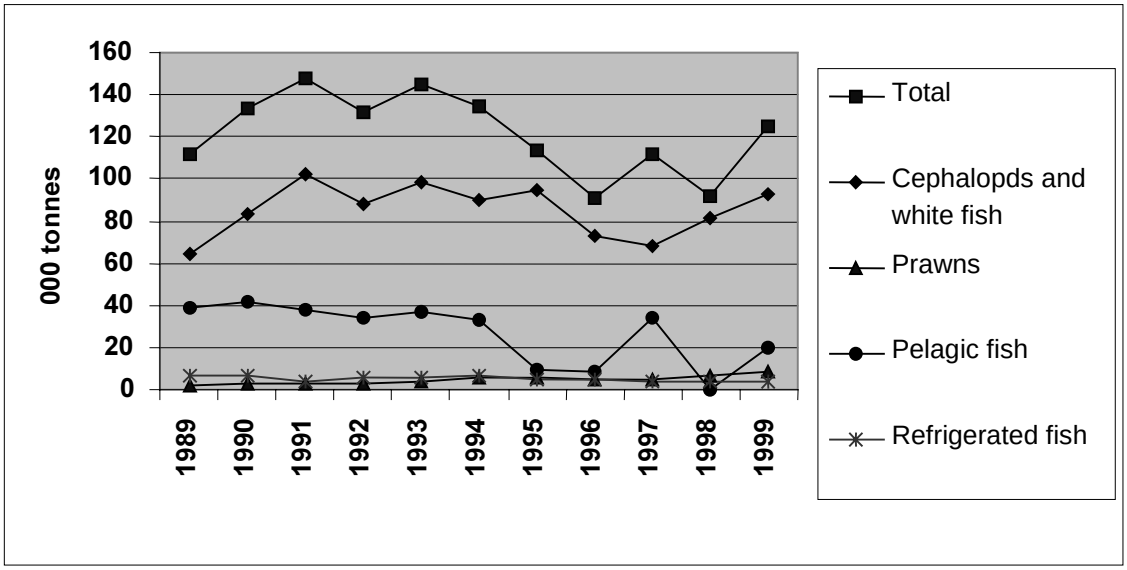

Fig. 3. Evolution of high sea fishing volume (MPM, 1995; MPM, 1999).

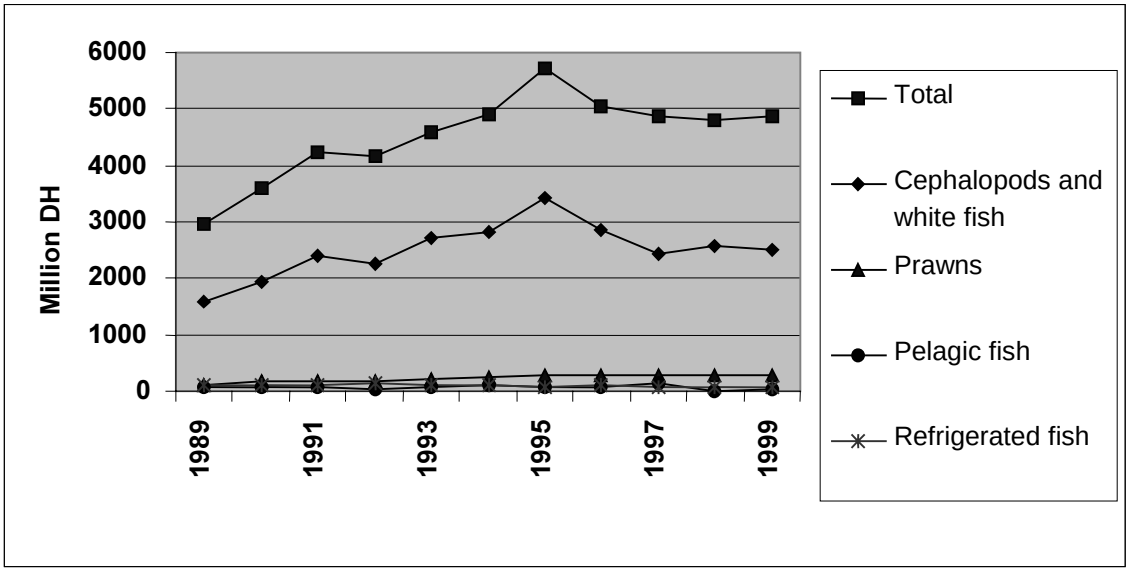

Fig. 4. Evolution of high sea fishing production in value terms (MPM, 1995; MPM, 1999).

Coastal fishing

Coastal fishing uses around 2500 vessels. It is a seasonal activity using trawlers, sardine boats, long-liners and mixed vessels. This fleet employs about 96,000 people.

The 1999 production was around 622,000 tonnes, 83% of which were pelagic species. The pelagic resources are made up of sardines, mackerel, scad, anchovies and tuna. The sardine is still the dominant species as regards biomass with a proportion of 69% of the coastal fishing captures (MPM,1999).

Coastal fishing production represents 82% in weight and 37% in value of the total production. Over the last ten years, the annual coastal fishery production has, on average, increased by 5.62% in volume and 5.35% in value (Figs 5 and 6). The contribution of benthic fish has risen more in value than in volume. On the contrary, the pelagic fish, with a weak market value, has risen higher in volume than in value.

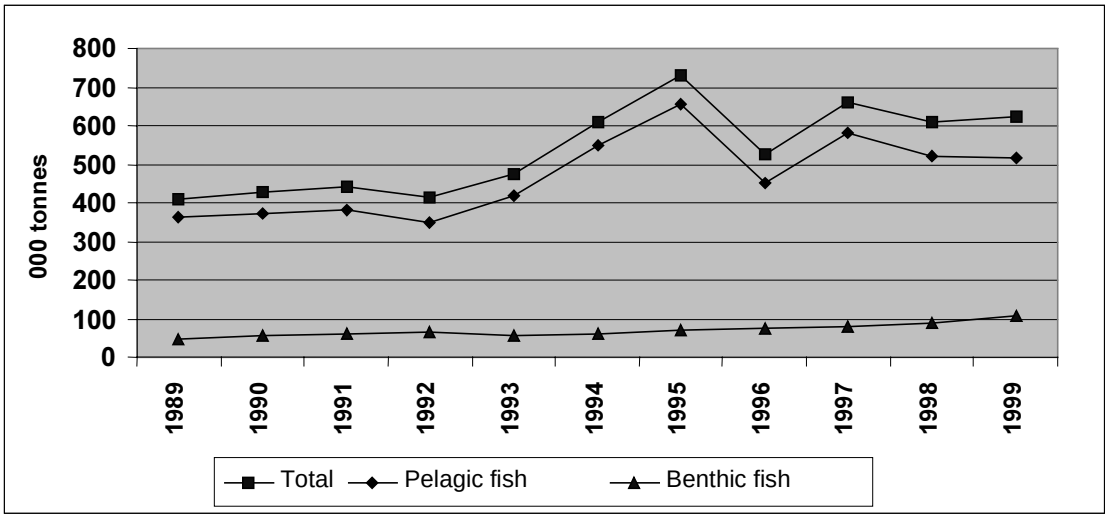

Fig. 5. Evolution of coastal fishing production in volume (MPM, 1995; MPM, 1999).

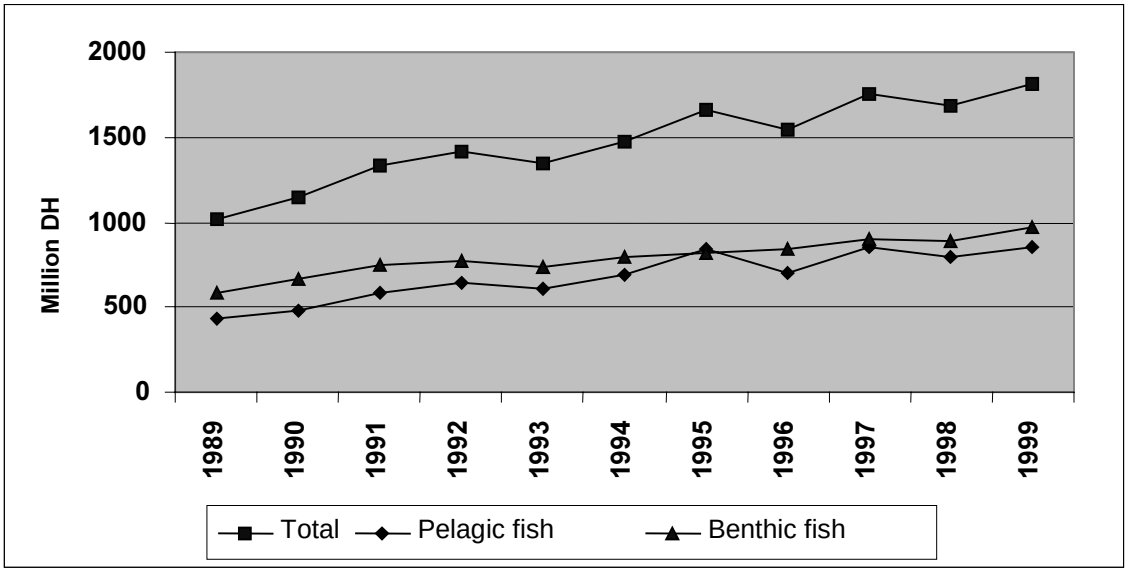

Fig. 6. Evolution of the coastal fishing production in value (MPM, 1995; MPM, 1999).

Figure 5 clearly shows that the trend of coastal fishing is due to that of the pelagic fish.

When distributing the fishing effort, a strong imbalance can be observed between the different production zones. While the stocks of the small pelagic species of the north and centre of the Atlantic are overexploited, those of the south are still exploited to a lesser degree.

Small-scale fishing

Another component of the sector, which is by no means less important is the artisanal, small-scale fishing. This fishery brings together about 12,000 vessels and employs around 21,000 people, the majority of whom are situated in rural areas. However, there are few infrastructures for the landings and therefore statistical data are unavailable, which is why it is difficult to determine the white fish and cephalopod landings of the subsector along the Moroccan coasts. With the development of octopus fishing in the south of the country, this activity has increased spectacularly in the last ten years. Certain studies evaluate the annual production of this subsector at a value between 30 and 50 thousand tonnes.

Other activities

The coast is an environment in which several other aquatic resources are exploited. To this effect the harvesting of shellfish, algae, coral fishing and tunny nets can be included. In spite of their low economic contribution, the benefits of these activities are moreover social.

Aquaculture

Aquaculture, in 1999, produced 1160 tonnes, that is, the equivalent of 43 million DH. Its contribution to the national production hardly surpasses 0.15% in volume and 0.9% in value. All things considered, Morocco is more oriented towards fishing than aquaculture since the latter is a very specialised activity (essentially sea bass and sea bream) targeting the foreign market. Throughout the last decade, the evolution of this activity has been on average about 15.67%, in volume, and 8.61% in value (Fig. 7). Following a spectacular take-off, the trend in the last five years has been mainly stable and even in regression.

It is to be pointed out that the statistics put forward do not include the products of inland aquaculture. The Department in charge of water and forests holds the responsibility for those data. However, the quantities concerned are relatively small.

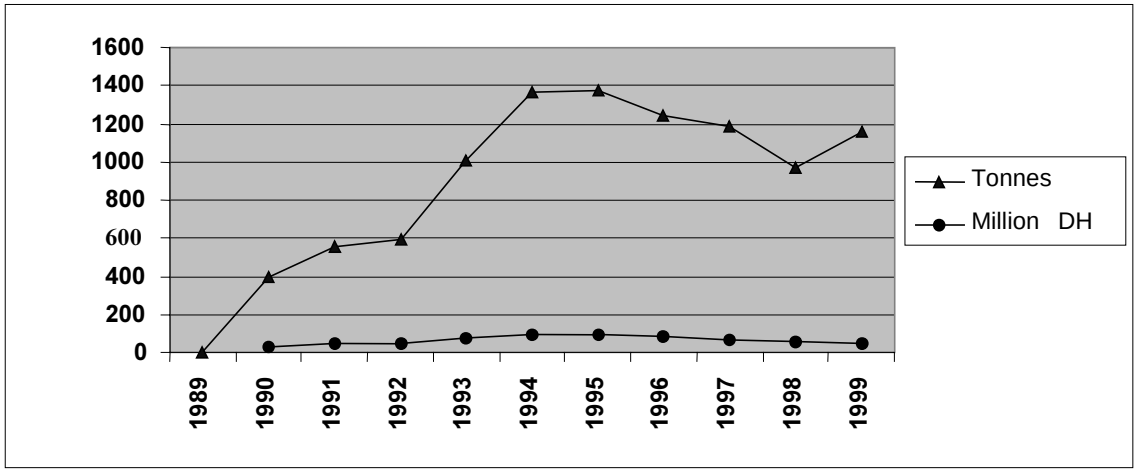

Fig. 7. Evolution of aquaculture production (MPM, 1995; MPM, 1999).

Import-export of aquatic products

The exports of seafood products reached a total of about 240,000 tonnes in 1999, the equivalent of 6.7 thousand million DH.

The evolution of these exports has been marked by a sustained growth over the last decade: 3.6% in volume and 6.62% in value, with the exception of canned product exports that have remained relatively stable (Figs 8 and 9).

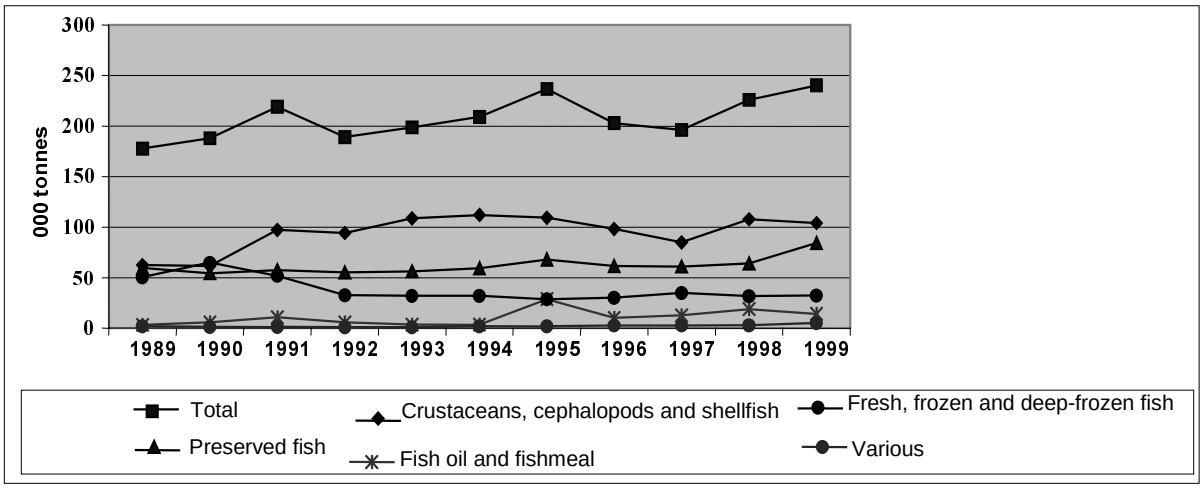

Fig. 8. Evolution of fishery product exports in volume (MPM, 1995; MPM, 1999).

The destination markets are mainly European countries (60% in value), Asian countries (29%), Africa (7%) and finally America (4%). These markets present real potential for development provided that great effort is employed in production techniques, packaging and marketing.

There is a wide range of export products. This range is dominated by molluscs (cephalopods essentially), canned, fresh and frozen fish.

In 1999 molluscs represented about 53% of the total value of exports. They are mainly made up of cephalopods (octopus, squid and cuttlefish) which mostly come from high sea fishing and artisanal octopus fishing (MPM, 1999).

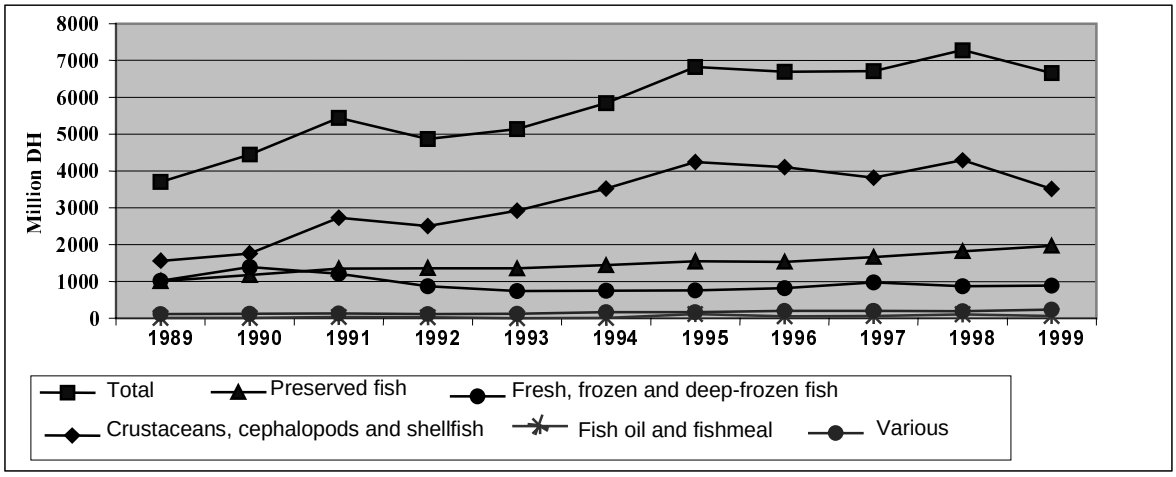

Fig. 9. Evolution of fishery product exports in value (MPM, 1995; MPM, 1999).

Exports of preserved and semi-preserved products approach 84,000 tonnes with a value of 1.96 thousand million DH. Sardines contribute up to 61%, anchovies 30% and mackerel 7% in value.

According to type of fishery, the exported species come from high sea fishing (about 45% of landings) and processed products from coastal fishing (36%). The rest comes either from coastal fishing or artisanal fishing and aquaculture.

Aquaculture products are all destined for export, with the exception of oysters, which are consumed by the local market.

Finally, fish imports are very rare and are fish species destined for fresh consumption such as salmon, or species destined for certain industries that may have a temporary deficit of raw material. In all cases, the volumes concerned are very small.

Apparent consumption of seafood products

According to "*The Sea in Figures*", the average fish consumption in Morocco over the last ten years has been 170 thousand tonnes per year, making up 6.8 kg per inhabitant and per year (MPM, 1995; MPM, 1999). These figures report fresh fish consumption and do not consider informal trade and canned fish.

The consumption trend is relatively stable, with fluctuations from time to time that follow the abundance of pelagic fish, particularly sardines where the supply level influences the consumption volumes observed on the local market (Fig. 10). In fact the sardine is the species with the highest demand due to its price.

In 1999, the quantities consumed represented 24% of the total production of the sector. Different statistical sources offer bigger figures (cf. next Section).

Data on the national market of seafood products

The national market is oriented mainly towards fresh products. The demand for these products is about 170,000 tonnes. The sardine makes up 32% of the amounts marketed. The rest is made up of white fish from coastal fishing and artisanal fishing. The market also absorbs about 10% of preserved products, essentially whole sardines.

The national market demand is quite weak (32% of total production, including preserved fish). However, taking into account the size of the population and its growth rate, demand can be increased if promotion efforts are made at all levels of the sector.

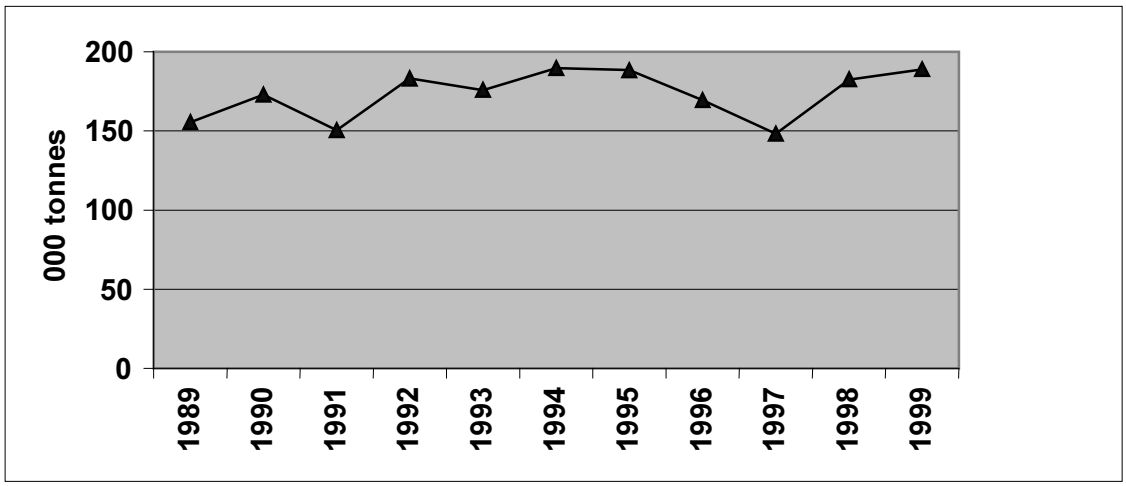

Fig. 10. Evolution of total fish consumption (MPM, 1995; MPM, 1999)

Revision of seafood products on the national market

In this part, we will address the marketing of seafood products in the national territory by adopting the marketing channel approach. This will be used to show: (i) the economic agents involved in marketing; (ii) trade operations; and (iii) strategies followed at each stage of the marketing process.

The marketing channel of the fresh seafood products is very much marked by the *"mareyage"* (we will use this term to refer to all commercial operations in seafood products). Between the fisherman and the end consumer, there is a large number of middlemen, who belong to a very diverse population. We have grouped them together as wholesalers, *rassembleurs* and retailers (Naji, 1996).

Marketing agents

The marketing agents of seafood products have globally complementary functions. Each type of *mareyeur* is specialised in a specific market segment to which he has adapted the production facilities and his marketing strategy.

Rassembleurs

Most *rassembleurs* are constituted in family firms. They are often former fishermen who have taken advantage of their experience and long-standing professional relations to weave informal contracts with fishermen from given sites. The *rassembleurs* play an important role in the market equilibrium by ensuring the concentration of supply from fishermen, dispersed among 170 landing points, down to about twenty ports. Their technical and financial means, furthermore are limited, obliging them to operate on fairly short circuits.

Wholesalers

The wholesale *mareyeurs* belong to the biggest firms. They are established in the fish markets and wholesale markets. Their technical and financial means are greater, allowing them to operate in diversified market segments, whilst remaining dependent for their supplies on well-defined fish markets. Their form of management is quite traditional, which handicaps the development of their profession. They are rarely large firms.

Retailers

The retail *mareyeurs* ensure direct sale to both urban and rural consumers. The retailers have rudimentary means and often specialise in precise segments. The retailers operating in rural markets play a vital role in the supply of fresh fish to the rural population (Naji, 1996).

The multiplicity of marketing agents and distribution circuits contrasts with the form of conditioning which is still quite rudimentary. The products marketed do not have a large added value, especially in the first stages of the marketing channel, since they are sold in their gross state without any preconditioning. The specific contribution of *mareyage* is small.

Sales operations

Sales transactions take place essentially in the fish markets, the CAPI, wholesale markets of inland towns and sites of artisanal fisheries (Naji, 1996).

Mareyage in the fish markets

The fish market is the most important link in the sales channel. It is the place where wholesalers and certain categories of retailers make their purchases at the fish auctions. These markets can be supplied "by sea", "by transit" or "by land". The fish destined for processing can take these same routes.

(i) "*By sea":* fish transported by sea is landed in the port where it is auctioned.

(ii) *"By transit":* captures are landed in a port and transported by the ship owner by vehicle towards the point of sale situated in another port.

(iii) *"Overland":* fish is bought by wholesalers at a port and is then resold at another port.

Industrial fish passes through the CAPI. This pelagic fish is destined for the canning, freezing and by-product industries.

In the ports, sometimes only informal contracts can be made between shipowner and *mareyeur*. Constraints for the *mareyeur* arise from the difficulty of regularly supplying clients at competitive prices. The shipowner, for his part, is incapable of delaying or postponing the sale of captures due to a lack of storage facilities or in order to avoid the double taxation on re-sale.

Mareyage in the fishing sites

There are 68 sites on the Mediterranean coast in comparison to 73 on the Atlantic coast. The supply from small-scale fishermen is widely dispersed, seriously hindering the marketing of captures. This situation is exacerbated by the absence of infrastructures and administrative services that improve the conditions of supply, distribution and sale of captures. This handicap is partially mitigated by the involvement of rassembleur-type wholesalers.

With the exception of seasonal *mareyeurs*, whose presence at a fishing site is fortuitous, the permanent *mareyeurs* make informal contracts of mutual benefit for them and for the fishermen. The behaviour of the wholesalers is guided by economic objectives, but also by the need to maintain, and indeed reinforce the network of interprofessional relations constituting social support of these activities.

The distribution circuits

The nature of the distribution circuit is defined by the succession of intermediaries, sales operations and market segments that separate the fishermen from the end consumer.

The long circuits begin at the large supply centres (Agadir and Casablanca) and serve the inland and northern towns. The average and short circuits begin at the ports of average importance of the north-west Atlantic as well as Mediterranean ports.

In the Mediterranean, the fish landed is distributed and sold entirely in the markets of the region and the rural weekly markets.

In the Atlantic, the purchases of *the rassembleurs* are distributed and sold in the shops of the *mareyeurs* and the nearest wholesale markets. The wholesalers can be both purchasers at the auction and suppliers to processing plants, retail sellers to hotels and restaurants, and exporters, sometimes shipowners and even factory owners.

The inland zones are not very well supplied, taking into account the weak demand and the absence of a sufficiently well developed cold chain. In this market, the species sold are mainly small pelagic fish (particularly sardines).

Market functioning

In Morocco, the pricing mechanism for seafood products is quite complex, moreover the market size includes 26 million consumers, about 13 thousand boats and about 3800 *mareyeurs*, of which 3000 are retailers (Naji, 1997).

The low level of fish consumption, in other terms, the gap between supply and demand is due, to a great extent to the relatively high price. This situation, is partly because a large part of production is destined for export. Furthermore, in the national market, the prices practised are far from competitive due to the structure of this market and the lack of competition between the wholesalers (Naji, 1997).

The *mareyage* sector is characterised by a strong concentration of capital and market share, especially in the fish markets. The profit margins are sometimes too high. Furthermore, the market structure is barely competitive and approaches oligopoly. In order to protect their market share, the strongest *mareyeurs* often have to revert to unfair competition, such as cartels and entry barriers (Naji, 1997).

The *rassembleurs* act on a very disperse market. Relations between fishing sites are almost non-existent and are made through the movement of the wholesalers who carry information on other markets. The aim being to create an uneven flow of information in order to reinforce their domination.

Artisanal fisheries supply is haphazard, lacking particularly in docking infrastructures. Climatic conditions are a limiting factor for fishing trips. The effect of seasonality is likewise marked.

Conditions in the fish market are different. The fishermen are better informed. The exchange of information between the different markets is relatively more important. Similarly, the market structure favours better competition.

Both for *mareyeurs* who market industrial fish and for retailers, purchases only take place if the prices are below the ceiling price. The main objective of the transactions is therefore price. The *mareyeurs* who demand high quality products have a different strategy. They are the exporters, urban market retailers and hotel and restaurant suppliers. The transaction is determined by the quality and size of the species sought independent of price (Naji, 1997).

The weight of the taxes and levies encourages informal transactions and favours the development of a parallel market.

The fish market is not very transparent. The fish wholesalers and fishermen do not all have the same degree of access to information. This brings about unequal information flows which weaken the bargaining power of fishermen. At the fishing sites, it is the *mareyeur* himself who informs fishermen of the prices that are fetched in the nearest markets. In the fish markets, the information on the state of different markets is valuable in wholesale market practice. Access to this information is costly and only the fish wholesalers, financially powerful, can establish an information collection network on the situation of the main markets of the country. A high level of representativeness in the different markets permits better communication between these markets and therefore a better balance of supplies and prices.

Geographical factors affecting the distribution and consumption of seafood products

The Moroccan diet is characterised by a predominance of arable produce, particularly cereals, of which consumption rises to 210.44 kg per person and per year. The consumption of animal produce is very moderate. However, and even if red meat fetches higher prices than fish meat, consumer behaviour shows a sustained preference for red meat and poultry.

The statistics available point out the predominance of poultry and red meat in the total consumption of meat by the whole population, with, respectively, 37.52% and 33.27%. Whereas for seafood

products, this part only represents 29.21% of the total meat consumption with a remarkable variation between regions (El Basri, 1998).

With a mean of 12.46 kg/person/year for the whole population, in urban and rural environments almost alike, the consumption of poultry holds first place in meat consumption (El Basri, 1998).

The consumption of red meat holds a middle position at an average level of about 11.05 kg/person/year, in second place after poultry. This value rises steeply in the urban environment at 14.43 kg/person/year in comparison to only 7.48 kg in the rural environment (El Basri, 1998).

The consumption level of seafood products has been estimated at 9.70 kg/person/year. This value is markedly higher than the mean evaluated by the MPM which is about 7.5 kg/person/year. The comparison of these two results leads us to think that 32.78% of the quantities consumed are not accounted for.

The consumption of fish per inhabitant differs according to region. In fact, whilst 46% of the population lives along the 3500 km of coast and in theory does find it too difficult to buy fish, this is not so for the 54% of Moroccans who live inland and who depend on the irregular channels of some *mareyeurs* for their fish supply.

This consumption is therefore unevenly distributed among the different regions of Morocco. The fish consumption is weaker in the rural environment, with an average of 6.02 kg *per capita*, which, in an urban environment would reach an average of 13.17 kg. Furthermore, this consumption, that is generally average to strong in the coastal regions, rapidly decreases and even disappears inland (El Basri, 1998).

Household demand factors in seafood products

Moroccan fish resources are required to play a vital role in the supply of economical animal protein for the local market. Paradoxically, Morocco continues to devote a large part of its coastal production to processing plants (fish oil and fishmeal). The consequences are felt at several levels, one of which is the consumption of seafood products.

There are several real causes for the low consumption level of fish products: (i) the marginal place occupied by fish in Moroccan cooking habits; (ii) insufficient supply of economical good quality fish, because of a lack of a specialised cold chain; (iii) the marketing circuits are not developed well enough inland and generate regional disparities in supply; and (iv) the price of fish is still beyond the reach of a large population with a low income.

The level of demand is conditioned by the type of environment (urban or rural), the proximity to or distance from a fishing port, household size, the socio-professional category and the level of education of the head of the household. Other variables act in one way or another but to a lesser extent, with the exception of the gender factor of the person in charge of shopping (El Basri, 1998).

A person living in a region near a port consumes, on average, more than double the amount of that consumed by a person residing in a non port town.

The consumers that frequent the large and medium-sized outlets consume, on average, more fish than those purchasing fish from the fishmonger in their district or the weekly markets.

Persons holding medium or senior posts or professionals, consume more fish than farm and industrial workers. Likewise, consumption increases with level of education of the person in charge of the shopping. These two reports express the income effect.

Finally, the larger the household, the less fish is consumed per capita (El Basri, 1998).

Breakdown of household consumption according to type of product

The analysis of the meat consumption structure shows the dominance of poultry and red meats in

relation to fish. The structure of seafood products, when broken down, indicates that the consumers have a clear preference for fresh products, representing 96.81% of total consumption (Fig. 11). Oil-rich fish makes up 65.98% and white fish 27.01% (El Basri, 1998).

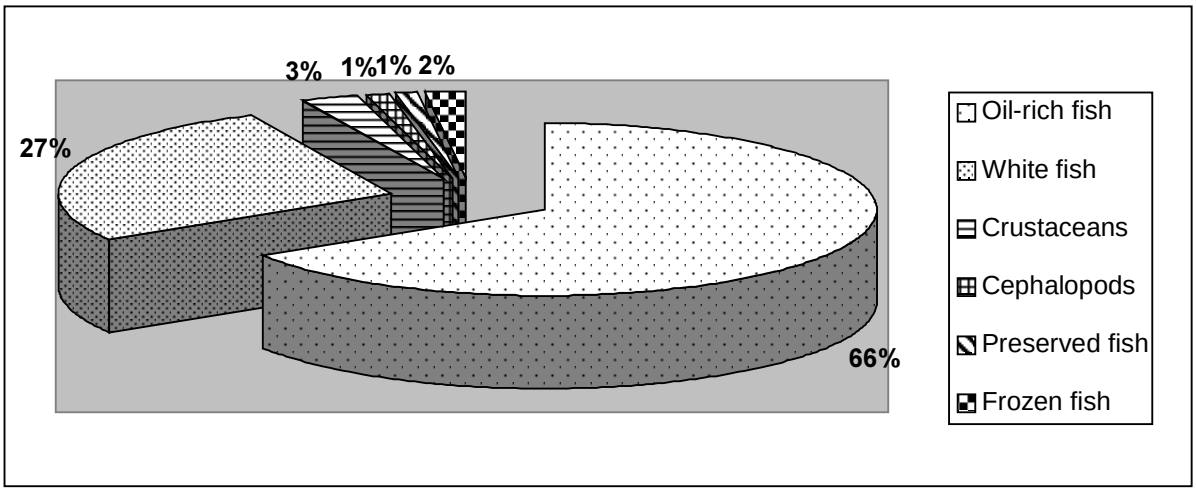

Fig. 11. Household consumption according to type of seafood product (El Basri, 1998).

General characteristics of the Moroccan population

General demographic data

Morocco appears to have entered a phase of demographic transition. The birth rate decreases regularly: from 3.3 children/woman in 1994 to 3.1 in 1998. The population growth rate, after regular growth at the beginning of the century, dropped slightly in 1980. The Moroccan population rose from 15.4 million in 1971 to 26 million in 1994 (+2.6% per year) and an estimated 27.8 million in 1998 (1.7% per year between 1994 and 1998) (Table 1). A population of 33.2 million inhabitants is envisaged for 2010. The population of Morocco is still very young: 66% of Moroccans are under 30 years old.

Table 1. Evolution of the legal population according to place of residence (Direction de la Statistique, 2000)

Year	Urban	Rural	Total
1960	3,389,613	8,236,857	11,626,470
1971	5,409,725	9,969,534	15,379,259
1982	8,730,399	11,689,156	20,419,555
1994	13,407,835	12,665,882	26,073,717

The number of residents in built-up areas rose from 8.7 million in 1982 to 13.4 million in 1994 (+3.6% per year). Today, the annual growth rate of the urban population is higher: 4.1% per year, meaning that the city population doubles every 17 years. The urban population, representing 30% of the whole population in 1960, is today majority and should reach 62% in 2010.

The rural population is still very important. Large inequalities are observed in the occupation of space. The rural habitat is very dispersed, which contributes to its exclusion.

Income and household expenditure

Between 1971 and 1991, the number of poor, in monetary terms, should have decreased from 6 to

less than 4 million, for a population that has increased from 15.4 to 25.6 million. Between 1991 and 1999, monetary poverty has increased. The poor population should have increased from 13% to 20%. The zones strongly affected are the rural agglomerations of the southern regions where the rural populations live on less than 2700 DH per year.

According to the survey conducted by the Directorate of Statistics (Direction de la Statistique) in 1990-91, the examination of the distribution of consumer expenditures shows important inequalities (Table 2). 10% of the wealthier population represents 30.1% of the total consumption. The gap between the rural and city environments remains constant. The urban households spend 1.7 times more than their rural peers. This rate is double for expenditure per person.

Table 2. Average annual expenditure in DH (Direction de la Statistique, 1991)

Expenditure	Urban	Rural	Total
Household	48,192	28,584	38,600
Person	9,224	4,264	6,780

The structure of population expenditure shows that the average consumer spends 45.15% of his budget on food, 7.48% on clothing, 12.48% on housing, 5.31% on household appliances, 4.71% on medical care, 7.58% on transport and communication, 4.74% on leisure and culture, and the rest on other goods and services.

Concerning expenditure on food, it is observed that the staple and high calorie products are consumed more in the country than in the cities. The disparity between these two environments is greater for luxury products. The city dweller spends 1.7 times more than a rural inhabitant on meat (Table 3), 4 times more on fish, 2.6 times more on dairy products and eggs, 1.7 times more on vegetables and 2.1 times more on fruit.

Table 3. Meat consumption in kg (El Basri, 1998)

Type of meat	kg/person/year
Poultry	12.46
Red meat	11.05
Fish	9.70
Total	33.21

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