

Kingdom of Morocco



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# Moroccan Sardine

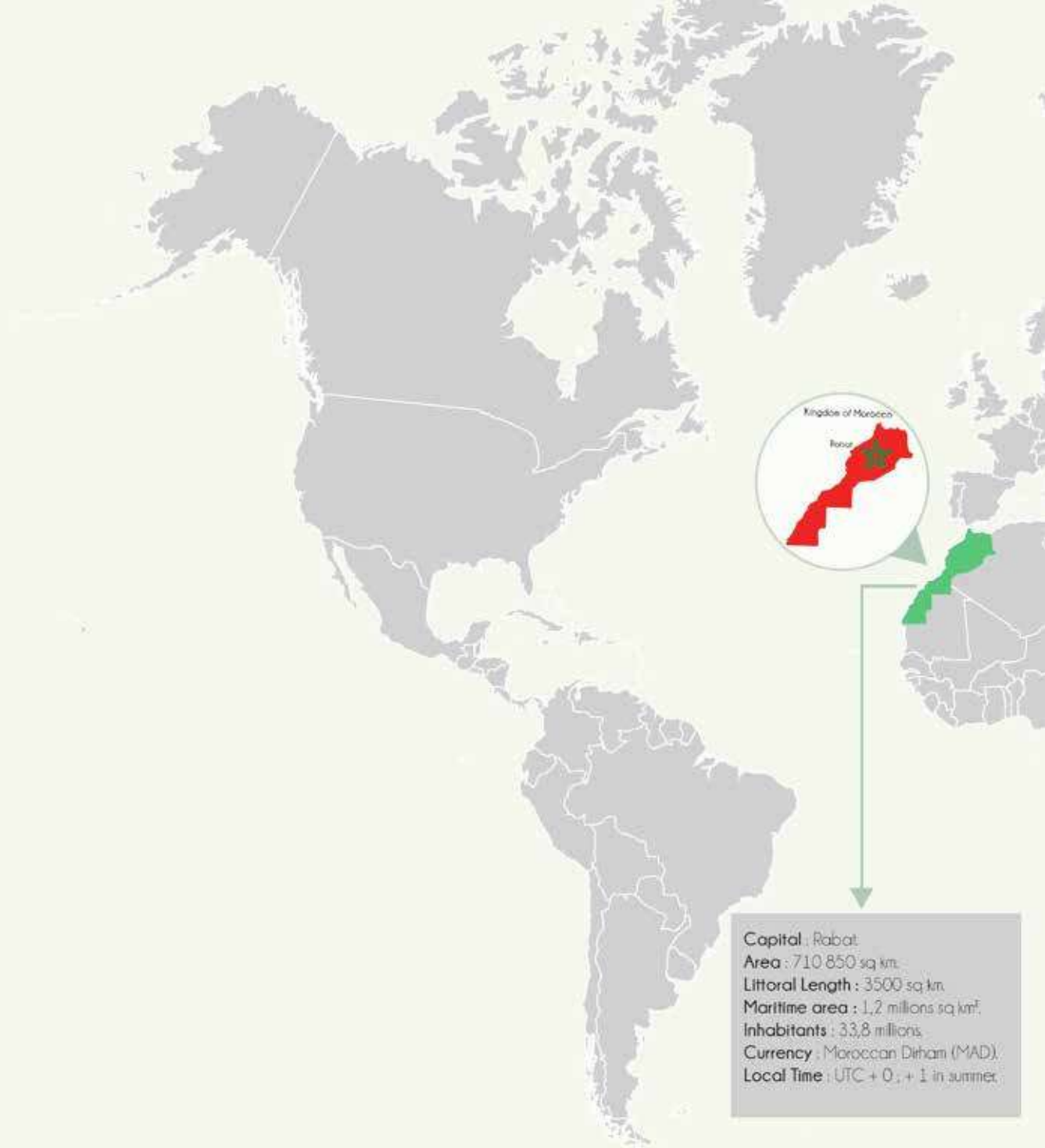
Buyer's Guide












**Capital :** Rabat  
**Area :** 710 850 sq km  
**Littoral Length :** 3500 sq km  
**Maritime area :** 1,2 millions sq km<sup>2</sup>  
**Inhabitants :** 33,8 millions  
**Currency :** Moroccan Dirham (MAD)  
**Local Time :** UTC + 0 ; + 1 in summer





The background of the slide is a close-up photograph of several sardines. The focus is on the head and eye of a sardine in the upper left, with others visible below and to the right. The fish are silvery with some golden-brown hues, and their scales are clearly visible. The lighting is soft, highlighting the texture of the fish.

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## Sardina pilchardus for the skilfull

Sardine for the close



## ➤ Sardine, a national treasure for Morocco

In Morocco, you'll hardly find someone who has never savoured the exquisite taste of moroccan sardine. Fried, grilled or in tajin, and canned, this little fish of the Clupeidae family is a real pride of Morocco, and for a good reason: its abundance in the territorial waters and its price make it the most affordable for all categories of households, both on the market of fresh fish and the canned one. Besides these undeniable strengths that differentiate it from other species available on Moroccan stalls, consumption of sardines is highly recommended.

What is the reason? Its taste and specific flavour is a real success guarantee among consumers. Sardines also have many nutritional properties, which raise it to the rank of highly appreciated products.

The word «Sardine» appeared in the thirteenth century, it comes from the Latin phrase *Sardae Sine sardinae*, means literally «from Sardinia», since the Greeks had noticed the abundance of this fish on the coast of the beautiful Mediterranean island.

Nevertheless, the Sardine appellation is currently protected by the Codex Alimentarius, and is allowed to be used just for some species. Morocco, an active member of the International Committee of the *Sardina pilchardus* (CISAP), ensures the non-fraudulent use of that designation to protect *Sardina pilchardus* (walbaum, 1792); the true sardine.



## ➤ Identity, of the Moroccan sardine

### » Systematic ranking

Moroccan sardine, which responds to the scientific name of *Sardina pilchardus* (walbaum, 1792) is part of the Clupeoid (*Clupeidae*) family. They are sometimes called pilchards when they reach a size bigger than average. This family includes some of the most consumed fish in the world.

Local names	Sardil, sardine, serdin
Scientific names	<i>Sardina pilchardus</i> (walbaum, 1792)
Branch	Vertebrate
Category	Osteichthyes
Family	Clupeidae
Type	<i>Sardina</i>
Species	<i>Pilchardus</i>

### » A sea sprinter morphology



Sardine has a streamlined body, the back is silver coloured, the sides are golden brown and the belly white.

It is characterised by slightly protruding jaw and an undeveloped ventral keel, as well as by the presence of bone radiating ridges on the lid and dark spots on the back.

Its dorsal fin is located in front of the pelvic. Its scales are sessile and the two last rays of the anal edge are longer. Its common size is 15 to 20cm and its maximum size is 25cm.

Regarding the *Sardina pilchardus* of the Moroccan Atlantic coast, it is a pelagic species subservient to areas of upwelling and the Canary stream. Areas that are for their part related to atmospheric fluctuations, including the Azores high pressure and winds.

### » A rich diet

The sardine diet is based on microplankton formed mainly by nauplii, copepods, invertebrate eggs and larvae of bivalves in the larval stage. But sardines do not disdain small crustaceans, copepods, molluscs' larvae and fish eggs when crossing its way.

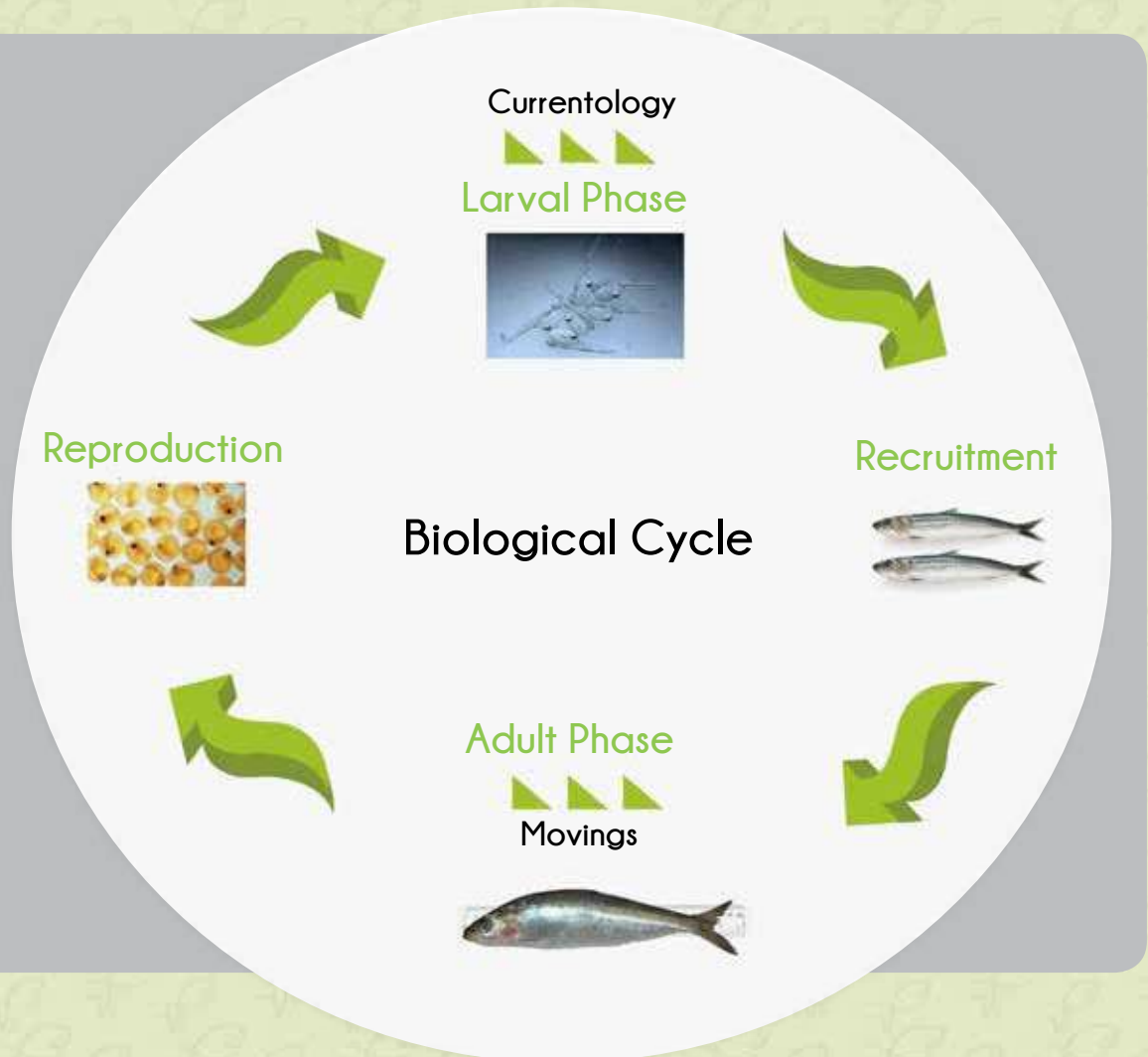


## ➤ Sardines life cycle

Like many pelagic migrants, Sardine has a gregarious behaviour.

Its growth cyclically requires a maximum of energy, plus a significant reduction in its fat reserves at the time of reproduction.

Thus, the life cycle of the sardine consists of four phases:



## » Reproduction

Sardine is an oviparous fish, enjoying an exceptional fertility: Egg laying can be done throughout the year, with peaks recorded during certain months of the year and following some regions. The variability of laying is influenced by hydrological conditions.

In Morocco, the main spawning occurs earlier in the south and centre and can start as early as September in the south, while in the north and in the Mediterranean, it is observed from December. The spawning is generally located where the continental shelf is the largest and in bays protected by caps.

## » Larval Phase

The fertility of the sardine is considered an average one. It varies between 30 000 and 50 000 eggs per female. After spawning, egg fertilization and embryo development take place in the ambient environment.

Therefore, the eggs and larvae are left to themselves without parental care and are exposed to the environmental threats. This makes them easy preys for predators. During this phase, larval mortality is important. It is influenced by environmental conditions (turbulence, the Upwelling intensity, the amount of food). Therefore, the survival rate is a key factor in the success of recruitment and the level of adult sardines abundance.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mediterranean	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction
North zone	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction
Centre zone	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Main reproduction	Main reproduction	Main reproduction
South zone	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Weak reproduction	Secondary reproduction	Weak reproduction	Weak reproduction	Secondary reproduction	Main reproduction	Main reproduction	Main reproduction

## » Recruitment

In the central area, the main peak recruitment occurs between July and September. Geographically, this recruitment is generally concentrated in the area between Tan-Tan and Tarfaya. In the southern zone, the recruitment takes place earlier, with a major peak registered between June and August. However, a secondary recruitment can start as early as March. In the Mediterranean, the main recruiting starts in May and continues until September.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Mediterranean													Weak reproduction
Centre zone													Secondary reproduction
South zone													Main reproduction

## » Adult phase

Males reach sexual maturity at a smaller size than females. The average size at first maturity is between 12 and 17cm. Sardine reproduces in temperatures between 16.3°C and 18.9°C.

The temperature corresponding to the maximum breeding season differs from one year to another, and is between 16.5°C and 17.7°C. Adult sardine prefers water temperatures between 14°C and 20°C; while young sardines prefer a much narrower temperature ranging between 19°C and 21°C.

The sardine lives in shoals that can be very large, near the surface at night and deeper during the day (30m 50m of the surface), it lives in the coastal waters and down to 120m deep (it spends the winter off and comes back near the coast in spring).



# Geographical repartition

Present on the whole Moroccan Coastline



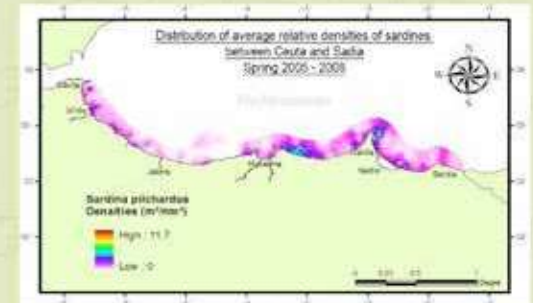
Emblematic of the Moroccan fishing heritage, the sardine is present both in the Mediterranean and the Atlantic. The Moroccan coast is home to a large population of sardines subdivided into 3 stocks. The small pelagic fishery has been converted into three management units:

- «Small pelagic fishery of North Atlantic Mediterranean» bounded by the parallel  $35^{\circ}$  W  $4^{\circ}57'N$ ,  $2^{\circ}12'48''W$  (Saidia) and  $30^{\circ} 50'50''N$ ,  $09^{\circ} 49'31''W$  (Immesouane);
- «Fishery of Atlantic small pelagic center» bounded by the parallel  $31^{\circ}14'00''N$ ,  $09^{\circ} 49'11''W$  (Taghnaje) and  $26^{\circ}7'31''N$   $14^{\circ} 29'56''W$  (Cap Boujdour);
- «Small pelagic fishery of South Atlantic» bounded by the parallel  $26^{\circ}7'31''N$   $14^{\circ} 29'56''W$  (Cap Boujdour) and  $20^{\circ} 46^{\circ}$  (Cap Blanc).

### In the Mediterranean

During spring, sardines are present in high concentrations in the East part between Jebha and Saidia, especially at Cap de l'Eau, from both sides of the Cap Three Forks and the region of Al Hoceima.

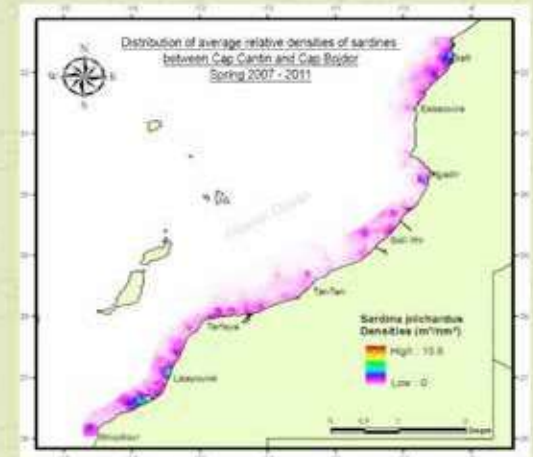
Smaller aggregations occur in the west near Martil, M'diq and Fnideq. In autumn, the density is very low and limited to the eastern part between Saidia and Al Hoceima.



### In the North zone

The density of the sardine shoals is higher in spring than in fall, with aggregates along the coastal frank, particularly at Larache, Casa-blanca, El Jadida and between El Oualidia and Safi.

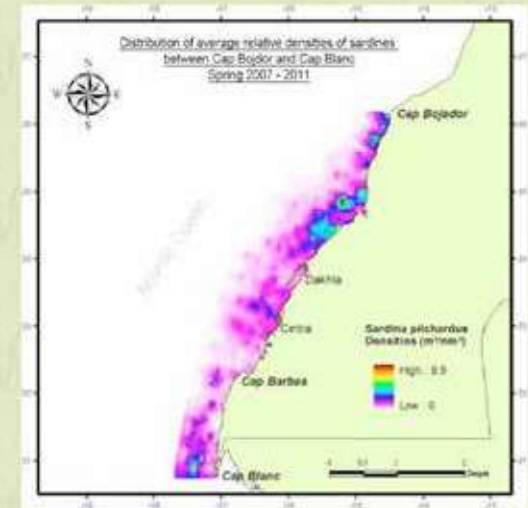
In autumn, large clusters are limited to the southern part of the area between Azemmour and Safi.



### In the Central zone

In spring, sardine shows a continuous distribution with the largest concentrations at Safi, between Agadir, Laayoune and Boujdour.

In autumn, densities south of Laayoune are lower than in summer. A strong presence is also noticed in Sidi Ifni.

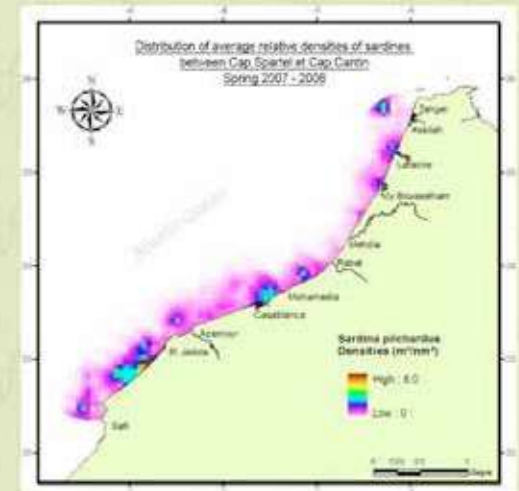


### In the South atlantic

In the Moroccan South Atlantic, high concentrations occur in the spring between Dakhla and Pena Grande (25°N) and at the 21°N latitude. And between Cap Barbas and Dakhla, the concentrations are lower.

In autumn, the most spectacular combinations appear more to the South between Dakhla and the Bay of Cintra and at the latitude 21°30'.

On the other hand, densities at Pena Grande are much lower than in spring





## Fishing and exploitation mode

For a sustainable resources management

Being the most abundant species in Moroccan seas, sardines represented during the last five years an average of 65% of the total catch. Its fishery is managed in a rational way thanks to the development plan of small pelagic and control measures put into use to ensure its sustainable exploitation.

The regulation sets the market size of the sardine at 30 - 35 - 40 - 45 units per kg depending on the area.





The sardine fishing is carried with a fleet of two segments:

### The coastal segment

The coastal sardine seiner fleet includes with storage systems in the holds. With an average gross tonnage rate of 53 barrels and an average power of 300 hp.

The fishing gear used is the purse which maximum size cannot exceed 1 000m x 140m.

### Offshore segment

There are two types of boats: refrigerated trawlers which have a RSW (Refrigerated Sea Water) type conservation system and pelagic freezer trawlers.

Trawls used by this fleet are pelagic trawls or semi-pelagic consisting of nets whose largest diagonal of the smallest mesh in any part will be equal or greater than 40mm. This gear allows high amounts of captures



## ➤ A development plan for a sustainable fishery

The pelagic fishery is the most important potential resources existing in the Moroccan area. Because of its importance in terms of landings, of direct and indirect jobs created, the economic dynamism that it generates through the various channels of transformation, and the considerable economic benefits that follow, it occupies a prominent place in the fisheries sector in Morocco.

The operation of this fishery concerns both the Atlantic seaboard as well as the Mediterranean. It is conducted by two fleet types: coastal and offshore. Their exploitation is mainly done through coastal purse seiners in the Mediterranean and north and centre Atlantic, and through RSW trawlers and freezer ships in south Atlantic.

The small pelagic resources in the Moroccan coast consist mainly in sardine, anchovy, horse mackerel, mackerel and small sardines. Sardine, *Sardina pilchardus*, is the main pelagic species caught in Morocco while the availability of other species varies from one area to another and from one year to another. The composition and abundance are conditioned largely by the hydro-climatic factors prevailing on the Moroccan coast.

To ensure their sustainable use, development plans of small pelagic were developed on the basis of biological, environmental, technical and socio-economic knowledge. The objectives of these plans are the preservation of this resource through rational exploitation of this fishery and the increase of its valuation.







These development plans focus on the implementation of management measures at three fisheries: the fishery of the North-Mediterranean, the fishery of the Atlantic Centre and the fishery of the South Atlantic.

The decree fixing the conditions of access to these fisheries is as follows:

-Decree N° 3279 of 16 December 2010 laying down the conditions of access to the small pelagic fishery in the South Atlantic (Stock C), as amended and supplemented;

-Decree No 4196-14 of 25 November 2014 on the small pelagic fishery in the Northeast Atlantic and Mediterranean small pelagic fishery Centre. These decrees set:

- The Delimitation of fisheries: South Atlantic, Northeast Atlantic-Mediterranean and Central Atlantic;
- The definition of target species;
- The types of vessels authorized to operate there;
- Fixing the annual TACs (Total Allowable Catches);
- Periods of fishing is prohibited;
- The delimitation of authorized fishing areas;....

These laws also regulate some technical provisions on authorized fishing gears, accessory species, the fishing log and the obligation to land in the ports mentioned in the license of fishing.

## ➤ Control of the upstream and downstream

As a flagship species, Sardine had to receive regular monitoring throughout its value chain. It is for these reasons that Morocco has adopted an integrated approach to monitoring and control. This one is based on monitoring of sardine fishing activities and an effective system of traceability of this pelagic. These measures have the main objective to fight against unreported or unregulated illegal fishing of sardines.

Moroccan authorities ensure :

- Sea Control of fishing vessels by the RCMP and the Royal Navy, and satellite through the vessel monitoring system VMS (Vessel Monitoring System) implemented by the National Centre on surveillance of fishing vessels.
- Checking on landing and auction which involves the inspection of such ships, their fishing gear, their fished sardines and regulatory documents catches.
- Control in the value chain of operational documentation and deployment of a system of internal traceability at the sardine valuation institutions.





# Valuation industry

## A high quality upgrading

The World Champion in sardines exporting! This is a title that makes the pride of Morocco, thanks to the abundance of sardine in its territorial waters, but also thanks to the performance of its processing industry and upgrading of this species, which meets the most demanding standards.

If the processing of sardines mainly stands for freezing and canning; it also includes the semi-preserved and fresh packaging, but in small volumes.

Moroccan sardine is of a good quality and is well known internationally, which places Morocco as a leading exporter of canned sardines. The Moroccan sardine is the world leader mainly thanks to the capacity of Moroccan manufacturers to meet the expectations of customers, including food safety and taste quality of developed products.

Besides the HACCP (Hazard Analysis Critical Control Point) system, which is a regulatory requirement, industrial units processing sardines have complied with other standards of quality and durability such as IFS, BRC, ISO, FOS, etc.



## ➤ Sardine canning

### » Canned sardines, popular food by excellence

Sardine remains the most consumed fish in Morocco as well as in other countries thanks to its canning. This beneficial method offers consumers the possibility to eat their favourite fish almost anywhere, while guaranteeing conservation of its nutritional qualities.

Thanks to excellent raw material, experience of almost a century, a labour of unparalleled dexterity acquired over time as well as production techniques at the forefront of progress, meeting the most demanding standards in terms of quality and safety, the Moroccan canning industry has earned a worldwide reputation. It is the result of a long evolution and accumulation of know-how.

This activity currently involves 47 units concentrated mainly in Safi and Agadir. Moroccan production of canned seafood is around 182 000 tons of canned products at a rate of 87% of canned sardines. 20% of the production is for the local market and 80%, is routed mainly to markets in the EU and Africa, which stands for more than 126 000 tons of canned sardine, worth 4 billion DHS. The industry employs 37 000 people, or 45% of total land development industry.



## » From the net to the can



### - The grading counters: the necessary step

For canned sardines, obtaining sardine canning requires raw material that meets qualitative criteria; hence the important role of the Grading Counters of the Industrial Fish installed in the ports authorized to receive pelagic catches in large amounts.

In order for sardines to be declared industrial fish and meet the standards of canned food, it must fulfil the following four criteria : freshness, the presence of scales, the apparent condition and the mould.

Fish declared non useable, do not meet these criteria and is necessarily redirected for fishmeal and fish oil production.

## - Sardines canning process



The reception is a critical step in the manufacturing process, the product must be accompanied by a health certificate and traceability documents and must be transported in means complying with regulations on hygiene and transport. The reception also provides control temperature, sensory quality and chemical analysis of the fish.

Topping, tailing and evisceration are done manually, without damaging the sardine's flesh, by a highly qualified personnel.

Steaming is intended to cause coagulation of the flesh proteins and increase its firmness through partial dehydration. The product is then drained to facilitate the outflow of blood and fat in order to prevent the fish from remaining waterlogged and too soft before sterilization.

Juicing consists in adding olive oil, cooking oil, tomato sauce, depending on the product development. A visual control is done systematically.

Crimping is a critical step in the manufacturing process, it aims to package the product in a sealed container. Control of the quality of the crimped product is done for the conservation of the optimal quality of the product. (Visual control, husking and graph control).

Sterilization is a critical step that has consists of subjecting the tin can to an intense heat treatment to destroy or inactivate any microorganisms which might affect the product or make it unfit to consumption. More controls are needed at this stage i.e. the control of the sterilization scale along with microbiological and organoleptic incubation tests.

Cooling cans and drying them is a critical step because it is estimated that temperatures over 40° C influences the water-tightness of the metal. It is strictly forbidden to touch the boxes before the end of this step.

## - A wide variety of canned sardine

Sardine is canned in different preparations:

- Headless, eviscerated, hulled sardine,
- Headless, eviscerated, skinless and boneless hulled sardine,
- Filet of headless, eviscerated, hulled sardine with oil or tomato sauce,
- Sardine balls,
- Natural sardine or with vegetable oil, olive oil, tomato sauce, chilli, lemon, olives, carrots ... etc.





## ➤ Frozen sardine



Freezing the sardine is an important industry for its valuation. The share of frozen sardine in Moroccan exports of frozen seafood represents 40%.

### » Freezing on land ...

Morocco currently has 44 modern units that are technically well equipped for freezing sardines, mainly from the conversion of octopus treatment plants program, located in Dakhla and Laayoune in the sector of small pelagic.

These units are authorized to operate the small pelagic fishery in the South Atlantic by RSW vessels. Sardine is the main species targeted by this fleet.

### » ...as well as in the high seas

Freezing is also operated by modern pelagic freezer trawlers meeting the standards required for freezing the catches.



## ➤ Semi-preserved sardine

Sardine is also used to manufacture semi-preserved food. This activity mainly aims at meeting the growing demand for salted and maturated sardine.

Several major steps are common to all industries of semi-preserved sardine:

- Pre-salting,
- Topping, evisceration,
- Salting and maturation,
- Washing, dripping, filleting and packaging.

In order to obtain a finished product of good quality, the selection of raw material is important. Thus, sardines have to be very fresh and of good organoleptic quality.

Semi-preserving is considered as the activity that produces the most value in the Moroccan fishing industry.

## ➤ fresh sardine

This industry is based on the proximity of foreign markets, that remain great demanders for fresh products.

The fresh sardine trade has developed in recent years thanks to the high quality raw material, reliability and efficiency of refrigerated transport and packaging improvement.



## ➤ Fish meal and fish oil

Moroccan industry of fish meal and oil includes 21 factories located mainly in Laayoune, TanTan and Agadir.

Sardine called non useable in Grading Counters of the Industrial Fish and waste canneries are raw material for these units. It is estimated that the proportion of waste relative to the total weight of the treated raw material is 25% to 30%.

Fish meal and fish oil are intended to supply the local market of poultry farming as well as international market livestock and aquaculture which are major users of animal protein.

Morocco exports these products primarily to the three continents; Europe, Africa and Asia. It is ranked eighth among world exporters of fish meal and fish oil.

This industry looks increasingly to output valued oil for human consumption and high protein meal which demand has grown in recent years.







## Nutritional quality

Excellent nutritional intake





## Little budget and healthy indulgence? Think about the Moroccan sardine

Sardine has a moderate calory intake and is rich in nutrients :

### ➤ A complete nutrition

As a part of the «fatty» fish family, sardine is a complete food, rich in high quality lipids; the famous «Omega 3», it is also very rich in protein and contains all nine essential amino acids not produced by the human body.

Sardine is a pool of nutrients that are very well assimilated by the body such as iron, phosphorus, calcium, selenium and vitamins B3, B12 and D.

The basic nutritional values of common sardine are:

Weight	Sardine 100 g
Calories	208 kcal
Proteins	24.62 g
Lipids	11.45 g
Saturated	1.528 g
Mono-unsaturated	3.869 g
Poly-unsaturated	5.148 g
Omega 3	1.46 g



## ➤ Sardine, an omega 3 mine

Polyunsaturated fatty acids contain two families said essential because they are not generated by the human body and must be supplied from our diet: omega 3 and omega 6.

The sardine is a fatty fish which has a high content of omega 3 (mainly eicosapentaenoic acid and docosahexaenoic acid). A 100g serving of sardines provides about 1.5g of omega 3 and 0.1g of omega-6.

Omega 3 has many benefits for cardiovascular health, for cerebral systems, hormonal and inflammatory. Thus, regular consumption of sardines reduces blood triglycerides, prevents the formation of blood clots and reduces blood pressure.

According to nutritionists, omega 3 and omega 6 have complementary effects on the body and always keep a ratio of omega 6 / omega 3 of about 5.

Since our intake of omega 6 is fully satisfied (as from plant foods), nutritionists recommend increased consumption of omega 3. So we have to integrate fatty fish such as sardines in our menus.



## ➤ Practical tips

To make life easy for you





## ➤ How to choose your sardines

Choose well fresh sardines: firm flesh, shiny appearance, gloss eye, body covered with scales without bloodstains at the gills and no particular smell.

A particular size for each sardine preparation! So, it is better to opt for small sardines if they are intended for grilling or marinade. For sardine tagine or pellet choose large sizes. Note that the size of the sardine does not affects a lot its taste. Consume them immediately, because it's difficult to keep them fresh.





## ➤ How to prepare sardines

You can flake sardines with a knife under a stream of cold water; otherwise, coat them in salt grains and let them rest about thirty minutes, the scales are easily removed with the thumb. Remove also the head and entrails.

To prepare sardine fillets, cut the sardine in half and remove easily detachable backbone.



## ➤ How to cook your sardine

Fresh sardine is prepared in many ways: grilled as barbecue, fried or baked; net, stuffed or marinated in tain, or canned, that is even easier to consume!







## Sardines recipes

The abundance of sardines in Morocco gave birth to a variety of recipes to suit all tastes, and rejoice each day the taste buds of fans of this iconic fish of the Kingdom.

Enjoy your meal!

## Sardine salad

### Ingredients :

- 5 sardine fillets canned in oil,
- 1/4 bunch of parsley,
- 1 tomato,
- 1 shallot,
- 2 cloves of garlic,
- 2 tablespoons of olive oil,
- 1 tablespoon of vinegar
- Salt,
- Pepper, cumin.

### Preparation :

1. In a small bowl, put the drained sardines with fork.
2. Chop the parsley finely.
3. Chop the garlic and shallot.
4. Cut the tomatoes into small cubes.
5. Add all these ingredients into the bowl, and drizzle with olive oil and vinegar (to your liking).
6. Mix, salt and pepper and add a little cumin.





## Sardines balls

### Ingredients :

- 12 Sardines skinless fillets,
- 1/2 bunch of parsley,
- 5 cloves of garlic,
- 1 onion,
- 1 coffee spoon of cumin,
- 1 coffee spoon of paprika,
- 1 small lemon,
- 1 can of peeled tomatoes,
- Salt and pepper.



### Preparation :

1. Mix the parsley and the garlic cloves together and keep them aside,
2. Mix sardines with roughly half the mixture of chopped herbs, half the lemon juice, paprika, cumin, salt and pepper,
3. Make medium-sized balls with the mixture of sardines and put aside,
4. Fry the chopped onion in olive oil and add the peeled tomatoes, the rest of the mixture of herbs, lemon juice 1/2,
5. Mix together and add the sardine balls,
6. Bake for 30 minutes,
7. Serve hot.



## Sardines tajine

### Ingredients :

- 1 kg of sardines
- Small potatoes
- 1 green pepper
- 2 onions
- Chermoula,\*
- 4 cloves of garlic
- The juice of a lemon,
- 1 glass of olive oil tea,
- 1 teaspoon of ground cumin,
- 3 tablespoons of chopped cilantro,
- 3 tablespoons of chopped flat leaf parsley,
- 1/2 teaspoon of ground white pepper,
- 1 tomato,
- Olives and preserved lemon .



### Preparation :

1. Wash the sardines, remove the heads and guts, then open them in two, and remove their central edges.
2. Prepare Chermoula \*.
3. In a bowl, pour the chermoula, and add lemon juice and olive oil.
4. Mix.
5. Coat the flesh of each sardine (open flat) with chermoula, cover with a second sardine. And do so with all the sardines.
6. Precook for ten minutes your potatoes cut into slices with a little olive oil, salt and a little water in your tajin and on low heat.
7. Grate a big tomato and mix with remaining chermoula, and place in a part of the potatoes.
8. Place the sliced onions to your potatoes, then put above, the pepper rings and finally the nets rosette-like sardines.
9. Spread on sardines' skin the rest of Chermoula.
10. Bake for about 30 minutes without the lid. 10 minutes before the end of cooking, add some olives and 1/2 preserved lemon cut into thin slices (for decoration).

\* Chermoula: 1/2 tsp pepper, 1/4 teaspoon pepper, 1 tsp cumin, 1 tablespoon paprika, 1 large bunch coriander, cloves 3 garlic, salt, a big bunch of parsley.

## Stuffed and fried sardines

### Ingredients :

- 1 kg fresh sardines medium sized
- Salt,
- Lemons and onion for decoration,

- 1 tablespoon of ground cumin,
- 1 tablespoon of paprika
- 1 level teaspoon of salt,

### The stuff :

- 2 cloves garlic, finely crushed
- 5 tbsp of finely chopped fresh cilantro
- 5 tbsp of finely chopped parsley,
- 3 table spoons of olive oil,

### For frying :

- Vegetable oil and flour,
- 4 scrambled eggs, fine salt, freshly ground white pepper.

### Preparation :

1. Empty the sardines, remove the head, backbone and tail keeping both attached nets. Then wash them and dry them with paper towels.
2. Lay them flat on a tray, skin side down, lightly salt them and keep them in the refrigerator.
3. Prepare the filling by mixing all ingredients.
4. Remove the sardines from the refrigerator. Select twelve and, for each one of equal size. You get twelve pairs of assorted size of sardines.
5. Spread the filling over the first twelve sardines avoiding the edges, then cover each stuffed sardine sardine second.
6. In a large pan, heat the oil for frying, pour flour on a plate.
7. Break the eggs into a bowl, salt and pepper them and then scramble them.
8. Flour sardines on both sides, and dip them briefly in the beaten egg.
9. Fry the stuffed sardines in oil on each side.
10. Serve the sardines with lemon juice.



