Operational Programme for development of the Danish fisheries and aquaculture sector 2007-2013

European Fisheries Fund

December 2007
Foreword

This programme is the successor to the FIFG programme. FIFG has changed its name to EFF – the European Fisheries Fund. The EFF programme is the new framework for how we can support sustainable development over the period 2007-2013 in order to ensure the greatest possible sustained yield from the Danish fisheries and aquaculture sector.

Apart from the name, there are a number of other new features. One new feature is that a strategy will be compiled as a basis for the programme. This strategy will constitute the primary framework for the programme and include the overall objectives for development of the Danish fisheries and aquaculture sector. In this programme, analysis of the sector and the rationale for the various measures have been dealt with in more detail, and the programme includes information on how things will be implemented in respect of finance, administration, monitoring, communication and much more besides. The programme constitutes the operational element.

This programme supports the individual elements of the value chain. From fish and aquaculture to ports, processing and marketing. In addition to this, there is also the option – among other things – for supporting skills development, and development and pilot projects of a broader interest. We are continuing to focus on sustainability and adaptation of fishing capacity. However, with the New Regulation of Danish fisheries, the time is ripe to reinforce development rather than supporting realisation of the fleet. In other words, the money will be used in a new way. We are also continuing to focus on sustainable development of aquaculture, and development in fishing areas may be supported as a new venture; not on the basis of the fisheries and aquaculture sector, but on the basis of the requirements of the industry.

The programme and strategy are being compiled by a project team at the Directorate for Food, Fisheries and Agri Business, with representatives from the Danish Directorate of Fisheries, The Danish Fishery Bank, the Danish Institute for Fisheries Research, the Danish Research Institute of Food Economics and the Directorate for Food, Fisheries and Agri Business. A series of organisations, institutions and authorities have also assisted and inspired this work. The programme was approved nationally on 22nd March 2007.

Ministry of Food, Agriculture and Fisheries
Directorate for Food, Fisheries and Agri Business
December 2007
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Introduction

The increase in globalisation means that economic, social, environmental and political conditions are undergoing constant change. This also provides changes and challenges for the Danish fisheries and aquaculture sector – greater focus, changes to work distribution, outsourcing. The support instruments must be adapted to these changes and challenges.

The Danish fisheries and aquaculture sector has every chance of preserving and reinforcing its position as a global player.

The EU’s Common Fisheries Policy (CFP) provides the frameworks for Danish fisheries policy. The CFP has had a considerable structural trait, and over the past twenty years has contributed to considerable modernisation of the Danish fisheries sector. This work should be continued as particular emphasis is placed on enhanced value added and satisfactory economic viability in the sector.

The programme for the European Fisheries Fund for 2007-2013 shall support sustainable development of the fisheries and aquaculture sector economically, socially and environmentally. The programme shall assist in the development of knowledge and methods which can assure a foundation for innovative investment by individual companies.

These measures shall also assist in the acquisition of knowledge necessary for sustainable utilisation of fishing resources and ensure skills development with a view to – among other things – attracting young people to the sector and promoting equal opportunities between men and women.

To take into account to a greater extent the special nature of the industry which follows on from the sector’s socio-cultural and natural conditions, measures are being targeted towards sustainable development of fishing areas. These measures complement the other EU instruments, including the EU structural funds.
Definitions

Fisheries and aquaculture sector or Fisheries sector: Includes all fisheries-related activities in Denmark, including fisheries, aquaculture, processing, wholesale trading, retail trading, ports, fisheries service industries and public sector activities relating to fisheries and aquaculture such as administration, control, consultancy, innovation and research.

Branch: Branch of industry which produces the same type of products and which is in direct competition.

Convenience foods: Ready-made or part-prepared food products

EFF: European Fisheries Fund

Fisheries areas: Geographically defined land area with coast or fjord characterised by an economic and socio-cultural connection with the fisheries sector.

Functional foods: Food products which have been given particular properties such as increased/altered vitamin contents.

Innovation: Commercial use of new knowledge or existing knowledge in a new way.

Monitoring: Monitoring, measurement and recording

Exchange rate: € 1 = DKK 7.45

SWOT analysis: Analysis of strengths, weaknesses, opportunities and threats

Value chain: Refers to the path of the fish from the sea to consumer through all the links in the chain where the fish are given value added, from the time it is caught or bred, via processing, wholesale trading, retail trading to the end consumer.

Value added: Value added is a goal for the collective production of society and is calculated as the difference between the production value and consumption in the production. Value added indicates the increase in value which occurs as a result of processing of raw materials and through the resale of raw materials and finished goods.
1. Title of the Operational Programme and Member State

Operational Programme for development of the Danish fisheries and aquaculture sector 2007-2013

Member State
Denmark.
2. Geographical eligibility

This programme is applicable to Denmark, which is *not* covered by the Convergence objective which was introduced at the meeting of the European Council held in Berlin in 1999. The EU Convergence objective covers the most unfavourably positioned areas in the EU. This programme provides the frameworks for the payment of public contributions, with co-financing from the European Fisheries Fund.

This programme sets Denmark’s specific objectives and priorities for the initiative of the fund in respect of the fisheries and aquaculture sector, given the strategic guidelines for the CFP.
3. Analysis

The Danish fisheries sector is one of the largest in Europe. The reasons for this are Denmark's location between rich fisheries resources in the North Atlantic region and markets in Europe, its membership of the EU and its close connections with Norway, the Faroes and Greenland.

Despite the relative size of the Danish fisheries sector, its economic significance is limited. Employment represents only about 0.5 per cent of total employment in Denmark and value added only about 0.7 per cent of the Danish gross domestic product. The last decade has shown a fall in both employment and value added. The following table contains a number of key figures for the Danish fisheries sector.

Table 1  Key figures for the fisheries and the aquaculture sector for 2004

<table>
<thead>
<tr>
<th></th>
<th>Fisheries</th>
<th>Aquaculture</th>
<th>Processing</th>
<th>Wholesaling</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of workplaces</td>
<td>1,361</td>
<td>420</td>
<td>146</td>
<td>278</td>
<td>2,205</td>
</tr>
<tr>
<td>Number of employees</td>
<td>4,002</td>
<td>721</td>
<td>6,332</td>
<td>2,989</td>
<td>14,044</td>
</tr>
<tr>
<td>Value added € million</td>
<td>125,1</td>
<td>21.3</td>
<td>246.7*</td>
<td>138.7*</td>
<td>531.8</td>
</tr>
</tbody>
</table>

Note: Number of workplaces and number of employees: as at 30 November 2003.
* 2003 figures
In 2004 the government support paid to the Danish fisheries sector (FIFG) was 33.1 million €, of which 19.13 million € was funded by the EU.

3.1. New Regulation of Danish fisheries

In the autumn of 2005, a political agreement was adopted in Denmark resulting in a new regulation of Danish fisheries – named “New Regulation”. The purpose of the agreement was, within the framework of the CFP, among other things, to create a basis for new regulation of Danish fishing with a view to giving individual fishermen better opportunities to run fishing operations suitable for their vessels and catching methods, to guarantee the overall basis of earnings for the fishing operation and to execute and develop a system of regulation that promotes a more sustainable utilisation of fish stocks, primarily by limiting discards of fish. With this new regulation, each vessel that is fishing in accordance with the scheme is allocated a share of the quota, i.e. an annual amount or a fishing vessel quota (FKA). The new regulation relates to: the most important quotas for human consumption plus herring in the Baltic and sprat in the North Sea. Besides the fishing quotas regulated with fishing vessel quotas, some industrial fisheries may be regulated with individual transferable quotas (ITQ) as of 1 January 2007.

Thus the Danish fishing vessels operate within the boundaries of three overall regulative systems 1) ITQ (individual transferable quotas) 2) FKA, MAFF and ØF¹ (vessel quota shares) and 3) licensed fisheries.

The Danish fishery is based on allocation of fishing rights. The FKA-system represents ca. 55 % of the total catch value, ITQ represents 35 % and licensed vessels 8 %.

¹ Bekendtgørelse 1535 af 18/12 2006 med senere ændringer.
With the new regulation system for vessel quota shares (FKA), the vessels are divided into 3 different main groups

- Vessels with vessel quota share (FKA-vessels)
- Less active vessels (MAF-vessels)
- Other vessels (ØF-vessels)

**FKA-vessels**
A vessel obtains FKA-status when the following two conditions are met:
1. The vessel had in general a gross turnover in 2004 or 2005 at minimum 224,000 DKK. or an average gross turnover above 205,000 DKK. in 2003-2005.
2. The vessel has had landings in 2003-2005 of the quotas covered by the scheme of FKA’s.

The landings in the period of reference 2003-2005 of the different species with FKA-quotas form the basis for allocation of vessel quota shares.

**MAF-vessels**
MAF-vessels do not fulfil the conditions for being a FKA-vessel. The vessels concerned are mainly small vessels under 12 meters and targeting FKA-species in the reference period 2003-2005, but did not meet the general demand of a gross turn-over. These vessels are fishing on ration rights.

**Other Vessels (ØF-vessels)**
This group comprises of vessels without historical landings (2003-2005) of the FKA species. The vessels are mainly very small.

**Tabel 2 Fish species covered by FKA**

<table>
<thead>
<tr>
<th>All areas</th>
<th>North sea</th>
<th>Baltic sea</th>
<th>North Sea</th>
<th>Vessels in industrial fishery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cod</td>
<td>Hake</td>
<td>Herring</td>
<td>Monkfish</td>
<td>Sprat</td>
</tr>
<tr>
<td>Sole</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plaice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nepprops</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saithe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saithe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haddock</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shrimps</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Danish Directorate of Fisheries
When a vessel owner or a group of owners own several vessels, they have the opportunity to transfer the total amount of the FKA’s allocated to one vessel to one or more of the other vessels. The vessel or the attached tonnage which is left with no FKA must according to the national regulation not change ownership within 2 years after the transfer of FKA. A FKA-vessel which has been “emptied” for FKA, is not allowed to participate in fishery on ration or on quotas which are not included in the FKA-system.

In practice this right based system, results in concentration of FKA’s or fishing rights on fewer but more efficient vessels. Vessels or tonnage without any attached FKA’s can not enter the FKA system again, without having to buy FKA’s and the attached capacity) from another vessel, thus a reduction in fishing capacity will be achieved.

It is also possible for FKA-vessels to operate in a pool. Within a pool established with a number of vessels, fishermen may exchange quantities amongst themselves so that the fishing of the individual fishermen can be optimised.

Hence the fishermen have the opportunity for much greater flexibility in the planning of their fishing and hence for optimising their efforts; finally, it is also anticipated that the new scheme will mean considerably improved opportunities for fishermen to obtain finance as catch rights are now granted in the form of quotas for vessels.

The new fishing regulation came into force as of 1st of January 2007. The Government has emphasised – with its notice period for termination of the scheme of eight years – that it has established a long-term regulatory instrument which fishermen can use to plan their fishing and make investments on the basis of this, without risking that the vessels share of the Danish quotas are reduced for the following year.

It is anticipated that the expanded framework will be utilised by the industry to develop the industry’s own responsibility for fishing being run in compliance with the intentions of the agreement and otherwise on a sustainable basis.

As part of the agreement relating to the new regulation on fishing, a decision was made to implement a scrapping order applicable for 2006. The purpose of this scrapping order was – among other things – to facilitate the transition to the new regulation on fishing. The new regulation on fishing gives fishermen the opportunity and incentive to adapt the size of the fishing fleet to the possible catches. The scrapping order will support this development, among other things.

The scrapping round and the new regulation on fishing will result in a reduction in the number of vessels. Therefore, it is anticipated that significant adaptation of the size of the fishing fleet to the possible catches will take place. On the
basis of this, Denmark is expecting fleet development as part of the new pro-
gramme to be dependent, to a lesser extent than to date, on scrapping support
and – to a greater extent – on modernisation and the construction of new vessels
(the latter with no public support). The pace at which the fleet can be renewed is
dependent on the implementation of a range of initiatives, among other things,
aimed at creating enhanced value added in the fisheries and aquaculture sector
through investment in initiatives such as refrigerated chains, packaging fish at
sea and freezing fish at sea.

3.2. Fish stocks

The most important waters for Danish fisheries are the Baltic, the Kattegat, the
Skagerrak and the North Sea. In these waters, Danish fishing vessels exploit
stocks of a wide range of fish and shellfish. Most stocks are shared with fishing
fleets from other EU countries, from Norway (the North Sea and the Skagerrak)
and from Russia (the Baltic) with just a very limited number of coastal stocks
being exploited solely by Danish fishing vessels. The overall fishing pressure is
the result of many nations fishing activities on the same fish stocks.

The situation for individual stocks varies depending on the size of the fishery
compared to the productivity of the resource, socio-economic factors effecting
fisheries, and environmental conditions of the marine ecosystems in these areas.

Within the Common Fisheries Policy recovery of overexploited fish stocks is
explicitly given a high priority. At present there are recovery plans for cod in
Skagerrak and Kattegat and the North Sea as well as a multi-annual plan for
Baltic cod which encompass a recovery and management phase the cod stock in
the Baltic where the abundance of 75 % of commercial fish stocks are estimated
to be outside safe biological limits. A management plan has also been devel-
oped for plaice and sole in the North Sea. For most of the north-east Atlantic the
abundance of 62–91 % of commercial stocks are outside safe biological limits.

The impact of overexploited fisheries on the Danish industry in the short-term
varies from stock to stock depending on the specifics of the exploited resources
and their importance to the fishery sector as a whole.

Baltic cod is taken in a targeted fishery, in most areas with minimal by-catch of
other commercially important fish. There are directed flatfish fisheries in some
Baltic areas with a by-catch of cod and non-commercial species. Herring and
sprat are taken in pelagic trawl fisheries, including fisheries taking both species
simultaneously. The actual composition of pelagic catches is poorly known for
some fisheries because landings are assigned to species according to the target
species in some landings statistics. Trawlers with mesh sizes smaller than 32
mm are used to fish for industrial purposes. When using meshes larger than 31 mm, trawlers are assumed to fish for human consumption.

**Figure 1 Status of exploited fish stocks in the Baltic Sea**

<table>
<thead>
<tr>
<th>Species</th>
<th>State of the stock</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SSB in relation to precautionary limits</td>
</tr>
<tr>
<td>Cod in 22–24</td>
<td>At risk of reproductive capacity</td>
</tr>
<tr>
<td>Cod in 25–32</td>
<td>Reduced reproductive capacity</td>
</tr>
<tr>
<td>Herring in IIIa and VIIb</td>
<td>Undefined</td>
</tr>
<tr>
<td>Herring in 25–29 (excl. GoR) and 12</td>
<td>Undefined</td>
</tr>
<tr>
<td>Herring in the Gulf of Pils</td>
<td>Full reproductive capacity</td>
</tr>
<tr>
<td>Herring in 30</td>
<td>Full reproductive capacity</td>
</tr>
<tr>
<td>Herring in 31</td>
<td>Unknown</td>
</tr>
<tr>
<td>Sprat in 22–32</td>
<td>Full reproductive capacity</td>
</tr>
<tr>
<td>Flounder</td>
<td>Unknown</td>
</tr>
<tr>
<td>Plaice</td>
<td>Unknown</td>
</tr>
<tr>
<td>Dab</td>
<td>Unknown</td>
</tr>
<tr>
<td>Turbot in 22–32</td>
<td>Unknown</td>
</tr>
<tr>
<td>Brill in 22–32</td>
<td>Unknown</td>
</tr>
<tr>
<td>Salmon in Mals Basin and Gulf of Bothnia</td>
<td>Low at-sea survival in recent years threatens stocks</td>
</tr>
<tr>
<td>Salmon in Gulf of Finland</td>
<td>The condition of the wild stocks is poor</td>
</tr>
<tr>
<td>Sea trout</td>
<td></td>
</tr>
</tbody>
</table>


The Baltic Sea is polluted with dioxin and PCB originating from waste treatment and paper production. In 2006 new thresholds for dioxin and the total level of dioxin and like PCB’s entered into force. Due to this regulation Denmark has banned the sale of large salmon and herring from the Baltic Sea.

**Mixed fisheries and fisheries interactions**
Demersal fisheries in the North Sea area are mixed fisheries, with many stocks exploited together in various combinations in different fisheries. Stocks in the poorest condition, particularly those which suffer from reduced reproductive capacity, are an overriding concern for the management of mixed fisheries, where these stocks are exploited, either as a targeted species or as a by-catch.
The exploitation of sole and plaice are closely connected as they are caught together in fisheries mainly targeting the more valuable sole.

Roundfish are mostly caught in otter trawl and seine fisheries, with a 120 mm minimum mesh size. This is a mixed demersal fishery with more specific targeting of individual species in some areas and/or seasons. Cod, haddock, and whiting form the predominant roundfish catch in the mixed fisheries, although there can be important by-catch of other species, notably saithe and anglerfish in the northern and eastern North Sea and of Nephrops in the more offshore Nephrops grounds. Discards has been high in most of the fisheries (whiting, haddock, plaice, and cod) but is expected to decline with the new regulation where the possibility to pool the fishing rights will enable better planning of the fishery. Any improvements to gear selectivity which would contribute to a reduction in the catch of small fish must also take into account the effect on the other species within the mixed fishery.

**Figure 2 Status of exploited fish stocks in the North Sea**

<table>
<thead>
<tr>
<th>Species</th>
<th>Spawning biomass in relation to precautionary limits</th>
<th>Fishing mortality in relation to precautionary limits</th>
<th>Fishing mortality in relation to high long-term yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cod in the North Sea, Eastern Channel and Skagerrak</td>
<td>Reduced reproductive capacity</td>
<td>At risk</td>
<td>Overexploited</td>
</tr>
<tr>
<td>Cod in Kattegat</td>
<td>Reduced reproductive capacity</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>Haddock in the North Sea and Division IIIa</td>
<td>Full reproductive capacity</td>
<td>Harvested sustainably</td>
<td>Overexploited</td>
</tr>
<tr>
<td>Whiting in the North Sea and Eastern Channel</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Overexploited</td>
</tr>
<tr>
<td>Saithe in the North Sea, Division IIIa and Subarea VI</td>
<td>Full reproductive capacity</td>
<td>Harvested sustainably</td>
<td>Overexploited</td>
</tr>
</tbody>
</table>

The sandeel fishery is carried out on an experimental basis, as the state of the stock is uncertain. Sandeel is distributed on distinct grounds where the bottom conditions are favorable; however, several sandeel grounds have experienced a large decline in abundance in recent years.

**Figur 2 Development of landings of sandeel (1000 ton)**

Source: Danish Fisheries Institute, Danish Technical University; 2007;

**Recovery plans**

Within the Common Fisheries Policy, recovery of overexploited fish stocks is explicitly given a high priority. At present, there is recovery plans for cod in Skagerrak and Kattegat and the North Sea as well as a multi-annual plan for Baltic cod which encompass a recovery and management phase. The provisions within the recovery plans are to use effort reduction and TACs to reduce fishing mortality. In relation to the reduction of fishing effort, the new regulation gives the incentive for fishermen to adapt the size of the fishing fleet to match available resources thereby implementing the principles of the cod recovery plans.
3.3. The fishing fleet

3.3.1. Fleet structure

At the end of 2006, the Danish fleet consisted of a total of 1,195 registered fishing vessels larger than 5 GT representing a gross tonnage of 82,594 GT (270.622 kW). By way of comparison, the number of vessels in 1996 was 1886 representing a total gross tonnage of 104,767 GT. This means that during the decade 1996-2006, the gross tonnage for Danish fisheries fell by approximately 21 percent.

Danish fishing vessels are on average about thirty years old, and some of the vessels are no longer modern.

**Figure 3 Number of Danish fishing vessels larger than 5 GT, 1996-2006**

*Source: Danish Directorate of Fisheries*
Cod fisheries in particular have seen a steep decline in recent years. In addition, industrial fisheries have been very unsatisfactory over the last three years.

Over 95% of the value of the catch is from commercial vessels.

A fishing vessel’s financial result can be measured by, amongst other things, the vessel’s gross profit, which is defined as the value of the catch minus all costs incl. labour expenses. The gross profit is therefore the amount available for paying off the capital. In 2004 the gross profit was close to zero for vessels of all sizes, with the exception of the very large and specialised vessels, both of which produced positive gross profits. By way of comparison, the conditions in 2002 were such that all vessels over 15m had a clearly positive gross profit that increased with the size of the vessel.

Source: Danish Directorate of Fisheries

<table>
<thead>
<tr>
<th></th>
<th>31.jul.2007</th>
<th></th>
<th>31.dec.2006</th>
<th></th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GT</td>
<td>KW</td>
<td>Vessels</td>
<td>GT</td>
<td>KW</td>
</tr>
<tr>
<td>Beamtrawl</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.00-23.00</td>
<td>1.552</td>
<td>5.218</td>
<td>28</td>
<td>1.585</td>
<td>5.438</td>
</tr>
<tr>
<td>24.00-11.99</td>
<td>2.706</td>
<td>8.319</td>
<td>8</td>
<td>2.208</td>
<td>6.848</td>
</tr>
<tr>
<td>alt</td>
<td>4.258</td>
<td>13.537</td>
<td>36</td>
<td>3.793</td>
<td>12.286</td>
</tr>
<tr>
<td>netters/liners</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>00.00-11.99</td>
<td>5.509</td>
<td>58.438</td>
<td>2.237</td>
<td>5.687</td>
<td>60.850</td>
</tr>
<tr>
<td>12.00-23.00</td>
<td>4.093</td>
<td>17.697</td>
<td>117</td>
<td>4.154</td>
<td>18.080</td>
</tr>
<tr>
<td>24.00-11.99</td>
<td>674</td>
<td>1.410</td>
<td>3</td>
<td>674</td>
<td>1.410</td>
</tr>
<tr>
<td>alt</td>
<td>10.276</td>
<td>77.545</td>
<td>2.357</td>
<td>10.516</td>
<td>80.340</td>
</tr>
<tr>
<td>Purse seiners</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.00-11.99</td>
<td>8.283</td>
<td>19.893</td>
<td>7</td>
<td>10.913</td>
<td>25.175</td>
</tr>
<tr>
<td>alt</td>
<td>8.283</td>
<td>19.893</td>
<td>7</td>
<td>10.913</td>
<td>25.175</td>
</tr>
<tr>
<td>Combination (seine, nets, trawl)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>00.00-11.99</td>
<td>1.063</td>
<td>10.558</td>
<td>167</td>
<td>971</td>
<td>9.513</td>
</tr>
<tr>
<td>12.00-23.00</td>
<td>2.022</td>
<td>11.914</td>
<td>73</td>
<td>2.044</td>
<td>12.015</td>
</tr>
<tr>
<td>24.00-11.99</td>
<td>1.243</td>
<td>2.519</td>
<td>5</td>
<td>1.243</td>
<td>2.519</td>
</tr>
<tr>
<td>alt</td>
<td>4.328</td>
<td>24.991</td>
<td>245</td>
<td>4.258</td>
<td>24.047</td>
</tr>
<tr>
<td>Danish/Scottish seiners</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>00.00-11.99</td>
<td>2.791</td>
<td>10.036</td>
<td>56</td>
<td>2.816</td>
<td>9.889</td>
</tr>
<tr>
<td>12.00-23.00</td>
<td>2.812</td>
<td>10.215</td>
<td>59</td>
<td>2.837</td>
<td>10.068</td>
</tr>
<tr>
<td>alt</td>
<td>4.303</td>
<td>20.230</td>
<td>215</td>
<td>4.258</td>
<td>19.923</td>
</tr>
<tr>
<td>Trawlers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>00.00-11.99</td>
<td>712</td>
<td>6.305</td>
<td>62</td>
<td>764</td>
<td>6.771</td>
</tr>
<tr>
<td>12.00-23.00</td>
<td>13.653</td>
<td>67.112</td>
<td>308</td>
<td>15.579</td>
<td>75.614</td>
</tr>
<tr>
<td>24.00-11.99</td>
<td>43.020</td>
<td>95.877</td>
<td>120</td>
<td>48.748</td>
<td>107.897</td>
</tr>
<tr>
<td>alt</td>
<td>57.385</td>
<td>169.294</td>
<td>490</td>
<td>65.090</td>
<td>190.282</td>
</tr>
<tr>
<td>Total</td>
<td>87.342</td>
<td>315.475</td>
<td>3.194</td>
<td>97.408</td>
<td>342.198</td>
</tr>
</tbody>
</table>

Source: The Danish Directorate for Fisheries; 2007

The table above is based on a dynamic registration of data which includes all the vessels which have been or are registered in the period. This means that also vessels withdrawn from the fishery during the period are included.
Table 4 The Danish fleet by January and July/2007

<table>
<thead>
<tr>
<th></th>
<th>GT January</th>
<th>kW January</th>
<th>Number January</th>
<th>GT July</th>
<th>kW July</th>
<th>Number July</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFV</td>
<td>70.901</td>
<td>23.0000</td>
<td>23.0000</td>
<td>1.095</td>
<td>993</td>
<td>-7,61%</td>
<td>-7,88%</td>
</tr>
<tr>
<td>FKA</td>
<td>2.583</td>
<td>27.0000</td>
<td>954</td>
<td>1.089</td>
<td>1.073</td>
<td>-1,97%</td>
<td>-0,82%</td>
</tr>
<tr>
<td>MAF</td>
<td>12.256</td>
<td>12.0000</td>
<td>3139</td>
<td>3.139</td>
<td>3.015</td>
<td>-6,30%</td>
<td>-6,09%</td>
</tr>
<tr>
<td>ØF</td>
<td>85.741</td>
<td>80.0000</td>
<td>308.854</td>
<td>3.139</td>
<td>3.015</td>
<td>-6,30%</td>
<td>-6,09%</td>
</tr>
</tbody>
</table>

Note: AFV = waiting for decision the other three segments are explained in section 2.1. Virtual capacity is not included.

As shown in the table above, which is a static picture of the Danish fleet by 1st of January and again by 31st of July 2007, the new market-based regulation has already resulted in a reduction in the Danish fishing fleet. As previously mentioned the FKA-group of the three represents the larger vessels and by far the considerable part of the total catch value.

However the EU days at sea regulation limits the flexibility and the reflection of the active fleet size in the fleet register, as the prevailing Community rules on days at sea do not permit days at sea to be permanently transferred from one vessel to another in order to concentrate the days at sea on fewer vessels. If a fisherman wishes to retain the days at sea that have been allocated, the vessel cannot be deleted from the vessel register and the vessel will therefore appear as active in the register, even if it is not in fact active at sea.

A study “Potential reduction in number of vessels in 2007” carried out in 2007 indicates that the minimum number of vessels required to catch the quotas in 2007 is 16 % lower than the average number of vessels 2003-2005 and 12 % lower than the number of vessels in 2005. The study is assuming the vessels are allowed to use the maximum number of sea days that is recorded as physically possible (and beyond the limit laid down by the sea days regulation) and assuming that the structure of the fishery is not changed. Although there are differences between the various vessel groups the study indicates a relatively small reduction is needed and it is expected that the management system comprises incentives so that the required reduction in fishing effort will be achieved.

It is difficult to predict specific reductions for each management areas and each fishery. Danish vessels had access to all management areas, and a large part of the fleet exploited the fish stock in many areas from the North Sea to the Baltic Sea. With the introduction of the new management system the vessel have been

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2 In Prognose for fiskeriets indtjening 2007, FOI 2007
allocated individual quotas according to the historical landings. These quotas are tradable, and it is difficult to predict how this trade will take place.

3.3.2. Landings

The smaller Danish vessels specialise in trap fishing, whereas the larger vessels usually conduct trawl fishing. A small number of larger vessels (about 10) use purse seining. Finally, there are a number of vessels (about 90) involved in specialised fishing, e.g. for mussels.

The most important Danish edible fish species are cod, plaice, sole, Norway lobster, herring and mackerel. The industrial species are sand eels and sprats, with mussels accounting for specialised fisheries. Total landings from Danish fisheries in 2004 came to a little under 1.1 million tonnes, of which catches of industrial fish represented about 0.7 million tonnes. Mussel harvests represented about 0.1 million tonnes. Herring catches came to about 0.14 million tonnes and other edible species came to 0.14 million tonnes, with cod as the most important catch in terms of volume.

The total value of Danish landings in 2004 was approximately € 362.4 million. Of this figure, industrial landings represented something over € 67.1 million, and the mussel harvest about € 13.4 million. Of the actual edible fish catch of about € 295.3 million, the cod catch was worth something over € 53.7 million and the herring catch had a value of about € 30.9 million. Plaice and Norway lobster had a value of about € 33.6 million and mackerel approximately € 26.9 million.

3.3.3. Working environment and employment

The number of people working in the fisheries can be worked out in various ways. Counted as numbers employed on vessels, the number as of 30th November 2003 comes to 4,002. Compared to the total Danish workforce, the number of employees in the primary fisheries is rather low.

Work in the fishing industry is associated with a significant risk of injury. The number of reported industrial injuries is shown in the table below. The number of injuries is actually greater, as not all injuries are reported.

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity</td>
<td>172</td>
<td>150</td>
<td>137</td>
<td>221</td>
<td>234</td>
<td>284</td>
<td>267</td>
<td>226</td>
<td>197</td>
<td>139</td>
</tr>
<tr>
<td>Number per 1,000 fishermen</td>
<td>30</td>
<td>38</td>
<td>33</td>
<td>30</td>
<td>26</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There is an evident downward trend in the number of injuries during the period 2000 – 2004. There are grounds for regarding this as a continuation of a very active effort on the part of The Danish Fishermen’s Occupational Health Council.

In addition to injuries, there are also work-related illnesses that have their origin in working in the fishing industry. This number is considerably lower than the number of injuries, having been in the range of 25 to a little over 40 in the period 1995-2004, apart from 2001 and 2002, when the number was a little over 60.

3.3.4. Developmental trends

The New Regulations for Danish fisheries is expected to be of crucial importance to the future of the industry. The new system introduced individual fishing vessel quotas (FKA) for the twelve most important edible species. At the same time, the existing system of individual transferable quotas (ITQ) for herring was expanded to include mackerel and all industrial fish species. This change in regulations means that in 2007 there was the possibility of transferring fishing operations and thereby concentrating them on fewer vessels.

The expected result is that there will be fewer vessels and, as a result, an improved operating economy for the remaining vessels. This development is expected without any public support. In connection with this, there is expected to be a reduction in the number of vessels that come under the New Regulations (vessels catching edible fish species) in the order of 20-30% for the period 2007-2013.

3.4. Educational level and age in the fishing industry

3.4.1. The fishing industry

The average age of vessel owners has increased steadily over the last ten years, whereas the age of all registered commercial fishermen is the same as it was ten years ago. The average age of vessel owners is currently a little under 51 and just under 45 for all commercial fishermen.

The same period saw a significant reduction in the numbers of vessel owners and commercial fishermen.
In 2003 there were about 1,100 commercial fishermen in the 20-40 year age group and 2,100 commercial fishermen in the 40-60 year age group. In other words, there is a clear predominance of middle-aged/older fishermen.

**Figure 5 Average ages of vessel owners and commercial fishermen**

Even with an expected fall in the number of vessels over the coming years, the age distribution in the industry allows for a risk of a labour shortage in the industry in the coming years. It is assumed that working conditions that often mean long absences from the home inhibit recruitment, and so attractive workplaces in particular are therefore essential in order to create greater interest in the profession. This requires reasonable income levels in the profession, varying work and good crew facilities onboard the vessels.

From time immemorial, there has been a requirement for the masters of fishing vessels to have passed a coaster master’s or home-trade master’s exam, depending on the size of the vessel and the area of operation. In 1996 a two-year apprenticeship course was also established (with the award of a blue certificate on completion), aimed at anyone wanting to start a career in the fishing industry. This training is intended to furnish the fishermen/vessel owners of the future with the required knowledge of all areas of the fishing industry. Since the course was launched, 261 students have completed the training and 79 fishermen are currently undergoing training. In the fishing industry of the future, the requirements will increase in many areas (the technology of fishing vessels, fisheries practice and legislation, economics, etc.). In order to meet these requirements, good basic training of young fishermen and good opportunities for providing those currently working as fishermen with further training are essential.
It is not possible to obtain any overall statistics showing training levels in the industry. In recent years, about 65 students have completed occupational training for the fishing industry, and the vast majority of these students were male. A number of further training programmes and courses are also being run.

In summary, it can be confirmed that the average age in the fishing industry is relatively high and that there is a need to move from one generation to the next in the near future. Recruitment onto courses providing training for commercial fishermen has not increased, however, despite a TV and cinema campaign.

### 3.4.2. Aquaculture

The aquaculture sector is seeing a relatively high intake of young people into the profession, with the result that the marked preponderance of middle-aged/older employees seen in the fishing industry is not seen here. Recruitment into this profession is not inhibited by absence from the home, as it is in the fishing industry. Here as well, the ability to attract young people is dependent on the possibility of earning a reasonable income. If the objective of greatly increased production in this sector is met, there will be an increased need for recruitment.

The amendment of the Fisheries Act in 2005 created the opportunity to issue requirements concerning practical and theoretical training as a condition for obtaining a farming licence. The background to this is provided by greatly increased requirements in terms of the environment, hygiene and general farming methods. Development in the direction of ever greater and technologically more advanced units with complicated finances highlights a greater need for more formalised, theoretical aquaculture training. The engineer’s degree course in Aquatic Technology at Aalborg University offers a specialisation in aquaculture.

Danish Shellfish Centre, in collaboration with Danish Shellfish Farming Association and Northwest Jutland Education Centre offers an evening and weekend course at which participants are given basic theoretical and practical knowledge about shellfish farming.

### 3.4.3. Processing and wholesaling

There is approximately the same number of employees in the 20-40 and 40-60 year age groups in processing. Unlike fisheries and aquaculture, there are a rela-

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3 Source: Statistics Denmark
tively low number of employees over 60, which is assumed to be due to de-
manding working conditions resulting in early retirement. Demand for labour in
future will depend in particular on the loss of jobs – either due to technological
advances or as a result of outsourcing to countries with lower wage costs.

Processing companies employ predominantly unskilled workers. There will be
fewer people with varying education backgrounds – often of a technical or fi-
nancial background.

In wholesaling, the 20-40 year age group is larger than the 40-60 year group.
There are no clear developmental trends in terms of future resource needs.
There is no actual training available in wholesaling, but since this is a signifi-
cant activity, there might be a need for in-service training in order, amongst
other things, to improve knowledge and awareness of the foreign cultures that
buy significant volumes of Danish fish products.

3.5. Fishing ports

3.5.1. Port structure

Danish ports are either in private or municipal ownership. The former state-
owned ports have now passed into the ownership of the municipalities. These
are divided into actual municipal ports, municipal autonomous ports with a
management board appointed by the municipality and fully or partly munici-
pally owned limited companies. For municipal autonomous ports and municipal
limited company ports, the minimum requirement is that all costs are covered
by the port’s revenues. The municipality may not therefore subsidise the port by
making up any deficit, cf. the municipal power of attorney. The port author-
ity/municipality is responsible for the day-to-day running of the port and also
maintenance of the port, including buildings, investments and safety in the port.

In most cases, the services provided in connection with the port are provided by
a number of independent, private companies. In addition to fisheries auctions
and/or central collection and sorting, there are usually also a number of services
functions such as ice deliveries, leasing and washing crates, supplying fuel and
provisions, machine repairs, repairing yards with slipways, fishing net manufac-
turers, electricians and electrical companies, etc. The smaller fishing ports do
not usually have a sufficiently large economic basis to offer a range of services
of this kind. In addition, sufficient volumes of fish landings are also essential
for both maintaining a fish processing industry and also trading and exporting
fish.
Most auction halls do not have refrigeration facilities, and as a result there is a risk of the refrigeration chain being broken. In recent years, however, the largest Danish fishing ports have established an unbroken refrigeration chain, ensuring that fish is kept at a constant temperature of 0°C or lower. In general, the sorting of edible fish is a manual process. Industrial fish, as well as herring and mackerel, are not unloaded in crates, but are instead sucked up through a pipe. Herring and mackerel are not sorted manually, but automatically.

Danish fishing ports can be divided into three groups:

1) The large ports (annual landing values in excess of € 13.4 million)
2) Medium-sized ports (commercial ports with landing values below € 13.4 million)
3) Small ports (non-commercial ports)

With the exception of Skagen, the large Danish fishing ports are on the west coast of Jutland. These large ports are: Esbjerg, Hvide Sande, Thyborøn, Hanstholm, Hirtshals and Skagen. They are all full-service ports.

In 2005, they received 70 percent of all landings of edible fish and 87 percent of landings of industrial fish, cf. Table 6

<table>
<thead>
<tr>
<th>Port</th>
<th>consumption 1,000 tonnes</th>
<th>Million €</th>
<th>industrial 1,000 tonnes</th>
<th>Million €</th>
<th>Total 1,000 tonnes</th>
<th>Million €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Esbjerg</td>
<td>46</td>
<td>30.2</td>
<td>166</td>
<td>16.1</td>
<td>212</td>
<td>46.3</td>
</tr>
<tr>
<td>Hvide sande</td>
<td>10</td>
<td>23.9</td>
<td>43</td>
<td>4.8</td>
<td>53</td>
<td>28.7</td>
</tr>
<tr>
<td>Thyborøn</td>
<td>14</td>
<td>34.4</td>
<td>291</td>
<td>29.8</td>
<td>305</td>
<td>64.2</td>
</tr>
<tr>
<td>Hanstholm</td>
<td>34</td>
<td>55.2</td>
<td>91</td>
<td>9.5</td>
<td>125</td>
<td>64.7</td>
</tr>
<tr>
<td>Hirtshals</td>
<td>97</td>
<td>91.5</td>
<td>19</td>
<td>1.7</td>
<td>116</td>
<td>93.3</td>
</tr>
<tr>
<td>Skagen</td>
<td>141</td>
<td>60.4</td>
<td>141</td>
<td>14.5</td>
<td>282</td>
<td>74.9</td>
</tr>
<tr>
<td>Main ports, total</td>
<td>342</td>
<td>295.6</td>
<td>751</td>
<td>76.5</td>
<td>1093</td>
<td>372.1</td>
</tr>
<tr>
<td>Others Fishing ports</td>
<td>144</td>
<td>115.0</td>
<td>110</td>
<td>11.8</td>
<td>254</td>
<td>126.9</td>
</tr>
<tr>
<td>All ports</td>
<td>486</td>
<td>410.6</td>
<td>861</td>
<td>88.3</td>
<td>1347</td>
<td>498.9</td>
</tr>
</tbody>
</table>

Source: The Danish Directorate of Fisheries.

The medium-sized ports are important in a local/regional context, but they are unable to offer full-service, and for example only a few foreign vessels land fish in these ports. There are about twenty of these ports, including Bønnerup, Gil-
leleje, Grenå, Læsø, Nexø, Strandby and Thorsminde. Most of the ports have seen a fall in the value of their landings. For many of the medium-sized ports, this fall has been greater than in the large full-service ports.

3) There are also about ninety very small ports. These ports are of no major economic interest in terms of fisheries, but they are of some local political value and in most cases are of interest in a tourism context.

In addition to the ports, relatively small quantities of fish are also landed directly onto the beach in some locations on the west Jutland coast. However, in 2004 at the largest of these three locations, Thorup Strand, fish was landed to the value of € 3.5 million, which is significantly more than was landed in a number of smaller ports.

Table 7 Average landings in major Danish ports during 2001-2005, € 1,000

<table>
<thead>
<tr>
<th>Port</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skagen</td>
<td>79,380.1</td>
</tr>
<tr>
<td>Hirtshals</td>
<td>77,603.1</td>
</tr>
<tr>
<td>Hanstholm</td>
<td>71,719.5</td>
</tr>
<tr>
<td>Thyboron</td>
<td>65,426.2</td>
</tr>
<tr>
<td>Esbjerg</td>
<td>57,830.1</td>
</tr>
<tr>
<td>Hvide Sande</td>
<td>29,437.5</td>
</tr>
<tr>
<td>Nexø</td>
<td>12,893.2</td>
</tr>
<tr>
<td>Havneby</td>
<td>9,405.6</td>
</tr>
<tr>
<td>Grenå</td>
<td>7,956.6</td>
</tr>
<tr>
<td>Thorsminde</td>
<td>7,647.4</td>
</tr>
<tr>
<td>Strandby (nth. Jutland)</td>
<td>7,479.6</td>
</tr>
<tr>
<td>Gilleleje</td>
<td>6,756.2</td>
</tr>
<tr>
<td>Østerby</td>
<td>5,633.8</td>
</tr>
<tr>
<td>Køge</td>
<td>4,458.3</td>
</tr>
<tr>
<td>Klintholm Havn</td>
<td>4,271.3</td>
</tr>
<tr>
<td>Thorup Strand</td>
<td>3,475.4</td>
</tr>
<tr>
<td>Bønnerup</td>
<td>3,277.1</td>
</tr>
<tr>
<td>Rønne</td>
<td>2,986.3</td>
</tr>
<tr>
<td>Rødvig</td>
<td>2,906.3</td>
</tr>
<tr>
<td>Ørodde</td>
<td>2,667.7</td>
</tr>
<tr>
<td>Bagenkop</td>
<td>2,583.5</td>
</tr>
<tr>
<td>Lemvig</td>
<td>2,188.1</td>
</tr>
<tr>
<td>Tejn</td>
<td>2,123.4</td>
</tr>
<tr>
<td>Kerteminde</td>
<td>2,060.9</td>
</tr>
<tr>
<td>Stubbekeøbing</td>
<td>2,010.1</td>
</tr>
<tr>
<td>Sønderborg</td>
<td>1,945.1</td>
</tr>
<tr>
<td>Nykøbing Mors</td>
<td>1,933.6</td>
</tr>
<tr>
<td>Hundested</td>
<td>1,811.9</td>
</tr>
<tr>
<td>Gedser</td>
<td>1,454.9</td>
</tr>
<tr>
<td>Langø</td>
<td>1,332.1</td>
</tr>
<tr>
<td>Hasle</td>
<td>1,301.9</td>
</tr>
<tr>
<td>Glyngøre</td>
<td>1,295.6</td>
</tr>
<tr>
<td>Jegindø</td>
<td>1,267.2</td>
</tr>
<tr>
<td>Rødvig Havn</td>
<td>1,258.4</td>
</tr>
<tr>
<td>Vesterø</td>
<td>1,221.6</td>
</tr>
<tr>
<td>Branden</td>
<td>1,153.7</td>
</tr>
<tr>
<td>Fåborg</td>
<td>1,105.5</td>
</tr>
<tr>
<td>Frederikshavn</td>
<td>1,050.1</td>
</tr>
<tr>
<td>Årøsund</td>
<td>1,101.0</td>
</tr>
<tr>
<td>Løgstør</td>
<td>983.1</td>
</tr>
<tr>
<td>Årsdale</td>
<td>882.1</td>
</tr>
<tr>
<td>Lild Strand</td>
<td>826.0</td>
</tr>
<tr>
<td>Copenhagen</td>
<td>795.4</td>
</tr>
<tr>
<td>Sundstrup</td>
<td>788.6</td>
</tr>
<tr>
<td>Bogense</td>
<td>781.3</td>
</tr>
<tr>
<td>Skive</td>
<td>777.7</td>
</tr>
<tr>
<td>Hvalpsund</td>
<td>724.0</td>
</tr>
</tbody>
</table>

*Source: The Danish Directorate of Fisheries.*
3.5.2. Developmental trends

The existence of modern, efficient and strategically important ports with full-service facilities is considered to be of decisive importance for the ability of these ports to retain their current customers and to attract new landings, both Danish and foreign. Large, properly functioning fishing ports are also essential for maintaining and developing fish processing operations, transit and trading in fish.

Whereas talk recently has concentrated on competition between Danish ports, competition now seems increasingly to involve foreign ports, a trend that is likely to continue. Amongst other things, this is to do with the large fishing vessels with high engine ratings usually travelling further from the area where a catch is made in order to get the best price and the best port service. The large Danish fishing ports are increasingly competing with Dutch, British and Norwegian fishing ports.

The four or five large Danish fishing ports appear to be in an acceptable competitive situation. Cost levels however seem to be marginally higher than in the Netherlands. It also seems to be the case that the ports are not doing enough to complement each other, but instead they are operating as independently without any formalised co-operation on differentiation. There is also an apparent need for investment in modernising and streamlining the ports, more aggressive marketing, quality control and certification of catches, establishing unbroken refrigeration chains, food safety and modern auctioning forms (Internet auctions). This last item can of course involve significant changes in current methods for selling fish. The tendency is towards concentration around the large ports, so that in addition to landings by sea, fishing vessels based in the smaller ports also supply fish for auction in the large ports by means of transport over land via buyers.

The distance from the port to the fishing ground is also a competitive parameter. Time in transit is time wasted. For fishermen who come under the days at sea arrangement, time spent sailing is of added importance since time spent sailing counts as time spent fishing. Fuel prices also have some significance for the pattern of fisheries and landings.

The medium-sized local/regional ports have difficulty competing with the large ports. This is because the port’s turnover has difficulty providing the financial support for a full-service system with all the necessary facilities. The ports receive only limited landings of foreign fish. For example, the ports may have difficulty maintaining an effective auctioning system, since the supplies are too small and irregular to attract and keep the required
numbers of buyers. The selling price is therefore most often higher in the large ports. This means that the fish is often bought by purchasers who bring the fish to auction in the large ports.

The ports are very dependent on having and retaining a loyal home fleet of fishing vessels. These are usually older fishermen and the ports seem to have difficulty attracting new, young fishermen.

Some of the medium-sized fishing ports, however, do have a certain regional economic importance and in particular a local and regional political presence. These ports usually have their strength in coastal fisheries and supplying fresh edible fish. They will in particular be able to survive by means of a marked niche activity or by having sources of income other than fish. Proximity to a major port with plenty of resources can also be an advantage.

The very small ports have scarcely any economic significance in terms of fisheries. Landings in these ports are primarily of high quality edible fish by coastal fishers. A functioning local fishing industry can be an attraction for the local urban environment and for local tourism. The fishing industry consists of coastal fisheries of high quality edible fish.

### 3.6. Aquaculture

#### 3.6.1. Structure

While the world’s total fish production in aquaculture since 1980 has increased by about 10% a year, to the point where it now accounts for about 1/3 of all fish production, fish production in Denmark has remained largely static. During this period, Danish aquaculture has been subject to general production restrictions in the form of fixed feed quotas, and there has been a ban on the establishment and expansion of saltwater farming facilities.

Net production\(^4\) from Danish aquaculture in 2004 was about 37,000 tonnes of fish to a value of approximately € 99.3 million. This accounted for about 3.3% of all Danish fish production, but 21% of the value (approximately 9% of edible fish production and 25% of the value). Approximately 90% of production is exported. Approximately 720 people are employed in primary production, equivalent to about 560 full-time employees. In addi-

\(^4\) Excluding removal for further culture at other Danish aquaculture facilities.
tion, there is a roughly similar level of employment in processing activities, fish feed production and various service operations.

Table 8 Aquaculture production in the EU in 2005

<table>
<thead>
<tr>
<th>Aquaculture total</th>
<th>€ million</th>
<th>%</th>
<th>Trout total</th>
<th>€ million</th>
<th>%</th>
<th>Tonnes.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>569.9</td>
<td>21</td>
<td>Germany</td>
<td>135.3</td>
<td>21</td>
<td>24,184</td>
<td>11</td>
</tr>
<tr>
<td>France</td>
<td>417.6</td>
<td>16</td>
<td>Denmark</td>
<td>106.8</td>
<td>16</td>
<td>30,805</td>
<td>14</td>
</tr>
<tr>
<td>Italy</td>
<td>331.8</td>
<td>12</td>
<td>Italy</td>
<td>69.7</td>
<td>11</td>
<td>33,770</td>
<td>15</td>
</tr>
<tr>
<td>Spain</td>
<td>300.7</td>
<td>11</td>
<td>Spain</td>
<td>75.4</td>
<td>12</td>
<td>32,442</td>
<td>15</td>
</tr>
<tr>
<td>Greece</td>
<td>250.9</td>
<td>9</td>
<td>UK</td>
<td>68.2</td>
<td>10</td>
<td>14,319</td>
<td>6</td>
</tr>
<tr>
<td>Germany</td>
<td>193.8</td>
<td>7</td>
<td>Finland</td>
<td>38.3</td>
<td>6</td>
<td>14,901</td>
<td>7</td>
</tr>
<tr>
<td>Ireland</td>
<td>118.3</td>
<td>4</td>
<td>Others</td>
<td>69.3</td>
<td>11</td>
<td>24,934</td>
<td>11</td>
</tr>
<tr>
<td>Denmark</td>
<td>117.9</td>
<td>4</td>
<td>Total</td>
<td>653.0</td>
<td>100</td>
<td>220,603</td>
<td>100</td>
</tr>
<tr>
<td>Others</td>
<td>271.8</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,670.3</strong></td>
<td><strong>100</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Danish Aquaculture, 2006

It can be seen from the above table that the United Kingdom is the EU's biggest farming nation, accounting for one-fifth of the total value. Denmark shares eighth place, though it is the leading nation in trout farming, with a market share of approximately 16%.

A qualitative, interview-based investigation carried out for the Directorate for Food, Fisheries and Agri Business in 2006 on the views of various parties and representatives from authorities of the industry and its potential for development, reveals that the industry has good potential for expansion from a market perspective and Danish aquaculture is very advanced in terms of environmental technologies with recirculation.

The industry’s image could be improved by changing environmental and production conditions. The industry could improve its production planning and level of processing. There is a connection between this and relatively small production units, which mean, amongst other things, a lack of training and training opportunities, which in turn leads to a lack of professional-
ism. As well as improvement in terms of production planning and product processing, marketing could also be improved

In addition, in connection with environmental approval and the localisation of aquaculture, and especially land-based fish farming near a Danish river, there is a need for improved dialogue and understanding between the authorities and the industry. This is seen as an important prerequisite for the industry's potential to develop on a sustainable basis.

**Freshwater farming**

In 2004, the 316 freshwater fish farms, which are all in Jutland, produced just over 30,000 tonnes, primarily of rainbow trout of portion size (trout) to an approximate value of € 59.1 million. Part of this production consists of juveniles for further farming in marine farming and land-based mariculture, etc. The feed quotas and difficulties financing investments in modernisation and environmentally friendly technology have impeded development, resulting in the closer of a lot of land-based fish farms in recent years.

**Marine farming and land-based mariculture**

26 marine farms and 10 land-based mariculture facilities (saltwater land-based fish farming) produced a total of a little over 9,000 tonnes of large salmon trout ("rainbow salmon") and roe to a total approximate value of € 26.8 million. The roe is a product that is in great demand, especially in Japan. The marine farms are located in particular outside the eastern Jutland fjords, in the Little Belt and Smålandshavet, and the land-based mariculture facilities primarily on Ringkøbing Fjord.

**Fully recirculating facilities**

In 2004, the production of eels in fully recirculating facilities was approximately 1,800 tonnes, to an approximate value of € 13.4 million. There was also some production of unspecified species of approximately 1,500 tonnes worth € 4 million. Most eel facilities are located in Jutland. The entire production is based on the import of wild-caught fry (elvers), since attempts to get eels to breed in "captivity" have so far been unsuccessful. Scarcity and rising prices of elvers is a growing problem for the industry.

**Mussel farming**

Fifty-three farming licences have been issued for mussel production, with a potential production capacity of 15,000 tonnes. This type of production is relatively new in Danish waters, and actual production is expected to be approximately 2,000 tonnes. In 2004, about 55 tonnes of common mussels were produced, to an approximate value of € 80,000. It is still too soon to
be able to quantify the potential, but Danish waters are ideally suited to this form of production due to the many areas with good depth and current conditions.

The operating economy in Danish aquaculture for 2004 has been illustrated by a survey carried out by the Institute of Food and Resource Economics. The average operating result was negative for land-based freshwater farming at approx. € 134 per facility. For marine farming and eel farming, the results were positive, being approx. € 57,047 and € 99,329 per facility respectively.

3.6.2. Developmental trends

The EU’s strategy for the sustainable development of aquaculture features an annual growth of 4%. The objective is a stable commercial sector securing development in rural districts and coastal areas, and providing alternative raw material supplies for the seafood industry.

The Fish Farming Committee, the Marine Farming Committee and the Mussels Committee have (in 2002, 2003 and 2004 respectively) highlighted opportunities for massively increasing Danish aquaculture production, based on financial incentives for environmental investments and a coherent administration of the industry. It is estimated that a development of this kind could boost production to 60,000 tonnes of trout in land-based fish farming, 40,000 tonnes of trout in marine farming and 5,000 tonnes of eels. There would be a doubling of production in land-based fish farming, a five-fold increase in marine farming and a three-fold increase in eel farming. There is also the possibility of producing a number of other species, such as turbot, sole, cod, perch and zander.

This development could triple production values in Danish aquaculture. As a consequence of this, the industry could provide a much-needed raw material resource for the seafood industry, which currently imports over 60% of its raw materials. The farming sector could achieve total annual revenue in excess of € 536.9 million, employing over 1,500 full-time employees in the peripheral areas, with a total profit of approx. € 53.7 million.

The table below shows that the fish farming sector around the year 2015 will collectively be able to earn revenue totalling more than € 537 million,
employing more than 1,500 full-time workers and generating a total profit of approximately € 53.7 million.

**Table 9 Potential in Danish aquaculture (2013)**

<table>
<thead>
<tr>
<th></th>
<th>Marine farming</th>
<th>Land-based fish farming</th>
<th>Eel</th>
<th>Other species</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of units</td>
<td>8</td>
<td>196</td>
<td>10</td>
<td>40</td>
<td></td>
<td>254</td>
</tr>
<tr>
<td>Production, tonnes</td>
<td>40,000</td>
<td>60,000</td>
<td>5,000</td>
<td>10,000</td>
<td></td>
<td>115,000</td>
</tr>
<tr>
<td>Full-time equivalents (FTE)</td>
<td>92</td>
<td>364</td>
<td>50</td>
<td>200</td>
<td>40.3</td>
<td>1,590</td>
</tr>
<tr>
<td>Investment (€ million)</td>
<td>61.7</td>
<td>181.7</td>
<td>33.6</td>
<td>134.2</td>
<td>161.1</td>
<td>451.5</td>
</tr>
<tr>
<td>Revenue (€ million)</td>
<td>117.3</td>
<td>163.5</td>
<td>40.3</td>
<td>80.5</td>
<td>27.0</td>
<td>562.7</td>
</tr>
<tr>
<td>Profit (€ million)</td>
<td>13.0</td>
<td>14.0</td>
<td>3.1</td>
<td>27.0</td>
<td></td>
<td>57.0</td>
</tr>
</tbody>
</table>

Source: Danish Aquaculture; 2006

In order to make this development a reality, it is necessary to increase the distribution of technological solutions that facilitate significant growth in production while at the same time ensuring compliance with environmental requirements, limiting disease and focusing on optimisation of energy consumption.

As part of a trial project, eight “model fish farms” were set up, which were permitted to increase the supply of feed following the introduction of increased recirculation, reduced water consumption and improved water purification. Model fish farms currently use only groundwater, thus also solving any problems with locally reduced water levels in the rivers. It is expected that the results from the associated measuring programme in 2008 will be included in the base data for a review of the environmental regulations for freshwater farming.

An operational economic analysis of model fish farms carried out by the Institute of Food and Resource Economics\(^7\) concludes that change-over from traditional land-based fish farming to model fish farms would result overall in lower total production costs, lower wage expenses, higher financial costs and higher depreciation. Finally, it is concluded that since model

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\(^7\) Hans Kristian Rømer Westh and Vøgg Løwe Nielsen, Institute of Food and Resource Economics, KVL, June 2006. Operational economic analysis of model fish farms
Fish farms represent a new type of facility in Danish land-based fish farming, improving facilities and production methods will not as yet represent an optimal use of resources, and as with other new production methods, some outlay must be expected in gaining experience before full efficiency can be achieved.

The considerable risks that will be associated with investments aimed at improving environmental conditions mean that there is a need for grants that could have a positive effect on the willingness to invest in the industry.

The development opportunities in Danish marine farming are in, amongst other things, optimised location of the facilities in relation to other user interests and in areas with good current conditions. The Marine Farming Committee has drawn up a nationwide map of potential sites. Furthermore, the fixed feed quotas have been replaced by a regulation that is based on documented environmental impact. Danish marine farming contributes less than 0.1 percent of all nutrient inputs into inland Danish waters.

The Environmental Assessment Institute in 2006 carried out a socio-economic analysis of the advantages and disadvantages of increased marine farming production. It was concluded that society could achieve significant benefits.

The recirculating technology for eel farming has undergone substantial development and has been perfected in Denmark. The technology also forms the basis for the model farms. The development opportunities in eel farming are primarily dependent on the supply of elvers. In the short term, the industry is dependent on imported, wild-caught elvers at moderate prices. A cost-benefit analysis (FØI) has shown that the culture of elvers produces much greater value added than all other forms of elver exploitation. If it proves to be possible to develop methods for “artificial” reproduction of the European eel, there would be a realistic longer-term prospect of self-sufficiency in elvers. The Action Plan for European eel management might change the above conditions for increasing the production.

Future growth in aquaculture will be driven by knowledge and technology, and a considerable increase is anticipated in global demand for knowledge and technology. If a dynamic and large aquaculture production industry is established in Denmark, the prospects will also be extraordinarily positive for the equipment sector.
3.7. Processing and wholesaling

The processing sector consists of a large number of companies, about half of which have connections with wholesaling. There are also companies that concentrate solely on trading. In all, processing and wholesaling are represented by about 300 companies.

3.7.1. The processing sector

The processing sector consists of 123 companies with 149 workplaces, with 104 of these workplaces having less than 50 full-time employees (2002). There are 5,302 full-time positions; with a gross income of € 1,731.5 million and the value added (gross income minus raw material purchases and purchases for direct reselling) is € 550.3 million. The processing sector is therefore bigger than fisheries and aquaculture combined.

The processing sector is undergoing a structural change involving a fall in activities. The number of workplaces in 1995 for instance was 254 and the number of full-time employees was 6,822, a number that is still falling. Turnover was € 1,583.9 million, although this is rising due to increasing prices. The average number of employees at workplaces has increased from 27 to 36, and this concentration is expected to continue in the future.

The industry is located in particular in North Jutland and along the west coast, though there is also activity elsewhere in the country, including on Bornholm. The processing sector is therefore located in the sparsely populated areas. The ownership structure is differentiated and characterised both by family ownership and also ownership of large foreign seafood companies and food groups. This ownership structure must be seen against the background of Denmark’s location between rich fisheries resources in the North Atlantic region and the markets in Europe, while at the same time Denmark is an EU member with close links with Norway, the Faroes and Greenland.

3.7.2. Products

The industry produces a wide range of product forms, from the packing of whole fish, through fresh and frozen fillets, coated in breadcrumbs, smoked, soured and marinated fish, tinned and ready meals, to fish meal and fish oil. Production therefore includes both almost unprocessed fish,
semi-finished products for further processing abroad and finished products for direct sale in supermarkets in Denmark and abroad. At the same time, the sector is very active in direct reselling without processing.

The sector's production is based on a number of different fish species, with the most important edible fish being salmonids (salmon and trout), codfish (cod, saithe, haddock, hoki and Alaskan pollock), coldwater prawns, herring and plaice. Sand eels and sprats are the most important industrial fish species. The raw materials come primarily from the entire North Atlantic area. Danish fishermen and farmers are the biggest suppliers, but domestic supplies account for significantly less than half of all supplies of raw materials. Other supplies come from Norway, the Faroes, Greenland, Iceland, Russia and Canada. Danish processing is therefore not solely dependent on the development in the supply of raw materials in Denmark, but on fisheries and aquaculture throughout the North Atlantic region.

3.7.3. Wholesaling

In addition to processing, there is in Denmark a large wholesale trade sector, which exports fish products from Denmark and other countries to markets in the EU. The wholesale trade sector consists of 298 companies with 2,184 full-time employees (2002). Turnover was € 2,147.7 million and the value added (the margin) was € 4,214.8 million. This sector represents a link between the fish resources in the North Atlantic region and it survives on, amongst other things, a good logistics system and knowledge of the market. The sector’s activities have increased over the last decade, due to such factors as a general increase in the demand for fish and growth in Norwegian salmon farming, with the products processed and traded by Denmark. The seafood industry’s excellent logistics and customer relations are also important for progress in the wholesale trade.

International trade in fish and fish products is increasing and is being driven by gradual reductions in customs duties, development in the aquaculture sector, cheaper and better forms of transport, falling supplies from fisheries in traditional consumer countries and increasing demand (Report 173; FOI (Max Nielsen), 2005).
3.7.4. Working environment

Both industrial injuries and work-related diseases occur in the processing sector. Of these, there are more industrial injuries than work-related diseases, but the impression given by employees is that work-related diseases are the biggest problem.

The processing sector (the seafood industry) is grouped together with poultry slaughterhouses when counting industrial injuries, etc. The following description will therefore apply to both types of companies.

Industrial injuries fall into three main groups: sprains, wounds and soft tissue injuries. With one exception, the number of sprains during the period 2000-2005 was a little more than 200 a year, without any real development trend. For wounds and soft tissue injuries, on the other hand, there was a clear downward trend in the period 2001-2005. For wounds, the number fell from 220 to 140 a year, and for soft tissue injuries the number fell from 180 to 80 a year. It is noted that the number of industrial injuries must be viewed in the context of the nature of the injury, as repetitive strain injuries (RSI), for example, will have more serious consequences than ordinary wounds.

Work in the seafood industry is traditionally characterised by very repetitive work. This is reflected in reports of work-related diseases, since by far the most common type of disease is related to the musculoskeletal system. Just over 100 such cases are reported each year, and the number has remained at the same level throughout the period of 2000-2005 to which the report refers. Other environmental problems that should be mentioned are cold and draughty conditions, skin problems and machine safety.

In addition to these physical injuries and diseases, there can also be psychological problems related to the working environment, which seem to be considered as being more important in an overall context.

Improvement of the working environment should therefore focus on both the physical and psychological working environment, with respect to both industrial injuries and work-related diseases.
3.7.5. Development trends

The future for the processing sector must be seen in context with constant globalisation with increased competition on the world market from countries with wage costs that are lower than those in Denmark, but also of increased opportunities for exporting to a market outside the EU and buying raw products on the world market. It is essential, however, that restrictive minimum prices and customs duties do not prevent the opportunity to operate globally, thereby restricting the freedom to trade and the development potential for Danish fish processing. Standardised international rules on food safety are also important for the sector’s future development opportunities.

The development opportunities in the future global market have been analysed in greater detail in the report entitled “Increased value in the Danish fisheries sector”, drawn up by GEMBA Innovation for the Directorate for Food, Fisheries and Agri Business, April 2006.

The following considerations have been assessed in more detail in the report on value added.

Denmark is amongst the world’s largest exporters of fish products. The volume of exports is not, however, an objective in itself, since exports are not an expression of how much value is created. The objective should therefore be linked to the value added deriving from the exploitation of raw products.

About 60% of the fish raw products used in Danish exports are imported. The challenge is therefore both to secure access to raw products and to get more value from those raw products.

Activities resulting in higher quality, using by-catches that can legally be landed but that are currently discarded and using industrial fish for human consumption can improve the processing companies’ raw material base and result in greater value added throughout the entire value chain. It is, however, essential that the necessary infrastructure is in place throughout the value chain.
**Value added by means of quality development**

Increased quality and quality assurance in the chain from sea to table is considered to be one of the most obvious areas for strengthening the industry’s earnings and competitiveness on the global fish market.

Amongst other things, there will be an effort to make the best qualitative use of raw products, in relation to both their physical properties and their immaterial characteristics, i.e. packaging, supply chain management, history, documentation, etc. There is thought to be some potential in the development of a special standard for high quality fish and fish products. Furthermore, the marketing and logistics functions (landing, sorting, first-hand-sale, transport) must provide more support for catching, landing and selling fish of a particularly high quality. In all, it is thought that it will be possible to increase the proportion of Danish fish products sold on high-price markets.

**Industrial fish for consumption**

There is a need for targeted development work with a view to identifying ways in which industrial fish species can be used for consumption. This will require the necessary infrastructure to be present throughout the value chain.

It is thought that there is significant potential in industrial fisheries. Industrial fish attract higher prices in Denmark than anywhere else in the world, due to a modern and efficient production process. If even higher prices are to be achieved for catches, improved catch handling is required (primarily by freezing) so that catches can be used for other purposes, including consumption.

**New species and unused by-catches**

Uncertainty with regard to supplies of new species is a barrier for involving the seafood industry and affects the volumes of products on the market over an extended period.

There is still a need to know more about opportunities for using these species in the various processing forms and product types for consumption. In the same way, the exploitation of unused by-catches offers some potential, but similar barriers are involved.
Value added by labelling products as environmentally friendly and sustainable

At a global level, there is a trend for large marketing and processing companies and retail chains in the United Kingdom, Germany and the USA increasingly to require fish to be labelled as environmentally friendly and sustainable. It is therefore important for Danish companies to be aware that access to markets can be conditional on certification according to criteria such as the Marine Stewardship Council (MSC).

Wholesaling

Denmark is an important operator on the global market for fish products, and so customs barriers are of considerable significance to the competitiveness of Danish companies. The report charting the global trade in fish and fish products\(^8\) states the opinion that given existing trade patterns, most of the Danish seafood industry would immediately lose out from complete liberalisation. However, if the opportunities presented by breaking down customs barriers are exploited, the Danish seafood industry as a whole will benefit. There will be losses in traditional production sold on the EU market, but these will be so small that it is thought most companies could deal with them by adapting and by increasing sales outside the EU, for example.

In addition, those Danish wholesale companies that are already internationally orientated could benefit by gaining a key role in the increasing import of fish and fish products to the EU resulting from reductions in customs duties and the accompanying fall in prices. At the same time, moving Danish production (outsourcing) would mean that either the production companies themselves or the wholesale companies will play a key role in selling this production “back” to the EU market. If the opportunities presented by globalisation and the breakdown of customs barriers are exploited, the Danish wholesale seafood industry could play a key role on global fish markets in the future. There is the potential for Denmark and the Danish seafood industry to become a global centre for trading in fish.

\(^8\) Report 173; FOI (Max Nielsen), 2005.
3.8. Markets and consumers

3.8.1. Consumption pattern and market structure

Danish fish products are sold both in Denmark and abroad. No precise details are known about the consumption of fish products on the domestic market, but it is estimated to account for €429.5 million (2001). Exports accounted for €2,335.6 million (2003). This means that total sales came to €2,765.1 million, with 85% of this amount relating to sales outside Denmark. Danish consumers are therefore important for the Danish fisheries sector, but the principle markets are located outside Denmark.

Figure 6 Market area (value)

Annual per capita consumption of fish on the domestic market is estimated to be approx. 21 kg, equivalent to approx. €80.5 and 5% of food consumption (Statistics Denmark). Measured in values, the consumption of prawns, codfish, salmonids and herring is almost the same. Consumption is therefore equally divided amongst traditional Danish products (codfish and her-
ring) and more recently introduced products such as Norwegian farmed salmon and Greenland coldwater prawns. Prepared, preserved and fresh products account for the greatest level of consumption. Consumption measured in terms of values increased over the period 1996-2001. At the same time a farmed fish such as salmon is displacing codfish, flatfish and herring, which for years have represented the core of traditional fish consumption in Denmark.

**Figure 7 Use of fish for consumption and industry (value)**

```
<table>
<thead>
<tr>
<th>Fish for reduction</th>
<th>Salmon and trout</th>
<th>Other fish for consumption</th>
<th>White fish</th>
<th>Shrimps</th>
</tr>
</thead>
<tbody>
<tr>
<td>8%</td>
<td>27%</td>
<td>20%</td>
<td>22%</td>
<td>14%</td>
</tr>
<tr>
<td>Flat fish 4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herring 5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shrimps 14%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

*Source: Calculated on the basis of: Nielsen, Max Kortlægning af den globale handel med fisk og fiskprodukter. [A survey of the global trade in fish and fish products] Report no. 173, Institute of Food and Resource Economics, 2005*
Germany, Italy and France are the largest markets for Danish fish products, and the EU (25) accounts for a total of 79%. Other European countries account for a further 10%, with the remaining 11% being sold outside Europe. The principal markets for Danish fish products are therefore the established markets in Western Europe, with only moderate sales in Eastern Europe, the former Soviet Union and in Southeast Asia. In recent years, however, there has been a significant growth in sales to Eastern Europe, Russia and China. It is accordingly the case now that there are substantially more sales of herring sold to Poland and Russia, more prawns to Russia and China, and more cod to China. However, cod exported to China is used primarily by Danish companies in production that has been outsourced to China, where it is thawed out, filleted, refrozen and re-exported as a low-quality product to the traditional markets in Europe.

It is expected that in future there will be a global increase in fish consumption, particularly in China, as a consequence of population growth and developments in incomes. Developments in income levels in Eastern Europe and Russia are also expected to create a potential for growth.

**Figure 8 Product form (value)**

![Product form (value) chart](chart.png)

*Source: Calculated on the basis of: Nielsen, Max Kortlægning af den globale handel med fisk og fiskprodukter. [A survey of the global trade in fish and fish products] Report no. 173, Institute of Food and Resource Economics, 2005*
The product forms fresh, frozen, cooked and preserved are the most important, though Danish exports are differentiated and sales consist of a great many different product forms. As a result, there is increasing demand for fresh products, with a decline in frozen products.

Salmonids and white fish account for most of the exports, but prawns, herring and flatfish, as well as fish meal and oil, are also very important. Exports of salmonids, prawns and herring have been growing in recent years as a consequence of the growth in Norwegian salmon farming, and also the positive developments in Greenland prawn stocks and Atlanto-Scandic herring stocks.

### 3.8.2. Developmental trends

Demand from direct customers of Danish companies (including retail chains, food groups and food service) reflects the consumers’ wishes and needs, but also makes other requirements of suppliers. Amongst other things, there is a demand for supplies of large batches, as well as security of supply over longer periods.

The basic product types (animal, vegetable and fish products) have not changed significantly over the last 30 years in terms of consumers’ food budgets. There has, however, been a slight increase in the consumption of fruit and vegetables from 14% to 16%, whereas the proportion represented by meat and fish has fallen from 34% to 29%.

Consumers are seen as focussing on high quality fish, fresh fish, food safety, health, organic farming, convenience, functional foods and price. In recent years, greater significance has been attached to the subjective dimension. Consumers do not therefore represent a homogenous group whose behaviour can be predicted with any precision. A consumer can form part of the fast-food segment during the week and represent the slow-food segment at the weekend.

One of the strengths of the Danish fisheries and aquaculture sector is market-orientated innovation. This focus will have to be maintained in order to exploit the opportunities of an ever more globalised world market.

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9 The Directorate for Food, Fisheries and Agri Business (2003)
tempts should also be made to exploit this strength on the domestic market, since fish and fisheries products have a good image amongst the population as a healthy food.

Campaigns such as “fisk 2 gange om ugen” [“fish twice a week”] focus on this, and amongst other things they have helped to lower the price barrier that is one of the most common reasons for not buying fish. The campaign is helping to raise the profile of a number of the cheaper species such as saithe and dab. Before the campaign, 17% of consumers chose fish on the basis of price. Following the campaign, this reason had fallen to 11%. The campaign received broad support amongst the population, with almost 88% describing the campaign to get Danes to eat more fish as a good idea.

During campaigns or through labelling of a more permanent nature, labelling that is clear to consumers can help to make products transparent. This labelling could indicate, for example, quality, traceability or production methods. One of the best-known labels is the Danish organic label, which in future is expected to become more widely used for fish products.

**Organic fish farming**
Organically farmed fish is a relatively new form of production. It is, however, an area that is generally characterised by growth, with products (primarily salmonids) being sold at a significantly higher price than conventionally farmed fish. There is thought to be a significant potential for growth in organic fish farming, which has been shown by, amongst other things, a FIFG-financed project on the development of organic production of farmed trout in Denmark.

Production by about the year 2015 is expected to account for 10,000 tonnes of fish, which is equivalent to approximately 10% of production. With the implementation of national regulations enabling the use of national inspection labelling for organic foods, organically farmed trout was introduced onto the market in September 2005. Small-scale production of about 100 tonnes was far from enough to meet demand. In addition to demand on the domestic market, there have also proved to be excellent opportunities for export to Germany, for example. Danish Aquaculture’s target is an export share of 50% by 2015.

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11 Introduction of organic and quality labeling on Danish pioneer fish farming, DFU report no. 146-05. 146-05.
In 2007 the industry expects organic production to be equivalent to 500-600 tonnes of fish.

Organic production capacity is relatively small and therefore vulnerable in terms of security of supplies, and it has a relatively high level of costs. The market prospects are however good, there is a good image amongst consumers and the industry has logistics solutions which provide easy access to the EU’s Common Market.

The development of organic aquaculture production therefore requires an effort on a broad front in both technology and product and market development, and also securing structures and production conditions that can create the basis for stable production with a reasonable cost level.

3.9. The fisheries areas

3.9.1. Introduction

A fisheries area is taken to mean a contiguous geographical area that historically has developed around the primary fisheries and a fishing port. The seafood industry and aquaculture can, however, also be of considerable local importance in an area in financial and employment terms. The larger part of the seafood industry will, however, fall into the fisheries areas, since they are predominantly located close to a fishing port.

The extent of the fisheries areas can be hard to define, since commercial development and lifestyles are no longer centred around a defined local area. The fishing and aquaculture sector has been globalised. Local fishermen do not necessarily land their catches in their local port, and processing does not necessarily take place near where the catch is landed or use local raw products.

Any overall definition of the fisheries areas will, however, be limited in administrative terms in connection with the designation required with a view to implementing measures for promoting the sustainable development of fisheries areas; cf. chapter 4.

An objective for an area’s commercial activity in fisheries will be geographically identifiable by the landings in the individual fishing ports and landing sites. Landings in Danish ports are a sign of a significant geographical concentration despite the widespread distribution of the ports.
During the 2001-2005 period, average total landings in Skagen, Hirtshals, Hanstholm, Thyboron and Esbjerg amounted to more than €349 million, equivalent to just under 68% of all landings in all Danish ports during that period.

Figure 9 Municipalities with landing sites with a landing value in excess of €671,100/year (2001-2005)
3.9.2 Socio-economic analysis of fisheries areas

The fisheries areas in Denmark are characterised to a considerable degree by the same problems as rural municipalities and the peripheral areas in Denmark, in that many of the areas are experiencing a fall in population numbers, a relatively low educational level and a commercial structure lacking variation.

Demography

From 1994 to 2004, the population of Denmark grew by 0.39% a year, giving a total of 3.9% over the ten-year period. The highest population growth occurred in towns and cities. In rural municipalities, population growth was markedly less at 2.2%, whereas in peripheral municipalities overall there was a drop in population levels of 1.2% during the period 1994-2004. Population forecasts indicate that this trend is expected to continue in the coming years.

In 2004, the population density for the entire country was 124 inhabitants per square kilometre. The corresponding figure for peripheral municipalities was 47 and for rural municipalities 76 inhabitants per square kilometre.

Education

The period 1994-2003 saw progress in the population’s education level, although educational levels amongst the population in the rural districts, including the peripheral areas, continued to be rather lower than those of the population in the towns and cities. The educational profile in rural districts and smaller towns is dominated by unskilled people and people who have received vocational education, while there is a greater proportion of people with higher education in the towns and cities. In the country as a whole, 28.7% of the population have only completed compulsory schooling. The equivalent figure in the rural municipalities is 33.1% and 36.4% in the peripheral municipalities. Similarly, the proportion of the population with at least a medium-cycle education is 21.1%, whereas in the peripheral municipalities and the rural municipalities the figures are 13.6% and 15.7% respectively.

Employment

Employment over the ten-year period developed differently in rural areas and towns and cities. Employment rose in general, albeit with fluctuations reflecting the state of the economy. The employment increased by 4.7%,
but in rural municipalities the increase over the same period was just 1.5%, while in peripheral municipalities there was a fall of 2.0%.

Employment broken down by place of residence will be affected by the fact that many people commute from home to their place of work and typically move from a rural district and the outskirts of the towns and cities to more urban areas. If employment is broken down by place of work (i.e. local jobs), employment in both rural municipalities and urban municipalities has generally risen.

However, the number of jobs in rural areas has generally grown more slowly than employment calculated according to place of residence, which might indicate an increased level of commuting. An analysis of livelihoods in 36 Danish regions by Oxford Research shows that peripheral regions around cities have daily outward commuting of up to 20% of the workforce. This means that a relatively large amount of time is spent travelling by people in rural districts and peripheral areas, while at the same time these areas are depopulated during the daytime.

The following table of employment in the primary fisheries broken down for the new municipalities shows a very small percentage of employment in the primary fisheries industry compared to other industries..
Table 10 Employees in the fishing industry broken down by the new municipalities, daytime workers compared to night shift workers, 2004 (over 50 employees)

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Daytime workers</th>
<th>As % of total employees</th>
<th>Inward/outward commuting</th>
<th>Commuting as a % of daytime employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lemvig</td>
<td>411</td>
<td>3.8</td>
<td>42</td>
<td>10.2</td>
</tr>
<tr>
<td>Ringkøbing-Skjern</td>
<td>399</td>
<td>1.2</td>
<td>22</td>
<td>5.5</td>
</tr>
<tr>
<td>Esbjerg</td>
<td>376</td>
<td>0.6</td>
<td>72</td>
<td>19.1</td>
</tr>
<tr>
<td>Hjørring</td>
<td>373</td>
<td>1.1</td>
<td>78</td>
<td>20.9</td>
</tr>
<tr>
<td>Frederikshavn</td>
<td>317</td>
<td>1.0</td>
<td>-74</td>
<td>-23.3</td>
</tr>
<tr>
<td>Thisted</td>
<td>289</td>
<td>1.2</td>
<td>-24</td>
<td>-8.3</td>
</tr>
<tr>
<td>Bornholm</td>
<td>259</td>
<td>1.3</td>
<td>16</td>
<td>6.2</td>
</tr>
<tr>
<td>Norddjurs</td>
<td>129</td>
<td>0.9</td>
<td>10</td>
<td>7.8</td>
</tr>
<tr>
<td>Holstebro</td>
<td>123</td>
<td>0.4</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Kalundborg</td>
<td>98</td>
<td>0.5</td>
<td>18</td>
<td>18.4</td>
</tr>
<tr>
<td>Læsø</td>
<td>97</td>
<td>9.7</td>
<td>5</td>
<td>5.2</td>
</tr>
<tr>
<td>Vordingborg</td>
<td>91</td>
<td>0.5</td>
<td>3</td>
<td>3.3</td>
</tr>
<tr>
<td>Jammerbugt</td>
<td>74</td>
<td>0.4</td>
<td>-8</td>
<td>-10.8</td>
</tr>
<tr>
<td>Gribskov</td>
<td>73</td>
<td>0.5</td>
<td>-3</td>
<td>-4.1</td>
</tr>
<tr>
<td>Vejen</td>
<td>60</td>
<td>0.3</td>
<td>-4</td>
<td>-6.7</td>
</tr>
<tr>
<td>Slagelse</td>
<td>55</td>
<td>0.2</td>
<td>-10</td>
<td>-18.2</td>
</tr>
<tr>
<td>Lolland</td>
<td>55</td>
<td>0.3</td>
<td>-3</td>
<td>-5.5</td>
</tr>
<tr>
<td>Skive</td>
<td>54</td>
<td>0.2</td>
<td>4</td>
<td>7.4</td>
</tr>
<tr>
<td>Stevns</td>
<td>51</td>
<td>0.7</td>
<td>4</td>
<td>7.8</td>
</tr>
</tbody>
</table>

Source: Statistics Denmark and the Danish Institute of Agricultural Sciences; 2006

In 2004 there were a total of 4,490 people in full time employment, compared to 2,706,320 in the commercial sector as a whole, corresponding to 0.17%. The percentage is greatest in Lemvig Municipality, with a level of employment in the fishing industry of 3.8 percent of total employment, whereas the other municipalities in the table, with the exception of Læsø, are at about 1 percent or less.

The table also shows a significant level of commuting for some municipalities. The municipalities of Hjørring, Esbjerg and Kalundborg have the highest levels of inward commuting, while the municipalities of Frederikshavn, Slagelse and Jammerbugt have the highest levels of outward commuting.

In Figure 10 below, unemployment figures are given for four of the largest fishing municipalities, compared with the country as a whole. Hanstholm
has an unemployment rate a little below the national average, whereas un-
employment in Hirtshals and Skagen is twice that for the country as a
whole. It is therefore possible for substantial differences in unemployment
to exist in the same part of the country.

**Figure 10 Unemployment as a percentage of the workforce, selected fishing municipalities and the entire country 2005**

![Unemployment chart]

*N.B.: Municipal structure as at 2006
Source: Statistics Denmark*

The workforce in the largest areas that are dependent on fisheries differs
from the rest of the country in that there are significantly more self-
employed workers and fewer employees. This trend applies in particular to
men, many of whom are fishermen. However there is also a fairly signifi-
cant culture of self-employment for women.

The commercial structure in the fisheries areas differs in many respects
from the commercial structure in the country as a whole. The fishing indus-
try accounts for significantly more employment in these municipalities, and
the public sector considerably less compared to the country as a whole.
However it is commercial areas other than fisheries that employ most of the
population in the municipalities.

A qualitative interview survey conducted in two fisheries areas\(^\text{12}\) shows that it is possible to identify a minimum of two different types of areas: There is one type of area that continues to be heavily dependent on fisheries and

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\(^{12}\) Areas dependent on fisheries - the locals' views on development, Operate (2006) for the Directorate for Food, Fisheries and Agri Business
where the fishing industry has been able to maintain a high level of production and consequent industry, and there are areas that have seen a pronounced decline in the fishing industry over a number of years. The former group is relatively small in terms of numbers. The survey indicates that tourism here does not play any major role in local identity, whereas for the other group it has been absolutely essential for the local community to come up with new ideas as an alternative to fisheries, and where their very proximity to the sea is exploited for tourism and leisure activities.

**Skills and education**

In the fisheries areas there is therefore often a high proportion of skilled workers compared to the average, though the proportion of workers who have completed further education is lower than the national average. A survey of the skills level (measured using indicators for Learning, and the creative and innovative skills and practical skills) of residents and companies in areas dependent on fisheries shows that learning skills are markedly lower than the national average. In the survey it is recommended that the skills level should be improved, amongst other things by offering appropriate training opportunities and by improved co-operation between companies and educational institutions. Bridges must be built between talented entrepreneurs and companies with a view to promoting the processing and marketing of fisheries raw products. It is also recommended that there should be continuing vocational training activities amongst unemployed people with higher education.

In order to exploit the entrepreneurial potential in fisheries areas, the level of training and skills should be raised, co-operative relationships should be strengthened and further consideration should be given to launching a special initiative directed at women.

**Tourism**

Tourism in Denmark is broadly linked to the coastal areas, including of course the fisheries areas. A targeted tourism initiative is often mentioned as an obvious strategy for the development of peripheral areas.

Structural development and the New Regulation of fisheries are expected to result in fewer vessels and therefore fewer fishermen. This means that there will in future be an increasing need for employment in industries other than fisheries or industries associated with fisheries. It can be expected that there
will be a need for diversification of the economies in these areas. Tourism, including fisheries-related tourism, is seen as a focus area in the development of peripheral areas in Denmark.

A survey carried out for the Ministry of Economic and Business Affairs\(^\text{14}\) shows that a number of Danish regions have specialised in the area of tourism. The regions form a belt from Northern Jutland, down the west coast to the national frontier, continuing over Southern Funen and Lolland-Falster and Bornholm. These areas are broadly the same as the peripheral areas and fisheries areas in Denmark.

The future opportunities for developing the tourism industry in fisheries areas are thought to be good if these areas are able to exploit the trends seen in the field of tourism and the experience-based economy.

There is expected to be a greater need for tourist destinations where countryside, culture and lifestyle are linked to a local area that can offer an unspoilt environment and where individual needs are met at a high level of quality. Tourists will increasingly be looking for experiences and usually authentic experiences of local culture and proximity to countryside. This will also be the case for, e.g. well-being and educational opportunities, which provide the opportunity to improve personal skills while on holiday.\(^\text{15}\)

Revenue generated by tourism in Denmark is more than € 8,859 million, and the industry employs approximately 100,000 full-time employees. Tourism in Denmark can be divided into

- Coastal holiday tourism
- City tourism
- Business tourism

Where recent years have seen a growth in city and commercial tourism, coastal holiday tourism, measured as the number of overnight stays, has seen a slight fall of 0.2% over the period 2000-2005\(^\text{16}\). However, coastal holiday tourism still represents by far the largest economy in Danish tourism.

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\(^{14}\) ECON Analyse 2006, Entertainment companies and their geography.


\(^{16}\) The Ministry of Economic and Business Affairs. Report dd. 25 January 2006 on Danish tourism.
Table 11 Tourism in Denmark (2004)

<table>
<thead>
<tr>
<th>Tourism</th>
<th>Overnight stays %</th>
<th>Revenue %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal holidays</td>
<td>87</td>
<td>62</td>
</tr>
<tr>
<td>City</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Business</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: VisitDenmark, in this case from the Ministry of Economic and Business Affairs (2006)

3.9.3 Developmental trends

In conclusion, it can be confirmed that rural municipalities, and in particular peripheral and fisheries municipalities in many areas, have not seen the same level of positive development as the rest of the country, being characterised instead by stagnation and, in some areas, negative development. According to the national policy for regional development and development of rural districts, there must be a balance within Denmark, so that good and attractive opportunities for settlement and commercial development exist throughout the country. A number of regional policy and socio-economic measures support balanced development of this kind. It can, however, be expected that developments in recent years, as described in the previous section, will continue, with the possibility that peripheral areas could have difficulty in retaining jobs and will experience a fall in population unless they are able to retain, attract or create new jobs and settlement.

The aim of the fisheries fund programme is to help ensure that fisheries and aquaculture once again become a dynamo for development in fisheries areas and also that Denmark can sustain or improve its regional balance, especially between peripheral areas with fisheries and fishing communities and the rest of the country.
3.10. Main lessons learned

The fishing industry

The structural policy for the fleet over the programme period 2000-2006 has focused on capacity adaptation and ongoing modernisation of the fleet. In addition, the programme has included a new construction scheme which has helped to renew the fishing fleet without increasing capacity. Considerable adaptation of the fleet’s catch capacity to the prevailing resources has taken place.

The primary purpose of the cessation order has been to reduce the size and capacity of the fleet by providing support for final cessation.

The initiatives from earlier programme periods were continued in the previous programme period. Over this period, seven scrapping orders were executed under the FIFG programme. The latest round took place in 2006.

Figure 11  Reduction in capacity with public subsidies, 2001-2006

Note: For 2006, the amount of support is based on commitments.
A total of 304 vessels were decommissioned over the programme period. At the end of September 2006, overall capacity decommissioning with support over the programme period amounted to approx. 15,545 GT and 59,064 kWh. Thus the programme objective’s anticipated decommissioning of 7,100 GT and 31,200 kW was met.

Viewed in relation to the capacity level in 2000, overall decommissioning with public sector support represents a reduction in fleet capacity – measured in tonnage and engine output – of 14% and 15% respectively.

The cessation scheme has contributed significantly to providing better fishing opportunities for the remaining vessels in the fleet today than would otherwise have been the case.

**Aquaculture**

The purpose of the measure for development of the aquaculture industry has been to contribute to the development with a view to promote both environmental and financial sustainability and to promote the opportunity to produce high quality fish and fisheries products. Environmental-related investment subsidies and investments for enhancing product quality and profitability have been provided for the aquaculture industry.

Under the Collective measures scheme, considerable subsidies have been granted to aquaculture for establishing (among other things); a series of model fish farms and for implementing a major monitoring programme under the management of the Danish Institute for Fisheries Research, and for studies and investigations in the field of aquaculture.

**Processing**

The purpose of the processing scheme has been to contribute to the promotion of development of the processing industry, aiming for economic and environmental sustainability. Most of the projects supported relate to the expansion of production capacity. The programme flow for supporting investments in processing operations has complied with what was anticipated.

**Ports**

The purpose of the scheme for supporting fishing ports’ facilities has been to contribute to the development of fishing ports and the fisheries and aquaculture sector by enhancing facilities and services offered to fishermen and the fishing industry. The projects supported have in particular included investments in infrastructure (renovation of quay facilities, slip facilities,
port basins and sail rends) and equipment for managing landings. Port investments have been above the anticipated level over the entire programme period.

Collective measures

Impressive investments have been made through the Collective measures scheme, with support from FIFG in the shellfish sector: for the development and testing of new rearing methods for bivalves and oysters, among other things, and for establishing the Danish Shellfish Centre growth centre.

3.10.1. Evaluation of the FIFG programme, 2000-2006

The mid-term evaluation assessed the implementation of the FIFG programme so the results may be included in the decision on any changes to be made in implementation and priorities. The mid-term evaluation of the FIFG programme was carried out by the Technological Institute in cooperation with the Institute for Fisheries Management and Coastal Community Development (IFM). The follow-up evaluation of the FIFG programme was carried out by the Technological Institute, GEMBA Innovation. This mid-term evaluation concluded that up to 2003 the FIFG programme had good results in terms of the objectives set, and that effects could be perceived in respect of development of the sector. The following effects were perceived in relation to the overall objectives of the programme:

- **Sustainability:** Capacity adaptation of the fleet in particular left a profound mark on the sector by removing some 10% of the fleet capacity, thereby meeting the original objective. It was also possible to perceive improvements in the working environment and safety, as well as in environmental conditions. However, there was still a need for scrapping in order to comply with the restoration plans of the EU Commission, and the need for modernisation is still considerable.

- **Quality:** Results were achieved in respect of quality in more or less all subsectors – vessels, ports, processing, aquaculture and related projects. It was added that precisely this area deserved greater attention over the coming years as the sector faces some significant challenges in terms of hygiene conditions, traceability and documentation.

- **Productivity:** Visible results in the sector, as employment rose while at the same time profitability improved in the sector. However, it was added that the sector in general still needed structural adaptation –
while at the same time there was increasing pressure to enhance innovative capacity.

The evaluation concluded that there remained a need for the FIFG programme, and provided a series of recommendations on how the programme initiative could be targeted.

The subsequent evaluation followed up on the recommendations arising from the conclusions above. The overview below presents the subsequent evaluation recommendations, together with suggestions for implementation of these recommendations:

<table>
<thead>
<tr>
<th>Recommendation of evaluator</th>
<th>Assessment and follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommendation 1: Phase innovation into the programme</strong></td>
<td></td>
</tr>
<tr>
<td><strong>It is still recommended that efforts should be made to phase in innovation as a common and explicit theme in the FIFG programme. There are a number of tools for increasing emphasis on innovation:</strong> Innovation as a criterion for project prioritisation. Innovation should generally be given priority in the FIFG programme and be included in line with other criteria. Definitions and explanations of the significance of innovation, along with examples thereof, can be prepared for every measure. One possible requirement: an applicant may have to reflect on the project’s degree of innovation in relation to Danish and foreign competitors. This will assume amendment of the Order, in which it is indicated specifically that innovation is included as a criterion.</td>
<td>The assessment is that it will not be possible to implement this recommendation over the current programme period. The Directorate maintains a positive attitude towards the recommendation, and innovation is included in the assessment for granting support to investment projects under the FIFG as well as the EFF programme.</td>
</tr>
<tr>
<td><strong>To justify additional innovative investments in the sector – linked with a risk – the support for innovation projects may be increased to 30% (applicable to measures under other investments). Note that, irrespective of this, innovation is an ideal addition as a priority criterion, cf. above.</strong></td>
<td>In general innovation is considered as being the most efficient way to fulfil the objectives in the programme. Therefore innovative projects and investments are given priority in the management of project applications under the FIFG as well as the EFF programme.</td>
</tr>
<tr>
<td><strong>Provided that point 1 is implemented, accounts should be prepared in order to gauge the degree of innovation in the individual projects. Specialist experts may need</strong></td>
<td>The degree of innovation will be assessed by involving an expert committee in the implementation or administra-</td>
</tr>
</tbody>
</table>


to be used to assess the degree of innovation in major applications (e.g. more than € 0.4 million).

Finally, it is possible to consider whether to allow applications for projects relating to environments outside Denmark, although always in cooperation with Danish partners from the industry and/or Danish research institutes. Direct project participation of foreign environments may result in greater experience exchange, which may lead to an increase in the innovation level.

**Recommendation 2: Setup and administration**

The use of a panel of specialist experts who can provide advice in connection with major projects and in respect of innovation should be considered.

**Recommendation 3: Information initiative**

The following is recommended: Consideration of extending the information initiative to include companies and organisations outside of the fisheries and aquaculture sector in order to ensure input for understanding and resolving problems from other sectors or countries. For example, network meetings may be arranged by the Directorate for Food, Fisheries and Agri Business at which project identification and formulation may take place. This involvement should take place in close cooperation with initiative for enhancing the innovation level within the projects and for creating projects which link to-

<table>
<thead>
<tr>
<th>Recommendation 2: Setup and administration</th>
<th>Assessment and follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>The degree of innovation will be assessed by involving specialist Committees in the implementation or administration of the programme.</td>
<td>The option currently exists for foreign partners to be involved as subcontractors. The Danish partner will receive the subsidy. There are considered to be no significant barriers to cooperation and experience exchange. The procedure will be maintained in the EFF programme.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommendation 3: Information initiative</th>
<th>Assessment and follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>An initiative has been taken in respect of this in the Monitoring committee.</td>
<td>The Monitoring Committee has been involved in the work on the EFF programme.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommendation 3: Information initiative</th>
<th>Assessment and follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>This recommendation will be incorporated in the Communication plan for the EFF programme. The plan and budget for communication include thematic seminars, network meetings etc.</td>
<td></td>
</tr>
</tbody>
</table>
It is also recommended that establishment of a publicly accessible database of completed projects be established, with descriptions, experiences and – possibly – effects in relation to the indicators. This database could document the projects’ results and pass on experiences of new measures in connection with the projects.

The Directorate for Food, Fisheries and Agri Business agrees with the recommendation for a publicly accessible database of completed projects and a data base is available on the website www.dffe.dk

**Recommendation 4: Port projects**

The entire budget framework for public sector projects has been used. It should be considered whether further funding can be transferred to public port projects. It is also recommended that priority be given to projects relating to quality.

However, it is necessary to ensure that the funds are being utilised efficiently. Therefore, there should be requirements for the projects to form part of a collective development plan for the individual ports (strategy/master plan). The development plan should include the central players at and in relation to the port, and – among other things – include organisational conditions, technology and resources. At the same time, it should be demanded that project applicants reflect on development opportunities for the port from an international competition perspective.

An application was submitted to increase the budget framework, along with a proposal to amend the financing plan submitted to the Commission at the end of 2005.

The Directorate is currently demanding that the individual projects be included in a development plan for the individual ports. The procedure will be maintained in the EFF programme.

Finally, allocation of funds should be based on a collective assessment of the Danish fishing port capacity and the future requirement for the same. There is a risk of overcapacity being provided due to the ports’ mutual competition. Implementation of a collective analysis of the future investment requirements for Danish fishing ports should be considered, particularly in relation to the European Fisheries Fund.

Measures relating to ports will be implemented, along with conditions to ensure the efficiency of future investments.

It will be a condition for granting that a development plan for the fishing harbour is provided.

**Recommendation 5: The aquaculture measure**

To date there has been a restricted project flow for aquaculture projects under the investment scheme, while there are a series of aquaculture-related devel-

This Monitoring Committee has discussed the issue and decided not to change the subsidy rate over the FIFG
opment projects. To ensure that the results from development projects are rapidly put into practice in the sector, it is recommended that an increase in the subsidy level to 30% be considered for innovative projects (as discussed in recommendation 1).

<table>
<thead>
<tr>
<th>Recommendation 6: Collective measures, plus pilot and demo projects</th>
<th>Assessment and follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>There has been a considerable flow of funds to the public projects under the two measures where the flow is at or above proportional level. Therefore, adding the public sector projects under the methods “external funding” should be considered. Even now, the projects are clustered around individual problem areas. To ensure that the problem areas are the most relevant, it is recommended that the Monitoring Committee initiates a process whereby the most important initiative areas for the next few years for each segment and the sector as a whole are identified and prioritised (as described in recommendation 2). This prioritisation will be a tool for assessing projects under the two measures. To reinforce the synergy between projects, additional project funds should primarily be allocated to projects relating to the priority areas or projects included in thematised tenders along the value chain (as proposed in recommendation 9).</td>
<td>It is thought that the allocated funds are sufficient, given the national co-financing available in 2006. These recommendations will be discussed at the first meeting in the Monitoring Committee.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommendation 7: Regarding centre formation</th>
<th>Assessment and suggested follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interdisciplinary cooperation is essential. It is recommended that more interdisciplinary cooperation in the sector should be encouraged in general, as knowledge is spread over many units. The centre model may act as an incentive in this process and give more in the way of results for every penny of subsidy funding – but without it being possible to prove this directly in the current brief assessment.</td>
<td>The recommendations is implemented in the EFF programme as a priority measure in axis 3; Measures of common interest. The cooperation model must be in place. It is recommended that any centre formations be tested with smaller pilot projects and pilot surveys, ideally with a view to clarifying the organisation form, establishing the cooperation model must be in place. It is recommended that any centre formations be tested with smaller pilot projects and pilot surveys, ideally with a view to clarifying the organisation form, establishing</td>
</tr>
</tbody>
</table>
partnerships and tightening up problems by focusing on requirements. When a centre is initiated, participants should focus on development of the specialised problems – and not use up resources clarifying specialist content or the distribution of roles.

Requirement-driven projects. In general, it is recommended that major, centre-like projects use user surveys before and/or during the projects in order to ensure focus and relevance. Under EFF this will be eligible under axis 3.

Business participation is essential. It is recommended that business relevance and participation be ensured in all industry-related development projects, including centre formations. In some cases, this can be ensured by releasing FIFG subsidies only if participation and co-financing from industry can be demonstrated. The operating structure of the centre should also be formulated so as to maintain involvement of the industry. This ensures that there is continuing reflection on the activities of the centre in relation to the needs within the industry, and that these are adapted to the needs.

Assessment of both specialist quality and relevance for the sector. It is recommended that a qualified assessment of the projects be carried out when assessing major, centre-like projects. It should be a requirement to acquire at least two assessments of the project application relating to an assessment of the specialist level and value/relevance to the industry. More stringent requirements should also be laid down regarding the quality of the application material, including project descriptions, objectives, milestones, etc. Whether a unique project model should be used may be considered. These recommendations are included in the EFF-programme. An assessment will be carried out of how the Innovation Committee may play an active part with a view to ensuring relevance and academic standards.

Continuation and finance base following cessation of the establishment subsidy. It is recommended that centres which can demonstrate a (co-)financing model and probability of continuation once the FIFG subsidy has come to an end will be given priority – or that this function be transferred to others. There is a

The main objective of the programme is to create frameworks for long-term development of the fisheries and aquaculture sector. Therefore, the viability of the projects in the longer term is of crucial significance. The foundation for
risk of centres “without walls” closing when the subsidy is no longer there, and this often means the loss of valuable knowledge.

<table>
<thead>
<tr>
<th>Recommendation 8: Thematic tenders relating to problems along the value chain</th>
<th>Assessment and suggested follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is recommended that another thematic tender be implemented over the current programme period. This tender should involve demands for several elements in the value chain to be incorporated in the individual projects, and for participation from both the industry and research and development institutions. The general results of the projects must benefit the industry.</td>
<td>Theme-based projects along the value chain are expected to be promoted in the EFF programme as these are included as strategic objectives and priority measures (objectives for interaction in the food chain)</td>
</tr>
<tr>
<td>Topics such as the following may be considered as themes for the tender: food safety, traceability, quality and value added, plus fishing, processing and consumption of new, underused species.</td>
<td>Whether there turns out to be a need to reinforce such activities will be assessed specifically following a discussion of the Monitoring Committee.</td>
</tr>
</tbody>
</table>

3.11 SWOT analysis of the fisheries and aquaculture sector

The SWOT analysis is an overall assessment of the sector’s strengths, weaknesses, potential and threats which can be addressed by the EFF-programme. This section is therefore a summary of the status description and the developmental trends that have been described. The analysis follows the value and production chain, as well as an analysis of the fisheries areas;

With regard to analysis of the fisheries areas, this represents a general assessment since apart from some common features, the areas also conceal a number of essential differences. In order to refine the analysis, a model has been used which divides the areas up into three main elements: physical, socio-cultural and economic elements.

Finally, there was an overall general assessment of the sector and the areas by way of an introduction to the analysis.
<table>
<thead>
<tr>
<th>Strengths:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Strong tradition of fishing and land-based fish-farming</td>
</tr>
<tr>
<td>• A focus on the development of training and skills</td>
</tr>
<tr>
<td>• High demand for fish and shell-fish</td>
</tr>
<tr>
<td>• Increased awareness of quality</td>
</tr>
<tr>
<td>• Good inspection procedures, producing relatively good compliance</td>
</tr>
<tr>
<td>with regulations</td>
</tr>
<tr>
<td>• Good geographical location with regard to fish resources</td>
</tr>
<tr>
<td>• Adaptable processing sector</td>
</tr>
<tr>
<td>• Operates on a global basis</td>
</tr>
<tr>
<td>• Fish has a good image as healthy food</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weaknesses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Subdivided sector leads to exacting demands on co-operation</td>
</tr>
<tr>
<td>• Multiple small units</td>
</tr>
<tr>
<td>• Long-term planning difficult in the primary industry</td>
</tr>
<tr>
<td>• High cost levels</td>
</tr>
<tr>
<td>• Few training opportunities in fisheries areas</td>
</tr>
<tr>
<td>• Image in relation to the environment and overfishing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increased focus on quality</td>
</tr>
<tr>
<td>• Training and skills development</td>
</tr>
<tr>
<td>• Improved logistics</td>
</tr>
<tr>
<td>• Strategic alliances with a focus on the entire value chain</td>
</tr>
<tr>
<td>• Traceability</td>
</tr>
<tr>
<td>• Improving image in terms of the environment, sustainability, etc.</td>
</tr>
<tr>
<td>• Development of environmental technology, especially in aquaculture</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Threats:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Inadequate food safety will effect the entire sector</td>
</tr>
<tr>
<td>• Relatively low training level</td>
</tr>
<tr>
<td>• Not competitive in terms of price and quality</td>
</tr>
<tr>
<td>• Shortage of workforce (recruiting and generational change)</td>
</tr>
<tr>
<td>• Failing supply of raw materials</td>
</tr>
<tr>
<td>• Development in fleet structure with regard to maintenance of fisheries areas</td>
</tr>
</tbody>
</table>
Table 12 Supply of raw materials – strengths, weaknesses, opportunities and threats

<table>
<thead>
<tr>
<th>Strengths: Fisheries:</th>
<th>Weaknesses: Fisheries:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad diversity of species and fisheries opportunities</td>
<td>A high proportion of stocks are overfished</td>
</tr>
<tr>
<td>Denmark well located between the fish stocks in the North Atlantic and the Baltic and the market in the EU</td>
<td>Image related to overfishing, illegal fishing and discarded catches</td>
</tr>
<tr>
<td>Aquaculture:</td>
<td>The fishing fleet is old and to some extent out of date</td>
</tr>
<tr>
<td>Well-developed environmental technology</td>
<td>A working environment with a relatively high rate of industrial accidents</td>
</tr>
<tr>
<td>Leading position in fish feed production</td>
<td></td>
</tr>
<tr>
<td>Global skills in the equipment sector</td>
<td></td>
</tr>
<tr>
<td>Import:</td>
<td></td>
</tr>
<tr>
<td>Denmark well located between the fish stocks in the North Atlantic and the Baltic and the market in the EU</td>
<td>Image problems related to environmental questions</td>
</tr>
<tr>
<td>Ports:</td>
<td>Situation of conflict with local authorities</td>
</tr>
<tr>
<td>Competitive larger ports</td>
<td></td>
</tr>
<tr>
<td>Proximity to fisheries resources</td>
<td></td>
</tr>
<tr>
<td>Flexibility</td>
<td></td>
</tr>
<tr>
<td>Opportunities: Fisheries:</td>
<td>Threats: Fisheries:</td>
</tr>
<tr>
<td>Improved opportunities for catches where there is reduced fishing pressure on demersal fish</td>
<td>Overfishing</td>
</tr>
<tr>
<td>Developing methods and practices that reduce environment impact for instance as a result of environmental requirements</td>
<td>Environmental changes (climate)</td>
</tr>
<tr>
<td>National administration enabling long-term optimal exploitation of fisheries opportunities</td>
<td>The fleet is reduced to the point where it is not large enough to secure the local infrastructure</td>
</tr>
<tr>
<td>Increased processing on vessels</td>
<td>Environmental requirements that cannot be satisfied immediately</td>
</tr>
<tr>
<td>Increased co-operation between the fishing industry and research on optimising exploitation of available resources.</td>
<td>Financing growth</td>
</tr>
<tr>
<td>Certification of fisheries</td>
<td></td>
</tr>
<tr>
<td>New species</td>
<td></td>
</tr>
<tr>
<td>Aquaculture:</td>
<td>Ports:</td>
</tr>
<tr>
<td></td>
<td>Fewer vessels and therefore less activity.</td>
</tr>
<tr>
<td></td>
<td>Lack of seafood resources (raw products)</td>
</tr>
</tbody>
</table>
Systems export, i.g. clean technologies
New species
National management which enables the long-term optimal exploitation of production opportunities
Increased co-operation between aquaculture and research on optimal production
Increased processing at the site of production
Certification of production methods
Developing methods and practices that reduce environment impact
Increasing demand for fish

**Import:**
- Danish buyers and producers often able to pay an attractive price.

**Ports:**
- Improved infrastructure and service
- Changing structure and organisation
- Investments in refrigeration chain, etc.
- Collective plan for exploitation of port area

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**Table 13 The Danish fishing industry – strengths, weaknesses, opportunities and threats in processing, marketing and sales**

<table>
<thead>
<tr>
<th><strong>Strengths:</strong></th>
<th><strong>Weaknesses:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark well located between the fish stocks in the North Atlantic and the market in the EU</td>
<td></td>
</tr>
<tr>
<td>Strong position as processor of primary raw products and as a supplier of semi-finished products for processing abroad</td>
<td></td>
</tr>
<tr>
<td>High level of knowledge about products and the industry</td>
<td></td>
</tr>
<tr>
<td>The sector is adaptable</td>
<td></td>
</tr>
<tr>
<td>Keen commercial instinct</td>
<td></td>
</tr>
<tr>
<td>The sector operates globally</td>
<td></td>
</tr>
<tr>
<td>The Danish seafood industry as a whole has the widest range of products of all EU States</td>
<td></td>
</tr>
<tr>
<td>Fish can be marketed as a healthy food</td>
<td></td>
</tr>
<tr>
<td>Increasing global demand for fish</td>
<td></td>
</tr>
<tr>
<td>Dependence on fluctuating supply of raw products from Denmark and the North Atlantic</td>
<td></td>
</tr>
<tr>
<td>Differentiated industry with limited cooperation</td>
<td></td>
</tr>
<tr>
<td>Poorly placed in sales to retail chains</td>
<td></td>
</tr>
<tr>
<td>The sector’s image among Danish consumers is poor, e.g. in relation to the environment and management of the sea’s resources</td>
<td></td>
</tr>
<tr>
<td>Danish consumers have negative attitudes towards fish as regards bones, smell and difficult preparation</td>
<td></td>
</tr>
</tbody>
</table>
### Opportunities
- Increased imports of farmed fish species, e.g. tilapia and catfish
- Combine outsourcing with sourcing of raw materials
- Higher degree of processing through product development, increased content of technology and knowledge, targeting of convenience in preparation and of functional foods
- Targeting of fresh fish, including logistics in relation to fresh fish, i.e. the refrigeration chain
- Targeting of fast-frozen fish or a “super quality concept”, including traceability which can be documented
- Increased co-operation between the seafood industry and research into product development and innovation
- Strengthen the industry’s basis for an increased degree of processing by means of ongoing trading and skills initiatives
- Sales co-operation with the aim of meeting the demands of retail chains for bulk goods deliveries and thereby utilising the broad Danish product range
- Produce what consumers want: meet individual demand. Openness with respect to customer and consumer requirements
- Create a market intelligence system for the entire sector with a focus on market information and monitoring customer and consumer requirements
- Knowledge-sharing and network formation
- Increased sales to food service
- Increased sales and marketing in new markets, e.g. Eastern Europe and China
- Price differentiation through eco-labelling

### Threats:
- Competition in the EU and world markets from countries with low wage costs
- Failing raw material supplies
- Improved transport opportunities for fresh fish and thereby direct export from North Atlantic countries other than Denmark to the EU
- Risk in connection with food safety
- Problems with recruiting labour
- Concentration in the retail industry is creating demand for larger goods deliveries than many smaller Danish businesses are able to deliver
Table 14 Fisheries areas – strengths, weaknesses, opportunities and threats

<table>
<thead>
<tr>
<th>Area elements</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Stable fisheries sector in some areas</td>
<td>• Simple industry structure, sensitive</td>
</tr>
<tr>
<td></td>
<td>• Major tourism in some areas as an alternative to fisheries</td>
<td>• Lack of innovation within the industry</td>
</tr>
<tr>
<td></td>
<td>• Solid tradition of fishing</td>
<td>• Structural problems in relation to the ports (organisation)</td>
</tr>
<tr>
<td></td>
<td>• Ports as potential growth engines</td>
<td>• Lack of dynamos such as universities, other learning institutions and research communities</td>
</tr>
<tr>
<td></td>
<td>• Easy access to the sea/water</td>
<td></td>
</tr>
<tr>
<td>Opportunities</td>
<td>• Improve the competitiveness of the ports</td>
<td>• Inability to recruit labour into the fisheries and aquaculture sector, amongst others</td>
</tr>
<tr>
<td></td>
<td>• Promote tourism and leisure activities, by means of new concepts, etc.</td>
<td>• Decline in fisheries; landings, ports, processing</td>
</tr>
<tr>
<td></td>
<td>• Use information technology with a view to promoting innovation and employment</td>
<td>• Decline in fish resources/overfishing</td>
</tr>
<tr>
<td></td>
<td>• Increased collaboration with and coordination between ports and sectors</td>
<td>• Loss of fishing rights</td>
</tr>
<tr>
<td></td>
<td>• Restructure traditional industries</td>
<td>• Outsourcing (processing based on labour-intensive production is relocated abroad)</td>
</tr>
<tr>
<td></td>
<td>• Accelerate the generation change in the fisheries and aquaculture sector.</td>
<td></td>
</tr>
</tbody>
</table>

70
<table>
<thead>
<tr>
<th>Socio-cultural</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• High employment in some areas</td>
<td>• Falling population figures/migration</td>
</tr>
<tr>
<td></td>
<td>• Good conditions for tourism: fishing communities (high cultural-historical value)</td>
<td>• Falling number of workplaces within the sector</td>
</tr>
<tr>
<td></td>
<td>• Social capital: high level of independence culture</td>
<td>• Relatively high unemployment in some areas</td>
</tr>
<tr>
<td></td>
<td>• Relatively high unemployment in some areas</td>
<td>• Few training opportunities</td>
</tr>
<tr>
<td></td>
<td>• Falling number of workplaces within the sector</td>
<td>• Human capital: relatively low level of training</td>
</tr>
<tr>
<td></td>
<td>• Few training opportunities</td>
<td>• High average age within the fisheries industry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Develop and conserve ports and fishing communities as an attraction</td>
<td>• Fisheries and fishing communities as an attraction are disappearing</td>
</tr>
<tr>
<td>• Strengthen recruitment and the sector’s image</td>
<td>• Fall in employment in the fisheries and aquaculture sector as a result of outsourcing</td>
</tr>
<tr>
<td>• Raise the level of training and skills</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Good geographic location in relation to the EU market and fish resources</td>
<td>• Poor availability of services</td>
</tr>
<tr>
<td></td>
<td>• Good conditions for tourism: the country, the sea, angling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The country as a residential preference</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Relatively cheap housing for settlement</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Coast and sea as an attraction for settlement</td>
<td>• Environment/contamination of the aquatic environment, climate changes</td>
</tr>
<tr>
<td></td>
<td>• Fewer vessels and fishing ports</td>
</tr>
<tr>
<td></td>
<td>• Decline in fish resources</td>
</tr>
</tbody>
</table>
3.12. Environmental situation and result of the Strategic Environmental Assessment (SEA)

3.12.1. Description of the environmental situation

**Watercourses and marine waters**

The environmental condition of watercourses and marine waters are the combined result of many different factors, including pollution, maintenance, degree of regulation, precipitation conditions, soil conditions, etc.

The environmental impact from aquaculture is discharges of nitrogen, phosphorus and organic matter which originate primarily from waste feed, urine and excrement. There are also discharges of various supplements, including anti-fouling agents and medicines.

The volume of fish stocks and aquatic systems can be increased by restoration and improvement of natural fish habitats – habitat areas. This will improve the species’ requirements for habitats in relation to spawning and growth areas, clean water and food.

Until the Danish watercourses, and in some instances the coastal environments, can themselves support reproducing fish stocks, there may be a need to release fish. The focus of this effort is to create better, more cohesive solutions for fish stocks and other fauna of the freshwater systems.

**NATURA 2000**

Denmark has significant obligations to meet in terms of nature and the environment in accordance with a range of EU directives, including the NATURA 2000 directives (the Habitat Directive and the Birds Directive) and the Water Framework Directive. These obligations play a key role in future nature and environmental efforts in Denmark. There is a close correlation between implementation of Aquatic Environment Plan III and implementation of the EU’s Water Framework Directive and Habitat Directive.
Objectives and frameworks for areas of water and NATURA 2000 sites are to be established by 2009 at the latest, but even now Denmark is obligated to implement active administration in order to protect NATURA 2000 sites, just as Denmark is obligated to meet EU’s objective for halting the decline of biodiversity by 2010 at the latest. 254 habitat sites and 113 bird protection sites have been designated, equivalent to a total of 359,100 ha or around 8.3% of the area of the country. At present NATURA 2000 encompasses 27 areas that are exclusively marine areas. These areas are protected, as they either contain types of nature that are in danger of disappearing in their natural habitat range or species that are threatened, vulnerable or rare, and that are impacted by fishing or fishing activities.

Objectives have been defined for many stretches of watercourse, along with minimum requirements for a biological fauna index. Regional objectives for the conditions in individual aquatic areas shall also be established in

**Fisheries**
The effect of fishing on the marine environment can be divided into direct and indirect effects. The direct effects include the mortality that fishing causes to organisms in the sea and mechanical effects, in particular that on the sea bed. Indirect effects are associated in particular with emissions relating to energy consumption, as well as long-term changes to the structure of the ecosystem as a consequence of the direct effects. The most important impacts on the environment are outlined in the following:

*Fuel consumption* and the associated release of substances such as CO$_2$ and NO$_x$ play a central role in the impact of fishing on the environment. Fuel consumption varies greatly, depending on the size of the vessel and the fishing gear used.

*Over-fishing.* For many of the fish stocks in Danish waters, fish mortality is significantly above the level (50 to 200%) that the International Council for the Exploration of the Sea (ICES) considers to be consistent with sustainable development and MSY. A reduction in the fishing effort in accordance with this objective will not only render the utilisation of the individual stocks sustainable, but will also reduce all of the other effects that fishing has on the marine ecosystem. For further documentation of the situation of fish stocks see section 3.2.

Many of the fish and shellfish stocks that are fished by Danish fishermen are fully utilised or over-utilised. In particular, demersal (species that live on the sea bed) stocks are being subjected to considerable pressure as a result of fishing, and many are at historically low levels.

In addition to the species measured, there are *unintentional by-catches* of a large number of species including cetaceans and seabirds, and in some areas there can in particular be significant by-catches of diving ducks and bottom invertebrates.

*Mechanical impact on the sea bed* Certain fishing activities can cause permanent changes to the sea bed through physical contact with the bottom. In particular trawling and beam trawling has been proven to have capacity to make significant changes to the sea bed.

*Change in the structure of the ecosystem.* The increasing pressure from fishing since the 1950s has resulted in a change in the size distribution of
fish. The volume of small fish has increased, while the number of large fish has fallen. There is also information that indicates that the major pressure from fishing on some stocks has caused genetic changes in the stocks.

**Discards** In a number of fishing activities, significant proportions of catches are discarded overboard because the fisherman is not permitted to land them (typically because they fall below the minimum size or the fisherman does not have a quota entitlement for them) or because it is not economically feasible to land them. This problem is particularly prominent in the case of trawler fishing where a small mesh size is used, e.g. trawler fishing for Norway lobster and sole. Discards are a waste of resources and cause extra mortality, as well as also contributing towards changes in the ecosystem. Fish that are discarded are easy prey for a number of marine predators and scavengers, and help to distort the composition of species.

**Aquaculture**

**Freshwater farming**

Discharges from freshwater land-based fish farming contain a number of substances that can pollute the aquatic environment. These substances include organic matter and nutrients. This can cause poor oxygen conditions, or totally oxygen-free conditions, in watercourses, which can have a negative effect on fish and benthos.

Fish farms are often created by damming watercourses. This damming has the effect of creating a stretch of watercourse with a reduced rate of flow (Fish Farming Committee, 2002).

**Marine farming and land-based saltwater fish farming**

The rearing of saltwater fish can constitute a significant pollution factor on a local/regional basis. Marine farming and land-based saltwater fish farming discharge nitrogen (N), phosphorus (P) and organic matter, which originate primarily from waste feed, urine and excrement. There are also discharges of various supplements, including anti-fouling agents and medicines, the environmental consequences of which have not been widely highlighted at present.

Viewed from an overall perspective, however, discharges of nutritive salts from saltwater-based fish farming are only of marginal importance for the aquatic environment, as these discharges only account for a very minor part of the total amount of N (Nitrogen) and P (Phosphorus) added to Danish marine areas from direct sources, watercourses and the atmosphere.
Ports and processing
By contrast, the fisheries and aquaculture sector is characterised by the continued existence of a geographical association between the raw materials base and processing. A large proportion of processing in Denmark takes place in the immediate vicinity of the major fishing ports or landing places, which means that there is a reduced need for transport once the raw materials have been landed. Based on the consideration of the life cycle, it is considered that the energy consumption for refrigeration in connection with landing is not in itself a significant problem.

The assessment indicates that the environmental impact from the seafood industry is limited compared to that of the fisheries. However, some seafood companies do have relatively high energy consumption. The environmental focus area in the seafood industry should be to reduce energy consumption, to reduce the use of glass and aluminium packaging, to further reduce water consumption and to maintain the focus on the working environment.

3.12.2. Results of the Strategic Environmental Assessment
In accordance with Council Directive (EC) No 2001/42/EC of 27 June 2001, implemented through Act No 316 of 5 May 2004 on the environmental assessment of plans and programmes, as well as the DG Environment’s letter of 12 December 2006 on the programme period 2007-2013 for EU co-financed programmes, the programme must be accompanied by a strategic environmental assessment.

The environmental assessment of the Operational Programme for development of the Danish fisheries and aquaculture sector 2007-2013 has been undertaken by a project group appointed by the Directorate for Food, Fisheries and Agri Business. The project group has also been charged with planning the programme. Various authorities and professional institutions have participated in the project group.

The environmental assessment has been carried out as an integral part of the programming process, which means that it must be read in conjunction with the programme and the analysis of the environment and aquaculture sector found in the programme. Furthermore, the programme contains both the objectives set in the strategy and measures to enable compliance with these objectives. The programme also provides information on fish resources and the development trends in the fisheries and aquaculture sector compared to other policy areas such as NATURA 2000, in addition to provide indicators for impact determination, including environmental
indicators. It should also be emphasised that the environmental assessment has been prepared on the basis of existing data and knowledge and at a level of detail appropriate to the programme.

The structure of the report is as follows:

- Information on consultations carried out in accordance with Article 6 of Directive 2001/42/EC.
- Description of the monitoring measures established in the programme in compliance with Article 9 (1)(c), 10 of Directive 2001/42/EC.

3.12.3. Non-technical summary

One of the most significant objectives of the European Fisheries Fund, which forms the basis of the Danish programme, is economic, social and environmental sustainability in the sector. The vision of the programme is to create a framework for the greatest possible sustained yield from the Danish fisheries and aquaculture sector, in which resources are exploited with reference to the objective of regional development and sustainability.

The environmental assessment includes a description of the status of the environment and an assessment of the effects of the programme on a number of environmental areas: public health, biodiversity, flora and fauna, earth, water and air, as well as culture.

Overall, the environmental assessment indicates that it is primary fisheries that are the most significant factor for the environment. There is significant energy consumption, as well as over-utilisation of certain stocks, physical effects on the sea bed as a consequence of gears that drag along the sea bed, unintentional by-catches and discards.

Based on a consideration of the value chain, it is believed that energy consumption plays a central role in the total environmental impact. Fuel consumption is particularly associated with fishing, transport and refrigeration. There is the greatest need for refrigeration in the retail stage and at the consumer’s premises.
There is a high market potential to increase the aquaculture production. By far the highest proportion of the potential increase is expected in marine farming.

It is expected that activities under the programme will reduce the environmental impact of aquaculture per kg fish produced. However, it can be expected that realisation of the potential for aquaculture will increase the overall discharges from the industry. It is therefore important that the programme focuses on technological environmental solutions and conversion to organic production to minimise discharges per kg fish produced. Combined with the stricter environmental regulation, it is expected that it will be possible for the development of aquaculture in the years ahead to be achieved on a sustainable base. Due to this situation and the fact that the designation of NATURA 2000 covers a considerable part of the Danish cost line and some areas with freshwater farms in particular in Jutland, the coherence between the NATURA 2000 regulation and the EFF programme is a key factor.

Environmental impacts from the processing industry are limited, although there may be some areas of the industry that would benefit from the development of cleaner technologies, e.g. with a view to improving wastewater or reducing the consumption of energy and water.

In relation to the environmental assessment of the fisheries and aquaculture sector it should be stressed that the objectives of the national strategy are to minimise the impact of the fisheries and aquaculture sector on the environment within the framework of an overall social prioritisation. The aim is a sustainable growth in aquaculture through innovation and new technologies, skills development, a reduction of the impact on the natural environment and the establishment of new types of partnership.

The programme’s support schemes are thus to a large extent aimed at environmental conditions and activities that can develop the sector without increasing the fisheries and aquaculture sector’s environmental impact per unit produced. A number of measures in the programme serve to reduce the sector’s negative impact on the environment, including the working environment.

The overall evaluation indicates that the programme will have positive effects, in some cases very positive effects. This relates to biodiversity, flora and fauna, and it is also expected that the programme will have a positive impact in terms of safeguarding the cultural heritage in small fishing communities.
In order to monitor the impact of the programme on environmental issues monitoring will take place by environmental indicators. As a result of the public consultations the environmental indicators for the programme has been improved. The monitoring will include fuel consumption in fisheries and discharges of nutrients and organic matter as well as use of drugs in aquaculture. The monitoring is a continuous assessment. Furthermore specific environmental issues will be highlighted in ad hoc evaluations due to changes in environmental and production conditions consistent with decisions in the Monitoring Committee for the programme.

3.12.4. Information on consultations with public and environment authorities

First public consultation
A draft version of the programme was sent out for public consultation in October 2006. The draft contained a first draft of the environmental assessment. The programme and environmental assessment including a non-technical summary were sent out to a wide range of stakeholders, including the partnership for the programme, as well as being posted on the Directorate’s website for public consultations.

The consultation results indicated a need to extend the scope of the environmental assessment and adjust parts of the programme. The formal requirements for the format and content of the environmental assessment were subsequently the subject of bilateral discussions with the Danish Forest and Nature Agency (Ministry of the Environment) at a meeting on 21 February 2007.

Second public consultation
Against this background, the environmental assessment was adjusted and further extended, after which the Forest and Nature Agency, in a letter dated 12 March 2007, said that in general the environmental assessment covers the conditions stipulated under Annex I of the EU Directive on environmental assessment, in that it proposes the link between energy consumption and climate change be clarified and also that it recommends including an environmentally-related indicator for marine farming. These conditions were noted in the programme and a revised draft for the environmental assessment was sent out for public consultation on 13 March 2007 with a deadline of 9 May 2007 for responses in accordance with national environmental assessment legislation.
The consultation was advertised in national newspapers ("Politiken" and "Jyllandsposten") and an electronic newsletter sent to a wide range of stakeholders. The e-newsletter is distributed to 300 individuals, institutions, authorities and organisations. Furthermore the partnership for the programme (see list of partners in annex) were consulted. Local environmental authorities and NGO’s were consulted through their umbrella organisations.

The second consultation did not include the entire proposal for an Operational Programme, but the programme was available on the website for the EFF-programming (www.fiskeriudvikling.dk), and a letter enclosed the environmental assessment referred to the programme on the website.

Trans-boundary consultation has not been considered as necessary by the responsible national authority for SEA (Danish Forest and Nature Agency) and it was not a part of the SEA process.

3.12.5. Statement foreseen by Article 9 – summary of environmental considerations and the opinions expressed

The consultation responses received have led to two new environmental indicators being developed. One indicator is for assessing fuel consumption trends in the fishing fleet and the other can be used for assessing the use of drugs in aquaculture production.

Together with the other indicators, these will form a part of the monitoring of the programme and its environmental conditions. Overall, this will produce environmental indicators for primary fisheries and aquaculture as well as a measure to promote the development of aquatic flora and fauna.

In addition to this, as part of the consultation process, different alternatives have been considered. Following alternatives should be mentioned:

- Investments for extension of the mariculture production should not be eligible for support due to the lack of potential in reduction of emissions.

Development in the entire aquaculture sector including mariculture is essential in order to contribute to the specific objectives of the Operational programme: Creating growth in aquaculture and optimising the processing industry’s raw materials base and improve value added in the sector as a whole. Investments in mariculture is
considered as possible as the potentials in mariculture production have been studied and followed up by guidelines from the Danish Environmental Protection Agency (guideline no. 9163 of 31st of March 2006). In line with these guidelines a development and extension of the production is realistic. An extension of the production can only be eligible for support under condition of an individual environmental approval by the local environmental authority.

- The fishing fleet should be based on smaller vessels with lower engine power and greater use of selective gear. As a consequence no support should be given to large vessels and vessels using towed gear.

The specific objectives in the Operational Programme related to the fleet are to create opportunities for

- an efficient, modern fleet that serves the interests of both deep-sea fishing and coastal fishing
- low costs and high value added in the seafood industry within the framework of biologically sustainable fisheries.

A precondition for implementation of these objectives is that the fishing vessels are economically sustainable. It is considered that the support for modernisation of vessels, including in energy efficiency will contribute to a decrease in emissions from the fleet.

- The 0-alternative.

The consequences of not implementing the programme (0-alternative), are that it will not be possible to meet the objectives set in the National Strategic Plan. The vision for the strategy and programme is to create the best framework for a sustainable yield from the fisheries and aquaculture sector, taking into account the objective of sustainability and regional development. The vision has been drawn up to comply with the common fisheries policy’s objective of sustainable development, which integrates environmental, economic and social concerns. Fulfilment of this vision and the underlying objectives thus assumes that not just environmental concerns but also economic and socio-economic reasons are taken into consideration in order to achieve the desired development of the fisheries and aquaculture sector and in the fishing areas, as well as efficient utilisation of the public funds that go into the programme.
As described in the environmental assessment, the implementation of the Operational Programme is expected to result in a number of benefits for the environment. It is also a fact that only those projects which can achieve the necessary environmental approvals or other types of permits will receive support.

It is certain, however, that a number of new obligations relating to nature and the environment will influence the development prospects of the industry. As a result, the programme covers all the measures that the EFF scheme provides for, with the aim of protecting flora and fauna and compensating the aquaculture industry in connection with the goals and requirements resulting from the NATURA 2000 obligations.

The consultations resulted in seven replies; WWF, Danish Aquaculture, Danish Nature Conservations association, South Danish University, Danish Maritime Authority, Danish Fisheries Association and Danish Metalworkers Union.

The text below describes the results of the public consultation in detail:

<table>
<thead>
<tr>
<th>Summarising comments on the consultation</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative and quantitative environment-related consequence assessments of the New Fisheries Regulation should be carried out.</td>
<td>The New Fisheries Regulation is a national regulation of the primary fisheries and not a part of the programme. The New Regulation is in the process of being implemented and it is too early to assess its effect on the fleet capacity in the programming stage. The impact of the New Regulation forms a focus area which will, where relevant, be part of the Monitoring Committee’s work. Bearing in mind that the extent of the effect on the fleet’s capacity is still not known, the programme provides the opportunity for the instruments proposed by the EFF scheme to adapt the fishing fleet to be brought into use. This applies to the scrapping and temporary decommissioning of fishing vessels.</td>
</tr>
<tr>
<td>Fuel consumption is an important parameter in relation to the environmental impact of fishing and should be included in the programme as an indicator per kg of fish caught.</td>
<td>The environmental assessment points to fuel consumption being one of the most important single factors affecting the environment. The programme contains measures for the modernisation of the fleet, including the replacement of engines, which makes it</td>
</tr>
</tbody>
</table>
possible to improve fuel efficiency and reduce the impact on the environment.

An indicator for the fishing fleet’s fuel consumption trend is being added to the programme.

<table>
<thead>
<tr>
<th>The fishing fleet should be based on smaller vessels with lower engine power and greater use of responsible gear.</th>
<th>The objective for developing the fleet is a structure which creates the opportunity for an efficient, modern fleet that serves the interests of both deep-sea fishing and coastal fishing. There are therefore no restrictions on the available support based on the size of the vessel or its use of gear. The programme will be able to support investments that promote selective fishing and reduce the vessels’ energy consumption, irrespective of the size of the vessels and thus contribute to improvements in the environment.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>The development of marine farming cannot take place in an environmentally friendly way.</th>
<th>One of the programme’s objectives is to promote sustainable growth in aquaculture through e.g. innovation and a reduction in environmental impact. It is expected that a significant part of the growth will take place in marine farming. The Ministry of the Environment’s guidelines of 31 March 2006 on the approval of saltwater farming indicate the opportunities for establishing saltwater farms in certain locations. It is presumed that permits for marine farms and saltwater farms will be granted so that the location and operation of the farms comply with environmental legislation and the scope of the Water Framework Directive etc.</th>
</tr>
</thead>
</table>

| The development of land-based fish farming should only be granted if it contributes to reducing the environmental impact, and new data is needed in order to assess the environmental consequences. | Subsidies for investment in aquaculture presume that the investment can be implemented within the basis of permits allowed by the environmental legislation. The environmental factors surrounding the location and development of land-based fish farming assume to a great extent technological development such as conversion from traditional flow-through hatcheries in soil ponds to recycling hatcheries in concrete ponds. Environmental indicators have been added to the programme that apply to the discharge of nitrogen, phosphorus and organic matter, with targets for reducing the amount per kg of fish produced. This reduction does not preclude the exploitation of the market potential in aquaculture and a subsequent quantitative increase in production, provided that this |
Information on the relationship with NATURA 2000 and the Water Framework Directive is missing. The relationship with other policy areas, including NATURA 2000 and the Water Framework Directive, is set out in the programme. The programme also prioritises all the measures that the EFF scheme relates to these nature and environment obligations. This primarily concerns measures for the sustainable development of aquaculture and the development and protection of aquatic flora and fauna. The Fisheries Development Programme must therefore also be viewed as a contribution to fulfilling the Water Framework Directive and NATURA 2000.

The environmental impact from large beam trawlers should be investigated, including their energy consumption. This programme does not provide any possibility of support for the construction of new beam trawlers or other fishing vessels. The modernisation of existing vessels, which is included as a measure in the programme, however, can help to reduce their energy consumption. The consequences of fishing with a beam trawler have been investigated before, and it is not considered necessary to investigate this issue as part of the programme’s environmental assessment.

There is a need for clarification of the link between climate change, energy consumption in fishing and the target of restructuring the fishing effort into a sustainable exploitation of the resources. There is still no biological advice relating to the significance of climate change that can be used as the basis for an assessment of the consequences of climate change. The programme provides the opportunity of modernising the fleet with the aim of increasing efficiency, improving environmental conditions and adapting the capacity to the available resources. Subsidies will not be granted for the replacement of engines where the new ones do not provide improved energy efficiency. The relationship with climatic factors has been clarified in the environmental assessment.

It is proposed that the monitoring be extended with indicators, including one covering the environmental impact from marine farming. The programme contains a number of indicators, one of which is related to environmental conditions. These will all be part of the continuous monitoring of the entire programme.

As a result of the consultation on the environmental assessment, a new indicator is being added with the aim of monitoring energy consumption trends at
As a follow-up to the Danish Forest and Nature Agency’s recommendation, the managing authority will follow up the development in the use of drugs on fish. There is already a national monitoring system in place for veterinary drug use. The monitoring (Vetstat) is co-ordinated by the National Veterinary Institute at the Technical University of Denmark. All use and sale of prescription drugs for livestock is reported to Vetstat by veterinarians, pharmacists and feed companies. The managing authority will use the existing monitoring system to follow up the use of drugs in aquaculture.

The Ministry of the Environment (Danish Forest and Nature Agency) has been informed about the public consultation and the report on the process by letter, and the result of the environmental assessment is available on the website www.fiskeriudvikling.dk

The outcome of the Environmental Report is a broad emphasize on the coherence between the development of the fisheries and aquaculture sector and the common environmental objectives. In particular in regard to the implementation of the NATURA 2000 framework and the objectives for the development of the aquaculture sector an environmental approach has been stressed in the Operational Programme. Indicators for the emission of nutrients and organic matter are given in the Operational Programme. Furthermore as a result of the environmental report, monitoring of the use of drugs in aquaculture production has been included.

The Environmental Report also shows that the fuel consumption in primary fishing is an important environmental problem related to the age and the structure of the fishing fleet. Therefore the Operational Programme has focus on implementing a measure for investments on board fishing vessels and selectivity including support for engine replacement and monitoring the effect by an indicator for fuel consumption.

3.12.6. Description of the monitoring measures established in the programme

In accordance with Article 63 of the EFF regulation, a Monitoring Committee has been appointed. In accordance with Article 66, the
monitoring will be carried out by the managing authority and the Monitoring Committee in conjunction.

Monitoring of the programme’s environmental impact is an integral part of the monitoring of the programme and the indicators used to assess the impact of the programme. There will also be a separate assessment of the impact on two occasions during the course of the programme, either in the form of ad hoc assessments or specialist reports on specifically selected environmental matters.

**Tabel 15 Monitoring schedule**

<table>
<thead>
<tr>
<th>Activity</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussed by the Monitoring Committee</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Ad hoc assessment or mid-term evaluation and ex-post evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td></td>
</tr>
</tbody>
</table>

The principle of the monitoring including is shown in the table below. It appears that specific environmental objectives in relation to defined environmental conditions will be a part of the monitoring. The Monitoring Committee will periodically review progress made towards achieving the specific targets of the programme and examine the results of implementation.

The environmental monitoring will also include the development of the use of drugs in aquaculture. The managing authority will use the existing monitoring system established by the National Veterinary Institute (VETSTAT). In addition to this, as part of the monitoring of the environmental impact, supplementary analyses and assessments on the various environmental areas can also be carried out.
Figure 13 Principle for the environmental monitoring of the programme

Table 16 Summary of environmental indicators

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel consumption in commercial fishing, liter</td>
<td>143.541 (2005)</td>
<td>-4%</td>
<td>-10%</td>
</tr>
<tr>
<td>Discharge from land-based fish farming production of Nitrogen:</td>
<td>38 kg/t prod. 3.1 kg/t prod. 105 kg/t prod.</td>
<td>32 kg/t prod. 2.5 kg/t prod. 85 kg/t prod.</td>
<td>23 kg/t prod. 1.5 kg/t prod. 60 kg/t prod.</td>
</tr>
<tr>
<td>Phosphorus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic matter:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug use in aquaculture</td>
<td></td>
<td></td>
<td>This is monitored via VETSTAT</td>
</tr>
</tbody>
</table>
3.13. Equal opportunities

The EC Treaty gives priority to the removal of inequalities and the promotion of equal opportunities, and thus contains a ban on treating people differently on the basis of their sex. The Treaty emphasises that the EU must incorporate an equality aspect in all its policies and activities.

Within the EU’s structural policy with regard to fisheries, this principle has been established in the Fisheries Fund’s Article 11, in accordance with which the Member States and Commission undertake to promote equal opportunities between men and women and integration of an equality perspective in the various implementation phases of the fund, including in the formulation of the programme, implementation, monitoring and evaluation. The Member States shall ensure that operations to enhance the role of women in the fisheries sector are promoted.

Danish regulations

In Denmark, equal opportunities for men and women are supported by – among other things – the Danish Act on Gender Equality (cf. Consolidated Act No. 1527 of 19 December 2004). The purpose of the Act (cf. Section 1 thereof) is to promote equality between men and women, which includes equal integration, equal influence and equal opportunities in every aspect of society, based on the equal worth of women and men. A further purpose of the Act is to prevent direct and indirect discrimination based on gender and to prevent sexual harassment.

Implementation of the EFF programme in Danish legislation means that the bill includes an assessment of equal opportunities.

Both men and women in Denmark have equal rights to apply for grants in accordance with the grant schemes for the programme.
The fisheries and aquaculture sector

A survey was carried out for the EU Commission for the previous period aimed to review the role of women in the fisheries and aquaculture sector. In this report, it was concluded:

- that there are limited opportunities for women in the Danish fisheries sector,
- that the fisheries industry has demonstrated positive elements with regard to establishing all-year-round jobs in a number of functions,
- that the target is alternative employment and diversification so as to make it easier for women to find alternatives to the declining employment opportunities of the sector, and
- that it is not appropriate to create special rules to improve opportunities for supplementary support for women doing seasonal work in the fishing industry.

Finally, the analysis points out the challenge of incorporating equal opportunities into the programme as a means of developing and supporting those parts of the sector which are particularly attractive to women, or which could become so.

In countries with a high employment rate among women, it is characteristic to also find a high degree of gender division on the labour market. The same is also true of the Danish fisheries sector (Figure 14). The equal opportunities aspect will be duly taken into account in the administration of the Danish fisheries development programme in connection with implementation of the programme. However, no special measures will be implemented in order to even out the gender division in the fisheries and aquaculture sector, although this will not exclude the possibility of specific projects targeted at women, for example.
The programme will be able to maintain a positive effect on women’s opportunities for employment and motivation to apply for employment in the fisheries and aquaculture sector by means of – for example – projects in the fields of training and skills development, innovation and technological development in the fisheries industry or in the modernisation of fishing vessels which will enhance safety and hygiene/sanitary conditions, for instance. At the same time, while the programme is in progress, there will be opportunities for projects to improve the working environment. It will be possible to target such projects at specific problems, which may have a positive effect in respect of equal opportunities.

Therefore, the programme is expected to be able to make a positive contribution towards a change in conditions affecting the situation of women on the labour market.
Committees and local groups

The overall coordination and monitoring of the programme are carried out by a Monitoring Committee, which consists of competent regional and local authorities, economic and social partners, as well as other relevant bodies representing civil society. In the establishment of the committee, the managing authority will strive to ensure that the committee has an equal distribution of men and women. The ongoing replacement of representatives in order to maintain a gender balance will also be taken into account.

Similarly, in connection with the approval of local action groups which are tasked with recommending projects within the fisheries areas, the managing authority will strive to ensure that the action group has an equal distribution of male and female representatives throughout its functional period.

3.14. Main outcome of the analysis

Generating a long-term economic and social yield means that the current activities of the Danish fisheries sector must not limit future opportunities. It is vital that the sector continually develops and enhances its competitiveness on a biologically and environmentally sustainable basis. At the same time, the fisheries and aquaculture sector is dependent on a healthy aquatic environment, which enables the optimal supply of high-quality raw materials and health.

In the fisheries there is a link between the level of activity and the yield. If the level of activity within the fishing sector is too great, over-fishing will result, causing lower and more unstable catches. In order to secure the maximum possible socio-economic yield, it is therefore vital that the level of activity within the fisheries sector is continually adapted to the available resources, so that stocks are fished at a level which facilitates the maximum possible economic yield in the long term.

For the processing industry, it is particularly important that by-catches and any other undesirable impact on the environment are kept at sustainable levels. For aquaculture, it is vital that the development opportunities of the sector are secured through innovation and technological development, so that the impact on the environment can be limited and documented in accordance with the environmental requirements.
A fleet structure that meets the needs of both deep-sea fishing and coastal fishing is important in order to maintain employment within the primary fisheries industry. Such a fishing fleet will contribute to a multi-stringed Danish fisheries industry with the prerequisites to optimise quality and exploit all the opportunities open to the fisheries industry. There is further a need to modernise the Danish fleet, so that the requirements concerning working environment and safety, cost levels, selectivity and product quality can be met. The activities will also be important to ensure that young people are motivated into seeking employment in the industry.

The development of fisheries areas is essential in order to ensure that the fisheries and aquaculture sector is anchored in sound local communities with a high quality of life and the ability to cope with fluctuations and crises within the fisheries industry. There is also a mutual relationship between the economic conditions, including those for long-term economically sustainable investments within the fisheries and aquaculture sector, and the existence of sound local communities, with contemporary levels of competence and service and a population that is balanced and has a good quality of life.

For aquaculture, growth and development must be created. This growth must take place within both traditional and new species. Collectively, there is considerable export potential within the aquaculture sector and with rising production there are also good opportunities for increased growth within related industries.

Ensuring the competitiveness and profitability of enterprises in all areas of the fisheries and aquaculture sector within the framework of biological sustainability, the import of raw materials and consideration for the fisheries areas is entirely pivotal. Innovative investments and activities can help to maximise the long-term social-economic yield. This takes place through continual development throughout the value chain within the individual branches within the sector, through interaction between the branches and through collective measures.
4 Strategy of the Operational Programme

4.1. Overall objective and impact indicators

The overall objective for the Operation Programme is the vision for development of the Danish fisheries and aquaculture sector as stated in the National Strategic Plan. The vision is as follows, taking into account the European Union’s Common Fisheries Policy and Danish fisheries legislation:

To create the framework for the maximum possible long-term yield from the Danish fisheries and aquaculture sector, where the resources are utilised taking into account the objective of sustainability and regional development.

In this context, ‘maximum possible long-term yield’ means economic and social yield. This is usually related to production quantities and profitability and is measured in income, export income and employment. However, the fisheries and aquaculture sector also includes cultural values both locally and for the whole of Danish society. The social yield should therefore be viewed in a broad context and also covers the importance of the sector for tourism and the identity of local communities.
The impact indicators related to the overall objectives for the whole Operational Programme are as follows:

<table>
<thead>
<tr>
<th>Impact indicator</th>
<th>Baseline 2004</th>
<th>Objective 2010</th>
<th>Objective 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value added within the fisheries and aquaculture sector (€ million)</td>
<td>537,1</td>
<td>+2%</td>
<td>+3%</td>
</tr>
<tr>
<td>Profitability (profit as a percentage of assets) within the fisheries and aquaculture sector</td>
<td>4%</td>
<td>+1%</td>
<td>+2%</td>
</tr>
<tr>
<td>Gross exports from Denmark (€ million)</td>
<td>2,214.8</td>
<td>+5%</td>
<td>+12%</td>
</tr>
</tbody>
</table>

*Source: The Danish Directorate of Fisheries, Institute of Food and Resource Economics and Statistics Denmark*

Sustainability will be assessed through the result indicators under the different axis of the programme.

### 4.2. Specific objectives and result indicators

The specific objectives are defined in the National Strategic Plan (NSP).

Based on the vision, strategic objectives have been set up for development within the branches and in the interaction between the branches and for the collective measures.

For the sake of clarity, the value chain has been subdivided into:

- Raw material supply, which consists of fishing, aquaculture, ports, etc. and the import of raw materials,
- Processing, and
- Sales and marketing.

The figure below shows the principles for the strategic objectives based on the individual links in the value chain.
Branch objectives are objectives for the individual branch or individual link in the value chain. Collective objectives are framework-creating objectives within a branch, a number of branches or the entire sector. Interaction objectives are objectives for better interaction between the individual links or branches in the value chain.

The specific objectives relevant for the Operational Programme are described in the section of coherence and justification in chapter 6 and the indicators are provided in the different axes.

4.3. Calendar and intermediary objectives

The duration of the Operational Programme is from 1st of January 2007 to 31st of December 2013. Within the Operational Programme the eligibility of expenditures are from the 1st of January 2007 to 31st of December 2015.

The midterm evaluation will be performed in 2010 in accordance with Article 49 of the EFF-regulation.

In general the Operational Programme is anticipated to be implemented in the beginning of the programme period apart from the measures in axis 1 concerning permanent and temporary cessation, certain socioeconomic measures and measures for small-scale coastal fishing.
If it, during the programming period, will be needed to introduce fishing effort adjustment plans as part of the mandatory requirements in Article 24 of the EFF regulation, the programming of aid will be adjusted accordingly.

In general the objectives will be measured by result indicators which will be reviewed in conduction with the midterm evaluation in 2010. In some cases annual objectives/indicators will be used.
5. Summary of the ex ante evaluation

5.1. Introduction

In the spring of 2006, the Technological Institute was asked to implement an ex ante evaluation of the programme for the Danish fisheries and aquaculture sector, 2007-2013, within the scope of the European Fisheries Fund in accordance with Article 48 of the Council Regulation (EC) No 1198/2006.

The purpose of this ex ante evaluation is to qualify the programming process. The ex ante evaluation assesses the links between the problems and requirements which the programme targets and the objectives which the programme sets up. This evaluation assesses – among other things – the objectives of the programme, its anticipated results and effects, and its cohesion with the EU Community’s policies and priorities and the National Strategic Plan for the fishing area, which is being prepared concurrently with the programme.

The ex ante evaluation was implemented in an interactive, iterative process between the evaluator and the programming managers. The evaluator worked between May and November 2006 to assess and comment on drafts for programming documents, so that the evaluator’s assessments and recommendations could be incorporated in the programme developers’ work on the final programme.
5.2. Conclusions and recommendations

Rationale and consistency of the strategy

The programme’s strategy has overall consistency and complementarily between the four axes.

The overall rationale of the strategy is that an increase in catches cannot be anticipated over the next few years, and that value added therefore has to take place via better, sustainable utilisation of raw materials, along with innovation in the fisheries sector. The need for long-term, sustainable development is emphasised in the overall vision for development of the Danish fisheries sector: “creating the framework for the greatest possible sustained yield from the Danish fisheries and aquaculture sector, in which resources are utilised with reference to the objective of sustainability and regional development”.

It is the evaluator’s opinion that the interventions of the programme under the four axes complement one another mutually in relation to the attainment of this overall vision:

It is the general view of the evaluator that the programme’s financial distribution between the four axes is consistent with the programme’s strategy.

The programme’s strategy meets requirements for sustainability in a number of dimensions.

It is the view of the evaluator that the programme meets the needs for economic, social, sustainable and management-related development of the Danish fisheries sector:

Economic sustainability is accommodated by New Regulation, which is what is known as a market-based fisheries management structure whereby each vessel is allocated its own individual quota. In the long term, this system is expected to lead to fewer vessels as it is now becoming possible to attain larger quotas by combining a number of vessels. The reduction in the fleet will thus be driven by the financial incentives, first and foremost better vessel economy and greater financial scope for investment and modernisation. Therefore, it is the view of the evaluator that New Regulation could reinforce the fishing industry’s economic sustainability in the form of better vessel economy and a more long-term foundation for investment.
Management-related sustainability is promoted in the form of greater decentralisation and co-responsibility in the fisheries sector; partly due to New Regulation, which lays the foundation for strengthening of the fisheries industry’s self-organisation and co-responsibility to ensure long-term sustainable utilisation of the catch volume, and partly due to the programme’s procedures for establishment of the local groups – this takes place according to a competition principle which could strengthen local initiative and commitment. The programme’s support terms relating to the fact that grounds must be given for projects in port and the development of fishing areas in requirement analyses and local development strategies, contribute to the fact that the development lends influence to local interests; interests both within and outside the fisheries sector.

In addition to this, the local groups which will implement the initiative in axis 4 in fishing areas will cover both the EFF programme and the rural development programme in Denmark. This could help to increase coordination between the programmes at a local level.

Social sustainability is accommodated in that – among other things – the restructuring of the fishing fleet is accompanied by measures designed to promote a generation shift, skills development and enhancement of the working environment. It is anticipated that enhancement of the working environment could promote equal opportunities in the form of greater employment shares for women in the fisheries sector. Of course, this assumes that the project applications focus on conditions which may promote opportunities for women.

Environmental sustainability is accommodated through the modernisation of the fishing fleet, including support to enhance energy efficiency, the use of selective tools, plus the fact that this is conditional upon the fishing capacity of individual vessels not being increased. Likewise, the programme lays the foundation for growth in the aquaculture industry focusing on environmentally friendly rearing methods which reduce discharges and environmental impact per tonne produced.

Assessment of the main elements of the strategy

New Regulation may contribute to resource-efficient adaptation and value added.

17 It is noted that the evaluator’s assessment is based on a version of the programme which has been amended, so this is no longer included as a requirement, but as a possibility.
New Regulation, which came into force as of 1 January 2007, means that each vessel will be entitled to an individual quota. In the long term, this system is expected to lead to fewer vessels as it is now becoming possible to attain larger quotas by combining a number of vessels. Likewise, this system provides incentives for additional investment in the fleet as it will result in better vessel economy and better catch entitlements. However, the scope and pace of the effects of New Regulation are difficult to predict.

**Recommendation 1:** Evaluator recommends that the managing authority should systematically monitor the effects of New Regulation from the start of the programme, particularly if it leads to adaptation of vessel capacity in relation to fishing resources.

*It is recommended that experience be gathered as early on as possible in the programme which may then be included in the evaluation documentation. This may, for example, include experiences from what is known as the “scrapping round” in 2006, where vessels may swap quota shares with a view to combining fishing in fewer waters.*

*The need for modernisation of the fishing fleet is well founded and focuses clearly on sustainability.*

It is the view of the evaluator that there is clear consistency between the decline in fish landings and the objective of the programme to modernise the fishing fleet, as modernisation should improve value added.

It is the view of the evaluator that the programme’s measures for modernisation focus clearly on sustainability with regard to both the working environment and the natural environment. Investments will be promoted in relation to the natural environment which will reduce energy consumption and the effects of fishing on the sea bed and ecosystems. The programme will ensure that modernisation of the fleet will not increase catch capacity.

*The significance of New Regulation for investment in modernisation should be monitored.*

The programme assumes that New Regulation, with regard to the improved vessel economy when FKAs are combined, will lead to an increased financial framework for investments. As mentioned, this could have a positive reinforcing effect on the programme’s promotion of investments in modernisation.
**Recommendation 2:** The evaluator recommends that a survey be carried out among Danish fishing vessels in order to find out about vessel owners’ incentives and requirements for investment.

The focus of the programme on growth and development of aquaculture is logical.

It is the view of the evaluator that the programme’s relatively great financial emphasis on the development of aquaculture is consistent with the challenges faced by the Danish fisheries sector as a whole. As an increase in catches cannot be anticipated over the next few years, it is logical to focus on the fact that a sustainable increase in Danish aquaculture production could improve the raw material supply of the Danish fisheries sector.

It is the view of Evaluator that the positive expectations of the development opportunities for Danish aquaculture are well founded, as the business to date has been characterised by unused potential.

The programme emphasises that for industry investments in these development opportunities, the new municipalities have to utilise the new permits. Evaluator is therefore of the opinion that, during implementation of the programme, it will be important to monitor how the new municipalities are utilising these permits.

**Recommendation 3:** The evaluator recommends that the managing authority, in consultation with trade associations and environmental approval authorities, should gather experience during implementation of the programme on the extent to which the permits are used and the areas in which there is a particular need for guidance and knowledge sharing among aquaculture industry applications and the environmental approval authorities.

The programme’s focus on strategic development of the quality of Danish fishing ports and productivity is well founded.

The programme’s rationale is based on the expectation that a decline in and concentration of fish landings will result in keener competition between fishing ports in order to attract landings from both Danish and foreign fishing vessels.
It is the view of Evaluator that this general rationale is well founded in a recent analysis of the current and future competitive situations and challenges of the Danish ports.

*New Regulation could also affect the Danish fishing ports’ competitive situation.*

It is the view of Evaluator that New Regulation, which is expected to result in fewer fishing vessels, could also reinforce the competitive tendencies described above. It is expected that New Regulation will lead to fewer vessels when fishing quotas are combined.

**Recommendation 4:** The evaluator recommends that during implementation of the programme a new analysis of the competitive situation of Danish fishing ports be carried out. This analysis should focus on development in the Danish fishing ports’ shares of fish landings (various species), and also illustrate the significance of New Regulation for the smaller niche ports and the large, strategic fishing ports.

*The programme’s support terms are countering overcapacity in Danish ports.*

The programme’s conditions for supporting investments in the ports involve individual ports enclosing business plans for development of the port nationally (and also internationally where necessary) with their applications for subsidies. It is the view of the evaluator that this is consistent with the current and future competitive situations of the Danish ports. Fewer full-service ports will be required in Denmark as a consequence of the concentration in landings. Investments in Danish ports must not, therefore, lead to overcapacity and reinforce competition between Danish ports on the same parameters.

*The programme’s focus on increasing value added in processing is relevant in relation to the Danish fishing industry’s competitive situation and opportunities for development.*

The raw material supply for Danish processing and wholesale trade is under pressure in terms of competition from countries with low wage costs. The programme will counter this competition by promoting greater degrees
of processing, development of new products with emphasis on quality and high value, and new technology to replace wage-intensive production processes.

It is the view of the evaluator that the programme’s focus on value added through better quality is consistent with the Danish fishing industry’s current competitive situation and opportunities for development.

**Outsourcing is not just a threat, but also an offensive opportunity for growth**

It is the view of the programme that the outsourcing of production and workplaces is a threat and will counter this by promoting new technical which will replace wage-intensive production processes. The programme text states that “the threat from increased competition and outsourcing is just one side of globalisation, enhanced opportunities are another”.

Analysis results indicate that outsourcing is already an offensive growth strategy for Danish fishing operations, which are already deeply involved in production outside of Danish borders.

**Recommendation 5:** The evaluator recommends that the programme, when allocating support for investments in technology to counter outsourcing, should emphasise the fact that the company submitting the application should be able to state reasons as to whether countering outsourcing of specific production processes is a better long-term solution for the company than outsourcing.

**The aim to increase consumption of fish does not conflict with the starting point with regard to resource policy.**

The programme’s objective regarding increases in sales and consumption of fish may appear inconsistent with sustainable restriction of fishing initiatives and the regeneration plans.

However, it is the view of the evaluator that this objective is very consistent with the programme’s other measures if the programme text clarifies that the increased consumption must support qualitative development of the Danish fisheries and aquaculture sector. This increase in consumption should therefore indicate a strengthened domestic demand for new, high quality products, quality accreditation and improved product information. This increase in consumption can also be assured by means of increased production.
Recommendation 6: The evaluator recommends that the programme text should clarify the rationale for increasing the Danish people’s consumption of fish. In this respect, clarification of how an increase in Danish consumption can lead to strengthening of the objectives of the programme is proposed in particular.

The objective relating to strengthening of cooperation along the value chain is consistent with the other objectives of the programme.

It is the view of the evaluator that the programme’s support of cooperation projects between elements in the value chain is very relevant as regards the current challenges faced by the Danish fisheries and aquaculture sector. Evaluations and analyses confirm the need for reinforcement of cooperation between the individual elements of the value chain. These indicate that innovation and streamlining along the value chain will be an important future competition parameter. To strengthen this type of innovation process, projects should be promoted in which parties participate right along the value chain.

Promotion of cooperation projects increases demands on the programme’s information initiative.

The programme’s support conditions, depending on the project type, are that various players and elements in the value chain should be included in the project. It is the view of the evaluator that the establishment and implementation of such cooperation projects is of greater complexity and will increase demands on the programme’s information and guideline initiatives.

Recommendation 7: As the programme places emphasis on the establishment of projects across the value chain and between the fisheries sector and the rest of the Danish food sector, the evaluator recommends that the programme’s information initiative be applied more closely in accordance with this.

Therefore, an information plan should be prepared stating which

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18 Including, among other things, the report “Dansk Fiskeindustriis Muligheder i den Globale Økonomi” [The Opportunities for the Danish Fishing Industry in the Global Economy], GEMBA Innovation, IFM, Danish Research Institute of Food Economics, Technological Institute, Brand Plant, €ofish, March 2005.
information initiatives will be implemented in respect of target groups within and outside the fisheries sector. This information should include which target groups are to be reached, which resources are to be sold to the various information initiatives, and how the information initiatives are to be organised.

The programme’s emphasis on the need for knowledge and skills development in the fisheries sector is relevant in relation to its current weaknesses and need for development.

Global competition and demands for insight into environment, hygiene, safety and new technology make enhanced skills levels necessary among the workforce and organisations of the fisheries and aquaculture sector.

It is the view of the evaluator that the programme addresses relevant skills development requirements in the fisheries sector and is consistent with the programme’s other measures and objectives, including with regard to modernisation and the introduction of new technology, promoting sustainability and quality and providing retraining with a view to a generation shift.

Important to incorporate experiences from earlier attempts to increase recruitment of young people into fishing.

With support from the FIFG programme a project was implemented over the period 2002-2006 entitled “Recruitment and training in the fisheries sector”. Similarly, another project has been implemented which involved subsidising fishing apprentices’ pay during training in order to reduce the charge for having apprentices aboard vessels.

Recommendation 8: The evaluator recommends that the managing authority incorporate experiences from the two projects mentioned when assessing future projects which aim to promote recruitment of young people to the industry. It may be relevant as part of this to assess whether previous projects have influenced the distribution of genders in recruitment to the industry.

The programme’s measures are relevant in relation to the fishing areas’ current challenges and opportunities for development.

As many Danish fishing areas are located (geographically) in the peripheral areas of the country, which have weaker development provisions, these
areas are particularly vulnerable to the decline in fishing. Therefore, a central feature of the programme’s measures is that they should reduce these areas’ dependency on fishing by contributing to diversification of industry, development of tourism and reinforcement of new forms of cooperation between the fisheries sector/port and the rest of industry in the area. It is the view of the evaluator that the programme’s measures are relevant in respect of the current challenges faced by the fishing areas.

The implementation of the measures in the local development plans will demand local strategic focus.

Given experiences from the Leader+ programme (2000-2006), it is the view of the evaluator that there may be a need to set requirements indicating that the local development strategies may select a maximum of 3-4 measures in order to prioritise and target their efforts. On the one hand, the development plan must constitute steering and prioritisation documentation for the projects supported. On the other hand, the development plan must be flexible and provide scope for new local ideas for good projects along the way which can be accommodated within the selected themes and focus areas. However, it is the view of the evaluator that the managing authority should establish an “upper ceiling” regarding the number of measures which may be included in any development plan.

**Recommendation 9:** The evaluator recommends that the managing authority should consider whether demands are to be made stating that the local development plans must justify and select a maximum number of measures for their development plan.

**Coherence between the strategy and policies at a regional and a national level, plus the EFF Regulation**

The EFF programme assists with compliance with key elements in the EU’s Common Fisheries Policy.

It is the view of the evaluator that key elements in the programme include promotion via New Regulation of a sustainable balance between resources and the fishing capacity of the EU fishing fleet. In addition, the programme includes schemes for permanent decommissioning and cessation, unless a situation which could not be predicted were to necessitate restriction of the fishing initiative and the size of the fishing fleet. The programme’s subsidy for modernisation of the fleet is also given under the definite condition that this investment does not involve an increase in the fishing capacity and that corresponding conditions are applicable to the programme’s subsidy for
development of fishing areas. In this respect, the programme is helping to ensure long-term sustainable utilisation of fishing resources.

Likewise, the programme includes measures for protection and regeneration of the aquatic environment. It is the view of the evaluator that the programme definitely does meet these needs by lending great financial weight to the support of the aquaculture industry and by including various measures for regeneration and protection of the marine environment and waterways.

The Lisbon strategy is broadly satisfied in the programme.

The aim of the Lisbon strategy is to make the EU a more competitive, knowledge-based economy, with additional, better workplaces, while at the same time ensuring social cohesion and environmental sustainability. It is the evaluator’s opinion that the EFF programme’s strategy and measures jointly contribute to promoting these general objectives.

On the one hand, the programme focuses on reinforcing the fisheries sector as a knowledge-based industry by reinforcing skills development throughout the sector, and also by strengthening the cooperation between the sector and research institutions. On the other hand, the programme seeks (among other things) to promote employment and lifelong learning by supplementing restructuring of the fishing fleet with retraining for employment outside of the fisheries sector.

The programme’s focus on sustainability is in line with the Gothenburg objectives.

It is the view of the evaluator that the programme’s focus on sustainability and assessment of the fisheries sector’s most important environmental consequences are in accordance with the Gothenburg objectives. On the one hand, the programme focuses on utilisation and regeneration of the fishing foundation which is sustainable in the long term. On the other, the programme has calculated that in particular the sector’s supply of raw materials is what represents the greatest environmental impact – relatively speaking – in the form of fuel consumption and pressure on fish stocks and the aquatic environment.

The foundation of the environmental assessment is satisfactory.
In the view of the evaluator, it is positive that the programme’s environmental assessment is built around consideration of the value chain which distinguishes between the fisheries sector’s raw materials supply, processing, sales and marketing. This reinforces consistency between the environmental assessment and the programme’s objectives.

As the programme’s environmental assessment is based on the value chain, it is the view of the evaluator that Mikkel Thrane’s survey\(^{19}\) of the collective environmental impact of the fisheries and aquaculture sector “from sea to table” forms a very relevant foundation.

**Less impact on fish stocks and the marine environment may be anticipated.**

In relation to the value chain, the programme identifies the raw material supply as the greatest environmental impact – relatively speaking – in the form of fuel consumption and pressure on fish stocks and the marine environment. The programme’s anticipated reduction in the number of vessels will ensure better alignment of fishing capacity to fishing opportunities. Likewise, the programme anticipates that modernisation of the fishing fleet in respect of more selective, responsible fishing, will also reduce environmental impact. In addition, the programme includes measures for regeneration of nature and the environment. Given the programme’s assumption that the number of fishing vessels will be reduced, it is the view of the evaluator that the programme’s anticipation of a positive environmental effect is well founded.

**More environmentally friendly rearing methods in aquaculture – but an increase in production will increase net discharges.**

The programme emphasises the promotion of more environmentally friendly rearing methods in the form of model fish farms and production with recirculation. Therefore, the programme expects this to reduce discharges of N, P and organic matter per tonne produced over the programme period. Given the assumptions made by the programme, it is the view of the evaluator that the target increase in total net production for the aquaculture industry will lead to increased discharges.

**Recommendation 10:** The evaluator recommends that the programme should clarify quantitatively the environmental impact of the target increase in aquaculture production, particularly with regard

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\(^{19}\) Thrane, M (2004): Environmental Impacts from Danish Fish Products. PhD dissertation. Aalborg University
to discharges of N, P and organic matter.

However, the evaluator must note that the actual environmental impact of any given discharge is dependent on the ambient conditions in any given area – e.g. the strength of the natural nitrogen dilution.

The programme has a clear demarcation and complementarity in relation to other funds (ERDF, EAFRD and ESF)

It is the view of the evaluator that the programme has defined the demarcation to other funds and national schemes such that it both contributes to synergy between the funds and that it ensures that no overlap or double financing occurs:

**Synergy** is guaranteed in respect of a principle stating that projects which include activities for which there is an entitlement to support under a number of programmes could therefore obtain subsidies from a number of funds.

**Demarcation** is guaranteed through a principle stating that no subsidies can be granted from a number of funds to the same expense within a project.

The demarcation principles may increase the administrative burden for recipients of support.

Projects which include activities that may be supported by a number of funds must, as far as possible, be divided into subprojects which are supported and administered under the respective programmes.

It is the view of the evaluator that this could lead to a greater administrative burden for recipients of support who therefore have to implement special reporting of accounts and audits in respect of a number of funds.

**Recommendation 11:** The evaluator recommends that the managing authority should contact other managing authorities and attempt, as far as possible, to establish joint principles for the structuring of application forms and recording of project details under the respective funds. This could improve coordination of initiatives and make things less complicated for project applicants.

This programme has been coordinated with the National Strategic Framework for the European Regional Development Fund
The EFF programme and its principles for demarcation with other funds have been coordinated in accordance with Denmark’s Strategic Reference Framework, “Regional competitiveness and employment in Denmark”. The principles for synergy and demarcation in the reference framework are consistent with the fishing programme.

**Evaluation of the programme’s anticipated results and effects**

*The impact indicators are relevant in respect of the programme’s strategy on value added.*

It is the view of the evaluator that the programme’s impact indicators and objectives are relevant in relation to the programme’s strategy regarding enhancing the value added of the entire Danish fisheries sector. As it is not possible to anticipate an increase in the raw material supply from fisheries, it is logical to focus on increasing both the landing value of Danish fishermen and the value added in processing as the production value of the aquaculture industry.

*The programme’s organisation of data collection for the indicators has been reinforced.*

Earlier evaluations of the FIFG programme have indicated that many indicators were set up, a high proportion of which are difficult to measure. It was also assessed that there was a need for better continuous monitoring of the progress of the programme on the basis of data collection.

It is the evaluator’s overall assessment that the EFF programme has complied with these recommendations. The programme’s indicators are common, clearly defined, quantitative, statistical data which can be collected continuously with no major consumption of resources.

*The programme’s indicators at axis level are generally relevant and clear.*

However, the evaluator does have some notes and suggestions for improvements with regard to the following points, among other things:
• The programme will determine the proportion of vessels with investment and set 20% as a target. As it is assumed that the number of vessels in the fishing fleet will be reduced as a consequence of New Regulation, this may affect the size of the proportion. Therefore, it is the view of the evaluator that it is necessary to specify whether the proportion is to be calculated from the size of the fishing fleet at the end of the programme, or at the start of the programme.
• The evaluator suggests that the programme should establish a result indicator that determines the number of modernisation projects distributed over the modernisation purposes.
• The programme sets an objective for a considerable increase in the aquaculture industry’s production. As the targeted increase is considerable, it is the view of the evaluator that the objective must be designated as an estimate of the extent to which aquaculture could potentially grow, if all factors are favourable.
• As far as skills development is concerned, the evaluator proposes that the programme should determine the number of course participants and courses, distributed over the purposes of skills development and elements in the value chain.

Assessment of the programme’s implementation systems

The national managing authority has reinforced systems for monitoring, regulation and support administration of the programme

Earlier evaluations under the FIFG programme (2000-2006) indicate generally that the national administrative body, the Directorate for Food, Fisheries and Agri Business (DFFE), has established satisfactory administrative procedures for programme administration.

However, earlier evaluations indicate a need to improve administration in the form of more efficient electronic case management and better continuous entry and processing of data on implementation and effects.

It is the view of the evaluator that the DFFE will meet these requirements under the EFF programme (2007-2013). On the one hand, the DFFE has been implementing the introduction of the Better Subsidy Administration System (BTAS) in recent years as part of its streamlining work. Therefore, it is the view of the evaluator that the DFFE’s administration and the Moni-

20 Reference is made to an output target which is no longer mentioned in the programme. Therefore, this suggestion is no longer relevant.
toring Committee’s opportunity to discuss priorities on the basis of updated monitoring and output measurements will be enhanced.

Reorganisation within the Directorate for Food, Fisheries and Agri Business will reinforce coordination between the Fisheries Fund and the rural development programmes

Compared with earlier programme periods, there will be a greater need throughout the EFF programme to reinforce coordination between initiatives under the Fisheries Fund and rural development programmes so that economies of scope can be created.

The DFFE is reorganising the offices at the Department of Development and Land Administration with a view to reinforcing coordination of the programme area and the link between the Rural Development Programme (2007-13) and the EFF. It is the view of the evaluator that this reorganisation will provide a more holistic resolution to tasks in the field and strengthen coordination between the Fisheries Fund programme and the rural development programme.

Requirement to ensure coordination with programmes of other ministries during implementation of the programme

Although the programme has described principles for demarcation to the other programmes and funds;

**Recommendation 12:** The evaluator recommends that the DFFE should work in consultation with other relevant ministries to establish an interdisciplinary forum which reinforces coordination with and synergy between programmes and funds during implementation.

Reinforcement of qualified assessment and selection of innovative projects

Innovation is a common topic in the programme: this emphasises that “innovative projects are considered to be crucial to the programme’s attainment of the goals”. Earlier evaluations indicate that this increases requirements for qualified assessment and selection of innovative projects.

It is the view of the evaluator that the EFF programme is compliant with this by involving the Innovation Committee in its administration as an expert advisor;
**Recommendation 13:** The evaluator therefore recommends that the DFFE, in consultation with the Monitoring and Innovation Committees, establishes general guidelines and criteria for assessment of the degree of innovation in projects.

Establishment of general guidelines could improve guidance for project applications and streamline case management and involvement of the Innovation Committee.

*Establishment of the local groups complies with a competition principle.*

It is the view of the evaluator that the programme’s procedures for appointing local groups are appropriate.

First of all, they ensure a population base of a certain size, geographically. Secondly, appointment takes place according to a competition principle, whereby the local groups have to submit beforehand a justified application for advance approval. It is the view of the evaluator that the established competition principle helps to ensure that establishment of the local groups promotes local initiative and commitment.
6. The programme’s prioritised axes

6.1. Introduction

The SWOT analysis in section 3.11 summarises strengths, weaknesses, opportunities and threats to raw material supplies, the seafood industry and the fisheries areas. The strengths include a sector characterised by a strong tradition for fishing and fish farming as well as high demand for fish and shellfish. The seafood industry is adaptable, geographically well-placed in relation to resources and globally operative.

There is an increased level of awareness regarding quality, and fish has a solid image as a healthy food. The weaknesses include a fragmented industry, many small units and a high level of costs. The opportunities in the sector include training and skills development, improved logistics and strategic alliances focused on the entire value chain, technological and product development, including niche products and innovation.

The threats against the sector include a weakening supply of raw materials, a relatively low level of training and a shortage of labour because of weak recruitment and generational change.

This chapter reviews the strategic objectives laid down in the National Strategic Plan and measures as well as indicators and the anticipated results. The indicators have been chosen in order to reflect the entire value chain, the environment, employment and regional development.
6.2. Coherence, justification and objectives of the priority axis chosen

6.2.1. Coherence

Coherence with NSP
Objectives for the fisheries and aquaculture sector are defined in the NSP and which can be addressed by the Operational Programme is all transposed to be objectives for the Operational Programme. The coherence with the objectives as defined in the NSP is shown in annex III.

Coherence with the guiding principles for the OP
The guiding principles of the OP in accordance with Article 19 of the EFF-regulation will be ensured by the programme by establishing a link with the most important EU priorities.

- The EU’s Common Fisheries Policy, which forms the framework of Danish fisheries policy, has been developed in compliance with a range of international framework conditions undertaken under the auspices of the UN. The most important framework conditions are the UN’s Convention on the Law of the Sea, the UN’s Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks, the FAO Code of Conduct for Responsible Fishing, and the Johannesburg Declaration on Sustainable Development. In compliance with the Common Fisheries Policy, the international framework conditions and New Regulation, environmentally sustainable development is an objective in the strategy for the Danish fisheries sector for 2007-2013, and the present programme includes a range of measures that will contribute to this development. Investments in fishing capacity are not supported by this programme and emphasis in priority axis 1 is given on sustainable development of the fleet including measures increasing the value of the catch. The objectives of the programme will contribute to a long term sustainable use of the fisheries resources which is a central element in Council Regulation 2371/2002.

- The priorities of The Lisbon agenda as are taken into account in the programme. In The Lisbon agenda it was stressed that emphasis must be placed on knowledge-based growth, employment and sustainable development. Financial results must therefore be accompanied by the sustainable use of natural resources. Education, skills development and
support for young fishermen are priorities of the Operational Programme. The objective to create more and better workplaces is addressed by different measures with focus on working environment.

- Strategy for sustainable development, as adopted by the Council of Ministers in 2001 in Gothenburg applies objectives for sustainable development, where sustainability must be understood as a balanced combination of economic, environmental and social considerations. The Operational Programme is consistent with the Gothenburg objectives as the programme has focus on a maximum long-term yield taking into account the objective of sustainability and regional development. Environmentally sustainable development is also vital for growth within aquaculture production. Attempts are being made to attain this objective by means of management based on actual environmental impact and on sectors where growth takes place only within the scope of environmentally secure boundaries. Measures include environmental measures for aquaculture, investments in energy efficiency of the fleet and support to areas affected by NATURA 2000.

- Improvement of the situation of human resources is a broad objective taken onboard in all the axes of the Operational Programme; support for upgrading education, skills development, support for young fishermen and improvement of working conditions in the sector.

- It is an overall objective to increase the value added in the sector though the Operational Programme and measures are introduced to support the development and investments though innovation and new technology including measures to improve the transparency of the market for consumers.

- The Operational Programme will contribute to a better supply to the market of fisheries products, though several measures: quality development, both onboard vessels and in the processing industry, increase of aquaculture production, investment in better facilities in the fishing ports etc.

- It is expected that the objectives for better working environment and safety in the sector will motivate women’s employment in the sector and improve and equal opportunities.

- The sustainable development of the fisheries areas is one of the objectives of the Operational Programme and by all the axes but especially
though the measures in Axis 4 activities to increase the quality of the areas, work places and the quality of life in the areas will be supported.

Coherence with the outcome of the ex-ante evaluation

The selected prioritised axes have been the subject of an ex ante evaluation which has contributed to the programming in a dialogue between the evaluator and the managing authority. The evaluation has resulted in an evaluation report containing a number of recommendations; cf. chapter 5. Account has been taken of some of the recommendations in this program, whereas other recommendations depend on further studies and analyses or decisions taken by the Monitoring Committee for the EFF. The enclosed table shows the results from the ex ante evaluation and how the recommendations have been or will be followed up.

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<th>Recommendation, ex ante evaluation</th>
<th>Follow-up</th>
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<td><strong>Recommendation 1</strong>: The evaluator recommends that the managing authority should systematically monitor the effects of New Regulation from the start of the programme, particularly if it leads to adaptation of vessel capacity in relation to fishing resources. It is recommended that experience be gathered as early on as possible in the programme which may then be included in the evaluation documentation. This may, for example, include experiences from what is known as the “scrapping round” in 2006, where vessels may swap quota shares with a view to combining fishing in fewer waters.</td>
<td>Based on the administration of the scheme, the Danish Directorate of Fisheries will be able to provide a continuous account of developments in view of the opportunities provided by the New Regulation. The Danish Directorate of Fisheries is a member of the Monitoring Committee and it will keep the committee informed at all times.</td>
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<td><strong>Recommendation 2</strong>: The evaluator recommends that a survey be carried out among Danish fishing vessels in order to find out about vessel owners’ incentives and requirements for investment.</td>
<td>The study will be carried out in connection with a review of applications for modernisation support and by gathering information from the fisheries organisations’ financial consultants.</td>
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<td><strong>Recommendation 3</strong>: The evaluator recommends that the managing authority, in consultation with trade associations and environmental approval authorities should gather experience during implementation of the programme on the extent to which the permits are used and the areas in which there is a particular need for guidance and knowl-</td>
<td>Experiences were gathered from the trade association, where a need was confirmed for improvements in the authorisation system, and a basis was worked out in the EFF programme in order for the environmental approval authorities to be included in networks and such like, which could lead to improvements in the approval procedures. The Danish Institute for Fisheries Re-</td>
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edge sharing among aquaculture industry applications and the environmental approval authorities.

Search has also produced environmental balance models which could improve the basis for the approval work.

**Recommendation 4:** The evaluator recommends that during implementation of the programme a new analysis of the competitive situation of Danish fishing ports be carried out. This analysis should focus on development in the Danish fishing ports’ shares of fish landings (various species), and also illustrate the significance of New Regulation for the smaller niche ports and the large, strategic fishing ports.

Various analyses are currently being carried out of the exploitation potential of Danish waters, and also of their competition situation. The recommendation will be submitted to the Monitoring Committee for the EFF programme with a view to assessing the need for the analysis in view of the existing analyses and the data that provides the basis for the follow-up to recommendation 1.

**Recommendation 5:** The evaluator recommends that the programme, when allocating support for investments in technology to counter outsourcing, emphasise the fact that the company submitting the application should be able to state reasons as to whether countering outsourcing of specific production processes is a better long-term solution for the company than outsourcing.

The recommendation will be acted on when drawing up conditions for aid for the processing sector as part of the Fisheries Fund.

**Recommendation 6:** The evaluator recommends that the programme text should clarify the rationale for increasing the Danish people’s consumption of fish. In this respect, clarification of how an increase in Danish consumption can lead to strengthening of the objectives of the programme is proposed in particular.

The recommendation relates to a proposed programme from autumn 2006. The recommendation was complied with in the final programme. A number of concrete marketing initiatives were also implemented, aimed at promoting the increased consumption of fish.

**Recommendation 7:** As the programme places emphasis on the establishment of projects across the value chain and between the fisheries sector and the rest of the Danish food sector, the evaluator recommends that the programme’s information initiative be applied more closely in accordance with this.

Therefore, an information plan should be prepared stating which information initiative will be implemented in respect of target groups within and outside the fisheries sector. This information should include which target groups are to be reached, which resources are to be sold to the various information initiatives, and how the information initiatives are to be organised.

The EFF programme, in chapter 9 on partnership and communication, states the overall goals for the communication initiative. The actual activities will be set out in a separate communication plan, which will be regularly updated. The recommendation will be incorporated in the work on the communication plan. The plan include thematic seminars etc.

A network entitled ”Aqua Circle” was also set up with the support of the FIFG which is intended to secure the stated goals, and an initiative has also been taken to direct the Danish Institute for Fisheries Research’s food consultancy activity by means of the value chain – ”Seafood Circle”.
Contact forums have also been established between industry and research in order to ensure that research promotes innovative investment in the sector.

**Recommendation 8:** The evaluator recommends that the managing authority incorporate experiences from the two projects mentioned when assessing future projects which aim to promote recruitment of young people to the industry. It may be relevant as part of this to assess whether previous projects have influenced the distribution of genders in recruitment to the industry.

An evaluation of the projects discussed in the recommendation concluded that there is still a widespread need for a continuing recruitment and training initiative in order to create positive and lasting effects for the fisheries industry. The evaluation recommended continuing to support the recruitment and training project until the FIFG programme is concluded, with a focus on the recruitment initiative and development activities.

The need for follow-up initiatives will be assessed in the light of this. Furthermore the EFF-programme can support recruitment of young people to the fishing sector, cf.

**Recommendation 9:** The evaluator recommends that the managing authority should consider whether demands are to be made stating that the local development plans must justify and select a maximum number of measures for their development plan.

Justification for the strategy and the number of measures depends on the actual needs of the area, whether it is contributing to a sustainable development and whether the strategy is economically feasible. There is no requirement for a maximum number of initiatives, but a criterion for the group’s prior approval is a focus on the development initiative. This implies a desire for the initiative not to be to widely spread over too many activities. The balance between the area’s need for activities, sustainability and economic feasibility will be a point of focus in the way the ministry deals with the local development strategies.

**Recommendation 10:** The evaluator recommends that the programme should clarify quantitatively the environmental impact of the target increase in aquaculture production, particularly with regard to discharges of N, P and organic matter.

The recommendation has been complied in the EFF programme; cf. results indicator for aquaculture in section 6.4.2.

**Recommendation 11:** The evaluator recommends that the managing authority should contact other managing authorities and attempt, as far as possible, to establish joint principles for the structuring of application forms and recording of pro-

The managing authority agrees with the recommendation and, when drawing up guidelines and application forms, it will work for common principles and for building up application forms between the programmes in order to simplify the
ject details under the respective funds. This could improve coordination of initiatives and make things less complicated for project applicants.

<table>
<thead>
<tr>
<th>Recommendation 12: The evaluator recommends that the DFFE should work in consultation with other relevant ministries to establish an interdisciplinary forum which reinforces coordination with and synergy between programmes and funds during implementation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Ministry of Food, Agriculture and Fisheries has reinforced internal coordination by setting up a common network centre for the EFF programme and the rural development programme. The network centre will also have the task of coordinating the initiative for other authorities and programmes, including the Ministry of Economic and Business Affairs, which is the overall authority for the structural fund programmes. The network centre is described in section 6.6.2.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommendation 13: The evaluator therefore recommends that the DFFE, in consultation with the Monitoring and Innovation Committees, establishes general guidelines and criteria for assessment of the degree of innovation in projects.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The recommendation has been taken into account in the programme as the programme enables the Innovation Committee to be involved in the administration by further agreement with the Monitoring Committee for the EFF programme.</td>
</tr>
</tbody>
</table>

6.2. Justification and objectives of the axis

6.2.1. Priority axis 1

The objective is for this prioritised axis to contribute to a sustainable development of the fishing resources, while at the same time the sector’s development and competitiveness are improved as described in the strategy for development of the Danish fisheries and aquaculture sector.

For the primary fisheries, there is a link between the level of activity and the yield. If the level of activity within the fishing sector is too great, over-fishing will result, causing lower and more unstable catches. In order to secure the maximum possible socio-economic yield, it is therefore vital that the level of activity within the fisheries sector is continually adapted to the available resources. For the primary fisheries industry, it is particularly important that by-catches and any other undesirable impact on the environment are kept at sustainable levels.

A fleet structure that meets the needs of both deep-sea fishing and coastal fishing will contribute to a multi-stringed Danish fisheries industry with the prerequisites to optimise quality and exploit all the opportunities open to
the fisheries industry to the benefit of employment. There is further a need to modernise the Danish fleet, so that the requirements concerning working environment and safety, cost levels, selectivity and product quality can be met. The activities will also be important to ensure that young people are motivated into seeking employment in the industry. Priority will therefore be given to using socio-economic measures to improve the generation change and recruitment and the skills level in the fishing industry.

The prioritised axis is aimed at the owners of fishing vessels, commercial fishermen and young fishermen.

6.2.2. Priority axis 2

The aquaculture sector has considerable potential for growth and it represents a central element of this prioritised axis. The target for aquaculture is to create sustainable growth and development. This growth must be in both traditional and new species, and increasing production also involves a good opportunity for increased growth in the associated industries.

As is described in the strategy, the potential for growth must be exploited at the same time as technological solutions reduce environmental impact. Danish aquaculture is well placed for this development by using the experiences from the so-called model fish farms. This is dependent on using the planned opportunities for localisation and development of the aquaculture sector. Continued development of environmentally friendly technologies and converting to e.g. organic aquaculture production and an improved dialogue between producers and public authorities is therefore an important element of the strategy.

The sector’s competitiveness and value added will also be improved by means of innovative investments, which can help to secure the fishing industry in Denmark in the global competition.

Value added can be generated within the processing sector partly by developing products, improving quality levels or increasing the degree of processing. An important consideration is to counter competition on the world market from countries where production is carried out with low labour costs. An increased degree of processing will therefore require extensive innovation and investments in technology and product and market development. In the global competitive situation, where the fishing industry sources globally and there is increasing demand for fish at a world level, it is an objective for Denmark to maintain and develop its position as a piv-
otal player in the world market for fish and fish products. This prioritised axis will help to ensure that the Danish fishing industry exploits the opportunities that lie in the increased global trade.

The target group for this prioritised axis consists of companies that farm fish and process fish products.

### 6.2.3. Priority axis 3

This prioritised axis includes a number of measures that are of common interest. Ensuring the competitiveness and profitability of enterprises in all areas of the fisheries sector within the framework of biological sustainability, the import of raw materials and consideration for the fisheries areas is a pivotal element. Innovative investments and activities can help to maximise the long-term socio-economic yield. This takes place through continual development throughout the value chain within the individual branches within the sector, through interaction between the branches and through collective measures.

One significant strategic goal is to improve co-operative relationships in the sector. For this reason, priority is being given to measures aimed at developing co-operation and networks between all links in the fisheries and aquaculture sector and also between the private and public sectors. Another common strategic goal is to improve the skills level, the working environment and safety throughout the sector by means of collective measures. Increasing the level of training and skills is of critical importance for competitiveness, as competition in the world market from countries with lower labour costs than Denmark is on the increase.

With regard to the protection of flora and fauna, new and tighter restrictions aimed at the protection of nature and the environment, including Natura 2000 and the Water Framework Directive, will result in a need for activities that can secure the development of the sector at the same time as compliance with the international commitments in the area of nature and the environment. These activities will relate to this prioritised axis and to the development of the aquaculture sector under axis 2.

The strategy further states that an increased national consumption of fish achieved on a sustainable basis could produce commercial and socio-economic benefits, including health benefits. The development of new certification systems that raise and stabilise quality levels and optimise the trading of fish and shellfish can also help to improve quality and increase
product differentiation, thereby generating greater value added. Priority is therefore also being given to activities that promote sales and certification.

The importance of this development should be supported by research and development, consultancy and monitoring, as stated in the strategy. It can only be supported to a limited degree by the EFF programme, and then as development and pilot projects. The research and consultancy initiative is seen as an important element in the strategy for the development of the sector and a good administration of the common fisheries policy, which will be supported by other programmes, including national research programmes. Measures of common interest are aimed at groups of companies, industry organisations, other private or public organisations and authorities and also research institutions and consultancy companies.

6.2.4. Priority axis 4

Vibrant and attractive local areas, where there is a basis for residential and commercial development, form part of the government’s rural development policy. The development of fisheries areas must be seen in this context, and thereby also in the context of the problems that are characteristic of many rural and peripheral areas.

As a supplement to the other measures, and as part of the local development strategies, measures can be taken aimed at promoting sustainable development in fisheries areas. The aim is to maintain the fishing communities and fisheries areas as culture-bearing environments that are attractive for residential and commercial development. Priority will be given to activities that help to avoid population decline and ensure the presence of an attractive and diverse industry around ports with alternatives to fisheries, whilst ensuring that fishing remains an attractive occupation for young people and an integral part of the community.

The activities will be implemented locally by specially set-up local groups. Applicants will be drawn from a large pool of local companies, and also authorities, institutions, organisations and associations, including the local action group.

6.2.5. Justification of Co-financing rate

The co-financing rates are based on Article 53 (b) of the EFF-regulation and set at the maximum rate of 50% for non-convergence regions for all the applied axes. The uniform application of the rate across the axes is chosen to facilitate the execution of the programme.
6.3. Priority axis 1: Measures to adapt the EU fishing fleet

6.3.1. Adjustment of fishing effort

For the purpose of achieving optimal and sustainable utilisation of fish and shellfish stocks in the Danish fisheries sector, fishing effort and fishing capacity are being adapted to the available catch possibilities. The strategic objective to create opportunities within the fisheries sector for low cost and high value added within the framework of a biologically sustainable fisheries sector calls for the fishing effort and capacity to be adjusted in accordance with developments in fisheries resources. Denmark respects the reference level for the fleet. The Operational Programme has no indicator for the development of capacity, as it will be regulated by the market.

As previously mentioned Denmark has since January 2003 used a right based management system (RBM) in terms of individual transferable quotas (ITQ) for the pelagic fishery. Since January 2007 this system has been expanded to cover the entire Danish fleet which means the demersal fishery is now included as well with the FKA-system.

The development in the pelagic fleet has shown a reduction in the capacity since 2003 which is in accordance with international experiences regarding ITQ management. By applying this type of management to the entire Danish fleet a similar development must be expected for the demersal fleet. This type of management therefore could be viewed as a measure that substitutes permanent cessation with public aid.

By the market-based system the actual level for the Danish fishing effort will be determined by the national fishing rights. As the national quotas are divided into individual vessel, quota shares (FKA) are concentrated by the fishermen on a reduced number of vessels (and capacity), the active fishing capacity will be reduced.

According to the study made by Institute of Food and Resource Economics (2007) as mentioned in section 3.3.1, a reduction of number of vessels by 15% would lead to short term equilibrium between fleet size and the fishing possibilities allocated by the quotas in 2007.

From January to July 2007 there is already a decrease of 6% in the fishing fleet without public aid for permanent cessation (see
Table 4). It is expected that this trend is continues.

The future size of the Danish fleet in the period 2007-13 will also to a large extent depend on how successful recovery and management plans will be in rebuilding stocks.

**Plans for adjustment of fishing effort**

Plans for adjustment of the fishing effort as defined in Article 21 of Council regulation 1198/2006 are adopted nationally by the Danish Ministry for Food, Agriculture and Fisheries and implemented by the Danish Directorate for Fisheries.

6.3.2. Investments on board fishing vessels and selectivity

There is a need for modernisation of the Danish fleet in order to bring it up to date with respect to crew conditions and catch management, to reduce fuel consumption and encourage energy efficiency to achieve responsible fishing. Support to investments on board fishing vessels can only be granted if the investment does not increase the effort to catch fish.

Modernisation of vessels is expected to be an essential element of active, market-oriented management. It is important for the public sector to support the necessary investments in fishing vessels during the current restructuring process; support for the modernisation of vessels and equipment can be provided for such purposes as the better management of catches, improved energy efficiency, better quality and higher value of catches as well as investments in and modifications to vessels that make fishing more responsible. Support for modernisation of the fleet thus constitutes a significant element in the adjustment of the fishing effort and better utilisation of fishing resources.

**Objectives**

The strategic measures are to be implemented for the purpose of achieving the following objectives:
• Create opportunities for low cost and high value added in the fishery within the framework of a sustainable fishery.
• Create the opportunity for an efficient, up-to-date fleet that serves the interests of both off-shore and coastal fishing.
• Manage catches and the level of activity within the fisheries sector in a way that ensures the sustainable exploitation of resources.
• Reduce unwanted by-catches and reduce environmental impact
• Improve gear selectivity to reduce discard.
• Improve the working environment and reduce the risk of occupational accidents.

**Measures**

The objectives are to be achieved through the following measures:

1. Investments to improve safety and working conditions on vessels
2. Investments to improve hygienic conditions, product quality, the value or use of fish and fish products.
3. Investments in improving storage facilities onboard vessels
4. Investments to reduce and improve the vessels’ energy consumption and energy efficiency
5. Investment in reduction of fisheries impact on eco system, and non-commercial species
6. Investments as part of preparation or trial of new technical measures for a limited period to be set by the Council or Commission
7. Investments that promotes the use of selective gear
8. Investments to protect catch and gear from wild predators

According to Article 25 (2) in the EFF regulation, investments increasing the ability to catch fish are not eligible for support.

To be eligible for support for the replacement of engines, it is a condition that the vessel’s engine power must be reduced by at least 20 %. An exemption for vessels of less than 12 metres exists that do not use trawling equipment that the engine power must not exceed the previous engine power. For vessels of more than 24 metres, a rescue and restructuring plan must be available, and a switch to a less fuel-intensive fishing method must take place.

A grant may only be given for one engine replacement during the period 2007-2013. The 20% reduction in engine power can be achieved by a group of vessels when the conditions for the group’s composition have been met.
as described in Article 6 of the Commission’s implementation regulation for 1198/2006.

For vessels up to 24 metres in overall length other than those referred to in point (a) of Article 25 (3) of Regulation 1198/2006 the required 20% power reduction may be achieved by a group of vessels.

The following conditions apply:

1) General conditions
   - The vessels are individually identified
   - All vessels in a group must have been active in fishing mainly in either ICES IV or ICES III
   - All vessels in a group use the same or one of the following fishing gear as the main fishing gear:
     - Trawl (including pelagic trawl, bottom trawl and beam trawl)
     - Danish seine or Scottish seine
     - Longlines
     - Gillnets or similar nets (including pound nets and trammel nets)
   - All the vessels belonging to the same group do not exceed fifty in number.
   - The group may not be extended by more vessels, and the number of vessels may be reduced only if vessels belonging to the group are withdrawn from fishing without public aid.

2) Conditions regarding engine power and grants for a new engine
   - The total engine power of the group must not exceed the total initial power of the group minus the required 20% reduction as described in art. 25 (3) b and c of the EFF regulation.

3) Control
   - A group has to be notified to the management authority (Directorate of Agriculture, Fisheries and Agribusiness) and to the Directorate of Fisheries.
   - The Directorate of Fisheries will control that the special conditions for groups are respected. For each vessel belonging to a group the membership of the group will be registered in a note in the fishing vessel register.
   - Vessels removed from the group and used to justify a grant will be permanently deleted from the fishing vessel register in the same way as capacity taken out with public aid. The vessels will be scrapped (physically destroyed) or a legal declaration prohibiting its future use for fishing will be registered in the register for non fishing vessels. In case of
scrapping will be controlled by the Directorate of Fisheries.

- The decrease of engine power used to justify a grant (the 20% reduction) will be deducted from the reference level and the level for entry/exit of capacity. This will be done in the annual fleet report for the Danish fishing fleet according to Article 14 of Regulation 2371/2002.

It must be expected that during the period of the programme there will be a need to offer public sector support, e.g. for the replacement of engines in trawlers of more than 24 metres as an element in rescue and restructuring plans in accordance with the Community Guidelines on state support for rescuing and restructuring firms in difficulty.

Financial support may also be allocated to modernise equipment aimed at increasing selectivity, reduce unwanted by-catch and the impact of fishing on ecosystems, protecting catches and fishing gear from wild predators or the handling of catches that would otherwise be discarded.

The total costs for an individual fishing vessel for which modernisation support may be offered during the period 2007-2013, can not exceed a ceiling either

- defined for six vessel categories according to tonnage and age as also described in the measure for permanent cessation of fishing activities, or
- by the insurance value of the vessel.

**Small-scale coastal fishing**

Small-scale coastal fishing is prioritised with a view to retaining a diversified fishing industry. Coastal fishing is assumed to be environmentally friendly, as it does not use towed gear. Coastal fishing also helps to conserve (and develop) the traditional Danish fishing industry, including traditionally constructed vessels and gear, and to maintain coastal communities and smaller ports and landing places.

Support for the modernisation of coastal fishing vessels may be increased up to 60% if the investment relates to vessels of less than 12 metres that do not use towed gear.

The support may be increased to a maximum of 40% of the investment cost of replacing engines for vessels of less than 12 metres.
The total costs for an individual fishing vessel for which modernisation support may be offered during the period 2007-2013 can not exceed a ceiling which is defined for six vessel categories according to tonnage and age.

Support can be made available for the socio-economic measures mentioned in 6.3.3. In the case of making special efforts for the coastal fisheries, the following activities can also be supported:

- Improvement of management and control of specific fisheries areas
- Promotion of organisation of the production and processing and distribution of fisheries products
- Encourage the use of technological innovation which goes beyond existing regulatory obligation under the community
- Improvement of the educational level of the coastal fishermen

The premiums of support will be calculated on the basis of a plan made on behalf of the group of the vessels participating in the project. The plan must show the main goals, activities, investments and budget for the project. The premium will be calculated as a percentage of the total eligible costs of the project. If the project concerns productive investments, the total amount per project of the premiums should not exceed the threshold for aid to investment cost set by Council Regulation 1198/2006 in annex II.

**Beneficiaries**
Owners of fishing vessels.

**Indicators**
The table below indicates the present situation (baseline), along with the objectives that have been established with regard to the modernisation of vessels:

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Baseline 2005</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of reported occupational accidents of fishermen</td>
<td>139 in primary fisheries (2004)</td>
<td>Annual reduction</td>
</tr>
<tr>
<td>Percentage of fish volumes landed in quality E</td>
<td>Awaiting spec. run</td>
<td>+2% per year</td>
</tr>
<tr>
<td>Fuel consumption in commercial fishing, (1000 litre)</td>
<td>143.541 (2005)</td>
<td>- 4% (2010)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- 10% (2015)</td>
</tr>
</tbody>
</table>

*Source: Institute of Food and Resource Economics, Danish Maritime Authority, Danish Directorate of Fisheries*
6.3.3. Socio-economic measures

Young fishermen will be able to contribute positively to the development of a profession that focuses on sustainability, the working environment and safety. It can be difficult for young fishermen to acquire the necessary capital to make such an investment. It is therefore necessary to make public sector support available to young fishermen who are just starting out for the first time with their own vessel.

**Objectives**

The strategic measures are to be implemented for the purpose of achieving the following objectives:

- Carry out activities that help to motivate young people into seeking employment within the fisheries sector.
- Create the opportunity for an efficient, up-to-date fleet that serves the interests of both deep-sea fishing and coastal fishing.
- Optimise the level of training and skills throughout the fisheries

**Measures**

The objectives are to be achieved through the following measures:

1. Support to young fishers to first time establishment with a fishing vessel;
2. Diversification of the activities in order to create alternative employment besides fishery, support will be given to establishment of local workplaces diversifying the employment possibilities for fishers for example relating to coastal tourism.
3. Training activities within the fisheries sector the activities may fx. cover the use of IT, hygiene, safety, general entrepreneurship and training on responsible and environmental friendly fishing methods;
4. Retraining for jobs outside sea fishing initiated by a fisheries organisation or the fisher themselves;
5. In the unlikely event of public support to permanent cessation a one-off compensation to fishermen who were employed at a vessel affected by permanent cessation can be given;

**Calculation of support**

Re. 1) Each applicant may be offered support to a maximum of 15 per cent of the applicant’s costs of the acquisition of the ownership right to the vessel or a maximum of € 50,000.
Re. 2) Support is given on the basis of the cost of the initial establishment of the new workplaces
Re. 3) Support can be given on the basis of an approved plan to retraining for employment outside deep-sea fishing;
Re. 4) for training and skills acquisition, the support will be calculated on the basis of participation in the training and compensation for the time spend on the training/course.
Re. 5) The one-off compensation will be based on the cost for retraining or establishment of alternative employment.

**Beneficiaries**
Re. 1) Younger fishermen under the age of 40 who have been working for a minimum of 5 years as fishermen or have an equivalent education.
Re. 2-4) Fishermen and organisations acting on behalf of the fishermen
Re. 5) Fishermen who have been working on a vessel affected by permanent cessation.

**Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline 2006</th>
<th>Objective 2010</th>
<th>Objective 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average age of vessel owners</td>
<td>51</td>
<td>50</td>
<td>49</td>
</tr>
</tbody>
</table>

*Source: The Danish Directorate of Fisheries*

**6.3.4. Permanent cessation of fishing activities**

The New Regulation of Danish fisheries are expected to make public sector support for scrapping superfluous for fisheries. The application of measures for the permanent adaptation of the fishing effort will therefore only be used if an unforeseeable situation should arise. On this basis, the measures are included in the programme, but given a low priority in the financing plan.

Expectations of the New Regulation are high, but it is naturally not possible at the present time to predict the extent of the changes that will take place in fishing effort. Developments will therefore be followed closely, and the upcoming Monitoring Committee will be continuously updated on the effects of the New Regulation.

This adjustment of the fishing effort is advanced primarily through market-based fishing administration, where each fisherman is given the opportunity to organise fishing activities so that capacity is optimally exploited. The catch efficiency of the Danish fleet is developing on an ongoing basis and, as there is generally considerable overcapacity in Danish fisheries, this adaptation will mean further reductions in capacity. Fishing effort ad-
justment will be implemented and adjusted in view of Community measures relevant for Denmark.

Public sector support for the final and temporary cessation of fishing activities will only become pertinent if an unforeseen situation arises with serious consequences for a given fishery, e.g. in the event of pollution incidents.

If the need will occur to accompany conservation measures, affecting the Danish fishing sector, with aid to permanent cessation during the programming period, reprogramming of aid may be needed.

Permanent cessation can be a part of a decommissioning scheme that needs to be integrated into a fishing effort adjustment plan.

**Objectives**
The strategic measures are to be implemented for the purpose of achieving the following objectives:

- Create opportunities for low costs and high value added in the seafood industry within the framework of biologically sustainable fisheries.

**Measure**
The objectives are to be achieved through the following measure:

Permanent cessation of fishing activities

The calculation of premiums for permanent cessation will be based on either tonnage (GT) or age or on the price of the fishing vessel recorded on the national market or on the turn-over of the vessel. The method chosen will depend on which criteria will reflect the value best which is not to foresee at present largely due to the new regulation.

**Beneficiaries**
Owners of fishing vessels.

6.3.4. **Temporary cessation of fishing activities**
Temporary cessation can only be supported in the special situations listed in the EFF-regulation Article 24.
Temporary cessation has to be programmed within a fishing effort adjustment plan apart from Article 24 (1) v (concerning management plans at national level.), vi and vii of Council Regulation 1198/2006.

**Objectives**
The strategic measures are to be implemented for the purpose of achieving the following objectives:

- Create opportunities for low costs and high value added in the seafood industry within the framework of biologically sustainable fisheries.

**Measure**
Temporary cessation of fishing activities.

If the measure is taken into use all commercial fishing activities of the applicants must be stopped and any sailing with the vessel is forbidden without prior approval by the authorities in the period of the temporary cessation.

The Directorate for Food, Fisheries and Agri Business and the Danish Directorate for Fisheries will control the cessation.

**Calculation of support for temporary cessation**
Compensation will be based on the expected loss of revenue deducted running costs and salary to employees on the vessel in the period of the cessation. The expected loss of revenue is calculated on the basis of a relevant reference period taken into account historical landings of the vessel. The value of the landings foregone will be calculated on the basis of an average price/kg.

Costs which are maintained when the vessel is kept in harbour such as, harbour fees, insurance costs and other fixed costs can also be considered as basis for the premium.
**Beneficiaries**

Owners of fishing vessels and fishermen employed on the vessels concerned by temporary cessation.

**Indicators**

There are no indicators defined as permanent and temporary cessation are not viewed as a main measure in the Danish programme and the measure will only be taken into use en special circumstances.

**6.3.5. Demarcation - measures for adapting the EU fishing fleet and fishing effort**

The Fisheries Fund is the only fund that will contribute to adaptation of fishing capacity and fishing initiatives by modernisation of fishing vessels, apart from training and diversifications measures.

**ESF and ERDF**

In case of training and projects for diversifications overlapping to the ESF and ERDF programmes may occur. In case it does, the demarcation will be made on the level of final beneficiary. Projects where fishermen are the beneficiaries can be financed by EFF. Activities purely targeting the fisheries sector are not eligible for support by the ESF and ERDF.

Broader activities, involving different sectors can be financed by the ESF but specific elements concerning fishermen could be financed by the EFF. The activity will then have to be divided into two projects.

**EAFRD**

In case of activities regarding training and acquiring skills overlapping to the EAFRD programme may occur. In case it does, the demarcation will be made on the level of final beneficiary. Projects under EAFRD will support the farm-forestry and food workers while fishermen and activities related to the fisheries and aquaculture sector only will be eligible for support from the EFF programme.
6.4. Priority axis 2: Aquaculture, processing and marketing of fisheries and aquaculture products

There is considerable potential for development within the Danish aquaculture sector. The targeted development of Danish aquaculture could increase production to 60,000 tonnes of trout in land-based fish farming, 40,000 tonnes of trout in marine farming, and 5,000 tonnes of eel. This represents a doubling of production in land-based fish farming, a five-fold increase in marine farming and a three-fold increase in eel farming. The increase in eel production assumes the possibility to reproduce eel and/or availability of elvers on the international market, and that such activity complies with the objectives and rules of the eel recovery plan in Regulation 1100/2007.

Organic aquaculture

Organically farmed fish are subject to the requirements for the national, red organic label. This means, for example, that they must be produced using approved organic feed and with minimal use of medicines. However it also means that the fish farmer places emphasis on animal welfare and responsible environmental management.

Objectives

It is Denmark’s objective to increase production in aquaculture from approximately 40,000 tonnes to 115,000 tonnes in 2013, while at the same time reducing the environmental impact per kg of produced fish by 40% by 2013, corresponding to a maximum N discharge of approximately 2,400 tonnes. This objective is to be pursued by:

- Creating opportunities in aquaculture for sustainable growth through innovation, skills development, a reduction in impact on the natural environment and the establishment of new types of partnership.
- Enhance the framework for optimising the processing industry’s raw materials base and improve value added in the sector as a whole.

Exploiting this growth potential requires long-term investment capital. Investment support may therefore be implemented in the form of both support and guarantees in connection with the raising of loans. Financial in-

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Instruments will primarily be offered to small and medium sized enterprises and the specific conditions for financial engineering instruments of the implementing regulations for the EFF (Article 34-37) must be met.

6.4.1. Productive investment in aquaculture

Investments in new construction, expansion, equipment and new technology or modernisation, especially for the purpose of improving safety and working conditions, hygiene, animal and human health, environmental improvement and product quality. Activities for improvement of lifelong learning of the aquaculture workers may also be supported by the Programme. Investments shall contribute to one or more of the following results:

1. introduction of new breeding species and species with good market potential,
2. innovation including in commercial use of other aquatic organisms than fish,
3. recycling and clean technologies,
4. improved documentation and traceability,
5. implementation of breeding methods that significantly reduce the negative or increase the positive environmental impact, including “model fish farms”,
6. traditional breeding activities that are important for the preservation and development of both socio-economic structure and the environment,
7. acquisition of equipment for protection against predators,
8. improvement of the working and safety conditions
9. improvement of training and skills of aquaculture workers.

For the above mentioned activities support can also be given to service vessels and investments in retail integrated with aquaculture production. Support can be provided either as a direct grant or in the form of a loan guarantee.

To guarantee that projects with the specific aim of introducing new species are undertaken on the basis of knowledge of the market potential, a market survey will be required before support is granted for such projects. In general the survey is expected to be performed by the national authority, but can also be performed by organisations or enterprises within the sector. The first-mentioned survey can be granted under the measure technical assistance.
In accordance with the EFF scheme, priority must be given to micro companies and small enterprises when allocating productive investments. Prioritisation of micro-enterprises and small enterprises will take place on the basis of the following criteria:

- In each application rounds more than 50% of the budget available shall be granted to micro and small enterprises. If less than 50% of the budget can be allocated to micro and small enterprises the amount may be allocated to other enterprises,

- or the size of the enterprise is used as a priority point when ranking the beneficiaries for funding.

**Beneficiaries**

Aquacultural enterprises with less than 750 employees or with a turnover of less than 200 million €.

### 6.4.2. Aqua-environmental measures

**Measures**

Compensation for the use of environmentally friendly and eco-friendly rearing methods, where the beneficiaries commit themselves for a minimum of five years to aqua-environmental requirements including

1. other rearing methods that include protection and improvement of the environment, natural resources, genetic diversity, the landscape and traditional aspects of aquaculture areas;
2. participation in the Community’s environmental management and audit scheme (EMAS); cf. Regulation (EC) No. 761/2001;
3. organic aquaculture; cf. Regulation (EEC) No. 2092/91;

Re 1) It should be stressed that the environmental benefits of this measure must be subject to a prior assessment by a competent body according to Article 30 (3) of Council Regulation 1198/2006.

**Beneficiaries**

Aquaculture enterprises
Indicators

General development within the aquaculture sector will be measured by the following indicators:

<table>
<thead>
<tr>
<th>Result indicators</th>
<th>Baseline 2004</th>
<th>Objective 2010</th>
<th>Objective 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production volume in thousand tonnes(^\text{22})</td>
<td>40.6</td>
<td>50</td>
<td>115</td>
</tr>
<tr>
<td>Production volume in € million(^\text{23})</td>
<td>100</td>
<td>160</td>
<td>300%</td>
</tr>
<tr>
<td>Discharge from land-based fish farming production of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrogen:</td>
<td>38 kg/t prod.</td>
<td>30 kg/t prod.</td>
<td>23 kg/t prod.</td>
</tr>
<tr>
<td>Phosphorus:</td>
<td>3.1 kg/t prod.</td>
<td>2.5 kg/t prod.</td>
<td>1.5 kg/t prod.</td>
</tr>
<tr>
<td>Organic matter:</td>
<td>105 kg/t prod.</td>
<td>85 kg/t prod.</td>
<td>60 kg/t prod.</td>
</tr>
</tbody>
</table>

Source: The Danish Directorate of Fisheries, Institute of Food and Resource Economics and Statistics Denmark

Calculation of support

Support for the measures are issued on the basis of the following guidelines:

Re 1) additional costs for implementing the projects
Re 2) additional costs related to preparing for EMAS certification. Only costs that are prior to the approval of the scheme for the individual enterprise is eligible for support.
Re 3) loss of revenue incurred and additional costs related to conversion to organic aquaculture
Re 4) specific disadvantages and/or loss of revenue incurred. Only costs related to the specific restrictions for the NATURA 2000 area are eligible.

Re 3 The compensation must only be granted for a maximum of two years.
Re 4) The compensation must only be granted for a maximum of two years, subsequent to the date of the decision establishing the NATURA 2000 area and only for aquaculture units existing prior to that decision.

\(^{22}\) Including removal for further rearing.

\(^{23}\) Including removal for further rearing, but exclusive value of roe.
6.4.3. Animal health measures

Objectives
The objective in the aquaculture sector is to create the opportunity for sustainable growth through innovation, skills development, reduction of the impact on the natural environment and the establishment of new types of partnership.

Measure
Support for expenditure pertaining to the control and elimination of diseases in aquaculture in relation to Council Decision 90/424/EEC on expenditure in the veterinary field

Beneficiaries
Aquaculture enterprises, organisations and public institutions.

6.4.4. Public health measures

In order to ensure optimal conditions for the development of the sector, the following measures are to be implemented:

Measure
Compensation for loss in revenue due to the temporary suspension of harvesting in order to protect human health in cases where mussels have become polluted by poisonous algae or their toxins.

Beneficiaries
Aquaculture enterprises, organisations, public institutions

6.4.5. Processing and marketing

Value added in processing can be increased through a greater degree of processing. An important consideration is to counter competition on the world market from countries where production is carried out with low labour costs. A greater degree of processing will therefore largely require innovative activities and investments in technology and product development. Market development is also important in relation to both processing and wholesaling. Focus areas will include quality, fresh fish and convenience in preparation, healthiness, functional foods and the demand from individual target groups. By focusing on these points, a multifaceted range of fish products will be made available to the benefit of the consumer.
The strategic measures are to be implemented for the purpose of achieving the following objectives:

- Maintain and increase value added within the processing, wholesale and sale links in the chain through innovation, skills development and new types of partnership.
- Improve the working environment and reduce the risk of occupational accidents.
- Optimise the level of training and skills throughout the fisheries and aquaculture sector.

These objectives will be achieved by the following:

**Measures**
- Product development with a focus on product quality, convenience in preparation, healthiness, traceability, minimisation of wastage and the ability to meet the demands of individual groups.
- Investments in new technology and innovative production methods.
- Investments in hygiene and environmental improvement, including investments regarding extraction from fishmeal or fish oil, of dioxin or other harmful materials harmful to humans.
- Investments to improve the working environment, safety, training and skills.
- Marketing of new products and products that originate from local landings and aquaculture in particular.

In accordance with the EFF scheme, priority must be given to micro companies and small enterprises. Prioritisation of micro-enterprises and small enterprises will take place on the basis of the following criteria:

- In each application rounds more than 50% of the budget available shall be given to micro and small enterprises. If less than 50% of the budget can be allocated to micro and small enterprises the amount may be allocated to other enterprises,

- or the size of the enterprise is used as a priority point when ranking the beneficiaries for funding.

The programme’s grant opportunities under axis 3 in the areas of innovation, pilot projects, knowledge-sharing, collaboration and the creation of networks, all form a strategic basis for supporting investments in the Danish seafood industry under axis 2..
Meeting the environmental challenges for the processing industries are also given priority. For example are dioxins present everywhere in the environment and are concentrated in certain foods. EU-regulation has set upper threshold values for dioxin and dioxin like PCB’s in animal foods which are implemented in the national regulation. In order to enable production of fish meal and fish oil and feed for aquaculture which respect the thresholds, support can be given to investments in the extraction of these or other materials harmful to the human health.

**Beneficiaries**
Processing and marketing enterprises with less than 750 employees or a turnover of less than 200 million €.

**Indicators**

<table>
<thead>
<tr>
<th>Result indicator</th>
<th>Baseline (2004)</th>
<th>Annual objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production value in DKK million:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Production of prepared products (ready-made meals and canned goods)</td>
<td>3,872</td>
<td>+3 %</td>
</tr>
<tr>
<td>• Production of dried, salted and smoked products</td>
<td>1,523</td>
<td>+3 %</td>
</tr>
<tr>
<td>Export value in DKK million:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross exports</td>
<td>1,650</td>
<td>+3 %</td>
</tr>
<tr>
<td>Long-term increase in value added for processing companies (2003), DKK million)</td>
<td>1,949</td>
<td>+2 %</td>
</tr>
<tr>
<td>Number of reported occupational accidents</td>
<td>200</td>
<td>Reduced</td>
</tr>
</tbody>
</table>

*Source: The Danish Directorate of Fisheries, Institute of Food and Resource Economics and Statistics Denmark*

As part of this prioritised axis, support will also be provided for life-long learning, in order to achieve the above goals.
6.4.6. Demarcation - aquaculture, processing and marketing

The Fisheries Fund may contribute to a number of types of investment in the fields of aquaculture, processing and marketing, including support for the introduction of environmentally friendly methods, skills development, etc.

Support for aquaculture including aqua-environmental projects will only be funded by the EFF-programme.

**ERDF**

There could be an overlap with activities eligible for support under the ERDF for investments in processing and marketing, but overlap can only occur in the special approved state-aid areas, which are the only areas where ERDF is able to support at enterprise-level. For these areas there will be special focus on the applicants’ information on the composition of the financing of the project.

If the initiatives involves a number of sectors, support may be obtained from a number of funds, including the structural funds, on the condition that the activities in the project are separated into different projects. The project is divided up into industries or sectors.

If this is not possible, a specific assessment will be carried out administratively as to which fund and programme will be best able to support the project’s purpose in accordance with the general principle for demarcation.

**ESF**

The activities of priority axis 2 of the EFF will not be eligible for funding under ESF, except for training and skills acquisition. Demarcation will be made on the level of final beneficiary. Where aquaculture workers and workers in the fishing industry are the beneficiaries, projects can be financed by EFF. Activities purely targeting the fisheries sector are not eligible for support by the ESF.

**EAFRD**

In case of support to investments in food processing overlapping may occur. Demarcation takes place at the point of activity, where projects relating only to the fisheries and aquaculture sector can be supported under the EFF, whilst projects within other parts of the food sector are supported by the EAFRD.
6.5. **Priority axis 3: Measures of common interest**

Support under this axis covers measures of common interest and which helps to meet the objectives of the common fisheries policy. The activities are of a broader scope than what would normally be undertaken by private enterprises.

6.5.1. **Fishing ports and other landing places**

Denmark has approximately 100 fishing ports and fishing landing sites, 13 of which receive more than 1,000 tonnes of fish per year.

Landings of fish for consumption in Danish ports from Danish and foreign vessels have fluctuated between 500,000 and 600,000 tonnes over the last ten years. The trend has been heading downwards as a result of reduced fishing quotas for the most significant species. As a whole, the relative difference in landed volumes among the ports has been modest. Measured in terms of the individual fish species, the differences have been more striking, with a slight tendency towards concentration.

**Objectives**

The trend towards fewer fishing vessels will probably result in structural development in the direction of fewer full-service ports, but where niche production or the diversification of activities can contribute to the survival of smaller ports without all necessary port facilities.

The objectives are to:

Offer a high level of integrated service at the strategic fishing ports. Offer basic service functions in niche ports, including landing sites, for small and medium-sized locally based fishing vessels.

**Measures**

This objective will be achieved through the following measures:

- Landing, handling, temporary storage, transport and unloading of fish and shellfish,
- establishment, improvement and securing of refrigeration chains, quality control and auctions,
- catch handling upon landing (sorting and cleaning facilities),
• safety measures and an improved working environment,
• environmental improvement, including improved waste and waste water management,
• crate cleaning systems, tool rooms,
• supply of vessels with fuel, ice, water, loading and arrival quays, port basins, piers and slips.

The purpose of this measure is to contribute to the development of the fishing ports and the fisheries and aquaculture sector by improving the facilities and services offered to fishermen and the seafood industry. This measure must in particular contribute to improving productivity in connection with the landing, handling, transport and sale of catches, but will also help improve the working environment and safety levels at the fishing ports. The support can only be given to investments in fishing ports.

Support will be contingent upon appending the application for support with a business plan for the port’s development in a national and, if necessary, international context. The purpose of this provision is to ensure that support is awarded on the basis of a future-oriented needs analysis. Ports whose plans go beyond the fisheries and aquaculture sector and where the port is seen as an integrated part of the immediate environment will be given high priority; cf. the objective for the development of fisheries areas.

**Beneficiaries**
Fishing ports and service enterprises, including collecting centrals and auctions.

**Indicators**

<table>
<thead>
<tr>
<th>Result indicators</th>
<th>Baseline</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landing value per kg landed fish for consumption, €/kg</td>
<td>0.8 (2005)</td>
<td>+2% per year</td>
</tr>
</tbody>
</table>

*Source: The Danish Directorate of Fisheries*
6.5.2. Collective actions

This measure is orientated around three efforts: Development, partnership and networks together with training and skills development. The measure will support the strategic objectives in a broad sense.

The activities must be carried out by private enterprises or organisations themselves or by organisations representing the sector or other organisations the managing authority has appointed.

Support can be given for the establishment of producer organisations that are recognised in accordance with Council Regulation (EC) No 104/2000 after 1 January 2007. The restructuring of these organisations can also be supported, as well as their plans to improve quality. Support that is provided under this measure will be limited to a period of three years, and in years 1 to 3 the support is digressive.

Objectives

The measures are to be implemented for the purpose of achieving the following strategic objectives:

- Create opportunities for low cost and high value added in the fishery within the framework of a sustainable fishery.
- Improve the framework for optimal quality and traceability throughout the value chain.
- Enhance the framework for optimising the processing industry’s raw materials base and improve value added in the sector as a whole.
- Minimise the impact of the fisheries and aquaculture sector on the environment within the framework of an overall social prioritisation.
- Maintain and increase value added within the processing, wholesale and sale links in the chain through innovation, skills development and new types of partnership.
- Co-operation in the value chain regarding market information, customer requirements and product development is to be increased for the purpose of enabling the Danish fishing sector to deliver what customers and consumers want.
- The framework for optimising the processing industry’s raw materials base is to be strengthened and value added in the sector as a whole is to be improved.
- Optimise the level of training and skills throughout the entire fisheries and aquaculture sector.
Measures

The objectives are to be achieved through the following measures:

Common activities with the aim of:
1. Better management or conservation of resources
2. promote selective fishing methods or gears and reduction of by-catches
3. remove lost fishing gear from the seabed
4. improve working conditions and safety
5. develop, restructure and improve aquaculture
6. investments concerning production, processing or marketing equipment and infrastructure including for waste treatment
7. training and skills development
8. contribute to the objectives for small scale fishing
9. partnership projects that optimise the value chain and interaction between the different segments of the value chain.
10. partnership projects that optimise interaction between the fisheries and aquaculture industry and research institutions/consultancy firms with a view to improving Denmark’s position among international competitors.
11. partnership projects between the fisheries and aquaculture industry and rest of the food industry for the purpose of supporting the sharing of knowledge between the two industries.
12. other activities strictly related to the strategic objectives.

Beneficiaries

Organisations representing the sector, other public or private organisations, research institutions and consultancies.

6.5.3. Development of new markets and promotional campaigns

Objectives

The strategic measures are to be implemented for the purpose of achieving the following objectives:

- Support consumer health through encouragement to eat more fish.
- Maintain and increase value added within the processing, wholesale and sale links in the chain through innovation, skills development and new types of partnership.
- Promote a wide range of seafood products within the retail sector.
Support within the retail sector is not eligible, but the aim is to support image campaigns etc. in order to promote a framework for a wide range of seafood products.

**Measures**

The objectives are to be achieved through the following measures:

1. Generic marketing and market-oriented initiatives to promote sales of seafood products.
2. Market development and market monitoring, including market studies and surveys concerning sales opportunities in Denmark, the EU and third countries, as well as surveys and tests concerning consumer and market reactions.
3. Sales promotion of new seafood products and/or new markets, including sales of industrial fish for consumption.
4. Quality certification and labelling of fish products.
5. Image creation and image improvement activities.

The measure can be directed both towards end consumers and direct customers of the seafood industry (purchasers), provided they are generic in nature. Support cannot be given to the brands of individual companies or to a particular country or region.

This measure is also justified by improved product information for Danish and foreign consumers. Finally, globalisation is considered to generate an ever greater need to increase companies’ knowledge of what Danish and foreign consumers want. It is believed that this knowledge can be acquired through support to market monitoring and market analyses. The measure is a continuation of the FIFG programme initiative.

**Beneficiaries**

Organisations of the sector and public institutions.
### Indicators

<table>
<thead>
<tr>
<th>Result indicator</th>
<th>Baseline (2004)</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross exports (value in million €)</td>
<td>2,214.8</td>
<td>+5% (2010) +12% (2015)</td>
</tr>
</tbody>
</table>

*Source: Danish Directorate of Fisheries and www.2gangeomugen.dk*

#### 6.5.4. Pilot projects

The prerequisite for innovation in the Danish fisheries sector is the creation and application of new knowledge through research and development. The collation and development of new knowledge will not be of value to the sector until it is followed up by the effective dissemination and transfer of knowledge. With this measure, it is therefore an objective to support and encourage the cardinal task of ensuring that companies are aware of the knowledge and the results that are generated.

Support for pilot projects must also help to advance innovation and cooperation among research institutes and companies, increase focus on consumer preferences, raise quality and health levels in food products, promote sustainable fishing and strengthen the level of training and skills in the fisheries and aquaculture sector.

Against this background, it is expected that pilot projects will complement the collective action measure and contribute to the objectives mentioned in section 6.5.2.

Pilot project will be follow-up by a scientific assessment in accordance with the EFF implementation regulation, Article 19. The project owner is obliged to submit a report, which is published in a project database to which public access is provided from the Directorate’s website.

### Measures

Pilot projects contribute to the objectives for this axis through the following measures:
1. pilot projects testing new technology
2. pilot projects testing management plans or other fishery plans
3. development and testing of new methods to increase selectivity, reduce discard or environmental impact of aquaculture or fishing.
4. testing of new fisheries management techniques.

**Beneficiaries**
Organisations representing the industry and other acknowledged organisations in partnership with a scientific or technical body.

### 6.5.5. Protection and development of aquatic flora and fauna

In order to secure the sustainable exploitation of marine resources, it may be necessary to protect aquatic flora and fauna. Areas that are designated within the framework of the Habitat Directive, which encompasses the designation of NATURA 2000 areas, must be protected or restored to a favourable preservation status, and support can only be used to minimise the impact of fishing in designated areas, where this designation will directly impact on fishing activities.

The release of fish and shellfish can be supported if it takes place in connection with conservation measures that are carried out in accordance with a Community legal act, which for example is the case with eel. Support can only be granted for release when it is part of a national management plan.

**Objectives**

- Create opportunities for low costs and high value added in the seafood industry within the framework of biologically sustainable fisheries.
- Minimise the impact of the fisheries and aquaculture sector on the environment within the framework of an overall social prioritisation, and
- Make fisheries areas attractive for commercial development and settlement with respect for nature and local environments.

**Measures**
This objective will be pursued through the following measures:

- Grants for fixed and mobile units that protect and improves the aquatic environment.
- Restoration of freshwater systems, including spawning areas and migration routes for migrating species.
- Protection and enhancement of the environment within the framework of...
NATURA 2000, where the initiative directly concerns fishing activities.
- Release of fish and shellfish in connection with preservation measures carried out in accordance with a Community legal act.

**Beneficiaries**
Public or semi-public bodies, acknowledged organisations or other bodies appointed by the managing authority.

### 6.5.6. Modification for reassignment of fishing vessels

The programme can support the modification of fishing vessels with a view to their use for training or research purposes in the fisheries sector or for purposes other than fishing. To obtain support for modification it must be guaranteed that the subsequent use of the vessel will comply with the prevailing safety rules.

**Objectives**
- Optimise the level of training and skills throughout the fisheries and aquaculture sector.
- Create opportunities for low cost and high value added in the fishery within the framework of a biologically sustainable fishery.

**Measure**
This objective will be achieved through the following measure:

Modification of reassigned fishing vessels

**Beneficiaries**
Public or semi-public bodies.

**Indicators**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Objective 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of modified vessels broken down by purpose:</td>
<td></td>
</tr>
<tr>
<td>Training and research purposes</td>
<td>3</td>
</tr>
<tr>
<td>Other purposes</td>
<td>2</td>
</tr>
</tbody>
</table>

*Source: Danish Directorate for Food, Fisheries and Agri Business*
6.5.7. Demarcation - measures of common interest

As regards activities of collective interest, the Fisheries Fund may provide support for facilities in fishing ports and market development, among other things, but also for various forms of cooperation, such as partnerships between researchers and operators in the fisheries and aquaculture sector. Support is also given to pilot projects which are based on acquiring and disseminating new technical knowledge.

**ESF**

The ESF is unable to support the activities under axis 3 activities of common interest, except for training and skills acquiring where overlapping may occur. Projects where fishermen are the beneficiaries can be financed by EFF and other activities purely targeting the fisheries sector are not eligible for support by the ESF.

**ERDF**

In case of the measure for collective actions there may be some overlap to activities in the programme Innovation and Knowledge. In case it does the demarcation will be made so that projects benefiting the fisheries and aquaculture sector will be eligible for support under the EFF. If the initiatives are cooperation projects or projects which otherwise involve a number of sectors, support may be obtained from a number of funds, including the structural funds, on the condition that the activities in the project are separated into different projects. The project is divided up into industries or sectors. If this is not possible, a specific assessment will be carried out administratively as to which fund and programme will be best able to support the project’s purpose in accordance with the general principle for demarcation.

ERDF do not support investments in infrastructure in fishing ports. Therefore no overlapping will occur to the measure supporting fishing ports under the EFF.

**EAFRD**

Correspondingly, there may be an overlap with activities of common interest as parts of the food sector and hence with measures under the EAFRD.

*Aquatic flora and fauna*

For activities in concerning aquatic flora and fauna there is no direct overlap as the EFF supports investments in improvement of the aquatic environment and for NATURA 2000, only where the activity is related to fisheries activities.
The EAFRD will only support environmental and nature projects when the benefits are caused by agricultural or forestry activities.

**Training and skills**

There is no overlap with the EAFRD for activities supporting training and skills as the target group is farmers and agricultural workers or forestry workers. In some cases the target group could be persons with relations to the agricultural and forestry sector. In these cases the objective and purposes of the activity will determine the selection of supporting fund.

In general projects benefiting the fisheries and aquaculture sector will be implemented by the EFF. If the projects are cooperation projects across sectors the project may be divided up into industries or sectors. If this is not possible, a specific assessment will be carried out administratively as to which fund and programme will be able to best support the project’s purpose.

**LIFE+**

LIFE+ shall in particular support the implementation of the 6th EAP, including the thematic strategies, and finance measures and projects with European added value in Member States. More specifically LIFE+ co finances activities and projects concerning nature and biodiversity, environment policy and governance as well as information and communication.

It is stated in the LIFE+ regulation that activities which are eligible for support within other programmes will not be eligible for support under LIFE+. In the context of this programme, projects concerning nature and environmental issues will not be covered unless they are of an innovative or demonstration character, as such projects are in focus for the LIFE+ instrument. If demarcation of the fund on the basis of the characteristics of the project not is possible, the project will be divided.

**6.6. Priority axis 4: Sustainable development of fishing areas**

Thriving and attractive local areas with good conditions for residential and commercial development form part of the government’s rural development policy. The development of fisheries areas must be seen in this context, and thereby also in the context of the problems that are characteristic of many rural and peripheral areas. As such, the activities shall help to avoid popula-
tion decline and ensure the presence of an attractive and diverse local econ-
omy around the port which offers alternatives to fishing, while at the same
time ensuring that fishing remains an attractive occupation for young peo-
ple and an integral part of the community.

Objectives
The strategic measures are to be implemented for the purpose of achieving
the following objectives:

- Maintain employment in fisheries areas.
- Create a framework for a diversified industry within fisheries areas.
- Fisheries areas must be attractive for commercial development and set-
tlement with respect for nature and local values.
- Co-operation in the value chain on market information, customer re-
quirements and product development is to be increased for the purpose
of enabling the Danish fisheries sector to deliver what customers and
consumers want.
- Promote a wide range of seafood products within the retail sector.
- Optimise the level of training and skills throughout the fisheries and
aquaculture sector.

These objectives are to be met through the measures intended to main-
tain and increase employment in the fisheries areas and to create
frameworks for attractive industrial development and settlement with
respect for nature and the environment.

Support for companies is initially limited to micro enterprises as a sup-
plement to the other measures in the programme.

Measures
The objectives will be achieved through the following measures:

1. Strengthening the competitiveness of fisheries areas.
2. Development of the tourist facilities in the fisheries areas, including
   small-scale infrastructure investments and service facilities, ecotour-
   ism, etc.
3. Support for the development of fisheries products especially with
   regard to increasing value added.
4. Restructuring or redirecting economic activities and diversification
   support to established fishermen.
5. Strengthen new forms of partnership and networking, e.g. between
branches and sectors or trans-regional or trans-national cooperation among groups in fisheries areas.

6. Conservation, restoration and improvement of nature and the environment in the fisheries areas.

7. Renovation and renewal of the building stock in the fisheries areas in order to maintain the attractiveness of the fisheries area.

8. Enhancement of specialist expertise in the fisheries and aquaculture sector, and re-training in particular with a view to improving opportunities for women.

The measures will include support for establishment and development of micro and small enterprises in the fisheries sector with the conditions applied as specified in Article 44 (3) in the EFF regulation.

The basis for these measures is that many fisheries areas have relatively poor conditions for development. There is relatively high unemployment in many of the areas, often with a stagnating or declining population and a simple business structure that makes the area sensitive to any decline in the seafood industry. The level of education is also lower, as many young people choose not to return to the areas after completing their education.

**Beneficiaries**
Enterprises, public authorities, associations, institutions, and organizations, including groups.

The category of applicants is limited in relation to each measure.

**Indicators**
The follow-up of these projects is based on the desired effect on development in a number of indicators:
<table>
<thead>
<tr>
<th>Indicators</th>
<th>Objective 2010</th>
<th>Objective 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees and number of workplaces in the area</td>
<td>Maintain number of workplaces or employees</td>
<td>Increase in number of workplaces or employees</td>
</tr>
<tr>
<td>Value added in the fisheries and aquaculture sector in the area</td>
<td>+2%</td>
<td>+3%</td>
</tr>
<tr>
<td>Number of overnight stays in the area</td>
<td>+2%</td>
<td>+5%</td>
</tr>
<tr>
<td>Full-time employees in tourism, broken down by gender</td>
<td>+5%</td>
<td>+10%</td>
</tr>
<tr>
<td>Number of fishing licenses (for angling)</td>
<td>+1%</td>
<td>+2%</td>
</tr>
</tbody>
</table>

*Source: Statistics Denmark and The Danish Directorate of Fisheries*

6.6.1. **Demarcation - sustainable development of fishing areas**

**ESF**
Acquiring skills and training projects are measures in the Operational Programmes under ESF as well as EFF. The ESF programme will only support acquiring skills and training activities if they do not involve persons from the fisheries and aquaculture sector. If the activities involve mixed groups of persons the general demarcation principle will come into force.

**ERDF**
In the case of supporting investments in development of individual enterprises in fisheries areas, risk of overlapping can only occur in designated stated state aid areas. These areas are 33 smaller islands. Only in these areas ERDF can support individual enterprises. Demarcation will be made on the level of activity. Activities purely targeting the fisheries sector or small fisheries communities are not eligible for support by the ERDF.
Demarcation does not exclude projects being implemented which are interdisciplinary in the sense that they include activities aimed at achieving the same overall objectives, and where the individual activities are eligible for support under several funds.

Such interdisciplinary projects are divided into subprojects for the purpose of separating project activities between the funds. If this is not possible, a specific assessment will be carried out administratively as to which fund and programme will be able to best support the project’s purpose.

**EAFRD**

The measures for development of rural areas area to some extend similar to the measures for a sustainable of fisheries areas. Demarcation can be necessary in areas where there is a overlapping between the local groups/action groups. Following type of projects can be supported under the programmes: small infrastructure and tourism facilities, nature, environmental and cultural heritage projects, business project in order to strengthen the competitiveness in the areas and acquiring skills, training and networking among the groups.

The local strategies formulated by the local groups must include considerations on complementarily with other funding possibilities.

The EFF programme will only support enterprises within the fisheries sector. Infrastructure, environment, nature and cultural heritage project along the coast line and in fisheries communities. Acquiring skills and corporation and network support will only be given to people involved in the fisheries and aquaculture sector and in fisheries communities.

The EAFRD programme will only support the above mentioned type of project if there are related to agriculture and agricultural products or related to rural communities in the country side.

If the groups and the local action groups established under the EAFRD programme coincide, they must have a separated financial, accounting and control systems, and distinction of partnership and the decision-making bodies.
6.6.2. **Procedure and timetable for the designation of fisheries areas and local groups**

**Introduction**

In accordance with Article 43 of the Regulation on the European Fisheries Fund, the initiative for the development of fisheries areas must be targeted at areas that either have

- low population density, or
- a decline in fishing activity, or
- a status as a small fishing community.

The term “fisheries area” is used to refer to a coherent geographical, economic and social area, which means that the identification of fisheries areas is based on areas whose historical development has been centred on primary fishing, a fishing village, a fishing port or landing site, or areas which has a significant employment in the fisheries and aquaculture sector.

The socio-economic analysis of the fisheries and aquaculture sector and the fisheries areas shows that fisheries areas are distributed across the whole of Denmark and include all regions of the country. In economic terms, the biggest fisheries areas are located from Skagen and down along the coast of Western Jutland. It is in the western regions where the biggest fishing ports, Hanstholm, Hirtshals, Skagen, Thyborøn and Esbjerg, are located. A large proportion of fishing vessels are based in these ports. Aquaculture areas are distributed in particular in Central and Southern Jutland and along the coast of Eastern Jutland.

The analysis shows that fisheries and aquaculture areas are predominantly peripheral or rural areas.

In order to secure economies of scope and geographical and socio-economic association, as well as geographic access with a holistic approach, on the basis of a local assessment local groups that are created in the same area in accordance with the Rural Development programme and the Fisheries Fund programme may be integrated.

The opportunity will be created for co-operation between groups with a view to securing the implementation of activities of common interest.
The fisheries and aquaculture region will form the basis of the local group’s potential area of action. Definition of the ultimate action area in the individual regions will be based on the “bottom-up” approach, in which the local declaration of interest and subsequent strategy and planning basis will define the effort in the area.

The following section contains a more detailed description of the procedure and schedule for the designation and establishment of local action groups.

**Designation of fisheries areas**

Within each fisheries region, it is possible to establish one, or in relevant cases more, groups which will be able to cover some or all of the fisheries regions provided that one or more of the following criteria are met.

1. The area has a low population density compared to the average for Denmark,  
   or
2. a decline in the local fishing industry can be documented,  
   or
3. there are small fishing communities,  
   and
4. the area is geographically coherent or has common socio-economic characteristics,  
   and
5. the size of the area is limited in accordance with the EU nomenclature for regions at NUTS-III level (corresponding to 11 regions in Denmark).

The size of the area may in accordance with to Article 43 (2) (b) exceed NUTS III level if geographical or socio-economic conditions justify larger areas. The area of the group may only exceed NUTS III level if the geographical coherence will

- comply with the objectives in the local strategy, improve the impact of the measures in the local strategy, and
- improve the interaction between fisheries, aquaculture, processing of seafood or fishing related activities.

The local groups’ geographical action areas will as a starting point follow the municipal boundaries, but can comprise several municipalities. In some cases there will be a derogation from this structure, for instance for smaller islands.
The areas must also be demarcated in relation to the programme’s objectives and measures for the development of fisheries areas.

The primary geographical areas for implementation of the activities should also be prioritised in the local development strategy.

The procedure means that the ultimate definition of the fisheries areas will be based on a “bottom-up” approach. It is local stakeholders who, through an expression of interest, will specify the areas that the local development strategy is to cover. In connection with the group’s deliberations, it will be possible to further limit and prioritise action in the areas within the individual municipal boundaries; cf. Figure 16.

All groups must follow the procedure mentioned below. The groups can be set up on the basis of former LEADER groups, under the preconditions laid down in the following procedure:

**Figure 16 General principle for the demarcation of fisheries areas**
After this procedure, it is expected that about 15 groups will be established. 5 large groups are expected to be established in the main fisheries areas, and 10 smaller groups in other fisheries areas. The small groups will be integrated with local actions groups under the rural development programme.

See map of expected fisheries areas in annex II

**Procedure and timetable for establishing the composition of local groups**

The procedure for establishing the groups will take place in four phases, applying the following guidelines:

**Figure 17 Procedure and timetable for establishing local groups**

The first three phases are expected to last between four and six months. The subsequent preparation of the strategy, including approval, is expected to last from four to six months, as strategic work in phase 4 can start in phase 3. If the group is unable to meet the deadline for application in round 1, they can continue and apply for approval in round 2.

In order to secure a broad composition of the group involving different stakeholders, the establishment of the decision making body of the group must follow criteria laid down in national rules. The group elect a board at the general meting (see phase 2 below). The composition of the board must
aim at that the following socio-economic parties are represented in the board:

- local citizens
- local organisations and enterprises
- local associations (nature and environment, culture, citizen, leisure etc.)
- local and regional public authorities

The representation of public authorities must not exceed 30% of the members of the board. The composition of the board shall aim at equity taking into account gender and age.

**Phase 1. Information**

The managing authority (DFFE) informs the individual regions about the programme and the procedure for establishing local groups by public notice. On the basis of this, DFFE will invite declarations of interest with a view to outlining the proposed groups.

The groups must be representative and democratically legitimate. The following procedures must therefore be observed when establishing a local group.

**Phase 2. General meeting**

The municipalities or other relevant local players shall issue an invitation to an inaugural general meeting for the local group. The general meeting is open to all and must be announced in local newspapers covering the area in which it is intended that the group will operate.

Anyone who is resident in the area in question may attend the inaugural general meeting. Each person has one vote at the general meeting.

At a subsequent general meeting, a board must be elected consisting of minimum 7 members. The final number of members is defined in the board’s rules of procedure.

The elected board must have a composition which enables the partnership to function satisfactorily and public funds to be managed correctly.

Any attendee may put themselves forward for the board. The composition of the board must be broad and representative. The local action group must represent partners from the various locally based socio-economic sectors in
the area concerned. At the decision-making level, the labour market and economic partners, as well as other representatives of civil society, including parties from the fisheries and aquaculture sector, must make up at least 50% of the local partnership.

An attempt must also be made to achieve an even gender distribution and an even age distribution on the board. The relevant municipal council(s) and regional growth forums may each appoint one member of the board in accordance with the defined criteria for the composition of the group.

The general meeting shall elect the chair of the board. The Articles of association for the local action group shall be adopted at a general meeting. The Directorate for Food, Fisheries and Agri Business shall draw up standard Articles of association, which can form a basis for the groups’ own Articles of association.

**Phase 3. Advance approval**

The designation of a local group is based on a declaration of interest, where the group submits a justified application for advance approval.

When the local group has been formed with Articles of association and a board, the board shall draw up an outline development strategy, which describes the information and the establishment of the group, and the main priorities for the group’s work.

The outline strategy must explain how a broad representation is guaranteed within the group and the Articles of association must be enclosed with the strategy. Furthermore, the advance approval will place emphasis on the description of the area’s socio-economic conditions and the current structural challenges, as well as the development subjects that are expected to be included in the group’s development strategy.

The Directorate for Food, Fisheries and Agri Business will give advance approval for the individual groups. This approval will involve checks on the legality of the board’s composition and the Articles of association and outline development strategy, including the conditions for the strategic areas. The advance approval serves to guarantee that the conditions for the effective implementation of the subsequent strategy are present.

**Phase 4. Development strategy and approval**
The Development Strategy must comprise an analysis of the area, objectives, measures and indicators for monitoring the impact of the activities. Furthermore a budget and a timetable must be included in the strategy.

The local groups, which obtain advance approval from the DFFE, then draw up the actual development strategy for the area. The regional growth forums and municipalities must confirm that the local strategies comply with the regional and municipal strategies that have been drawn up. The strategy must then be approved by the DFFE.

The work of the group

It is the task for the group’s to work for the activities and achieve the objectives set out in the local development strategy approved by the Directorate for Food, Fisheries and Agri Business (DFFE). The group prioritises and submits project applications under the EFF programme for a decision by the DFFE within a financial framework defined by the DFFE. Only projects that fall within the framework of the approved local development strategy are eligible for support.

It is recommended that each group appoint an administrator/fisheries co-ordinator or similar. It is the co-ordinator’s task to manage the daily running of the group, to act as a secretariat for the board and to serve as an advisor and a link between the group and the local players, including other development initiatives in the local area. The co-ordinator must also be responsible for contact with project applicants and act as the day-to-day point of contact for citizens with the group.

Furthermore the co-ordinator will be responsible for on-spot check of the supported projects. On the spot check will take place before payment to the beneficiaries.

Special information for areas that are both fisheries areas and rural areas

In cases where there is an overlap between areas designated as a fisheries area in accordance with axis 4 of the Regulation under the European Fisheries Fund and as a rural area in accordance with the regulation on the development of rural areas, axis 4 on local action groups, the groups may be integrated in order to guarantee the greatest possible economies of scope.

If the groups consider it appropriate, they can share the secretariat and co-ordinator function with a local action group designated in accordance with the Rural Development programme.
**Financing**

Figure 18 contains a description of the financial flow. Each group is allocated a budget for the whole programme period, broken down into years and action areas (1). The group recommends projects for grants (2), which the Directorate for Food, Fisheries and Agri Business either rejects or accepts (3) either for an applicant outside the group or for the group’s work (3). The Directorate’s role is exclusively to perform a legality check and to assume overall responsibility as an administrative body. The group will be responsible for selecting the projects.

**Figure 18 Financial flows for local groups (axis 4)**

A summary of the administrative flow is shown in Figure 20.

The running cost of the group must in general not exceed 10% of the total budget allocated to a fisheries area. The Member State can from case to case decide to exceed the ceiling according to Article 44 (5) in the EFF regulation.

**Network centre**

With a view to co-ordinating the activities under axis 4 and with reference to the rules for implementing local groups under the regulation on the de-
velopment of rural areas, a national network centre will be established under the Ministry of Food, Agriculture and Fisheries, the purpose of which is to guarantee ongoing information to and co-ordination between the work of the individual groups.

The network centre will also act as a secretariat for the Monitoring Committee and a forum for coordination of the local groups. An important task for the network centre is also to establish and develop the link between the local national groups and the community network. A detailed description is provided in section 8.3.2

The network centre will perform similar functions for the Rural Development programme 2007-2013, and will thus also play a co-ordinating role between the programmes.

The EFF’s financial contribution to the network centre will fall under the “technical assistance” measure. A clear distinction will be made between the activities as part of the two programmes and also a clear distinction between the network activities and the general administration of the programme. This is achieved using separate plans for communication for the Rural Development programme and the Fisheries Development Programme and also the electronic recording of time and activity.
6.6.3. Objectives and measures for the running of local groups

Against this background, the objective is to support the implementation and execution of activities in local action groups with a view to:

**Objectives**

Contributing towards guaranteeing qualified protection of the interests of the fisheries and aquaculture and the fishing community in the local action group and in the development and implementation of the local development strategy, including that aimed at co-ordination and collaboration.

**Measures**

Support can be provided for implementation of the following activities:

- Support for the group’s establishment and activities, including for networks, co-operation, skills development, secretariat (co-ordinator), etc.

It should be noted that networks, etc. of a more general and collective nature will only be covered by the Technical Assistance measure.

6.7. Priority axis 5: Technical Assistance

This measure can support data collections as well as the development of monitoring- and management systems that are intended for purposes of the Operational Programme.

With a view to implementation and execution, including support for the achievement of the strategic objectives in the programme, funds are allocated for technical support with a view to financing:

*Administration, implementation, monitoring and control:*

- Expenses in connection with the monitoring committee’s meetings, including interpreting support, any involvement of experts, visits to projects, etc.
- Audit and control, including control visits (on-site control).
- Administrative expenses relating to preparation, implementation of the programme and evaluation of projects, including the training of staff in administrative systems to manage the programme.
• Creation of networks with a view to promoting co-operation and the sharing of experience of information with a view to achieving the sustainable development of fisheries areas.

**Other expenses:**

• Information activities and public relations (PR).
• Special investigations, studies and analyses to support the monitoring committee and the administrative authority, the European Commission and the Ministry of Food, Agriculture and Fisheries.
• Expenses for evaluation, in particular including the external evaluator’s fees.
• Special events included in the implementation and monitoring of the programme, e.g. seminars and other means of sharing experience.
• Development and adaptation of the administrative IT systems.
• Development of statistical tools relating to implementation of the priorities of the Operational Programme.

**Staff costs and salaries**

• Salaries and other staff costs incurred by the managing authority can be financed provided these staffs has been employed to carry out the tasks mentioned or other tasks referred to in Article 46 of Council Regulation1198/2006.
7. Financing

This section details the financing plan based on the programme’s strategy and analysis of strengths, weaknesses, opportunities and needs. Most of the emphasis is placed on axes 2 and 3, which cover the measures that are prioritised primarily to drive value added in the sector, which is the objective of the national strategy.

The intention is that it must be possible, if necessary, to adapt and adjust the programme to developments within the sector during the term of the programme, and it must therefore be envisaged that there will also be a need to adjust the allocation of resources between the five axes in the financing plan.

The financing plan has been prepared on the basis of a collective assessment of:

- Experience from the current FIFG programme, including the investment volume and provision distributed between measures.

- Prioritisation which is not expected to result in aid for the cessation of fishing activity in connection with the adaptation of the fleet. Small amounts have however been included under axis 1 if, despite expectations to the contrary, special situations should arise, especially for temporary cessation. Increased interest in the modernisation of vessels is anticipated during the period 2007-2008 compared with 2006. There is however some uncertainty as a result of the effects of New Regulation.

- Expectations concerning exploitation of the growth potential within the aquaculture sector, which will result in the high prioritisation of axis 2. Full activity is anticipated before the end of 2007.

- Expectations concerning a greater focus on collaboration- and network-creating projects, which will mean that axis 3 will be given a relatively high priority distributed evenly over the years.
Prioritisation of axis 4 and the development of the fisheries areas as a supplement to the other measures and where relevant with the possibility of integration and economies of scope between local action groups established in accordance with the Rural Development Programme and the EFF programme. The work to establish the local groups means that full activity is not anticipated until 2009.

The total financial framework allocated to Denmark during the period 2007-2013 will be € 133.6 million in current prices. The fund’s financial resources can be used to co-finance projects with corresponding public sector co-financing. The EFF co-financing rate for all prioritised axes is therefore 50%, corresponding to a total public sector budget of € 267.3 million in 2007-2013.

The national co-financing will primarily be State financing. Regions and municipal authorities and funds with special purposes can contribute to the national co-financing. This co-financing is expected to consist primarily of port investments during the prioritised axis 3, but to a lesser degree there could for example also be pilot projects and also for the development of fisheries areas as part of axis 4.

The commitments are entered into each year according to the plan presented by the following two tables re.: The Operational Programme CCI no.: 2007DK14FPO001

**Table 17 Plan for financing per year, €**

<table>
<thead>
<tr>
<th>Regions that are not covered by the convergence objective</th>
<th>EFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>17,980,908</td>
</tr>
<tr>
<td>2008</td>
<td>18,340,527</td>
</tr>
<tr>
<td>2009</td>
<td>18,707,336</td>
</tr>
<tr>
<td>2010</td>
<td>19,081,484</td>
</tr>
<tr>
<td>2011</td>
<td>19,463,114</td>
</tr>
<tr>
<td>2012</td>
<td>19,852,376</td>
</tr>
<tr>
<td>2013</td>
<td>20,249,424</td>
</tr>
<tr>
<td><strong>Total EFF</strong></td>
<td><strong>133,675,169</strong></td>
</tr>
</tbody>
</table>
Table 18 Financing plan for the Operational Programme broken down according to prioritised axis, €

<table>
<thead>
<tr>
<th>Priority</th>
<th>Total public aid (a=(b+c))</th>
<th>EFF aid (b)</th>
<th>National aid (c)</th>
<th>EFF co-financing rate (d=(b)/(a)*100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis I: Measures to adapt the EU fishing fleet</td>
<td>42,730,684</td>
<td>21,365,342</td>
<td>21,365,342</td>
<td>50</td>
</tr>
<tr>
<td>Axis II: Aquaculture, processing and sales of fisheries and aquaculture products</td>
<td>94,299,048</td>
<td>47,149,524</td>
<td>47,149,524</td>
<td>50</td>
</tr>
<tr>
<td>Axis III: Measures of common interest</td>
<td>92,030,532</td>
<td>46,015,266</td>
<td>46,015,266</td>
<td>50</td>
</tr>
<tr>
<td>Axis IV: Sustainable development of fishing areas</td>
<td>24,922,558</td>
<td>12,461,279</td>
<td>12,461,279</td>
<td>50</td>
</tr>
<tr>
<td>Axis V: Technical assistance</td>
<td>13,367,516</td>
<td>6,683,758</td>
<td>6,683,758</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>267,350,338</td>
<td>133,675,169</td>
<td>133,675,169</td>
<td></td>
</tr>
</tbody>
</table>
8. Implementation of the programme

8.1. Designation of authorities

Implementation of the programme is part of the Minister for Food, Agriculture and Fisheries’ area of responsibility. Administrative tasks relating to the programme are delegated to the Directorate for Food, Fisheries and Agri Business. This delegation takes the form of an executive order on the Directorate’s tasks that is issued by the Minister for Food, Agriculture and Fisheries.

The Directorate has overall administrative responsibility for the programme and carries out a significant proportion of the administrative tasks concerning the programme. The organisation of administrative procedures largely corresponds to that used in connection with the implementation of the FIFG programme 2000-2006 and is intended to ensure compliance with the principle of separation of functions within the Directorate.

Certain tasks are delegated to other authorities in accordance with partnership agreements or through an executive order. In some instances this will be defined by the executive orders issued or by agreements entered into between the Directorate for Food, Fisheries and Agri Business and the authority in question.

Appropriations of financial funds to the programme take place according to the usual rules on appropriations. Most of the national funds for the programme originate from the Minister for Food, Agriculture and Fisheries’ appropriation of the annual appropriation laws, although appropriations can also come from other authorities or from public funds.

The Directorate for Food, Fisheries and Agri Business is divided into three departments (see Figure 19), each of which is led by a Deputy Director who reports to the Director. The Directorate's auditing unit is located outside these departments and reports directly to the Director. The internal auditing unit is operationally independent, and works on the basis of special instructions that describe the unit’s organisation, competence and tasks.
The tasks performed by the managing authority, the certifying authority and the audit authority are all performed by the Directorate, although the tasks are assigned to separate units within different departments.

**Figure 19 Organisation chart, Directorate for Food, Fisheries and Agri Business**

The Department of Development, Rural Districts and Environment has been designated as the **managing authority**. The managing authority performs the tasks described in Article 59 of Council Regulation (EC) No 1198/2006.

The Financial Division, which comes under the Department of Administration, is designated as the **certifying authority** to perform the tasks described in Article 60 of Council Regulation (EC) No 1198/2006. This includes approval of in applications for expenses and payment requests before they are submitted to the Commission. The approval confirms that the requested payments are in conformity with relevant EU- and national rules.

The managing authority is separated from the certifying authority as the two authorities are in two different departments referring to a deputy director and the financial director respectively.
The “Internal Audit” unit is designated as the audit authority. Internal Audit is led by a chief auditor, who reports to the Director. The auditing unit performs audit assignments in the Directorate for Food, Fisheries and Agri Business and monitors security and efficiency with regard to commercial transactions. This covers the entire spectrum of activities managed by the Directorate, including payment of subsidies financed fully or partly by the EAGGF Guarantee Section, national subsidy schemes and the Directorate’s operating and expenditure accounts, as well as audit assignments in controlling and authorising bodies in accordance with written agreements. The audit authority performs the tasks described in Article 61 of Council Regulation (EC) No 1198/2006. Furthermore the “Internal Audit” unit will be responsible for the compliance assessment report and the opinion on the setting of the system according to the regulation, Article 71 (2-3).

8.2. Payments and control

EU co-financing is transferred directly into the Directorate for Food, Fisheries and Agri Business’s bank account (currently Jyske Bank) and is posted as income for the Ministry of Food, Agriculture and Fisheries.

Promises of support are announced within the appropriation under the Annual Finance Acts. Commitments from other authorities, including regional authorities, are announced according to the rules in force for the authorities in question.

Commitments concerning contributions for projects within the individual schemes contain a condition concerning implementation within a specific deadline. On the basis of the deadlines, a forecast can be drawn up of the expected payment requests for the current and the subsequent financial years; cf. Article 75 of Council Regulation (EC) No 1198/2006.

Final payment is made to the beneficiary on the basis of expenses incurred and paid that are documented by the beneficiaries. Any national co-financing from authorities other than the Directorate for Food, Fisheries and Agri Business must also be documented. Payment can be made in instalments, but final payment is conditional upon completion of the project.

A payment request is submitted as an initial step with accounting documentation and an auditor’s statement. The processing of the case then involves the final contribution being calculated on the basis of a review of the documents submitted and following an evaluation of whether the expenses claimed are eligible.
Payment then takes place by means of direct transfer to an account in a financial institution specified by the applicant, currently through the Department of Administration’s payment system.

During the course of a project a number of controls are performed, with some of them being administrative, others physical. An administrative control covers documentation checks and case processing upon commitment and before payment.

Agreements have been entered into and special instructions have been drawn up on the performance of control assignments with the Danish Directorate of Fisheries and the Danish Veterinary and Food Administration.

Case processing with regard to commitment and payment takes place in an electronic case processing system. This system guarantees that all decisions on financial transactions, i.e. notification and changes to commitments and payment of contributions, are processed by two different case officers. The case officers who processed the commitment cannot be involved in processing the payment.

The procedures for double case processing by the managing authority and ongoing controls on accounting information by the certifying authority will be specified in a description of the management and control systems for Denmark concerning the EFF 2007-2013.

Internal Auditing (the audit authority) performs the control to check whether the management and control systems are working effectively, and takes care of the random control described in Article 61 of Council Regulation (EC) No 1198/2006.

With regard to the organisation of case processing and control, etc., reference is made to the fact that once a programme is approved a report will be drawn up, accompanied by an evaluation of the administrative and control systems; cf. Article 71 of Council Regulation (EC) No 1198/2006.
8.3. Administration of applications

Figure 20 Administrative flow

Applications in accordance with axes 1-3 of the Regulation:
Applications are sent to the Directorate for Food, Fisheries and Agri Business (1), which processes the application and announces whether it has been accepted or rejected (2).

Applications in accordance with axis 4 of the Regulation (sustainable development of fisheries areas):
The application is sent to the local action group (1A). The local action group can itself be the project owner and submit applications to the Directorate for Food, Fisheries and Agri Business (2A).

The task of the local action group is to evaluate the application with reference to the local development plan and submit a recommendation to the Directorate for Food, Fisheries and Agri Business (2A). The Directorate’s task is solely to perform a legality control on the basis of the local action group’s recommendation.
Acceptance or rejection is announced by the Directorate for Food, Fisheries and Agri Business (3A or 2).

8.3.1. Procedures for selecting projects

Selection criteria are defined in the basic rules, including the relevant Executive Order. The Monitoring Committee will be consulted for approval of the procedure and selection criteria for selection of activities to be supported by the programme, cf. Article 65 of the EFF regulation.

Professional advice and expert knowledge can be relevant for schemes in which the applications must be prioritised on the basis of several considerations, and in which specialist knowledge and familiarity with the industry are of significant importance in evaluating the applications.

Instructions are to be drawn up concerning the processing of applications, containing guidelines for handling the individual phases in the case processing routine. Checklists will be attached to documentation of the controls performed during case processing. Every decision on financial transactions is subject to double case processing.

Applications relating to axis 4 are to be dealt with by local groups and then submitted to the managing authority. The local groups assess whether applications are in accordance with the local development strategy. A decision is to be made on these applications by the managing authority.

8.3.2. National network centre

With a view to co-ordinating the activities under axis 4 and with reference to the rules for implementing local action groups under the regulation on the sustainable development of fisheries areas, a national network centre will be established under the Ministry of Food, Agriculture and Fisheries. The main purpose of the centre is to guarantee ongoing information and co-ordination to the partnership including the groups in fisheries areas.

A Coordinator Forum is being set up for all group coordinators (field officers) in the fisheries areas in order to ensure the exchange of information between the groups and provide input to policy development.

The network activities will be serviced by a network secretariat. It will also operate as a secretariat for the Monitoring Committee. The secretariat is
also responsible for a hotline intended to ensure that the public has access to relevant information.

The network centre will perform similar functions for the Rural Development programme 2007-2013, and will thus also play a co-ordinating role between the programmes.

The EFF’s financial contribution to the network centre will be the “technical assistance” measure. A clear distinction will be made between the activities as part of the two programmes and also a clear distinction between the network activities and the general administration of the programme. This is achieved using separate plans for communication for the Rural Development programme and the EFF Programme and also the electronic recording of time and activity.

**Network tasks**
- Link to and dialogue with the community networks
- Policy development (for instance, dialogue with local groups or the partnership aimed at adapting objectives and tools to the needs of rural areas)
- Dialogue and consultation with local groups
- Communication about the programme (for instance, publicising the policy or providing information about the programme’s opportunities)
- Analyse and inform about best practice
- Training key people in local groups and providing assistance groups which want to cooperate with other groups nationally and internationally
- Exchange of experiences between coordinators (local groups) and providing them with information about new or changed policy priorities
- Hotline providing public with a single access point for all the relevant information about the programme.
- Approving local action groups and their plans

**Indicative budget**
An annual indicative budget for the network centre is around 200,000 € per year.

**Main activities for the network centre**
*In the short term*
- preparation of information brochures concerning rural development/fisheries programmes and procedures for the establishment of local action groups
organisation of a technical municipal seminar relating to establishment of local action groups
provision of advice on new support schemes and local action groups
provision of information concerning the implementation of the programmes, communications strategy
setting up of a telephone hotline
Establishment of the network’s website

In the medium term
Pre-approval of local action groups on the basis of application
Provision of targeted advice to approved local action groups
Approval of local development strategies from local action groups
Meetings for local groups and coordinators to provide a common reference framework
Secretariat for the Monitoring Committee

8.3.3. Coordination with other community funds

Sector division will be the main principle in the demarcation of the individual policy areas.

Any project relating to just one sector, such as the fisheries and aquaculture sector, will receive support from one fund – from the European Fisheries Fund in this case. If the project covers other parts of the food or forestry sector, the Agricultural Fund could additionally support the project. If the project also includes activities outside of these sectors, the European Regional Development Fund and the European Social Fund could in principle also support it.

Under these circumstances it might be possible to support the same project from a number of funds with the same measure or with different measures. It will also be possible to provide support from a number of funds to the same type of activities in the same project, but not for the same expense. However it is expected that it will only occur in a very limited number of cases and for large projects.
The description of the programme’s prioritised axes in chapter 6 include information on how initiatives under the funds will supplement one another, with particular emphasis on instances where the funds focus on closely related areas and where there may be some doubt as to the demarcation between the funds.

**Coordination between authorities**

To avoid multiple funding to same expense or project the following procedure and information will be included in the management system:

**Project level**

1. The applicant must – at the time of application- inform the authority whether he/she has applied for grant or has received grant from other public funds to the projects.

2. The application must include a specified budget which allows the managing authority to check how EU or national funds will be involved in the financing of the project.

3. Before payment to the beneficiary, accounting documentation and an auditor statement is required. The auditor check will include in-
formation on public funding in general to the project to avoid multiple funding. If public funding from several funds has been recorded, the managing authority is undertaking a cross check to all relevant authority.

**Monitoring level**

Coordination between the managing authorities will be provided by representation of the managing authorities of each Monitoring Committee for the EU-programmes. For example a staff member of the managing authority is member of the Monitoring Committee under the ERDF-programme.

Furthermore technical coordination meetings or networks may be provided between the managing authorities.

### 8.3.4. Demarcation with the rural development programme and the structural fund programmes

In accordance with Article 54 of the Regulation on the European Fisheries Fund, no subsidies may be given from the fund for an expense which is simultaneously supported by other financial Community instruments.

This is guaranteed by ensuring that no subsidies can be granted from a number of funds to the same *expense* within a project. If a project or part thereof is eligible for support from more than one fund it will therefore be necessary to establish administrative procedures to safeguard against double financing.

Measures under the Fisheries Fund are also limited to supporting projects of a commercial nature within the fisheries and aquaculture sector which are aimed at creating growth and sustainable development or which contribute to balanced regional development within the fisheries areas.

Initiatives as part of this programme are not restricted by the opportunities for support under the programmes within the European Agricultural Fund for Rural Development (EAFRD) or structural funds (the European Regional Development Fund (ERDF) and the European Social Fund (ESF)). Any actions taken under the various funds must complement each other in order to achieve maximum interaction between the funds. Projects involving activities which are eligible for support under several programmes will then be able to receive support from several funds.
Overlap may occur with activities eligible under the ERDF, but as the EFF contribution is given to individual businesses, the overlap may only occur in some state aid areas. For these areas special attention shall be given on the information given by the applicant on the composition of the financing of the project. Moreover, the secretariats of the Growth Forums as well as the groups (Local Action groups or fisheries groups) shall assess for each individual project whether the project is eligible for support under both the ERDF and the EFF, and to examine, if applications have been submitted for support under both funds.

8.4. **Electronic exchange of data between the Commission and the Danish authorities**

All data sharing between the Member State and the Commission relating to the Operational Programme is transmitted electronically. This is performed using the system developed by the Commission (SFC 2007).

This system must be used by the managing authority, the certifying authority and the audit authority. In connection with the Danish Operational Programme, it is therefore used by the Department for Development Rural Districts and Environment at the Directorate for Food, Fisheries and Agri Business, and by the Directorate’s Department of Administration and by the internal auditing unit. The managing authority monitors the development of the system and takes part in seminars and courses on its use. Furthermore, the Directorate’s Information Technology Division will be involved in connection with the use of the system within the Directorate, including security, and in connection with the development of an interface between the Directorate’s financial administrative systems and the SFC 2007 system.

The implementation provisions for Council Regulation (EC) No 1198/2006 on the European Fisheries Fund define the data that must as a minimum be exchanged and available in the SFC system. This includes the Operational Programme itself, the national strategy and the Commission’s decisions on the programme. Other information includes the audit strategy and a number of reports on implementation and audit, administration and control, payment requests, etc. The system must also contain financial data and data on all irregularities.
The technical interface between the managing systems, SFC 2007 and The Directorate’s case processing system BTAS will be functioning in due time before the first payment claim.

The experiences gained from the BTAS system 2000-2006 regarding the handling of data etc. has contributed to the further development of the system for the programme period 2007-2013 in order to secure a reliable system for financial administration and payment claims.

One employee (Member State (MS) Liaison) at the managing authority (Department of Development and Land Administration) is designated to keep the records of the system’s use in connection with the European Fisheries Fund. This employee is responsible for all requests for the setting up, cancellation or modification of access rights to the system. Requests are forwarded by e-mail to MS Liaison by the relevant employee’s superior or the manager of the relevant office within the management, certifying or audit authority, as appropriate.

After receiving the request, MS Liaison will check:
- the identity of the employee who wishes to gain access to the system
- the employee’s contact information
- access level (read-only, write and/or send)

Requests are registered by MS Liaison, who will send a request to the SFC 2007 secretariat and update the list of people with access and their access levels to SFC 2007 when authorisation has been granted. MS Liaison is also responsible for ensuring that access authorisations are updated and is therefore sent an employee list by the human resources department when changes occur in the staff composition that have consequences for the given accesses. Changes to access authorisations due to changes in personnel will therefore be sent quickly to the SFC 2007 secretariat. All correspondence concerning this will be registered by MS Liaison.

Within the Directorate for Food, Fisheries and Agri Business a number of employees will be authorised to have read-only access and access to enter data into the system. Access will be differentiated between the three units mentioned so that they correspond to the respective tasks of the managing authority, the certifying authority and the audit authority in relation to the programme. In each unit there will be one employee who is authorised to use an electronic signature. The procedures will otherwise be in line with the Commission’s regulations for the system.
As regards controls concerning the data that is sent in connection with the Operational Programme, the managing authority (the Department of Development and Land Administration at the Directorate for Food, Fisheries and Agri Business) ensures that the statistical information that is necessary to assess progress within the programme is collected and categorised under the general case processing, where the principles of double case processing are implemented. The Directorate’s case processing system BTAS is set up to generate statistical reports at the request of the Commission. The information is checked and reconciled with the Directorate’s accounting system Concorde XAL by at least two employees in the managing authority before submission to the Commission through the SFC 2007 system.

The underlying data for the monitoring reports as regards statistical information to measure the indirect effect of the programme effort and financial progress reports is also checked and reconciled by the managing authority by at least two employees before the information is sent through the SFC system.

As regards payment requests, the technical specifications are under consideration by the IT office at the Directorate for Food, Fisheries and Agri Business for an interface between the Directorate’s accounting system Concorde XAL and the Commission’s SFC 2007 system, so that the certifying authority can punctually, correctly and safely submit reconciled and checked payment requests and certifications, etc. to the Commission.

**8.5. Transitional scheme**

As the EFF programme is not expected to be in operation until the end of 2007, the FIFG programme (2000-2006) will be kept open until the 30th of September 2007. The opportunity to apply for FIFG aid will therefore be extended in order to ensure that the transition between FIFG and EFF will be as smooth as possible.

The transitional scheme will be established for the following schemes:

- Modernisation of vessels
- Processing industry
- Aquaculture
- Port facilities
- Collective actions and pilot projects
9. Partnership and communication

Introduction

Relevant partners are involved in the preparation, implementation, monitoring and evaluation of the programme in accordance with Article 8 of Council Regulation (EC) No 1198/2006. Environmental assessment of the programme in accordance with Act No. 316 of 5 May 2004 on the environmental assessment of plans and programmes has been the subject of public consultation, being made available at www.fiskeriudvikling.dk, as an integral part of the draft for the programme.

Initially, all partners who took part in the Monitoring Committee for the FIFG programme is involved, although there is also an opportunity for others to comment on the basis of broader information and a dialogue with the general public. The following section describes the actual way in which the partnership is involved in preparing the programme and the partnership’s advice on this.

9.1. Partnership

When drawing up strategies and programmes, the relevant institutional and social partners have been involved on an ongoing basis throughout the process in various forms:

- Workshop
- Bilateral meetings
- Website for fisheries development
- Interview survey and analyses
- Involvement of the Monitoring Committee
- National conference
- Consultation with stakeholders
9.1.1. Parallel process for the National Strategic Plan and a National Action Plan for fisheries and aquaculture

As one stage in the adoption of the New Regulation of Danish fisheries, a political decision has been made that the Minister for Food, Agriculture and Fisheries is to draw up an action plan for the fisheries and aquaculture sector, which will use the new regulation as a basis for focusing on initiatives that can promote increased value added in the fisheries and aquaculture sector, increased sustainability in fisheries and utilisation of opportunities for growth in aquaculture. There is a strong coherence between The National Action Plan and the EFF-documents: The National Strategic Plan and the Operational Programme.

As a basis for the National Action Plan, a register of ideas has been created, in which the industry and other stakeholders in fisheries and aquaculture have put forward concrete proposals for the development areas which can be included in the National Action Plan. The register of ideas was drawn up in an open process, where interested parties could submit concrete, justified proposals for the content of the register via the website [http://www.fiskeriudvikling.dk/](http://www.fiskeriudvikling.dk/). In connection with the preparation of the register, a number of bilateral meetings were held with relevant organisations, etc.

The register of ideas has also served as a source of inspiration for the drafting of the Fisheries Fund programme. Both the register of ideas and the proposal for the Danish strategy under the European Fisheries Fund were presented at a national fisheries conference on 18 May 2006.

**Partnership process**

The summary below depicts a general view of the partnership process in connection with the formulation and implementation of the national strategy and programme. In the annex there is a summary of participants in connection with the written consultation, the conference and the workshop. This means that the summary does not cover the number of meetings with various organisations, authorities, etc., that were also a part of the partnership process.

The public consultation, the consultation of the Monitoring Committee and the dialogue with the Commission concerning the programme has included the environmental assessment of the programme which is carried out in accordance with Council Directive 2001/42/EC on the assessment of the effects of definite plans and programmes on the environment.
The ex ante evaluation has covered the programme, including the environmental assessment.

### Table 19 The partnership

<table>
<thead>
<tr>
<th>Partnership procedure</th>
<th>Consultation partner</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website</td>
<td>Internet users</td>
<td>From December 2005</td>
</tr>
<tr>
<td>Workshop at the Directorate for Food, Fisheries and Agri Business</td>
<td>All relevant organisations, authorities and institutions</td>
<td>January 2006</td>
</tr>
<tr>
<td>Interview survey</td>
<td>Interviewees in fishing areas and aquaculture</td>
<td>February-April 2006</td>
</tr>
<tr>
<td>Analyses of value added in processing and aquaculture</td>
<td>Selected consultants, institutions, innovation committees and trade organisations</td>
<td>April 2006</td>
</tr>
<tr>
<td>Structural funds, rural development programme, environment, working environment, safety and tourism</td>
<td>Meetings with relevant authorities</td>
<td>Throughout 2006</td>
</tr>
<tr>
<td>National conference</td>
<td>All relevant organisations and institutions</td>
<td>18 May 2006</td>
</tr>
<tr>
<td>Ex ante evaluation</td>
<td>Evaluator</td>
<td>May-November 2006</td>
</tr>
<tr>
<td>Dialogue with the Commission</td>
<td>European Commission</td>
<td>July (strategy) November 2006- November 2007 (programme)</td>
</tr>
<tr>
<td>Discussion within the Monitoring Committee</td>
<td>Consultation with the Monitoring Committee for FIFG</td>
<td>August (strategy) October (programme) 2006</td>
</tr>
<tr>
<td>Written consultation</td>
<td>All relevant organisations and institutions</td>
<td>July-August (strategy) October (programme) 2006</td>
</tr>
</tbody>
</table>

#### 9.1.2. The results of the partnership

The workshop in January 2006 contributed to the formulation of the strategy and information on the need for future initiatives.
At the national conference, attended by over 100 decision-makers within the fisheries and aquaculture sector, authorities and stakeholder organisations, the aim was to provide information on the national action plan and the proposal for a strategy and action plan.

During the consultation periods, thematic meetings were held by the Monitoring Committee for FIFG, at which the draft for the strategy and programme was presented and discussed.

In relation to the environmental assessment of the programme and the associated public consultation, certain comments were received which have resulted in adjustments being made to the environmental assessment.

Throughout the consultation period, the programme was made available to the public on the internet via a dedicated website for the programme: http://www.fiskeriudvikling.dk/. The programme consultation and environmental assessment also covered the people who subscribe to the Ministry’s consultations relating to the fisheries sector.

As mentioned previously, the consultation process was broad and open. By the closing date for the consultation, 15 replies had been received, of which the majority contained few and constructive suggestions for changes to formulations. Only a few consultation responses contained comments which the Ministry was unable to accommodate. This particularly applies to suggestions concerning the use of more indicators, which as a result of a lack of data was not possible.

The principal conclusion for the partnership concerning the preparation of the programme is that the relevant partners have provided constructive and operational input. The process was positive and the high degree of openness facilitated good cooperation between the managing authority and the partners.

9.1.3. Maintenance of the partnership

The partnership will be maintained during the programme period, but will change in form to a more formal structure, primarily the form of the Monitoring Committee (see section 9.2). Consideration is also being given to the establishment of a dialogue forum or other similar arrangement between relevant managing authorities or monitoring committees with the aim of creating an ongoing dialogue and experience exchange across the funds.
9.1.4. Approval of the strategy and programme

The programme and strategy were approved nationally on 22 March 2007.

9.2. Monitoring Committee, evaluation and monitoring

Once the programme has been approved by the Commission, a Monitoring Committee will be set up. The Monitoring Committee is composed of representatives of the Member State and the Commission. The Commission takes part in an advisory role. Representatives of the Member State are the Directorate for Food, Fisheries and Agri Business (chairman and secretariat) and other representatives from the Ministry of Food, Agriculture and Fisheries. The committee also includes representatives of the primary fisheries sector, processing of fisheries products, the aquaculture sector, employees, trade in and sale of fisheries products, regional authorities, environmental authorities, maritime authorities and EU funding managing authorities. Other relevant organisations that represent specific or general interests relating to the fisheries and aquaculture sector or that work for sustainable development can also be members.

Membership of the committee is defined in the Monitoring Committee’s rules of procedure. When appointing members, emphasis shall be given to representation by both men and women on the committee.

Partners will be consulted on the composition of the committee and the rules of procedure.

In addition to the aforementioned representatives, people with relevant specialist knowledge can also take part in the committee’s work. Deputies can be appointed for the committee’s members, etc.

As a rule the committee holds two annual meetings. More meetings may be held as required. The Monitoring Committee performs the tasks specified in Article 65 of Council Regulation (EC) No 1198/2006. It approves the Executive Orders and guidelines that are issued for the allocation of support under the programme.

The committee is notified of local development strategies within axis 4 and of the use of support granted according to the recommendation of the local groups.
The Monitoring Committee evaluates the programme’s progress and the results of implementation as specified in Article 65 of Council Regulation (EC) No 1198/2006.

A mid-term evaluation will be finalised by the end of 2010. The committee issues statements on guidelines for evaluating the Operational Programme, or parts of it, and in particular examines the mid-term evaluation. The committee examines and approves the annual report.

It is informed of the annual control report and of any comments the Commission may make after examining that report.

It approves all proposed changes to the Operational Programme and the programme’s financing plan. The committee can also take the initiative to conduct an audit or an examination of the programme.

The committee can also be asked for advice on the national governmental co-financing of the programme, on the use of resources available or other questions relating to the programme. The Monitoring Committee is not consulted concerning individual projects, but will be consulted for approval of the procedure and selection criteria for making decisions on individual projects. Members of the committee can participate as individuals when giving advice on actual projects.

The Monitoring Committee also performs tasks as a monitoring committee in relation to the 2000-2006 FIFG programme and, if necessary, the FIFG and PESCA programmes for the period 1994-99.

It is the task of the Monitoring Committee to evaluate on an ongoing basis the financial flow with a view to achieving optimal utilisation of the funds, including the effect of prioritisation with a view to any need to make adjustments.
9.3. Communication and information

9.3.1. Introduction

*Information for the general public and potential beneficiaries*
Information about potential support, rules, guidelines and application forms is made available to potential beneficiaries on the Directorate for Food, Fisheries and Agri Business’s website. The website will also detail the options for making contact with and directing questions to the Directorate.

The managing authority informs the general public about all beneficiaries and projects that have received support from EFF. This information is normally provided via the Directorate for Food, Fisheries and Agri Business’s website. Relevant reports and all studies that have received support will also be published on the website.

The website will also provide information about the Monitoring Committee’s activities. Material from the committee’s meetings and the minutes of meetings will be available.
In addition to general information, regular, targeted information activities will also be undertaken aimed at the public in general and at potential beneficiaries and relevant organisations, etc. These activities will be undertaken in collaboration between the managing authority and the Ministry of Food, Agriculture and Fisheries’ information unit.

Some of the expenses for information will be met from the Directorate’s general budget. Expenses for the targeted activities will be incurred as technical assistance.

*Information for beneficiaries*
The managing authority makes sure that beneficiaries are informed about the Community contribution. This information takes place in connection with the commitment and payment. In connection with the granting of commitment and the possible payment of a support, conditions will be defined with regard to information to the public, e.g. about the results of a project. The beneficiary will be informed about the obligations to inform the public about the support in the form of billboard, etc.

The following section describes external communication in more detail.
9.3.2. Purpose

Communication shall support implementation of the programme for the European Fisheries Fund by making the programme visible and by guaranteeing awareness of the programme, its opportunities and results to both potential beneficiaries and the general public.

The ultimate objectives for the communication initiative are to:

- Guarantee a broad level of awareness of the programme and its concrete potential, not least among potential beneficiaries.
- Make not only the visions behind the programme visible, but also the potential that is opened up for the fisheries sector, regional development, the processing industry, local people, etc.
- Contribute towards generating commitment regarding the implementation of activities in the programme and guaranteeing the continued involvement of central, regional and local actors.
- Take care of the establishment of a good framework for the actors to share knowledge.
- Create coherence between the various measures across the Danish strategy’s three ultimate target areas in the field of fisheries development: industry targets, interaction targets and collective targets.

9.3.3. Target groups

Communication is aimed at target groups at several levels and with different interests in the development of the fisheries sector. These groups include:

- Fishermen, land-based fish farmers, marine fish farmers
- Fishing ports
  - The aquaculture sector
  - Processing and associated companies in the fisheries and aquaculture sector, auction houses
  - Experimental and research companies in the field of fisheries development
  - Trade and industry organisations in the fisheries sector, the seafood industry
- Consumers and consumer organisations
- The retail sector, the catering industry and their organisations
- Authorities, including municipalities and regions
Tourist and trade chiefs, educational institutions and other central actors in areas dependent on fishing
- People in areas dependent on fishing
- NGOs
- The general public, including the press and politicians

Communication will take place in collaboration with, among others, trade and industry organisations that are already in close contact with the target groups.

9.3.4. Strategy
Communication will focus on different areas during the course of the programme period. Communication in general can be divided into three phases.

Phase 1 – Launch and visibility
In the first phase, communication will focus on broadening awareness of the content and the potential of the programme among potential applicants for support. One significant task during this phase is to achieve an interaction with the most important organisations in the area to guarantee greater impact for the communication. The fundamental profile of the whole communication initiative for the programme, including website, branding, etc., must also be built up during the first phase. It will also be crucial to have a number of actual aids and tools in place to support communication.

Phase 2 – Visibility is extended – the general public
In the second phase, communication will shift focus, to become centred on giving the general public information about the opportunities and the results of projects co-financed by the European Fisheries Fund. This will take place by such means as having the communication initiative include the first good examples of projects emanating from the programme, new statistical information, etc. In parallel with this, communication continues to build on the efforts from the first phase by informing relevant beneficiaries of the opportunities offered by the fund. The starting point will be actual measurements of which target groups lack awareness of the opportunities provided by the programme.

Phase 3 – Targeted visibility, documentation and preparation of the next programme
In the final phase, communication must be targeted and prioritised in relation to potential beneficiaries that have not yet made use of the opportunities in the programme. At the same time, the third phase will focus on
documentation of the programme’s effect on the development of fishing and areas dependent on fishing. Documentation will, for example, be used as an element in the preparation of the subsequent phase for the development of fisheries, aquaculture and areas dependent on fishing.

The communication initiative will thus develop over the period. Initially it will focus on imparting information about the opportunities for support in the programme, and the central means of communication such as the website, basic information materials, press, etc., will be built up during this phase. Communication in the later phases will continue to build on these channels, while at the same time shifting focus, so that it also includes the general public, politicians, etc., and focuses on how the future development of the area will take place.

9.3.5. Messages

The ultimate message in communication about the programme is that the Ministry of Food, Agriculture and Fisheries and the EU contribute to the positive development in the fisheries and aquaculture sector and fisheries areas. The European Fisheries Fund is involved in creating development. The message will be imparted within three overall areas, each of which brings together many of the objectives in the strategy for the Danish fisheries and aquaculture sector. These three areas are:

- **Fish, consumers and health.** Fish is healthy and offers a number of benefits for consumers. Communication concerning the programme must underpin a positive message about fish from the consumer’s perspective.

- **Fisheries and aquaculture – innovation and growth.** Communication about the programme must help to underpin a positive message about a business undergoing development. It is a question of making innovation visible in all parts of the production chain, from primary fishing and aquaculture through processing to distribution and marketing. The whole chain of companies must be seen to be innovative.

- **Development of port regions and areas that are dependent on fishing.** Communication must show how the European Fisheries Fund is helping to create regional development of major significance for areas that are dependent on fishing.
The main message within each of these areas will be supplemented by a number of concrete messages that take as their starting point the strategy’s industry, interaction and collective objectives. The messages will focus on development and safeguarding the future, in fisheries, in the aquaculture business, in the processing industry, in the retail sector and in ports and coastal regions.

At the same time, communication will be based on explaining the purpose and potential of the individual support schemes that are initiated under the Fisheries Fund. It is important to reach potential beneficiaries and other actors who have to be involved in creating development, cf. the next section.

9.3.6. Initiatives vis-à-vis potential beneficiaries

The target group of potential beneficiaries of the programme is large and wide-ranging. Communication must guarantee that all of these target groups are aware of the opportunities of the European Fisheries Fund. At the same time, the target groups must be made aware of the requirements and criteria that must be met in order to be entitled to support.

Communication activities will include the following:

- Information about actual examples of projects that have received support. The target group can then see how others have approached projects, potential business partners, actual activities, etc. – and thus become inspired to start new fisheries development projects.

- Information about requirements for formulating applications for subsidies, procedures and criteria for the awarding of subsidies, the opportunity to obtain more information about the programme, etc.

- A reinforced network and bridge-building between actors who must increasingly adopt a joint approach in their activities. These might, for example, be the tourism industry and the ports, or the retail sector and the fisheries industry, or environmental authorities and aquaculture.

- Development of the website, which is crucial in the imparting of messages about the Fisheries Fund. The website must present new information, share and store knowledge, provide an overview and create scope for debate and the sharing of experience.
• Press work, with special emphasis on local and regional media, who are important with regard to potential beneficiaries.

• Direct mailings with information for potential beneficiaries.

• Visits to fisheries areas.

9.3.7. Information for beneficiaries

At the beginning of phase 1, a design manual will be produced for use in communication activities. The guidelines in the design manual must be used by all parties in connection with communication relating to the programme. The design and associated texts must be easily recognisable and clearly send out the signal that the EU and the Ministry of Food, Agriculture and Fisheries are jointly behind the communication activities, and must help to guarantee that all target groups can easily identify communication activities in connection with the European Fisheries Fund. The following elements are contained:

• Logo that keeps the existing logo together with the Ministry of Food, Agriculture and Fisheries’ logo and the EU’s logo.

• Leading texts such as headers and footers in letters, on the Internet, etc.

• Design manual with guidelines on how to use the logos in practice on letterheads, e-mails, leaflets and publications, the Internet, advertisements, posters, slides, at events, etc.

• Guidelines on how beneficiaries may use the logos at events, on billboards, etc.

9.3.8. Initiatives aimed at the general public

Special efforts will be made with regard to the public in order to heighten awareness of the visions behind the European Fisheries Fund and the results achieved by the fund. It must be made visible that the Ministry of Food, Agriculture and Fisheries and the EU are playing a positive role in the task of developing the areas of Denmark that are dependent on fishing. This will be achieved primarily by highlighting a number of actual exam-
amples of new development projects for fisheries, port development, etc., and the effect these have achieved.

Communication will include elements such as ongoing press work in relation to the daily press, regional and local media and trade media. Press work will be based, among other things, on the publication of statistics on developments in the areas, actual case studies, best practice and good examples of projects within the fisheries programme.

- Development of the website to include information for the general public about issues such as port development, new offers for consumers, development of product ranges in the retail sector, etc.

- Events such as conferences, debates or exhibitions with a focus on results and opportunities within the Fisheries Fund. There will be both nationwide and regional activities.

- Alliances with other actors that can help to underpin the positive reports on developments in fisheries. These could, for example, be actors in the health area, in the field of regional development or trade and industry development.

- Analyses that help to put the fisheries and aquaculture sector and developments in fisheries areas on the public agenda.

The concrete information activities and associated budget and timetable will be prepared in an independent communication plan.

9.3.9. Organisation and indicative budget

Communication activity on the programme for the Danish fisheries and aquaculture sector 2007-13 is undertaken by the Ministry of Food, Agriculture and Fisheries.

The information and communication involves different kind of activities;

- Public: Branding (website, advertising, leaflets, etc.), national conferences, yearly information on the impact of the programme, evaluation of information activities,

- Potential beneficiaries: Website, guidelines and forms, regional and thematic seminars, information meetings and network. Furthermore
specific activities will be provided for stakeholders and groups in fisheries areas (axis 4 measures).

An indicative budget for the activities in the entire programming period is estimated to be 900,000 €\(^{24}\)

**Tabel 20 Indicative budget 2007-2013, €**

<table>
<thead>
<tr>
<th>Target group</th>
<th>Indicative budget , €</th>
</tr>
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<tbody>
<tr>
<td>Public</td>
<td>225,000</td>
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<tr>
<td>Potential beneficiaries</td>
<td>675,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>900,000</strong></td>
</tr>
</tbody>
</table>

**9.3.10. Target and success criteria for communication**

A situation report on the communication effort will be included in the mandatory annual reports. Communication will be evaluated continuously throughout the programme with a view to adjusting the communication effort further. This will take place, for example, in connection with the end and the beginning of each of the three phases in the communication strategy, and as an element of the ex ante, mid-term and ex-post evaluation of the programme.

\(^{24}\) Some of the activities for preparation and promotion of the EFF-programme are financed under the FIFG-programme.
ANNEXES

I. Partnership list
II. Expected groups in fisheries areas
III. Coherence with the objectives in the National Strategic Plan
### Annex I Partnership list

#### Summary of participants in workshop, conference and written consultation

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Has participated in</th>
</tr>
</thead>
<tbody>
<tr>
<td>3F Vest</td>
<td>consultation/conference</td>
</tr>
<tr>
<td>3F</td>
<td>conference/workshop</td>
</tr>
<tr>
<td>3F - Skagerak</td>
<td>conference</td>
</tr>
<tr>
<td>3F Esbjerg Transport</td>
<td>conference</td>
</tr>
<tr>
<td>3F Nordøst Vendsyssel</td>
<td>conference</td>
</tr>
<tr>
<td>A. Esperensen A/S</td>
<td>conference</td>
</tr>
<tr>
<td>A/S O.V. Jørgensen</td>
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Annex II. Expected fisheries areas
## Annex III. Coherence with the objectives in the National Strategic Plan

<table>
<thead>
<tr>
<th>Objective</th>
<th>Axis 1</th>
<th>Axis 2</th>
<th>Axis 3</th>
<th>Axis 4</th>
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<tbody>
<tr>
<td>Create opportunities for low costs and high value added in the seafood industry within the framework of biologically sustainable fisheries.</td>
<td>√</td>
<td>√</td>
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<td>Create the opportunity for an efficient, modern fleet that serves the interests of both deep-sea fishing and coastal fishing.</td>
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<tr>
<td>Offer a high level of integrated service at the strategic fishing ports. Offer basic service functions in niche ports, including landing sites, for small and medium-sized locally based fishing vessels.</td>
<td></td>
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<td>Carry out activities that help to motivate young people into seeking employment within the fisheries sector.</td>
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<td>Create opportunities in aquaculture for sustainable growth through financing, innovation, skills development, reduction of the impact on the natural environment and the establishment of new types of partnership.</td>
<td></td>
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<tr>
<td>Maintain and increase value added within the processing, wholesale and sale links in the chain through innovation, skills development and new types of partnership.</td>
<td></td>
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<tr>
<td>Promote a wide range of seafood products within the retail sector.</td>
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<tr>
<td>Co-operation in the value chain on market information, customer requirements and product development is to be increased for the purpose of enabling the Danish fisheries sector to deliver what customers and consumers want.</td>
<td></td>
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<td>Improve the framework for optimal quality and traceability throughout the value chain.</td>
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<td>Enhance the framework for optimising the processing industry’s raw materials base and improve value added in the sector as a whole.</td>
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<td>Minimise the impact of the fisheries and aquaculture sector on the environment within the frame-</td>
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<td>Work of an overall social prioritisation.</td>
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<tr>
<td>Reduce the impact on the marine environment, discards and unwanted by-catches.</td>
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<td>✓</td>
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<tr>
<td>Improve the working environment and reduce the risk of occupational accidents.</td>
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<td>Manage catches and the level of activity within the fisheries sector in a way that ensures the sustainable exploitation of resources.</td>
<td>✓</td>
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<td>Support consumer health through encouragement to eat more fish.</td>
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<td>Optimise the level of training and skills throughout the fisheries and aquaculture sector.</td>
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<td>✓</td>
<td>✓</td>
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<td>Maintain employment in the fisheries areas.</td>
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<td>Fisheries areas must be attractive for industrial development and settlement with respect for nature and local values.</td>
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<td>Create a framework for a diversified industry within fisheries areas.</td>
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