

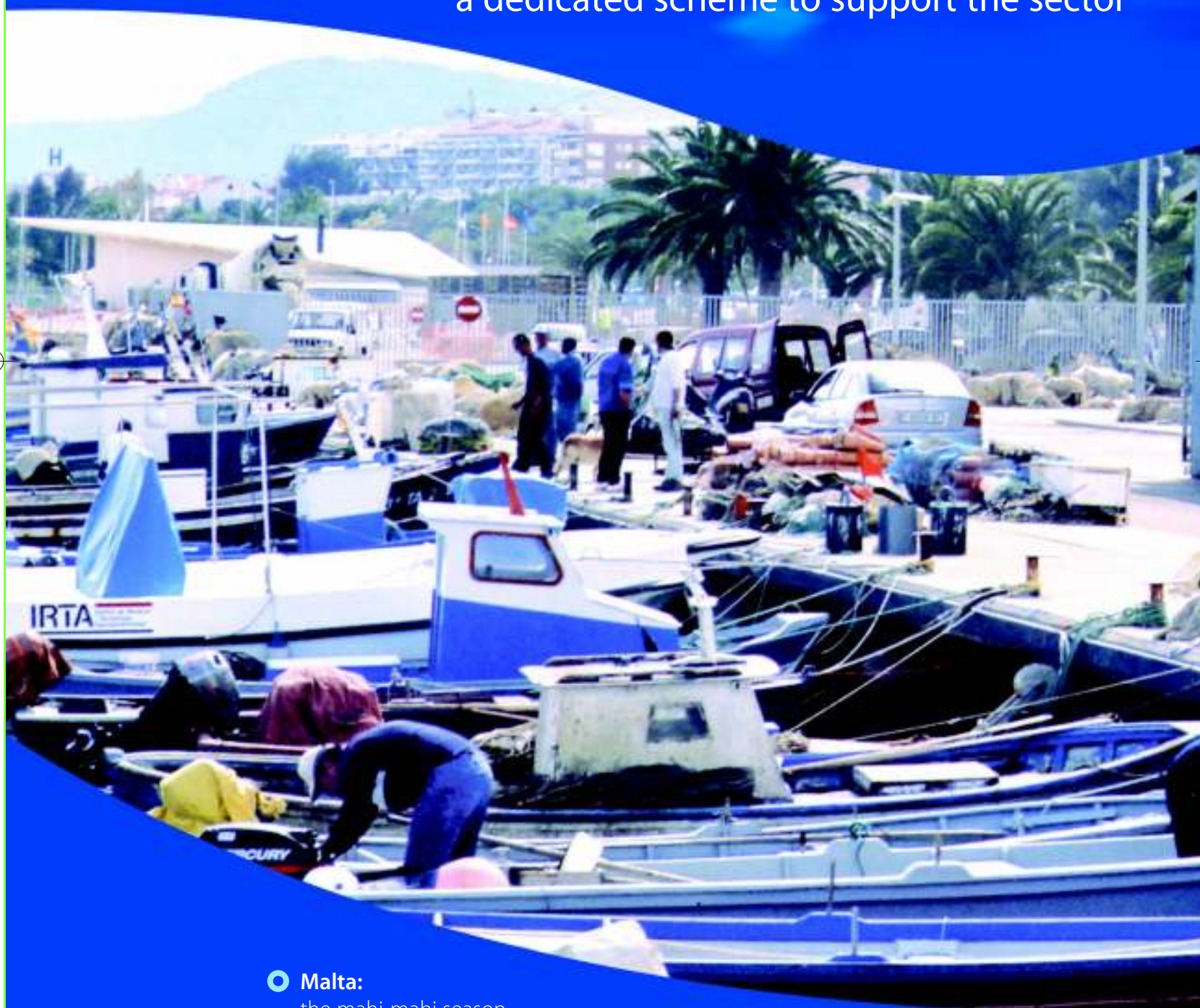


European Commission

No 33 April 2007

Fisheries and aquaculture in Europe

● Outermost regions:
a dedicated scheme to support the sector



● **Malta:**
the mahi-mahi season

● **High seas:**
aquaculture on the move

[Calendar

Shows and exhibitions

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This event is centred on innovation in aquaculture and aims to bring together many different players in the sector.

> For more information:

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E-mail: canderson@specialpublications.co.uk

Web site: www.aquaculturetoday.co.uk

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E-mail: food@divcom.com

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In this issue

2 **Calendar**

3 **Editorial**

4-8 **Fact File**
Outermost regions: a dedicated scheme to support the sector

Supporting the fisheries sector of the outermost regions

Canary Islands: building a future for aquaculture

9-11 **Discovery**
Aquaculture takes to the open sea
Malta: ancestral management of the *lampuki*

12 **In brief**

Note to readers

We welcome your comments or suggestions at the following address:
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or by fax to: (+ 32) 2 299 30 40 with reference to *Fisheries and aquaculture in Europe*. E-mail: fisheries-magazine@ec.europa.eu

For further information on fisheries and maritime affairs, please consult the following sites:

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Outermost regions: a dedicated scheme to support the sector

How can a region participate fully in the Single Market when it is several thousand kilometres from the European continent? That, in a nutshell, is the problem addressed by the scheme to offset the additional costs linked to distance and insularity.

The European Union's outermost regions are located great distances from Europe, and they are often islands which suffer from very isolated locations. As a result, their economic development lags behind that of the European mainland. This is why the Treaty recognises the particular context of these regions and the need to support their development through specific measures linked to their geographic location. The first compensation scheme in the fisheries sector was set up in 1992 and concerned the Azores, Madeira, and the Canary Islands. It was gradually expanded to include the French Departments of Guiana and Réunion. The scheme that expired at the end of last year ran from 2003 through 2006.

At the end of 2006, the Commission proposed renewing this compensation scheme for 2007-2013. However, the idea was not merely to extend the existing scheme. The Commission wanted to assess the effects of previous schemes in order to adjust and improve the arrangements. To this end, the Commission commissioned a report on the structural aspects of the Common Fisheries Policy (CFP) in the outermost regions which also analysed the use made of compensation payments, trade trends, the evolution of production and transport costs, the state of the regions' resources, etc. This report concluded that while the previous scheme had had a positive impact on the sector's competitiveness, there was still scope to make it even more efficient and better targeted.

That is why the new scheme provides for greater flexibility in order to enable the Member States to determine for each region the types of products eligible for compensation and the payment levels. It also stresses the definition of criteria to guarantee that all products benefiting from this aid meet the CFP's rules, especially those on resource conservation and safeguarding the marine environment. Allowing these aids to encourage overfishing of already weakened stocks is out of the question!

The proposed regulation also refocuses aid on compensation for transportation and other related costs between the outermost regions and the European mainland so as to harmonise the support levels. Lastly, it aims to simplify the scheme's administration and increase the Member States' accountability, notably through an annual reporting obligation.

The changes introduced by this new regulation should enable the outermost regions to receive more appropriate funding to offset the extra costs incurred to ship their fisheries products to the continent. These aid adjustments will enable professionals in these regions to plan their investments and activities better and thus boost the development of the fisheries sector and employment in these remote regions.

The Editor

Supporting the fisheries sector of the outermost regions

The European Union includes a number of regions that are located great distances from the continent. These are the so-called "outermost regions". These territories encounter difficulties arising from their remoteness, the often difficult economic context of the regions of the world in which they are located and, for most of them, the fact that they are islands. That is why the outermost regions were declared eligible for specific assistance from the EU, notably through a compensation scheme for the additional costs incurred to market certain fisheries products. The Commission is now proposing to renew this scheme, albeit with certain adjustments.

The European Union has seven outermost regions, most of them small islands or archipelagos: Réunion, French Guiana, Martinique, Guadeloupe, the Azores, Madeira, and the Canary Islands. Their distances from the European mainland range from 1 000 km (the Canary Islands) to over 9 000 km (Réunion).

The Member States have ascertained that the development of these regions is hampered by many factors, such as economic and social conditions, remoteness, insularity, small surface area, rough terrain and difficult climate, the lower level of development of their neighbours, and their economic dependence on a small number of products. This specific situation is, moreover, recognised as such by article 299, paragraph 2, of the Treaty⁽¹⁾.

Programmes to support the outermost regions

Since the early 1990s the EU has been setting up guidance programmes adapted to the remoteness and insularity of these regions to try and offset their particular handicaps. Many Community policies are involved, including agriculture, transport, fisheries, cohesion, competition, and research and development. The objective of these programmes, which operate under the Structural Funds and EAGGF-Guarantee⁽²⁾, is to compensate for the additional costs incurred due to these regions' remoteness and isolation and to lower the prices of the products that come from them.

The programmes operate as part of a strategy aimed at:

- promoting **accessibility**: the idea is to support measures which seek to improve links between these regions and the European mainland and to offset the additional costs related to their remoteness.

- improving **competitiveness**: this means creating a favourable economic environment for business creation by enabling enterprises to reach beyond the confines of a remote, fragmented, limited local market.
- giving priority to **regional integration**: the aim is to foster trade in goods and services between these regions and neighbouring third countries.

This is the context in which a new compensation scheme has been set up to support the trade of certain fishery products between these regions and the European mainland, with a total budget of EUR 15 million a year.

Offsetting extra costs

To illustrate the type of support that local players can expect under this scheme, let's take the example of Unifipêche in French Guiana. This company specialises in catching and marketing frozen prawns. Based in Port du Larivot in Cayenne, it is at the helm of a fleet of 24 freezer trawlers. Almost all of its prawn landings are sent to its French parent company's plant at Saint-Malo in Brittany, where the prawns are cooked and marketed in small portion packs. The problem is that Cayenne is 7 000 km from Saint-Malo, which means high shipping costs. For transport alone you effectively have to allow EUR 620-660 to ship one tonne of prawns to the European mainland, not to mention the other extra costs incurred by the island's isolation and remoteness.

The European Union's compensation for fishery businesses in the outermost regions is based primarily on these transport costs, for if they had to be passed on to the final consumer, it would be impossible for these businesses to compete with the rest of Europe's producers.

(1) See <http://eur-lex.europa.eu>, Treaty instituting the European Community, article 299(2).

(2) The European Agricultural Guidance and Guarantee Fund (EAGGF) finances rural development actions mainly in areas which are lagging behind in economic terms.



The compensation must be compatible with the aims of the Common Fisheries Policy. For example, the eligible quantities must take account of the total allowable captures (TAC).

In concrete terms, the beneficiary businesses receive compensation in line with the amounts of eligible merchandise that they ship to the European mainland, within the limits of an overall allocation granted to the relevant Member State.

Generally speaking, it is not just the exporter who benefits from the compensation, but the entire chain of players involved in shipping the consignment.

- In the case of fresh fish, the ship owner or co-operative is compensated. This is the case for air shipments of red sea bream and common sea bream (or red porgy) from the Azores to Spain and Portugal.
- In the case of processed fish products for which the raw material was provided by the local fishing industry, the compensation is shared between the fishermen and processor. Thus, in the case of black scabbardfish from Madeira, 80 % of the aid goes to the vessel owners and 20 % to the filleting companies that slice, freeze, package, and ship the resulting fillets to Portugal. In the case of air shipments of fresh tuna and swordfish loins from Réunion, the support is shared between the local longliners and the slicing shops.
- In the case of processed fish using imported raw materials, the processor alone gets the compensation. This is the case of tinned tuna from the Azores, 75 % of which is made up of tuna fished off the coast of Africa.

Consistency with the CFP

A crucial element of the compensation scheme is that aid must be consistent with the aims of the Common Fisheries Policy's (CFP), i.e., to ensure the exploitation of living aquatic resources in sustainable economic, environmental, and social conditions. For instance, aid cannot be given to ship and market species whose stocks are under threat if the fish has been caught outside the total allowable catches (TACs) set for these species.

In French Guiana, for instance, prawn fishers saw a huge drop in catches between 2000 and 2002 for reasons that were linked to both climatic conditions and overfishing. In 2003, when the regulation was reviewed, the amounts of prawn eligible for support under the compensation scheme were thus reduced accordingly (from 4 200 to 3 300 tonnes), primarily because it was still unclear that the stock would be able to return to its past levels of productivity.

Moreover, the compensation scheme is based on the principle of supporting existing trade flows and adapting regularly to changes either in trading or in the fishing industry itself. Thus, for example, since Martinique and Guadeloupe no longer export seafood to Europe, they are no longer beneficiaries of the scheme.

That is also why the European Commission and Member States have the possibility of intervening, under very strict conditions, to shift funds from one product category to another within the limits of a Member State's overall allocation. Thus, in 2005 aid earmarked for Madeira aquaculture that proved superfluous was used instead to defray the costs of shipping tuna loins and black scabbardfish fillets instead. However, it was only possible to make these transfers after the European Commission had checked their consistency with the CFP and given its consent. For it would be wrong if support for marketing black scabbardfish fillets ended up encouraging overfishing of this species!

A proposal for a new regulation

In late November 2006 the Commission proposed a new regulation⁽³⁾ covering the period 2007-2013.

While this proposal renews the compensation scheme for the same regions, and with the same level of funding (EUR 15 million a year), it also tries to introduce a number of improvements relative to its current operation. Whilst the previous scheme clearly had a positive impact on the sector's competitiveness, there is still scope to make the new scheme more efficient and better targeted.

The proposal provides for greater flexibility in the scheme's management and gives the Member States more room for manoeuvre. It will be up to the Member States or the regional authorities themselves to determine the products, levels of compensation, and quantities eligible for compensation within an overall allocation. This increased flexibility also means greater accountability. In particular, the beneficiary Member States will be obliged to submit to the Commission detailed yearly reports on the use of these aids.

Whilst the proposed regulation no longer lists the products eligible for compensation nor the funding levels, it nevertheless sets out a general framework for the programmes that the beneficiary regions must devise. As regards eligible products, the regulation stresses, amongst other things, the need to comply

A range of aids

The compensation scheme is not the only type of aid benefiting the fisheries and aquaculture sector in the outermost regions. Given their problematic environment and difficult economic and social situations, the European Union allows their fisheries and aquaculture sectors to take full advantage of the various aids dispensed under the CFP.

- Until the end of 2006, a derogation permitted the continuation of **aids for fleet renewal and modernisation**.
- The sector in these regions is eligible for a broader range of **State aid** than its counterpart on the continent, provided that this aid is compatible with CFP aid.
- As was already the case with the FIGG⁽¹⁾, **the European Fisheries Fund (EFF)** provides for higher funding levels for the projects that it cofinances in the outermost regions.

(1) Financial Instrument for Fisheries Guidance.

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Réunion	French Guiana	Madeira
<ul style="list-style-type: none"> • French Overseas Department with a population of 777 000 situated in the Indian Ocean. • Fishery in figures (2004): Approximately 12 000 tonnes of catches, 0.4 % of GDP, 0.5 % of jobs, and 15 % of exports. • For a long time limited to coastal fishing, the department's fishing activities have expanded since the 1990s to include longlining of large pelagic species and Patagonian toothfish. • Since 1998 Réunion has used the aid made available under the scheme to compensate for the extra costs incurred by shipping large pelagic fish to the European Union (EUR 1 400/tonne for a maximum of 618 tonnes/yr). 	<ul style="list-style-type: none"> • French Overseas Department with a population of 250 000 located on the northwest coast of South America. • Fishery in figures (2004): approximately 7 000 tonnes of landings, 0.94 % of GDP, 2.2 % of jobs, and 18 % of exports. • Besides traditional pirogue fishing, the sector in French Guiana is made up of small-scale fishing for so-called "white" fish along the mangrove swamps and in the estuaries, and tropical prawn fishing on the broad continental shelf. • Since 1994, French Guiana has received aid under the compensation scheme to support its shipments of prawns to France and Spain (EUR 1 100/tonne for a maximum of 3 300 tonnes/yr). In 2003, shipments of fresh "white" fish by plane (EUR 1 100/tonne for a maximum of 100 tonnes/yr) and frozen "white" fish by ship (EUR 527/tonne for a maximum of 500 tonnes/yr) were included in the programme, but this trade is still very small scale. 	<ul style="list-style-type: none"> • Portuguese Autonomous Region with a population of 244 000 situated off the coast of Morocco in the Atlantic Ocean. • Fishery in figures (2004): 8 000 tonnes of landings, 0.71 % of GDP, 1 % of jobs, and 36 % of exports. • Madeira's main fishing activities are small-scale fishing for small pelagic species, longline (LL) fishing for black scabbardfish, and tuna fishing, landings of which have declined sharply over the past ten years. • Madeira's last tuna cannery closed in 2000. Shipments currently supported by the compensation scheme are frozen black scabbardfish fillets (EUR 1 080/tonne for a maximum of 50 tonnes/yr) since 1998, and precooked tuna loins (EUR 230/tonne for a maximum of 4 000 tonnes/yr) since 2003. The scabbardfish are shipped to Portugal and the tuna to Spain. The shipment of aquaculture products is in its infancy.



Since 1992, the European Union has supported the marketing of certain fisheries products from its outermost regions by compensating part of the costs of transporting these products to the European mainland.

with the rules of the CFP and the fact that fisheries products must be fished legally and by vessels registered in the region. The compensation payments, meanwhile, will now be focused on offsetting the costs of transport to the European mainland and other related costs.

Once the new scheme is adopted, it will be in force for seven years, which will make it possible to create a stable environment for the fisheries sector in the outermost regions.

The compensation scheme gives businesses in these remote locations the opportunity to get a toehold in the European market and thus guarantee a profitable outlet for their products. By limiting its intervention strictly to the additional costs, it does not interfere significantly in the economic context of the fisheries and aquaculture sector of the outermost regions. Finally, it helps to diversify the supply of fish, molluscs, and crustaceans available to European consumers.

(3) COM (2006) 740.

The Azores	The Canary Islands
<ul style="list-style-type: none"> Portuguese Autonomous Region with 238 000 inhabitants situated in the Atlantic Ocean. Fishery in figures (2004): 12 000 tonnes of landings, 3.6 % of GDP, 5 % of jobs, and 40 % of exports. The main fishing activities of the Azores are tuna and swordfish, small pelagic species (Spanish mackerel, blue jack mackerel, and sardines), and small coastal demersal species (mainly red sea bream and common sea bream). Since 1992, the compensation scheme has been supporting the archipelago's tuna canneries (EUR 177 EUR/tonne for a maximum of 10 000 tonnes/yr), which process locally fished and imported tuna. In 1998 and 2003 support under the scheme was diversified to finance shipments by air of fresh demersal fish (EUR 455 EUR/tonne for a maximum of 2 000 tonnes/yr) and tins of small pelagic species (only in small quantities at present). 	<ul style="list-style-type: none"> Spanish Autonomous Community with a population of 1.5 million situated off the coast of Morocco in the Atlantic Ocean. Fishery in figures (2004): 20 000 tonnes of landings (aside from international tuna fishing), 0.5 % of GDP, 0.5 % of jobs, and 5.5 % of exports. The Canary Islands' main fishing activities are coastal artisanal fishing (for small pelagic species, demersals, and tuna), cephalopod fishing off the coast of Africa by a fleet of freezer trawlers, and high seas tuna fishing. The small-scale semi-high seas fishing that was practised off the coast of Morocco ended when the former fishing agreement with Morocco expired in 1999. Seafood processing activities in the Canary Islands plummeted after 1999 with the failure to renew the Moroccan agreement, and the islands' sardine and tuna canneries closed. The only processing activities that remain are the preparation and packaging of frozen cephalopod (EUR 268/tonne for a maximum of 8 292 tonnes/yr), tuna (500 EUR/tonnes for a maximum of 453 tonnes/yr), and skipjack tuna (EUR 250/tonne for a maximum of 453 tonnes/yr). The compensation scheme also supports air shipments of fresh tuna (EUR 950/tonne for a maximum of 1 619 tonnes/yr) and aquaculture products.

Canary Islands: building a future for aquaculture



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Thanks to compensation scheme funding, the sea breams and bass raised on the Canary Islands' fish farms can be sold at competitive prices on European mainland markets.

The scheme to offset the added costs of the outermost regions has been supporting aquaculture in the Canary Islands since 1998. This aid has contributed to the prosperity of what is today a booming new activity. This diversification is most welcome in a fishing economy that has been depressed since the former fisheries agreement with Morocco expired in 1999.

Castillo del Romeral is a small fishing port on the southern coast of Gran Canaria. Here, in the shadow of an impressive wind farm, the aquaculture group Dylcan (*Doradas y Lubiñas Canarias*⁽¹⁾) has set up its hatching and fattening ponds, packing shop, and administrative and sales offices.

Right beside these land-based installations, major works are also under way. A dozen large black plastic hoses, some thirty metres long, are lined up side by side. They are ready to be turned into a floating base for the new circular cages that will complete the group's farm, 300 metres off the island's coast. *"We currently have twelve cages,"* Marata Dominguez, Dylcan's Sales Manager, explains, *"We intend to double this capacity in two years."* Here, as in many fish farms in the Canary Islands, expansion is the name of the game.

Fish farming made some timid forays along the archipelago's coastline at the end of the last century. Since then the farms have burgeoned, growing from an output of 500 tonnes in 1998 to 8 000 tonnes in 2006. Regional forecasts are for 12 000 tonnes in 2008.

The key to this success is an ideal climate that suits tourists and fish alike. Average air and water temperatures fluctuate between 17° and 24°C all year round. This allows continuous production throughout the year and makes the Canary Islands an ideal environment for the growth of aquaculture.

Dylcan, which is the local branch of the Tinamenor group, is the archipelago's leading producer and marketer of farmed sea bream and European sea bass. Besides its own farm's output, it also markets the output of thirteen other independent fish farms in the region that all buy their fry from Tinamenor's hatchery in Cantabria. With 5 000 tonnes sold in 2006, the company's sales jumped 60 % in one year.

There are two major reasons for this great performance: ventures into new markets, such as the United States and Canada (200 tonnes in 2006), where exports should rise considerably in the coming years; and, most importantly, the growing popularity of farmed fish in continental Spain, where 82.5 % of the output is sold today, primarily through supermarkets. And this is where the European Union's compensation scheme comes in.

Fry and shipping

The 1 200 km that separate the ports of Las Palmas and Cadiz could easily form major obstacle to the competitiveness of the Canary Islands' products. Additional transport costs hit the chain both upstream and downstream from production, given that the fry are imported from Cantabria and the mature fish are sent back to Spain by sea. The European Union has been offsetting these additional costs since 1998, thereby enabling the Canaries' fish to find their niche in the continental market.

The Canary Islands government splits the annual aquaculture budget under the scheme (EUR 1.5 million) between Dylcan and its sole competitor, Acuiamarca, in proportion to each company's shipments to Spain. The company then redistributes part of the aid that it receives among its partner farms.

"Is this aid necessary? Of course it is," General Manager José Luis Guersi exclaims. *"Next to tourism and horticulture, aquaculture is the leading opportunity for economic diversification open to the Canary Islands. The problem is that this sector requires a large amount of initial capital and has a long lead-time, since you have to wait more than a year before you can sell your first harvest."*

The regional government, which is keen to support this sector, naturally wants to increase aid for aquaculture during the next period of the scheme. The eligible quota should be somewhere between 3 400 and 12 000 tonnes/yr. Aid per unit, in contrast, should not increase much, given the economies of scale made possible by the increase in the volumes shipped.

Dylcan, for its part, wants to take advantage of this favourable economic context. Castillo del Romeral will soon be home to the Canary Islands' first hatchery (24 million fry), intended to supply all the company's partner farms. The aim is to reduce the additional costs generated by transport and thus to decrease the islands' dependency on the mainland.

(1) Sea breams and European sea bass of the Canaries.

Aquaculture takes to the open sea

In its search for more space, aquaculture is exploring the possibilities of the high seas. This is a challenge that requires mastery of advanced technology. And one that has the European Commission's support.

The importance of aquaculture in the Common Fisheries Policy no longer needs proving. Aquaculture accounts for a growing share of the market's supply and also spares dwindling wild stocks. It can help maintain a certain number of sustainable jobs in areas that are generally affected by declining fishing activity. Today, it accounts for 19 % of the European Union's fisheries production in volume and 30 % in value. It has boomed worldwide over the last few years and is also an expanding sector in Europe.

However, the possibilities for expanding aquaculture activities in increasingly saturated coastal areas are not infinite. Conflicts can arise between fish farmers and major players in the areas of tourism, fishing, and coastal recreation⁽¹⁾. What is more, aquaculture activities can lead to environmental problems. For instance, large amounts of nitrogen and phosphorus from excrement and uneaten feed may be discharged into the cages' immediate surroundings.

One solution available to fish farmers is thus to explore the possibilities of offshore operations a considerable distance from the coasts. However, this calls for huge technological and financial investments.

Technology hooks aquaculture

We are in the Mediterranean Sea, 11 km from the shore, in 60 m of water (which corresponds to the height of a 20-storey building). This open sea environment, exposed to the wind and subject to waves with up to 7 to 8 metre troughs, is nevertheless home to a farm with a capacity of 350 tonnes of gilt-head sea bream per year. Five cages "lined up" are connected via an assembly of durable yet flexible polyethylene pipes that move with the water without breaking. One end of this assembly is connected to a single mooring point, so that under the action of the wind and surface currents the farm turns around its mooring along a 500-metre radius. When a storm is announced, the pipes are filled with water and the cages gently settle onto the sea floor, where the fish quietly await the return of fair weather, safe from the risks of being tossed about and injuring themselves on the netting in rough seas.

Spherical cages, submersible hydraulic systems, multiple or single mooring points, airborne fry delivery, intelligent feeding platforms, underwater camera monitoring and surveillance: high tech has sunk its hooks into aquaculture.



A few European fish farmers have taken the technological gamble of setting their cages out in areas that have no obstacles to buffer the full force of the waves, wind, and currents.

The challenge for the European Union is sizeable. Indeed, aquaculture in the EU is practised in a great diversity of high seas areas. Examples include the North Atlantic, one of the most turbulent areas on the planet – a reality with which Scottish and Irish fish farmers must grapple every day, as soon as they leave their bays and fjords, an experience shared by the salmon farms of Ireland's West Counties and cod farms of the Shetland Islands, or Denmark where the government recently earmarked exposed areas of the Kattegat and Belts for the expansion of trout farming. In the Mediterranean, the depth of the seabed and capricious weather conditions force fish farmers to use high sea technologies as soon as they stray from the sheltered coastal areas.

While Europe is taking its first steps in offshore fish farming, the trend is firmly ensconced elsewhere, for example, in New Zealand, on the East Coast of the United States, in Hawaii, and in South Korea. With annual fish consumption of 60 kg/person, Korea is encouraging these offshore developments strongly, especially as their products have been very successful with a particularly discriminating Asian public when it comes to the quality of the fish they eat.

This makes sense, for although offshore or open sea fish farming has its share of technical and financial challenges, it holds real advantages that all fish farmers acknowledge, namely, waters in which pollution is less concentrated, that are better oxygenated and more rapidly renewed, with less disease, and continuous currents that force the fish to exercise more. All of this gives products of superior quality that can be sold for higher prices. What is more, the waste from the farm's cages is highly diluted and which mitigates the environmental impact.

A few aquaculture businesses in the EU have taken this decisive step and accepted the challenge to move their cages several miles offshore in waters where the depths can be up to 1 000 m, in areas where no obstacles buffer the full force of the waves, wind, and currents. The European Commission, working closely with the sector and with scientific and technological research programmes, has envisioned the development of high seas aquaculture by encouraging all interested parties to make use of the 7th Framework Programme for Scientific Research and the European Fisheries Fund.

(1) See *Fisheries and aquaculture in Europe*, No 30, September 2006, devoted to the European Union's maritime policy.



Marsaxlokk is a classic tourist destination on Malta. The tourists come to admire the traditional fishing craft in the harbour.

Discovery

Malta: Ancestral management of the *lampuki*

For Maltese fishermen, autumn is mahi-mahi season. Known locally as the *lampuki*, this great migratory species has been fished traditionally for centuries, using fish aggregating devices (FAD). It is one of the rare targeted fishery activities of the Mediterranean. Let's spend some time in Malta to discover this traditional activity but also the mood on this island, where fishing is an integral part of the scenery – literally!

It is easy to find Valetta's central fish market. You simply stroll through the town's empty streets around 3 a.m. and follow the fishmongers' refrigerated vans, which come from all corners of the country to converge on the same place, every day, at the same hour, for the opening of the auction at the Central Fish Market, the only fish auction on Malta.

This auction market, which is an hour's drive from the farthest point on the island, suffices to market Malta's entire catch. The large ochre stone building that houses it stretches some twenty metres along Barriera Quay, in the Grand Harbour, at the foot of the 16th century walls and bastions. From the entrances at either end of the rectangle you find yourself directly in the vast tiled hall where the morning sale takes place. Rows of small shops border each long side of the rectangle. That is where the merchandise enters.

The fishermen arrive by car or minivan. They unload their catches in standardised grey plastic crates that they hand over to their favourite middleman. This morning, six middlemen are conducting the auction. They are the only ones allowed to practice the subtle dialectics of auctioneering, a function that gives them an important role in keeping track of the country's landings statistics.

The large fish – mostly swordfish – are laid out in the middle of the large hall, under the harsh neon light, along with the stacked crates of mahi-mahis, which occupy half of the hall. The mahi-mahi are carefully aligned in each crate. In this month of October most of them are from 40 to 60 cm long. The crates of the smaller species, such as octopus, red mullet, and amberjack, are stacked in the adjacent shops.

Unloading from cars and boats

"If a fisherman's had a good catch at this time of the night, he sails right into the harbour to unload directly from his boat," Franz Caruana, the auction manager, explains, *"but most of the time they store their catches in their boat's refrigerators or in their cooperative's refrigerated warehouse and bring them here by car the next night."*

4 a.m. The bidding starts, noisily. Groups form around the middlemen. The middlemen present the merchandise batch by batch and coax the prices up. Maltese is *de rigueur*, except for the figures, which are given in English. One buyer stops at 0.65 lire per kilo (EUR 1.5/kg) for a batch of mahi-mahis.

- "No, they're worth more," the middleman insists, "70! Who'll give me 70?"
 - "65!" The fishmonger remains unmoved, feigning to look disdainfully at the merchandise!
- With a discrete sign, the fisherman signals his consent to the middleman.
- "OK," the middleman says, and the fishmonger quickly leaves with a dozen crates after weighing and paying for them.

At this time of year, the mahi-mahi is the centre of attention. Mahi-mahi fishing season opens on 15 August and the Maltese have until December to gorge on it, for if there can be said to be a typically Maltese resource, it is indeed the *lampuki*, this great migratory fish with its green and yellow highlights.



The common dolphinfish or mahi-mahi (*Coryphaena hippurus*) is a large migratory pelagic species found in all the warm seas throughout the globe. It has a short life span (3-4 years) and rapid growth, weighing 2 kg at 6 months and reaching an average adult size of 1.50 metres for a weight of 35 kg. The Strait of Sicily is one of its prime nursery areas. The fry hatch in June and remain in the area until the start of winter. These juveniles are the targets of traditional fishing. When the water temperature drops below 21°C the schools migrate towards the Atlantic.

There are 130 mahi-mahi fishing sites on the seven mile line around Malta. They are spaced 0.75 to 1.5 miles apart, depending on the spot. Each permit holder may work his site along a straight line in a given direction heading out to sea. A special feature of Marsaxlokk's district, which has thirty-nine sites, is a large break in the line of sites. This "swordfish corridor" effectively enables the swordfish fishers to chase their prey without becoming entangled in the mahi-mahi fishing gear.

To understand this seasonal craze, you have to go to Marsaxlokk, some fifteen kilometres south of Valetta.

A multicoloured spectacle

Marsaxlokk is a typical tourist destination on Malta. The tourists come here for the fishing or, to be more exact, to enjoy the spectacle of the multicoloured small boats moored in the harbour's blue waters. The traditional *luzzus*, with their slim bows and sterns, and *kajjiks*, with their square-cut sterns, are particularly photogenic, given their pairs of eyes staring out to sea and their blue hulls striped with yellow, green, red, white, and natural wood (or brown in the case of polyester hulls). Moreover, the patterns leave nothing to chance, for they were formerly used to identify the boats.

However, these boats are not moored here for the tourists. This small natural harbour is Malta's fishing capital. Close to half of the country's fishing fleet is located here and in the contiguous harbours of Saint George Bay. The *kajjiks* and *luzzus*, which barely exceed 8 metres, account for 60 % of Malta's fishing fleet. The rest of the local fleet is composed of the modern alternative to these millennia-old traditional vessels, namely, the "multipurpose vessel": a medium-sized (7-12 metre long) launch that can be equipped with various types of motors.

A small *kajjik* moored at the pier is loaded with bouquets of completely dried palm fronds. This association is far from unusual at Marsaxlokk, for the palm frond is one of the accessories of traditional mahi-mahi fishing. When attached to a moored float and immersed just under the water's surface, the fronds cast shadows that attract the fish. Upon reaching this "bait" assembly, the fisherman first catches one fish using a fishing line, and then uses this "guide" to bring in the rest of the group, which are then caught in a surrounding net without purse line. The amberjack and pilot fish are usual by-catches in this type of fishing.

Traditional but well documented management

"The mahi-mahi is a major resource that is easy to catch and grows quickly," is how Matthew Camilleri, Director of the Malta Centre for Fisheries Sciences (MCFS), sums it up.

Housed in a small but stately 17th century fort on a promontory overlooking the harbour, this institution has the ambitious objective of achieving exhaustive scientific knowledge of the marine resources in the 25 nautical mile zone around Malta in order to organize the optimal sustainable management of Malta's fishing industry. The MCFS has thus launched a series of studies under COPEMED⁽¹⁾ concerning cottage industry fishing, the red tuna, demersal species, and, of course, the mahi-mahi.



The mahi-mahi was the subject of a vast study between 2000 and 2005 that encompassed all the Mediterranean fisheries that target the species, namely, those of Malta, Sicily, Tunisia, and the Balearics. The genetic analyses that were conducted under this study showed that the individuals fished in the Mediterranean all belonged to a single stock shared by the four fisheries and it was therefore important to devise a common management scheme for the species under the aegis of the General Fisheries Commission for the Mediterranean (GFCM), which is the regional organization with jurisdiction over fisheries management in the area.

On Malta, the annual landings have fluctuated between 300 and 500 tonnes for the past ten years. This is a sign of stability. *"However,"* Matthew Camilleri explains, *"the precautionary principle must be applied, for a decline in this resource would have a major socio-economic impact. That is why the GFCM recommended in 2006 that fishing this species should not be allowed before 15 August, to avoid catching fish that are too young. Malta has been following this practice for years, and now it will be in effect in all the other States involved. Controlling the fishing effort is also vital."*

An ancestral management system

In this regard, Malta wants to promote its model, for the technique of catching fish with fixed gear imposed an ancestral management system that created *de facto* limits on fishing. The system is based on a limited number of fishing sites spread around the islands at a distance of 7 nautical miles from the coast (see map). To work a site, you must apply for the corresponding licence, provided that your boat is over 6 metres long. This restrictive system also has the advantage of keeping prices up by controlling the supply. Three-quarters of the mahi-mahis that are landed are effectively caught in this targeted traditional way. The remaining quarter comes from multi-species line fishing.

To appreciate this fish, the only option is to seat yourself at one of Marsaxlokk's harbour terraces on a warm autumn evening, for the *lampuki* is not processed or exported. On Malta it is eaten fresh, only when in season.

(1) The COPEMED project, which was set up by the FAO in 1996 and financed by Spain, aims to establish regional scientific co-operation to improve fisheries management in the western and central Mediterranean (Morocco, Algeria, Tunisia, Libya, Malta, Italy, France, and Spain).

[In brief

> Fishing possibilities for 2007

In the final quarter of 2006 the Fisheries Ministers of the European Union's twenty-five Member States set the main fishing possibilities for 2007: in October for the Baltic Sea, in November for the deep water species, and in December for the Atlantic Ocean, North Sea, and connecting seas. As is the case every year, it was difficult to comply with resource conservation requirements whilst allowing for the need to maintain fishing activity to guarantee sufficient incomes for those whose livelihoods depend upon it. Some total allowable catches (TACs) were reduced from their 2006 levels in line with scientific opinions that drew the policy-makers' attention to the worrisome state of most of the stocks in Community waters, especially those of the Atlantic cod.

Atlantic Ocean

The fishing possibilities for certain species have been cut drastically. This is the case of the ling (-20 %), rays in the North Sea and Norway (-20 %), and herring in West Scotland, West Ireland, and Porcupine Bank (-10 %). In contrast, the scientific experts also stressed the benefits of the long-term management plans the European Union has had in place for several years now, especially as regards northern hake and Bay of Biscay sole. Thanks to the recovery plans that have governed these stocks since 2004, their TACs could be raised. The mackerel population is also showing signs of growth.

Atlantic cod – Given that the recovery plan for this species has not yet produced any effects, the total admissible catches were reduced by 15 % for all the zones except Western Scotland and the Celtic Sea, where the figures were cut 20 %, and the North Sea and Kattegat, where the TAC was cut 14%. The Council also decided to reduce the number of fishing days for all vessels that catch cod, including by-catches whilst targeting other species, as follows: a 10 % decrease in fishing days for vessels using devices with small mesh sizes, an 8% decrease for those using medium-sized meshes, and a 7 % decrease for large meshes. The recovery plan is to be reviewed in the course of 2007.

Commissioner Borg's new website

Internet surfers and anyone interested in the Common Fisheries Policy and Maritime Affairs can now peruse the pages of a new site, that of Joe Borg, the European Commissioner in charge of Fisheries and Maritime Affairs. Besides the Commissioner's brief biography, you will find a schedule of his activities and relevant information, summaries of his official visits, and the texts of his speeches. Address: http://ec.europa.eu/commission_barroso/borg/index_en.htm. The site can also be accessed through the CFP site (ec.europa.eu/fisheries) and Maritime Affairs site (ec.europa.eu/maritimeaffairs).

European hake – As the recovery plan is bearing fruit in the northern waters, the fishing possibilities for the northern hake could be raised 20 %. In contrast, the southern hake (off the coast of Spain) continues to show signs of decline. The TAC and number of fishing days for this stock were thus reduced 8 and 10 %, respectively. The same can be said for the langoustine (*Nephrops* or Dublin Bay prawn), which is fished jointly with the hake in these waters.

Sole – The recovery plan has yielded results in the Bay of Biscay, allowing the TAC to be raised 12 % for this area. In contrast, the states of the North Sea and Irish Sea stocks are such that their TACs had to be cut by 15 %. The North Sea sole and plaice will soon be covered by recovery plans as well.

Anchovy – The Council agreed to set the TAC at zero for the Bay of Biscay. Nevertheless, experimental fishing involving 10 % of the French and Spanish fishing efforts will be allowed from 15 April to 15 June. Depending on the outcomes of the scientific analysis of this take and the scientific opinion of the Technical, Scientific and Economic Committee for Fisheries (CSTEP), the Commission will either propose a new TAC or keep it at zero.

Baltic Sea

Atlantic cod – The catches will be cut by 10 % for the eastern stock and 6% for the western stock, with a 10% reduction in the number of fishing days for both stocks. If no agreement on the recovery plan is reached by 30 June 2007, the reductions in the fishing possibilities will be raised to 15% for both stocks. Monitoring and control measures were also adopted, given the persistence of illegal landings.

Salmon – The state of the salmon stock in the central Baltic Sea and Gulf of Bothnia, which is still delicate, warrants a 5 % decrease in catches, whereas the TAC for salmon in the Gulf of Finland remains unchanged.

Sprat – The stock is doing well, allowing the TAC to be increased 8 %.

Herring – Given their overall good state, the TACs for two large stocks in the central and western parts of the Baltic Sea are raised. On the other hand, the TAC for the Gulf of Riga is down (-6 %) whilst the TAC for the Gulf of Bothnia remains unchanged.

Deep waters

The Council has set the fishing levels for the deep-water species for the next two years (2007 and 2008). Here, too, the states of these extremely fragile resources require the fishing possibilities to be lowered for several stocks. These reductions will be implemented in two waves, in 2007 and 2008.

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