**PHARE 2005 PROJECT FICHE**

1  **BASIC INFORMATION**

1.1 CRIS Number: HR2005/5/2

1.2 Title: Support to the Republic of Croatia in the preparation and implementation of the strategy to develop the fisheries sector within the context of alignment and enforcement of the EU Acquis comprising the Common Fisheries Policy

1.3 Sector: 43010

1.4 Location: Croatia, Ministry of Agriculture, Forestry and Water Management, Directorate of Fisheries

1.5 Duration: 36 months

2  **OBJECTIVES**

2.1 Overall Objective

- To support and further strengthen the Republic of Croatia in preparation and implementation of a strategy to develop the fisheries sector within the context of alignment and enforcement of the EU acquis comprising the CFP.

2.2 Project purpose

The project has been divided into 5 substantive sub-projects (components), providing an integrated approach to the achievement of the overall objective. Purposes of individual components are:

- Component 1: To strengthen the institutional capacity of DF (through staffing, training and the supply of equipment) to administer MCS, structures and marketing aspects of Croatian fisheries sector specifically in the context of integration into the EU.
- Component 2: To incorporate the required by-laws into the “Marine Fisheries Act” to conform to the fisheries regulations within the EU acquis.
- Component 3: To design and implement a National Fisheries Management Strategy.
- Component 4: To strengthen DF MCS capacity to administer and enforce fisheries regulations.
- Component 5: To design and implement delivery mechanisms to promote development of fisheries infrastructure, representative organisations and fish marketing.

2.3 European Partnership (EP) and NPIEU priority

Key issues identified for the implementation of the CFP in Croatia are the overall harmonization of fishery legislation, market measures, fishery statistics, vessel register and
vessel monitoring system. In addition, priorities are supporting infrastructure and strengthening of the fishery statistics. The Avis and the Partnership underline strengthening of the administrative capacity (inspection, control and surveillance) as a short and medium term priority for Croatia.

Priorities for institutional capacity building and overall development of management measures for Croatian fisheries were defined in the EP\textsuperscript{1} as:

- **Short term.** Introduce the administrative and inspection structures required to implement fisheries policy.
- **Medium-term.** Develop administrative structures to ensure effective implementation of fisheries policy, including management of resources, inspection and control of fishing activities, market policy, structural programmes, a fishing vessel register and a management plan for the fleet capacity in accordance with available fish resources.

As explained in the EC “Opinion”,\textsuperscript{2} “the *acquis* on fisheries consists of regulations which do not require transposition into national legislation. It requires, however, the introduction of measures to prepare the administration and the operators for participation in the CFP (in the areas of market policy, resource and fleet management, inspection and control, structural actions and state aid)”.

2.4 **Contribution to National Development Plan**

As such there is no national development plan for fisheries. Preparation of a “National Fisheries Development Plan” is currently being considered using CARDS finance.

2.5 **Cross Border Impact**

Not Applicable.

3 **DESCRIPTION**

3.1 **Background and justification**

3.1.1 **Introduction**

The fishery sector is one of the priority areas for support in order to facilitate further integration of Croatia and the European Union. The Community’s priority\textsuperscript{3} in respect to fisheries is to continue the establishment of adequate administrative structures, with related equipment, to ensure effective implementation of the fisheries policy including resource management, inspection and control of fishing activities, market development, structural programmes, a fishing vessel register and a management plan for the fleet capacity in accordance with available fish resources. Important principles recognized within the Croatian fisheries administration are:

- effective management through assessment of the overall biomass of target species;
- establishing continuous monitoring and control;
- establishing better and more efficient fisher cooperatives/fisher associations;

\textsuperscript{1} Chapter 8
\textsuperscript{3} Council Decision on the principles, priorities, conditions contained in the European Partnership with Croatia (COM (2004) 275 final)
• defining markets and promotional strategies; and
• developing exports.

The available fisheries related PHARE Programme expenditure for 2005 amounts to €6 million, of which €4.5 million is to be provided by Community funding. The key issues to be addressed by PHARE, in the context of both overall development of the fisheries sub-sector and other pre-accession instruments are: institutional strengthening; harmonisation of legislation; fisheries management; monitoring and control; and fisheries structures and marketing.

3.1.2 Institutional Strengthening

While DF organisational structure is adequate to cover many of the issues related to the regulation and administration of the fisheries sector, a number of areas require strengthening in order to improve both efficiency and capacity. Such strengthening will not only allow orderly implementation of EU regulations, but also assist in guiding overall development of the sector.

Identified weaknesses include: insufficient staffing to complete the required tasks and associated activities; inadequate support in terms of office and field resources; lack of specific coverage of structures and marketing; and limited communications between the field offices and headquarters, and between DF and other stakeholders in the industry.

3.1.3 Harmonisation of Legislation

Members of the EU are required to adopt and fully implement the CFP. Croatian authorities have need of assistance to identify, implement and co-ordinate the work essential to complete harmonisation of legislation and introduce all the necessary administrative and operational systems.

3.1.4 Fisheries Management

While a number of fishery management measures are in force fisheries are not managed in an optimum way. In addition, the system used to gather basic management data is unsatisfactory, and further scientific elaboration of the status of stock and the degree to which they are exploited is needed. To underpin sustainable development of the sector it is important that a rational fisheries management strategy is implemented.

3.1.5 Monitoring, Control and Surveillance

Over the past 2 years, DF has made significant changes in the field of MCS by introducing the basis of a monitoring system (log books), initiating the revision of the database and vessel register system and by forming the Fisheries Inspection Division. Nevertheless, some of the key issues such as non compliance in reporting by a large number of fishermen, infractions to territorial jurisdiction, controlling gear displacement by inshore subsistence fishers and market monitoring have still not been tackled. A major issue is not being able to deploy existing shared work resources appropriately. The Police, charged with the responsibility for enforcement at sea have other inspection priorities. This means that coordinated activities and targeted actions are seldom adhered to.

A Vessel Monitoring System is not in place in Republic of Croatia and its installation is considered a priority. DF has implemented pilot projects to meet the international obligations stemming from RFMO's recommendations and resolutions.
3.1.6 Fish Structures and Marketing

A number of issues need to be addressed covering structures and marketing. The infrastructure for marine fisheries, in terms of landing amenities, vessel type and marketing facilities, are poorly developed and do not present the basis neither for development of a modern fishing sector nor the implementation of a number of EU regulations. A major part of the fisheries market remains informal, and there is only limited development of the distribution channels needed to improve first hand sales prices and increase national fish consumption. Commercial fishermen are poorly organised and can neither adequately represent their interests nor implement various provisions of the COM.

3.2 Sector rationale

3.2.1 Introduction

Analysis indicates that to strengthen the fisheries sector a number of complementary actions are needed, with the synergetic effects of an integrated approach delivering a number of strong benefits. It is emphasised that any programme related to Croatian obligations to implement CFP aquis must be seen in the context of an overall approach to national fisheries development. Also, given the status of the Croatian fisheries sector in general, actions planned under Phare must be limited in terms of available budget, time and human resources, with the objective of contributing to sector development rather than achieving development. Identified actions must be both realistic and realisable.

The Logical Framework (Appendix 1) identifies five key areas in addition project coordination: Institutional Strengthening; Harmonization of Regulations; Fisheries Management Planning; Monitoring, Control and Surveillance; and Structures and Markets.

The phasing of the projects over a number of years ensures that priority actions must be completed prior to the start of dependent activities. Additionally, the work plan must recognise the importance of the DF in the context of its lead role within the fisheries sector and the need for the development process (together with the incorporation and implementation of relevant CFP provisions) to involve other governmental institutions and stakeholders. Finally, PHARE supported actions must be seen as part of the process and not the whole of the process.

3.2.2 Component 1: Institutional Strengthening

Result

- Institutional capacity of DF to administer MCS, structures and marketing aspects of the Croatian fisheries sector in the context of integration into the EU strengthened.

Current Status

Four divisions comprise DF covering policy; marine fisheries, freshwater fisheries and fisheries inspection. Specific strengths include a good nucleus organisational hierarchy with defined areas of responsibility; high level of qualifications throughout the Department; and well motivated and eager staff. However, benefit from these strengths is limited due to a number of institutional weaknesses, of which 5 have been identified: insufficient staffing to undertake the various programmed activities; poor communication between the field offices
and Headquarters; limited offices resources; limited field resources; and the monotony of certain work activities.

Insufficient Staffing: The Policy Division comprises three staff members who are responsible for development of the national programme and integrating EU legislation. This Division will inevitably take on some or all of the responsibility for the management of EU structural funds. Additionally, it would seem to be the indicated division for implementation of marketing policy. Given the number of present and potential functions, it is imperative that the number of persons working in the Division is augmented, with a planned training programme implemented to ensure the skills required to effectively complete the work programme within the allotted time.

The Marine Fisheries Division has a Head of Division with limited support staff in Zagreb but a team of staff based in the various regional offices. The Division has three support units. Fisheries Statistics is staffed by one person based at HQ supported by one log book data inputter at each of the seven field offices. Inputters are now confirmed full time employees, following a period on temporary contracts. The Marine Capture Fisheries unit head is based in Split. This unit is responsible for administration of the field offices (each having 2 or 3 officers) and for licensing commercial, subsistence and sport fishers. The Marine Aquaculture unit head is based in Zadar.

The Freshwater Fisheries Division has a Head of Division in Zagreb and two heads of unit, one for capture fisheries and the other for freshwater fish farming.

The head of the Fisheries Inspection Division is based in Zagreb, with five regional fishery inspectors (Pula (Istra), Split, Sibenik (2) and Dubrovnik). An additional ten posts remain to be filled. Marine inspection activities are carried out in cooperation with the police, but sea inspections are limited to one day per week, and this schedule depends on a vessel being available for deployment. The number of land inspections is limited.

Insufficient Communication between Field Offices and Headquarters: Problems in communications mean that field offices may be unaware of policy developments and are unable to adequately inform the private sector of specific requirements. In the past, field offices have not been consulted on policy issues, and accordingly other coastal stakeholders have not been provided with the possibility of commenting on the needs for policy development and implementation. Information exchanges were largely restricted to communication between the field offices. Field officers are not required to submit monthly activity reports. In contrast, communication within the Fisheries Inspection division is said to be excellent. Fisheries Inspectors also maintained a good level of communication with the police.

To facilitate improved communication, leading to institutional strengthening, requires specific training courses with the development of programmed reporting activities. To gain industry support, while complying with EU policy, it is imperative that stakeholders are included in a wide bearing consultation process.

Offices Resources: In some cases, office space is limited and totally inadequate for the tasks at hand. There is an added problem with fishery inspectors, most of whom currently occupying offices previously used by the State Inspectors Office (an organisation responsible for more global policing). The fishery inspectors should be based in Regional DF offices, but the existing ones do not have the capacity to accommodate them.

Computers hardware is old with dated software. There are no local networks within or between offices, neither access to broadband. This not only creates problems in communication between offices, but also leads to specific problems in data transmission.
The fisheries statistics data base is rudimentary and does not contain some of the basic requirements needed to satisfy EU data collection regulations. The systems require further development to include additional data and the ability to interrogate the data base not only at HQ but also at the regional level.

**Field Resources:** In general, there are inadequate facilities for work in the field. There is no specific transport for the use of regional offices, meaning that there are limited opportunities for fishermen to be interviewed in their place of work.

**Monotony of Work Activities:** Data inputters at Regional Offices are highly qualified but their areas of responsibility cover mundane activities. There is no requirement for forensic analysis of provided data against real time vessel activity. In addition, inputters are frustrated in the knowledge that a large part of the data is unreliable and accordingly their output is, to a large degree, meaningless. Even if the data was reliable, field staff cannot interrogate the data base, meaning that each office has to enter data in a spreadsheet format to allow some analysis of regional activity.

**Required Status**

In order to comply with its terms of reference and fulfil its role of administering and regulating the Croatian fisheries sector, a programme of institutional strengthening has to be applied to DF. In this way, not only with the DF be more effective in fulfilling the requirements stipulated in the pre-accession agreement with the EU, but also more efficiently direct development of the sub-sector to the benefit of the Croatian national economy. Within the context of the PHARE project, required actions relate to the Policy Division, the Marine Fisheries Division and the Fisheries Inspection Division.

**Policy Division:** The Division’s tasks and responsibilities will be reassessed in relation to: harmonisation of legislation to conform with Principal EU Regulations and on going international obligations (ICCAT); managing a structural support programme including the provision of pre-accession support funding; adjusting (in cooperation with the Marine fisheries Division) the National Programme to take account of specific sector deficiencies related to fleet structures and licensing, infrastructural support, formation of producer organisations and market development. The existing staff complements cannot cope with these demands. PHARE makes provision for to support the establishment of systems in the years immediately preceding entry. However, preparation for pre accession support funding (SAPARD and IPARD) is also important in order to facilitate a transition towards community structural support programmes. Core components of the Division’s activities will include: improved dialogue with the field offices and industry stakeholders; and collaboration with other institutions in completion of a joint work programme.

**Marine Fisheries Division:** A number of activities will strengthen the capacity of the Marine Fisheries to complete the established work programme.

Re-evaluation of staff activities based on tasks linked to the activities below.

- While DF has the capacity to redesign licensing policy, it should learn from the experience of EU countries that have pioneered licence and capacity adjustment systems. Activities will include definition of fleet capacity measures (particularly against the background of multi vessel ownership), decommissioning and establishment of a limited entry licensing scheme.
- A Fleet Register will be established in accordance with COUNCIL REGULATION (EC) No 26/2004 concerning the fishing vessel register of the Community
• In cooperation with the Fisheries Inspection Division, there will be implementation of a system of sales notes and landing declarations and amending log books to incorporate elements of COUNCIL REGULATION No 1639/2001
• A broadband based communications system will be developed to facilitate interactive communication within the Department of Fisheries
• Establishing a system of monthly reporting
• Establishing a more integrated data inputting system allowing for data interrogation at field office level in order to support forensic the activities of the Fisheries Inspection Service
• Training data inputters

**Fisheries Inspection Division:** The main effort will be directed at strengthening the possibilities for this division to effectively monitor activity in the marine fisheries catching sector, through providing adequate support materials.

**Beneficiaries**

The main beneficiaries of this result will be specific divisions of the DF. Institutional strengthening realised will, however, contribute to the overall performance of DF, with various knock-on benefits for, and lessons learned applicable to, the remaining divisions. Indirect beneficiaries will be various stakeholders who will benefit from the strengthened capacity of DF. Professional fishermen will profit from improved regulation and supervision, while DF capacity to attract EU structural funds will prove vital to a number of groups.

**Implementing Agencies**

CFCU

3.2.3 **Component 2: Harmonization of Regulations.**

**Result**

• Croatian legislation conforms with the fisheries regulations within the EU *aquis*.

**Current Status**

DF has recently adopted the Amended Marine Fisheries Act, repealing the Marine Fisheries Act 1994 (consolidated 1997), which forms the basis of the amended act. The new act is enabling legislation allowing future incorporation of new technical regulations. It takes on board some relevant provisions from the Common Fishery Policy, with the most important changes including a framework for fishery inspection, data gathering and resource management and protection.

**Required Status**

The existing fisheries data base requires upgrading with a computer package allowing for the incorporation of landing declarations and sales notes according to COUNCIL REGULATION (EC) No 2847/93. Data should incorporate catches by species, prices, fish sizes and grades, fishing effort, details of vessel characteristics. The existing system will require adaptation, or adoption of an existing system used by another Community country.
The redesign of a computerised data system will also take account of the communication specifications sought by the Control Regulation. The system redesign should also pay careful attention to operational needs including location, adequate hardware and staff training.

The various requirements of the *acquis* are in the footnote.4

**Beneficiaries**

DF

**Implementing Agencies**

CFCU

**3.2.4 Component 3: Fisheries Management Planning**

**Result**

- A "national fisheries management strategy" has been implemented.

**Current Status**

Croatian commercial fisheries are characterised by a relatively old fishing fleet with limited autonomy due to its characteristics in terms of vessel length, engine size and equipment. Resources are mainly fished inside territorial waters. On the whole, fishing effort is below 140 days per vessel per year.

A small number of vessels target blue fin tuna for subsequent farming. Their activities are governed by ICCAT regulations. The principal target fisheries comprise pelagic species (tuna, sardines, sprat), and demersal finfish (hake and red mullet), nephrops and cephalopods. The pelagic fisheries are considered to be in a healthy state, whilst demersal species are reported as being heavily exploited, but not to the same degree of exploitation levels found in other Adriatic coastal or international waters. Trawling, purse seining and polyvalent groups account for approximately 55 per cent, 25 per cent and 20 per cent of total effort, but the exact number of active vessels is unknown. There are around 415 licences but not all are active. There are, also a large number of artesanal fishing vessels (around 2,500 licences). Many individual fishermen own up to three vessels, using each vessel for a specific type of fishery.

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4 An integrated statistical package to encompass the specifications of COUNCIL REGULATION (EC) No 2847/93 (landing declarations and sales notes), COUNCIL REGULATION No 1639/2001 (statistical requirements) and COUNCIL REGULATION (EC) No 2090/98 concerning the fishing vessel register of the Community Council Reg. 3760/92

COUNCIL REGULATION (EC) No 2371/2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy

COUNCIL REGULATION concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea and amending Regulations (EC) No 2847/93 and (EC) No 973/2001

COUNCIL REGULATION (EC) No 2792/1999 of 17 December 1999 laying down the detailed rules and arrangements regarding Community structural assistance in the fisheries sector (to be amended in 2007 by the European Fisheries Fund)

COUNCIL REGULATION (EEC) No 2847/93 of 12 October 1993 establishing a control system applicable to the common fisheries policy

COMMISSION REGULATION (EC) No 2090/98 of 30 September 1998 concerning the fishing vessel register of the Community

COMMISSION REGULATION (EC) No 2244/2003 of 18 December 2003 laying down detailed provisions regarding satellite-based Vessel Monitoring Systems

In addition, there are a further 12,000 plus subsistence fishermen, spread throughout the coastal areas and islands. Licences are issued for subsistence fishing as a result of special provisions to support the population during the war. Fishing activity is prohibited to specific gear characteristics and fish cannot be sold commercially. Croatian fishery inspectors and scientists suggest that many of these fishers not only sell fish commercially, but also comprise the most frequent group of offenders to fishery regulations. Fishery scientists estimate that as much as half the demersal catches may be from this sector. The reported total annual Croatian catch of demersal fish is just 6,000 tons, and this could be taken by an average effort of 100 days for the subsistence fishermen alone. While these fishermen are unlikely to expend such effort, it is clear that just half that amount would imply that commercial fishermen would only catch 3,000 tons – a level which clearly has significance for resource exploration and identifies a need for closer management of this sector.

There are up to 30,000 recreational fishers, including freshwater and marine. As tourism grows in Croatia, there is an increased potential for conflict between recreational fishermen and other user groups.

A number of fishery management measures are in force, including closed areas, technical restrictions in the use of fishing gears and minimum landing sizes. Such measures are either compatible with, or more stringent than, current EU legislation. Professional fishermen are reported as being largely compliant with existing regulations. There are no quotas except for ICCAT catch restrictions set for tuna. All vessels are licensed and the licences specify the types of gear that may be used. However, there is no restriction to the allocation of number licenses except for trawlers where the number of licences are fixed. A decommissioning scheme also exists for the trawl sector.

There are no designated fishing ports in Croatia. Landings may occur in up to a dozen or so locations in each region. Local municipal authorities are resistant to provide areas for fisheries port development, as their preference economic sector is tourism. When a port location is identified it is usually unsuitable in terms of exposure, depth and lack of easy access to distribution channels.

Access for foreign vessels is prohibited to outside territorial waters with the exception of Slovenian fishing activity within Piranski Bay. There is conflict between Croatian fishers and Slovenian authorities in this area. There is now no fishing activity from Serbia and Montenegro to the south, and other areas of conflict relate largely to occasional fishing by Italian vessels on the extremities of the national territorial waters. This problem is said to be particularly high in Palagruza where large Italian vessels are reported to fish.

**Required Status**

The main issues are: commercial fisheries are not managed in an optimum way; there is an unsatisfactory system of gathering required management information; landing statistics are hugely inaccurate for demersal species, with scientists estimating that just one third of the total catch is declared; scientific understanding of commercial fish stocks and the degree to which they are exploited is incomplete; while there is a vessel (fisherman) licensing system, apart from trawling this is not restrictive; there is no real knowledge of fishing effort in terms of the number and characteristics of active fishing vessels and related gear; and activities of subsistence fishermen are neither monitored nor regulated, yet their landings are a key element in reducing the potential for new investment in the “professional” fleet and development of a formal market for fresh fish with an associated distribution system.

Under such conditions, it is difficult to design and implement a development policy based on the sustainable utilization of available fishery resources. Yet, the successful
management of the sector would contribute to the strengthening of the Croatian economy, in
the areas of regional development, income and employment, foreign exchange earnings and
food security. Without a clear understanding of the need for, and the approach to, Fisheries
Management Strategy, future prospects for sector development are put at risk. Additionally,
in the medium term, Croatia will not be able to comply with the stipulations of the CFP.

Beneficiaries

DF

Implementing Agencies

CFCU

3.2.5 Component 4: Monitoring, Control and Surveillance

Result

- Croatian MCS of fisheries activity is effective.

Current Status

There is no fisheries monitoring centre, no forensic data analysis and the means of
deployment available to the fisheries inspectors is minimal (no vehicles for use by the
Regional Fishery Offices, no VMS, and no dedicated Fishery Protection Craft). Coordination
is from Zagreb and coordinated activities are undertaken through agreement via weekly
meetings between the Ministry of Internal Affairs (representing the police), the Ministry of
Culture, the Ministry of Tourism and the Ministry of Environment. Each organisation has its
own priorities for the use of police launches. Fisheries are confined to one dedicated day per
week when a vessel is available. Often vessels are awaiting repair. Fishermen are also aware
of when and where a vessel is likely to be deployed for dedicated inspections. The police do
carry out day-to-day checks on fishers but are only able to verify the most rudimentary
offences such as checking that log books have been completed, that vessels are compliant
with area restrictions and that a vessel is in possession of the appropriate licence. Checking
compliance with technical regulations such as application of gear restrictions or minimum
landing sizes is inadequately covered.

Communication between the Fisheries Inspectors is good, as is the liaison between the
Inspectors and the police. The size of the coastline and spread of fishing ports (including
many islands) also makes it extremely difficult to monitor landings. Moreover, there is an
absence of coordinated monitoring campaigns and no inter-linkage with data base systems
(forensic cross checking log books with sales notes). This is against the background of highly
qualified personnel responsible for inspection and data analysis.

Presently, the Fisheries Inspection Division has a Head of Unit in Zagreb and five
fishery inspectors. This is for an area covering 5,800 km of coastline and some 1,200 islands.
An additional ten posts have yet to be filled. Inspection activities are shared with the police
and harbour authorities. Current organizational scheme foresees senior inspectors who are
aided by junior assistants for surveillance and control. Given the length of the Croatian coast,
and the area which is subject to surveillance by Croatian Fishery Inspection, it is expected
that additional personnel shall be needed to fully perform the surveillance tasks.

Fisheries inspectors perform activities using their own cars, and when working at sea
they use vessels owned by the Ministry of Interior (maritime police) and the Ministry of
Maritime Affairs, Transport and Communications (port authorities). Maritime police officers have at their disposal 39 police patrol boats.

In order to successfully perform and complete fisheries inspection tasks, fisheries inspectors require fully equipped vessels for surveillance and inspection at sea, measuring instruments (for mesh size, luxmeters, ichthyometers, digital cameras, cellular phones and computers) and adequate protective clothing and shoes. Inspection vessels should be rigged with radar and satellite equipment for finding and locating of fishing vessels. The average age of the police fleet exceeds 15 years, and the maritime capabilities of the vessels are rather limited. The presently available fleet is not adequate for the scope of the tasks, and is in need of modernization. In order to successfully conduct surveillance and inspection on the fishing seas of Republic of Croatia, there is a need to increase the number of modern, well-equipped vessels, increase their engine power and the state of equipment.

Fisheries inspectors are located in field offices of the DF along the coast (7 field offices, each in different county - Pula, Rijeka, Senj, Zadar, Šibenik, Split and Dubrovnik). Majority of vessels and activities are, according to the register, located around Pula and Rijeka in the north, Zadar, Šibenik and Split in the mid-Adriatic and Dubrovnik in the south. Since the scope of the activities differs, as well as the intensity and number of registered vessels, the PHARE proposed project aims at acquisition of two types of inspection vessels - three medium-sized ones able to control activities in territorial waters and three rubber inflatable boats equipped for control of channel and coastal areas. Purchase of 6 vehicles is envisaged for inspectors in field offices. Vehicles should be allocated to six field offices. Since activities of the fleet differ depending on the area (physical and biological characteristics), offices where majority of coastal and small-size vessels are active should be allocated vehicles able to tow rubber inflatable boats (3 vehicles and 3 RIBs), whereas offices in areas where larger vessels and activities are registered are envisaged to receive adequate vehicles in addition to medium-sized inspection vessels (3 vehicles and 3 FVPs).

Croatia is seeking to establish fisheries monitoring for its larger vessels. It has an obligation to introduce VMS (with non corruptible transponders) onto vessel over 24 m. The Croatian administration is also seeking to extend position recording and electronic log books to all vessels 15m and over.

**Required Status**

**Fisheries Control Practices:** The principal areas include:

**Short Term:** Evaluation of enforcement priorities (e.g. fleets to be targeted, most frequent and serious offence); Defining a deployment strategy, and re-programming surveillance and inspection activities; Assessment of needs and costs for patrol vessels (rehabilitated or new); Procurement of coastal patrol vessels supported by EU funding (if appropriate); Establishing a Memorandum of Understanding between the Department of Fisheries and the Ministry of Interior, Ministry of Defence and Ministry of Justice; Defining the competencies, deployment actions (utilising risk analysis) and responsibilities in fisheries surveillance between the Police and the Fisheries Inspection Unit; Inauguration of a command centre, together with regional support facilities; Training of core personnel encompassing familiarisation of changes in legislation; and Reassessing the system of penalties in accordance with EU Regulations.

**Long Term:** Introduction of control procedures specified in COUNCIL REGULATION (EC) No 2847/93 and COMMISSION REGULATION (EC) No 2244/2003
of 18 December 2003 laying down detailed provisions regarding satellite-based Vessel Monitoring Systems; Monitoring, including framework surveys, VMS, catch, landings, transhipment and “export” monitoring, regulatory needs and reporting requirements; Control, including fisheries management planning, effort controls, licensing, legal framework, penalties and reporting requirements; Surveillance, including CA for fisheries surveillance, institutional and organic setup of CA, unity and chain of command, operational planning and financing mechanism, surveillance means, vessel operation, maintenance and repairs, human resources (numbers and training), standard operating procedures, power of arrest, arrest, instruction and fining procedures, forward bases and operations, regulatory needs and cooperation with harbour and environmental authorities.

Beneficiaries

DF

Implementing Agencies

CFCU

3.2.6 Component 5: Structures and Marketing

There are no designated fishing ports in Croatia. Landings take place along the coast, with some ports more important than others. In general, regional government tends to favour tourism in preference to fisheries, with the provision of marinas taking precedence over landing places providing fishing vessels with required infrastructural support. Where shore space for designated fish landing places is offered, more often than not the location is not entirely suitable for fishing boats e.g. in terms of shelter, depth and ease of access to channels of distribution.

Whereas the market for small pelagics and tuna is transparent, that for demersal species is largely informal and a cohesive marketing structure does not exist. In a large part, this is due to the large number of “subsistence” fishermen marketing their catch directly to consumers and to restaurants and this impedes development of competitive bidding and exchange. The main channels of distribution are to the seasonal tourist trade and to Italy, either overland or by ferry. There is relatively little distribution of fresh fish inland to Zagreb.

Commercial fishermen are poorly organised. There are, however, two new cooperatives in Istria with strong membership and a corporate plan of excluding market intermediaries by selling the catch of their members directly in export markets and other buyers. There are other limited examples in other areas where vessel owners may group together in order to sell fish locally at market stalls. While the Government consultation process involves dialogue with the Chamber of Commerce and Chamber of Trade in Zagreb, there is concern that dialogue fails to involve coastal interests.

Result

- Organisation and infrastructure match fisheries sector requirements.

Current Status

National policy defines the need to increase per capita fish consumption. Associated policy is development of a market structure to facilitate improved distribution of fish and fish products. To date only one regional marketing study (Istria) has been completed.
In Croatia, there is a lack of reliable fisheries statistical information on catches of demersal species. Catches for pelagic species and production statistics from farms are reliable. A large part of fish marketing, especially of fresh product, is informal with no record of a transaction. To ensure appropriate planning and related investment decisions, fisheries management and related choices must be based on valid detailed quantitative information supported by strong qualitative analysis.

While official figures indicate total annual demersal landings (including shellfish) of about 6,000 tons, it is estimated that the real quantity may be as high as 16,000 tons. The main species are hake, red mullet and Norway lobster. Fishing vessels used by full time fishers are old and do not have ice making equipment, although they may carry ice provided by market intermediaries. Due to the characteristics of the vessels, they have a limited autonomy and days at sea are restricted by weather. This affects the continuity of market supply, while limiting the potential to harvest stocks found further off-shore. Given the status of the fishing sector, with uncertain returns, there is limited incentive for professional fishermen to invest in new fishing equipment, including vessels, and implement working practices designed to improve fish quality and fish marketing.

The main opportunity to increase total market supply of fish is through increased landings of small pelagic species. However, there are constraints to this including (i) limited domestic demand for fresh, frozen and canned small pelagics (ii) the reduced size of the processing sector and (iii) catch in periods when oil content is not optimal.

Tuna catch is restricted to the annual quota provided to Croatia by ICCAT plus additional quantities purchased from fishermen in countries such as Malta. Almost all the tuna caught is maintained live for farming and subsequent sale to Japan.

Croatia farms sea bass, sea bream, oysters and mussels, and if marketing problems were overcome the production of these could be significantly increased. For sea bass and sea bream, the major marketing issue is competition from Greek and Turkish farms, while for molluscs the chief impediment is the inability to market product in the EU due to hygiene regulations.

Annual production from aquaculture is about 3,000 tons, compared to a potential for 12,000 to 15,000 tons. There are a number of technical problems and there is market resistance to traditional products such as carp.

With the closure of many of the producing units, canning capacity in Croatia has reduced substantially in recent years. Lack of competitiveness relates to poor quality product associated with high operating costs. The traditional domestic market (institutional military demand) has been lost and there are reduced export possibilities. Domestic home consumption of canned sardine is limited. Observation indicates that there is a need for investment to ensure the quality of canned products.

Available figures point to a per capita annual consumption level of between 7 kg and 9 kg per year, however, given the lack of consistent landing data, it is difficult to judge if this data is reliable. Per caput consumption on the coast is substantially higher than inland.

The key to increased consumption is seen to be making fish more price competitive through a more efficient distribution chain, and improving product quality. Other issues are the need to restrict the informal market in fish and fish products and improvement of supporting infrastructure.

In coastal towns and villages fresh fish is retailed at local markets along with other fresh produce. Individual traders may specialise in specific species. In certain towns,
fishermen have joined together in small cooperatives to market their product through a retail market stall. In general ice is used. Labels indicate the variety and the price per kilogram. The fish is normally high quality fresh product, but some frozen product was observed.

Although against regulations, at a number of fish landing places fresh fish is sold directly to consumers from the boat or the quay. The demand from holiday makers is an important constituent of the total market. The demand from restaurants, especially along the coast and in the summer tourist period, is high. The majority of transactions are informal, with no sales note. It is reported that restaurants buy from preferred individual fishermen without taking into account whether these are professional or subsistence.

There is limited production of fish meal, by-product of canning operations. The main “industrial” demand is for frozen small pelagic fish to feed tuna in growing-out facilities. The indications are that, due to oil content and price, a major part of this sub-sector’s needs is satisfied by imports.

In certain areas, fishermen have formed cooperatives. Up until 2004, these were of a limited nature, with small groups coming together to resolve a specific problem e.g. the management of a direct retail outlet with a fish stall in the local retail market. In 2004, two cooperatives were formed in Istria, with individual membership in excess of 100 fishers. These two cooperatives could form the nucleus for establishment of fish producers’ organisations capable of implementing specific aspects of the CFP.

The UNDP Coastal Management Project is scheduled to work with a PO for mussel farmers.

**Required Status**

As originally conceived the Common Organisation of Markets (COM) was designed to take account of the intrinsic character of the market for fish including a seasonal imbalance between supply and demand. Producers Organisations (POs) have a key role in COM, being largely responsible for the implementation of market mechanisms. They are established by fishermen or fish farmers to take measures to ensure best marketing conditions for the produce of their members.

The COM had the following objectives: apply common marketing standards; establish POs; institute a price support mechanism based on intervention mechanisms or compensation mechanisms; and establish a regime for trade with non-member states.

The overall objective of the updated COM is: to achieve a better match between supply and demand, strengthen the competitiveness of the processing industry and improve information to consumers.

Specific aims are: encourage fishermen to only fish what can be sold; strengthen industry organisations, particularly POs and make them more competitive; enable consumers to know what they are buying; ensure a better match between supply and demand; and protect employment in the catching sector as well as processing.

Given the current situation, substantial effort is required to provide the Republic of Croatia the capacity to implement EU market measures and benefit from funds available for structural investments. The National Strategy to increase fisheries consumption with development of a wholesale market system has a limited potential for success as the basic conditions are non-existent in terms of: lack of developed landing facilities with required support infrastructure; lack of developed channels of distribution; lack of fishery based organisations; insufficient manpower within DF; and lack of specific legal regulations.
It is suggested that a fresh approach is taken to accomplish the stated goals. This includes redefinition of the policy on wholesale markets, with a system based on: formation of Producer Organisations; centralised landing or collection points at designated locations along the coast through investment in infrastructural support (e.g. adequate landing space, refrigerated stores, transport); and sale through electronic auction from POs representing fishermen to licensed buyers.

By providing greater continuity of supply and the opportunity for inland traders to participate on the market it is expected that this will improve the opportunity to augment national fisheries consumption. At the same time, once within the EU, it will be the price mechanism that allocated available supplies between internal and export markets.

It would appear that the main opportunity to increase national fisheries consumption will be in a greater catch and increased utilisation of small pelagics. Given consumer tastes and preferences, the potential to increase direct consumption of small pelagics presents a specific marketing problem. While it would be fairly straightforward to improve the quality of the product landed (through investment in CSW or RSW tanks on board, together with freezing / chill facilities and improved handling procedures at the port of landing), modifying consumer preferences is more complex.

An improved market for fish and fish products implies the need for specialised expertise not available within DF. It is suggested that DF effort is augmented through more formal collaboration with the National Agricultural Extension Service, the Chamber of Economy and the Chamber of Trade. Charged with the practical implementation of DF policy through working directly with fishermen, these would: act as a conduit between the Administration and the Industry; work together with existing cooperatives to modify them into POs as required by EU regulations; promote the association of fishermen who currently do not belong to any formal representative organisation; complete integrated development plans for the Croatian fishing sector; develop an electronic auction system; ensure industry capacity to implement EU regulations; and identify and prepare projects suitable for financial assistance of the Croatian Authorities / available EU funds, for review by DF.

Beneficiaries
DF, potential PO's

Implementing Agencies
CFCU

3.3 Results

3.3.1 Component 1: Institutional Strengthening

Purpose

- To strengthen the institutional capacity of DF (through staffing, training and the supply of equipment) to administer MCS, structures and marketing aspects of Croatian fisheries sector specifically in the context of integration into the EU.

Results

R1.1 The requirements for institutional strengthening have been identified.
R1.2 An Institutional Training Programme has been devised and implemented, covering organisation, management, communication, reporting and delegation.

R1.3 DF staff are trained in implementing CFP provisions.

R1.4 The statistical collection service (including a market data submission system) provides reliable information in a timely manner.

R1.5 DF is capable of implementing a Fishery Management Scheme.

R1.6 DF is capable of providing effective and efficient MCS for the fisheries sector.

R1.7 DF works closely with stakeholders in the development and implementation of policy.

R1.8 DF collaborates with other institutions in developing and implementing Fisheries Policy.

R1.9 DF is organised for implementation of EU fisheries structural measures.

**Indicators**

1.1 Budget provided for restructured DF.

1.2 Certificates of attendance of related courses, workshops, exchanges and seminars.

1.3 Statistical program redesigned, with supply of associated equipment.

1.4 Results of implemented Fishery Management Plans.

1.5 The number of offences detected by MCS activities.

1.6 Stakeholders provide input into DF policy design and implementation.

1.7 Signed Memorandums of Understanding between DF and collaborating institutions.

1.8 A project pipeline is ready for implementation using the structural funds available on accession to the EU.

### 3.3.2 Component 2: Harmonization of Legislation

**Purpose**

- To incorporate the required by-laws into the “Marine Fisheries Act” to conform to the fisheries regulations within the EU *aquis*.

**Results**

R2.1 Croatian fisheries legislation has been harmonized with the specific requirements of the CFP in MCS, markets and structures.

**Indicators**

2.1 On accession, all required EU *aquis* legislation contained in Croatian Legal Framework.
3.3.3 Component 3: Fisheries Management Planning

Purpose

- To design and implement a National Fisheries Management Strategy.

Results

R3.1 A census of fisheries vessels is completed.
R3.2 Biological status of demersal fish resources has been confirmed.
R3.3 Options Analysis of Alternative Fishery management Measures has been undertaken.
R3.4 Stakeholders involved in fishery management.

Indicators

R3.1 A census of fisheries vessels is completed.
R3.2 Biological status of demersal fish resources has been confirmed.
R3.3 Options Analysis of Alternative Fishery management Measures has been undertaken.
R3.4 Stakeholders involved in fishery management.
R3.5 Fishery Management Plans implemented.

3.3.4 Component 4: Monitoring, Control and Surveillance

Purpose

- To strengthen DF MCS capacity to administer and enforce fisheries regulations.

Results

R4.1 An efficient and effective MCS system has been designed and implemented.
R4.2 There is a fully operational vessel register compliant with the EU standards.
R4.3 Monitoring and data gathering program for fishing vessels (including those not required to have logbook) has been structured.

Indicators

4.2 Provision of: 6 vehicles (including 3 4*4 with trailer), 3 RIBs and associated equipment, 3 FPV, operating VMS system, other communication equipment (VHF, Cell phones, broadband), fully equipped offices operational, fisheries monitoring centre functioning.
4.3 Fisheries monitoring centre established by January 1, 2008.
4.4 VMS for vessels above 24 m. fully operational by January 1, 2008.
3.3.5 **Component 5: Structures and Marketing**

**Purpose**
- To design and implement delivery mechanisms to promote development of fisheries infrastructure, representative organisations and fish marketing.

**Results**
- R5.1 POs have been established.
- R5.2 Mechanisms are in place to develop the infrastructure required.
- R5.3 Wholesale Market established according to requirements of COM of CFP.
- R5.4 A pilot designated harbour (large) has been developed.
- R5.5 A pilot designated harbour (small) has been developed.
- R5.6 Effective use has been made of all available EU pre-accession financial instruments.

**Indicators**
- 5.1 By January, 2009 at least 3 POs are active with a combined membership in excess of 300.
- 5.2 By January, 2009, COM applied in at least two landing places.
- 5.3 An appropriate wholesale mechanism has been identified and at least 2 pilot schemes are in operation.
- 5.4 By January 1, 2009, two pilot landing harbours are functioning.
- 5.5 By January 1, 2009, at least €5 million of aid has been disbursed, or is in the pipeline to be disbursed, to the Croatian fishery sector for approved projects.

**3.4 Activities (including Means)**

**3.4.1 Sub-Project 1: Institutional Strengthening**

**Activities**
- A1.1 Evaluation of current capacities and additional needs of DF in context of MCS, structures and marketing.
- A1.2 Identification of the need for collaboration with other institutions.
- A1.3 Contracting of required staff.
- A1.4 Implementation of staff training schedule, including element covering CFP and specific programmes.
- A1.5 Procurement of required equipment.
- A1.6 Implementation of work programmes.

**Means**
- Twinning
- Supply Contract
National Contribution

3.4.2 Component 2: Harmonisation of Legislation

Activities
A2.1 The identification of gaps in Croatian legislation covering MCS, organization, structures and marketing.
A2.2 The drafting of required new legislation.
A2.3 The incorporation of approved regulations within legislative framework.

Means
Twinning

3.4.3 Component 3: Fisheries Management Planning

Activities
A3.1 Completion of “Fisheries Census”
A3.2 Completion of demersal assessment
A3.3 Options assessment of input and output fishery management control mechanisms in context of CFP.
A3.4 Consultation with stakeholders.
A3.5 Definition of National Fisheries Management Strategy.
A3.6 Drafting of Fishery Management Plans.

Means
Twinning
Service Contract
National Contribution

3.4.4 Component 4: Monitoring, Control and Surveillance

Activities
A4.1 The design and implementation of an efficient and effective MCS system.
A4.1.1 Fisheries monitoring centre
A4.1.1.1 Organization of framework
A4.1.1.2 Standard operating procedures
A4.1.2 Implementation of MCS system
A4.1.3 Drafting of annual inspection plan.
A4.2 The redesign of vessel registration programme.
A4.3 To redesign statistical data collection system
A4.3.1 Program
A4.3.2 Data forms
A4.3.3 Collection & sampling

**Means**
Twinning
Supply Contract
National Contribution

### 3.4.5 Component 5: Structures and Markets

**Activities**
A5.1 The design and implementation of pilot projects for development of POs.
A5.2 Application for EU financial assistance
A5.3 Market study for mariculture products
A5.4 Market study for freshwater aquaculture products
A5.5 Selection and development of a designated landing port (large)
A5.6 Selection and development of a designated landing port (small)

**Means**
Service Contract
Work Contract

### 3.5 Linked Activities

Major linked activities include the CARDS 2002 project "Operational capacity building within MAFWM Croatia", measures foreseen through SAPARD, ISPA (Instrument for Structural Policies for Pre-Accession) and some activities related to the implementation of the UNPD/GEF project COAST.

The purpose of the CARDS 2002 project is to enhance the operational and administrative effectiveness of MAFWM TO fulfill its obligations under the Stabilization and Association Agreement.

The objectives of the project are: to improve the operational capacity, efficiency and effectiveness of MAFWM for developing and implementing new policies and legislation in relation to the SAA process aimed at increasing the competitiveness of Croatian agriculture in the context of gradual market opening; and to strengthen policy development, technical and administrative capacity in the area of rural development as well as administration and control of subsidies and to support the DF in the EU integration process and in adopting the acquis in fishery related areas.

The project was contracted for € 1 million, with Germany as the senior and Greece as the junior partner. Implementation of the project started in October 2004 and is expected to last until October 2006. The most relevant activity linked to the proposed PHARE project is Component 3, which is implemented in DF. Specific objectives include: compilation of relevant CFP *acquis communautaire*; training for DF staff on CFP (seminars and workshops,
dissemination of materials); and comparison of national legislation and identification of key gaps primarily in management-related legislation.

Expected results include: compilation of the *acquis* in CFP; training; identification of key gaps in national legislation governing management of resources in marine fisheries; suggestions for a harmonization scheme; and assistance to DF in drafting of some key regulation (by-laws with technical measures for marine fisheries).

The suggested PHARE project further strengthens the institutional capacity of the DF by continuation of harmonization and assistance in raising the capacity for control of enforcement of the acts. It also links with the CARDS 2002 in further structuring of internal organization of the DF. Component 3 of the suggested PHARE (Harmonization) is actually a direct continuation of the CARDS activities, and it is expected that the results of both project shall enable the DF to meet the required criteria of institutional capacity needed for implementation of the CFP by 2009.

Component 6 of the suggested PHARE project is linked with the measures foreseen in the SAPARD for Croatia, as the setting up of producer organizations and overall institutionalizing of market and structural measures in fisheries directly link with the SAPARD measures. The actual impact of the expected results of PHARE to SAPARD can not be assessed at this time, as the implementation of SAPARD depends on the interest of the defined users. However, it is expected that the setting up of the producers' organizations as envisaged in Component 6 shall enhance the capacity of end users for application for SAPARD funds. SAPARD funds shall become available in 2006.

The COAST project funded by the GEF is under preparation, but the possible linkage to the suggested PHARE project can be seen in Components 5 and 6. Component 5 involves the strengthening of inspection capacities of the DF, and COAST foresees introduction of "environmentally friendly" gear in restricted pilot areas and the control of the activities there. With the increased capacity foreseen in PHARE activities, the contribution to COAST would be increased. Component 6 of the PHARE links with the COAST through the marketing mechanisms, which shall be developed through the PHARE activities. Developed market mechanisms and structural basis shall aid the marketing of shellfish and farmed fish, where both activities shall be supported through sustainable development of rural coastal areas in the COAST project. It is foreseen that the COAST will start in 2006 and end in 2012.

“The National Fish Development Plan” is planned to be completed using CARD finance and shall be complementary to the PHARE project, assisting the planning of activities.

### 3.6 Lessons learned

Evaluation of general agricultural and fisheries specific PHARE projects\(^5\) indicates a number of areas where comparison can be made with the existing situation in the Republic of Croatia, and provide indications on the required approach.

**Design**: Not surprisingly, the Evaluation found that fisheries projects were designed to enable accession countries to meet the requirements of the CFP and to apply that policy in the beneficiary state. The projects were typically focussed on modernisation and restructuring of the fisheries sector, on harmonisation of the local fisheries legislation with the CFP and on the creation of producer associations for the fisheries sector. Clearly, preparation for EU accession is an important issue. At the same time, such preparation should not take place in

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isolation, rather within the overall context of a fisheries development policy which recognizes the implications of membership of the EU not only in regulatory terms but also considering the potential to adapt the existing fisheries structure and organisation. In this way, various stakeholders will identify the benefits from membership of the EU and be prepared to contribute to the implementation of the various measures. The evaluation found that fisheries projects were usually promoted by the technical specialists covering these matters in the CC. The specialists had the necessary technical expertise; wished to adapt their current practice to the requirement of the EU in that sector; and also wanted to enable their sector to be in a position to benefit from any aid available to that sector. In Croatia, the situation is similar. Individuals in both public and private sector recognize the potential of the fisheries sector to contribute to the economic prospects of the country and are aware of the current weaknesses and need to adopt a new strategy. They view EU accession as the opportunity for implementation of much needed reforms, not only safeguarding their own livelihoods but also raising the level of the fishing industry to that found in EU member states.

Implementation: Twinning was the preferred type of assistance and worked well in the main. However a lack of knowledge of the requirement and lack of adequate preparation affected the start of many twinning projects. Furthermore a lack of institutional and managerial capacity affected often their implementation. Twinning partners were generally of a high standard, but had sometimes had difficulty in identifying satisfactory resource input from their counterparts. Technical assistance was seen as very much a second best option compared to twinning. Where applied, technical assistance was successful. Substantial investment was a major characteristic for the Sector. However, some equipment projects were generous and not subject to firm economic scrutiny. Grant schemes were not significant for the Sector. The Croatian administration recognises that successful implementation of a PHARE projects will require efficient use of a number of instruments, including twinning and technical assistance. Given the design of this project, with a specific result related to institutional strengthening, and designed sequencing it is anticipated that problems arising from unprepared Croatian institutions will be limited. Complementary investment is seen as a key element of this project; however the emphasis will be on realistic budgeting linked to procedures designed to ensure rational spend.

Administration: Candidate countries lacked administrative machines needed to create the sophisticated institutions required by agriculture, including fisheries. All candidate countries have had great difficulty in accepting change and developing the administrative capacity to operate the agriculture and fisheries arrangements. MAFWM recognises the problems associated with resistance to change. It will not be easy to overcome this concern, however it is anticipated that the process of adaptation will be greatly assisted by full involvement of the stakeholders in all activities, including workshops and seminars, designed with the intention of explaining the various issues and involving them in the decision making process.

Scale: More attention should have been given to explaining the size of the task facing the candidate countries in the Agriculture Sector (including the fisheries sector) and in assisting them develop the project management and administrative techniques needed. The development of the Croatian fishing sector, with all the different elements involved, is an enormous but vital task for the Croatian administration. The involvement of a multi faceted team including public officials from a number of complementary institutions, the private sector, twinning and technical assistance will offer synergistic benefits that will considerably strengthen the approach. At the same time, the designed project with it’s constituent elements, needs to recognize the inherent limitations to introducing change, especially in the short to medium term, and design the expected outputs accordingly.
Institutional Arrangements: In general terms where a technical service has had to adapt to EU practise this change has been achieved, but where a new institution has had to be created, and people supplied and trained in new skills the beneficiaries concerned have been less capable of making use of PHARE and meeting the requirement. This sometimes insufficient impact by the time of accession is not due to any particular failure in the system of PHARE assistance, but due to a lack of capacity and/or early political commitment on the part of the administrations of most of the candidate countries. The projects seemed sensible and well designed although some countries did have difficulties in providing the necessary institutional arrangements for Fisheries projects and it might be queried whether the projects should have started if the necessary institutional arrangements were not in place. As noted above, the approach adopted for implementation of this project is to draw on the combined skills of a number of separate agencies, with these supported by twinning and technical assistance as appropriate. Institutional cooperation and complementary strengthening is an important integral part of the project, and the planned scheduling and phasing of tasks implying that specific project activities must be completed (or be in the process of completion) prior to the commencement of others.

Preparation: While, in general terms the projects were relevant for the purpose, the Evaluation concluded that their design suffered from the same general management problems of other projects in PHARE in that insufficient time and effort was put into their preparation. This meant that the project fiche and the twinning covenant were subject to frequent change and there were consequent delays. Given the delays in fielding T.A., preparation time for PHARE project fiche has been limited; however, it is anticipated that once the project has been approved additional T.A. will be available to develop project preparation, ensuring the necessary groundwork is complete prior to formal project start.

Sustainability: While fisheries projects were characterized as being highly relevant to requirements and that they were being taken forward efficiently, there were some delays caused by the lack of experience in managing projects and by the problems associated with understanding and adapting to such a complicated arrangement as the CFP. An interesting finding by the evaluation team was that where projects were underway, the difficulty was in persuading fishermen of the value and importance of producer organisations and in explaining the role played by producer organisations in the CFP. The evaluation considered that it was too early to be confident as to the impact or sustainability of the main fisheries projects. The main question in regard to sustainability of the evaluated Fisheries interventions is whether there is a sufficient number of staff in post to sustain the system. Great efforts involving long hours cannot be sustained forever and, as elsewhere, the administration may collapse because staff leave or go sick. Greater efficiency can compensate for some staff shortages, but, in the long run, a more efficient administration based on a rational assessment of staff numbers is needed in most of the beneficiary states. The potential difficulties alluded to by the evaluation have been fully considered in the preparation of this project. Institutional strengthening, including increased human resources provided with the support necessary to undertake work, twinning, TA and collaboration with complementary Public agencies will reduce the risks of project results being none sustainable. Concerning the specific issue of POs and stakeholder interest in their formation and administration, it is clear that substantial work will have to be undertaken with the beneficiaries, to ensure their understanding, acceptance and involvement. Only in this way, will POs be successfully established and allow full implementation of the CFP.

Impact: Fisheries projects should achieve a positive impact despite the difficulties and enable the requirements of the EU fisheries legislation to be fulfilled, but it may be a little
time before producer organisations are functioning in practise as they should. The issues have been noted in preparation of the proposed approach.

4 INSTITUTIONAL FRAMEWORK

4.1 Organisation

DF forms part of MAFWM. Its organisational structure is defined by the Ordinance on internal organization\textsuperscript{6} and the Regulation on internal organization.\textsuperscript{7} Annex 4 provides detail.

The Republic of Croatia has set up a Governmental Coordination for surveillance and control at sea. This is described in Annex 4.

The Croatian Agricultural Extension Institute and The Chamber of Commerce and Chamber of Trade will also be involved (see Annex 4).

4.2 Principal constraints

Issues impacting the efficiency of the DF are noted in the Annex 4.

4.3 Changes to institutional organisation

The PHARE support programme seeks to evaluate the existing administrative structure and through staffing, training and equipping, strengthen the institutional capacity of DF to administer MCS, structures and marketing aspects of Croatian fisheries sector specifically in the context of integration into the EU. It is too early to prejudge the appropriate design framework required to implement the programme. However, specific areas of strengthening will inevitably include: a management hierarchy of Monitoring Control and Surveillance activities; an appropriate structure of fishery inspectors including regional officers and FPV crew; a strengthened Policy and International Division with the capacity to adapt national legislation in order to comply with the acquis; and to facilitate the adoption of pre accession structural support measures; and a strengthened data collection unit with capacity to input and interpret the required data which will facilitate programme management and monitoring activities.

\textsuperscript{6} Official Gazette 42/04.
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<th>Year 2005</th>
<th>Institution Building support</th>
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(*) contributions form National, Regional, Local, Municipal authorities, FIs loans to public entities, funds from public enterprises
(*) private funds, FI’s loans to private entities

1. All **investment** sub-projects supported by PHARE must receive co-financing from **national public funds**. Minimum requirement for co-financing from national public funds is 25% of the combined PHARE and national contributions to the overall investment support.

2. Many **institution building** projects will also have a degree of co-financing – this should be quantified and included wherever possible.

3. Expenditure related to equipment (regulatory infrastructure or ESC-related) and to Technical Assistance supporting investment (e.g. pre-feasibility study / supervision of works / technical specifications) should be considered as Investment support in the project fiche.

4. All co-financing must be provided on a joint basis. Parallel co-financing will, in principle, not be accepted. Exceptions to this rule have to be agreed with the Commission in advance.

5. All co-financing should be clearly quantified, also the degree of certainty of such co-financing (i.e. for National Public Funds: is it already earmarked in local or national budget, for FI’s Loans, private funds: are they already approved/under appraisal, etc.).

6. Where parallel co-financing is accepted and justified per exception to the normal rule it should be provided in monetary form. If this is not possible there should be clear criteria set out for the valuation of any non-monetary contributions (that should be quantified in the table).

7. If twinning is involved, clearly state the expected budget of the twinning covenant.

8. The financial engineering of the project should be closely monitored against actual delivery during implementation and against the objectives that were set in the project fiche so that corrective actions may be taken where required.

6 IMPLEMENTATION ARRANGEMENTS

6.1 Implementing Agency

The Central Financing and Contracting Unit (CFCU) within the Ministry of Finance will be the Implementing Agency responsible for tendering, contracting, payments and financial reporting, and will work in close co-operation with the beneficiary.

Programme Authorising Officer
Mrs Vladimira Ivandić
Assistant Minister
Ministry of Finance
Katanciceva 5
10000 Zagreb, Croatia

The SPO at MAFWM, Dr Dragan Kovacevic, State Secretary, is responsible for the technical management and authorisations associated with the project, including submission of the detailed technical design for the project’s components to the CFCU, inputs in relation to the corresponding evaluation of technical offers, plus follow-up contract implementation and monitoring, approval of contract outputs and confirmation to the CFCU that no technical constraints (as opposed to procedural or budgetary constraints) exist in relation to the CFCU’s processing contractual payments.
6.2 Twinning

Twinning National Contact Point:
Mr. Davor Čilić
Assistant Minister
Ministry of Foreign Affairs and European Integration
Petretićev trg 2
10000 Zagreb, Croatia

6.3 Non-standard aspects

The Practical Guide to contract procedures financed from the General Budget of the European Communities in the context of external actions (the PRAG) will be strictly followed.

6.4 Contracts

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<td>Supply Contract 2:</td>
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</tr>
<tr>
<td>MCS*</td>
<td>1,420,000</td>
</tr>
<tr>
<td><strong>Work</strong></td>
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</tr>
<tr>
<td>Work Contract 1:</td>
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<tr>
<td>PO Equipment</td>
<td>400,000</td>
</tr>
<tr>
<td>Work Contract 2:</td>
<td></td>
</tr>
<tr>
<td>Large Port Civil Works</td>
<td>1,400,000</td>
</tr>
<tr>
<td>Work Contract 3:</td>
<td></td>
</tr>
<tr>
<td>Small Port: Civil Works</td>
<td>200,000</td>
</tr>
</tbody>
</table>

*Note: Supply contracts shall entail installation service

7 IMPLEMENTATION SCHEDULE

7.1 Start of Tendering / Call for Proposals

<table>
<thead>
<tr>
<th></th>
<th>Start of Tendering Call for</th>
<th>Start of Project Activity</th>
<th>Project Completion</th>
</tr>
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### Proposals

<table>
<thead>
<tr>
<th>Proposals</th>
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<tbody>
<tr>
<td><strong>Twinning</strong></td>
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<tr>
<td>Twinning Contract</td>
<td>01.2006</td>
<td>07.2006</td>
<td>08.2008</td>
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<td><strong>Service</strong></td>
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<td>01.2006</td>
<td>06.2006</td>
<td>30.06.2008</td>
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<td>Service Contract 2</td>
<td>01.2006</td>
<td>06.2006</td>
<td>30.11.2008</td>
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<tr>
<td><strong>Supply</strong></td>
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</tr>
<tr>
<td>Supply Contract 1: Computer Hardware and Software</td>
<td>12.2006</td>
<td>01.03.2007</td>
<td>31.12.2007</td>
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<tr>
<td><strong>Work</strong></td>
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<tr>
<td>Work Contract 1: PO Equipment</td>
<td>01.2007</td>
<td>06.2007</td>
<td>30.06.2008</td>
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<tr>
<td>Work Contract 2: Large Port Civil Works</td>
<td>03.2007</td>
<td>10.2007</td>
<td>30.11.2008</td>
</tr>
</tbody>
</table>

---

8 **EQUAL OPPORTUNITY**

Based on the fundamental principles of promoting equality and combating discrimination, participation in the project will be guaranteed on the basis of equal access regardless of sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation.

Specifically in relation to the issue of equality between men and women, Croatia’s population (2001 census) constitutes 51.87% women and 48.13% men, with those in active employment (based on Labour Force Survey statistics, conducted in accordance with ILO methodology, for the second half of 2002) divided 45.31% women and 54.69% men.

All contractors will be requested to provide data recording the participation of men and women in terms of expert inputs (in days) and of trainees benefiting under the project (in days) as an integral component of all project progress reports.

9 **ENVIRONMENT**

EIA is not required for institutional strengthening activities. For investment projects such as fishing ports EIA will be completed as part of the preparation for individual projects.

10 **RATES OF RETURN**

A rate of return is not calculated for institutional strengthening activities.
11 INVESTMENT CRITERIA

11.1 Catalytic effect

The investment projects are pilot in nature and the expectation is that success will be replicated in similar projects using structural and other funds available from the EU.

11.2 Co–financing

One third of the total costs of the projects will be financed by Croatia. It is anticipated that co-funding will be available to the Government of Croatia from Regional Authorities and other stakeholders.

11.3 Additionality

No other sources of funding available.

11.4 Project readiness and size

Implementation of this project is foreseen in stages, and full implementation depends on timely completion of individual components.

11.5 Sustainability

The identified projects are sustainable.

11.6 Compliance with state aid regulations

The projects conform to the state aid procedures.

12 CONDITIONALITY AND SEQUENCING

Project implementation is envisaged in several stages, where initiation of one component depends on the completion of the other.

Tendering procedure for twinning (Components 1, 2, 3 and 4) and for Service Contract (Technical Assistance) for Components 3 and 5 are ready to start immediate tendering.

Tendering procedure for Supply contract under Component 1 depends on the results of the first phase of Twinning.

Draft technical specifications for Supply Contract for Component 4 (MCS) have been established by the Fisheries Inspection Unit, but full tendering procedure shall depend on the completion of the activities foreseen in Twinning Contract.

It is imperative that the Service Contract (Technical Assistance) for Component 5 is launched as soon as possible, since tendering for Work Contracts depends on the results of the studies performed by the TA. A pre-condition for contracting for work contracts indicated in the Component 5 is the construction permit.
12.1.1 Sequencing

The substantive projects are scheduled for implementation from 2006 thru 2008. A phased approach to project completion should help ensure that specific activities are not started until satisfactory progress is made on others and that required pre-conditions are met. For example, a pre-condition of development of landing places is the establishment of POs in the selected ports.

Specific activities are:

**Year 1:** Design of Institutional Development Programme; Implementation of specific aspects of the designed work programme; Fielding of short term TA as required; Drafting of required new legislation; Planning resource evaluations; Establish pilot fishermen’s organisations (pre-POs); and Start of workshop programme.

**Year 2:** Fielding of full time twinning experts (team leader and project (MCS) leader); Fielding of short term Twinning experts as required; Fielding of short term TA as required; Fish Census; Demersal resource assessment; Purchase / preparation of computers and associated software; Purchase of MCS equipment; Delivery of MCS vessels; Delivery of MCS vehicles; Preparation of pilot projects; and Pre – POs work programme.

**Year 3:** Full time twinning experts (team leader and project (MCS) leader); Fielding of short term Twinning experts as required; Fielding of short term TA as required; Fish census; Demersal resource assessment; Equipment for pre – POs; and Implementation of structures projects (landing ports)

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**Annexes to the Project Fiche**

Annex 1. - Log frame
Annex 2. - Implementation Chart
Annex 3. - Contracting and Disbursement Scheme
Annex 4. - Preparatory Background Study
Annex 5. - Reference list of relevant Laws and Regulations
Annex 1. Log frame for Phare pre-accession scheme projects

<table>
<thead>
<tr>
<th>LOGFRAME PLANNING MATRIX FOR</th>
<th>Programme name and number</th>
<th>HR2005/5/2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project</td>
<td>PHARE 2005</td>
<td></td>
</tr>
<tr>
<td><strong>Support to the Republic of Croatia in the preparation and implementation of the strategy to develop the fisheries sector within the context of alignment and enforcement of the EU Acquis comprising the Common Fisheries Policy</strong></td>
<td>Contracting period expires: 30.11.2007</td>
<td>Execution of contracts period expires: 30.11.2008</td>
</tr>
<tr>
<td>Ministry of Agriculture, Forestry and Water Management</td>
<td>Total budget : :</td>
<td>PHARE budget :</td>
</tr>
<tr>
<td>Total budget : 5,813,750 €</td>
<td>4,500,000 €</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Overall objective</th>
<th>Objectively Verifiable Indicators</th>
<th>Sources of Verification</th>
</tr>
</thead>
</table>
| To support the Republic of Croatia in preparation and implementation of a strategy to develop the fisheries sector within the context of alignment and enforcement of the EU Acquis comprising the CFP. | A fisheries development strategy has been prepared and is in the process of implementation. | • EC progress report on Croatia.  
• Official Gazette  
• DF Reports. |

<table>
<thead>
<tr>
<th>Project purpose</th>
<th>Objectively Verifiable Indicators</th>
<th>Sources of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
</table>
| O1. Through staffing, training and equipping, strengthen the institutional capacity of DF to administer MCS, structures and marketing aspects of the Croatian fisheries sector specifically in the context of integration into the EU. | An administrative office has been established.  
The number of staff identified contracted on a full time basis.  
At least 10 work shops and exchanges have been completed.  
Equipment identified in activity 1.5 purchased and delivered.  
Enabling Croatian laws and statutes compliant with EU _aquis_ by accession.  
• Workshop reports.  
• Official Gazette.  
• Publications.  
• DF Reports. | Finance is available in the 2006 DF budget  
Political support for project activities.  
Available budget to complete programme.  
Understanding of tech. requirements.  
CARDS 2002 programme successfully implemented. |
mechanisms promoting a new approach to fisheries infrastructure, representative organisations and fish marketing.

December 31, 2006, with targets met for 2008. At least two fisheries centres with infrastructural and organisational support functioning by January 1, 2009.

<table>
<thead>
<tr>
<th>Results</th>
<th>Objectively Verifiable Indicators</th>
<th>Sources of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1. DF institutional capacity has been strengthened.</td>
<td>Result 1</td>
<td>Result 1</td>
<td>Result 1</td>
</tr>
<tr>
<td>R1.1 The requirements for institutional strengthening have been identified.</td>
<td>1.1 Budget provided for restructured DF.</td>
<td>1.1 Personnel files.</td>
<td>1.1 Political support is in place.</td>
</tr>
<tr>
<td>R1.2 An Institutional Training Programme has been devised and implemented, covering organisation, management, communication, reporting and delegation.</td>
<td>1.2 Certificates of attendance of related courses, workshops, exchanges and seminars.</td>
<td>1.2 Departmental reports.</td>
<td>1.2 National Fisheries Dev. Plan accepted by EC.</td>
</tr>
<tr>
<td>R1.3 DF staff are trained in implementing CFP provisions</td>
<td>1.3 Statistical program redesigned, with supply of associated equipment.</td>
<td>1.3 Purchase orders.</td>
<td>1.3 Sufficient financial resources are provided to DF and assoc. institutions.</td>
</tr>
<tr>
<td>R1.4 The statistical collection service (including a market data submission system) provides reliable information in a timely manner.</td>
<td>1.4 Results of implemented Fishery Management Plans.</td>
<td>1.4 Departmental inventory.</td>
<td>1.4 Sufficient qualified human resources are allocated to the directorate.</td>
</tr>
<tr>
<td>R1.5 DF is capable of implementing a Fishery Management Scheme.</td>
<td>1.5 The number of offences detected by MCS activities.</td>
<td>1.5 Statistical reports.</td>
<td>1.5 Related institutions capable of presenting required information on a timely basis.</td>
</tr>
<tr>
<td>R1.6 DF is capable of providing effective and efficient MCS for the fisheries sector.</td>
<td>1.6 Stakeholders provide input into DF policy design and implementation.</td>
<td>1.6 EC progress report on Croatia.</td>
<td>1.6 Financial resources are made available from pre-accession instruments.</td>
</tr>
<tr>
<td>R1.7 DF works closely with stakeholders in the development and implementation of policy.</td>
<td>1.7 Signed Memorandums of Understanding between DF and collaborating institutions.</td>
<td>1.7 Minutes from sub committee meetings (Croatia /EC) on agriculture &amp; fisheries.</td>
<td>Result 2</td>
</tr>
<tr>
<td>R1.8 DF collaborates with other institutions in developing and implementing Fisheries Policy.</td>
<td>1.8 A project pipeline is ready for implementation using the structural funds available on accession to the EU.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R1.9 DF is organised for implementation of EU fisheries structural measures.</td>
<td>Result 2</td>
<td>Result 2</td>
<td>Result 2</td>
</tr>
<tr>
<td>R2. Croatian Legislation conforms with EU <strong>aquis</strong>.</td>
<td>2.1 On accession, all required EU <strong>aquis</strong> legislation contained in Croatian Legal Framework.</td>
<td>2.1 Croatian Statute books.</td>
<td>2.1 Political support of legislation needed to harmonise national laws with CFP.</td>
</tr>
<tr>
<td>R2.1 Croatian fisheries legislation has been harmonized with the specific requirements of the CFP in MCS, markets and structures.</td>
<td>Result 3</td>
<td>Result 3</td>
<td>Result 3</td>
</tr>
<tr>
<td>R3. A “National Fisheries Management Strategy” has been implemented.</td>
<td>3.1 Exact number of Croatian fishing vessels known by key characteristic (length, gear, engine power).</td>
<td>3.1 The Census.</td>
<td>3.1 Need for fisheries management planning accepted by Government and the private sector.</td>
</tr>
<tr>
<td></td>
<td>3.2 The biomass of demersal fish resources is</td>
<td>3.2 Published scientific papers in International Journals.</td>
<td>3.2 Resources available for scientific investigation.</td>
</tr>
<tr>
<td></td>
<td>Result 4</td>
<td>Result 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.1 The manual.</td>
<td>4.1 The manual.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.2 Departmental reports.</td>
<td>4.2 Departmental reports.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.3 Departmental inventory.</td>
<td>4.3 Departmental inventory.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Result 3</td>
<td>Result 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.1 Need for fisheries management planning accepted by Government and the private sector.</td>
<td>3.1 Need for fisheries management planning accepted by Government and the private sector.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.2 Resources available for scientific investigation.</td>
<td>3.2 Resources available for scientific investigation.</td>
<td></td>
</tr>
</tbody>
</table>
Result 3

3.1 A census of fisheries vessels is completed.
3.2 Biological status of demersal fish resources has been confirmed.
3.3 Options Analysis of Alternative Fishery management Measures has been undertaken.
3.4 Stakeholders involved in fishery management.
3.5 Fishery Management Plans implemented.

Result 4

4.1 An efficient and effective MCS system has been designed and implemented.
4.2 There is a fully operational vessel register compliant with the EU standards.
4.3 Monitoring and data gathering program for fishing vessels (including those not required to have logbook) has been structured.

R5. Organisation & infrastructure match sector requirements

5.1 POs have been established.
5.2 Mechanisms are in place to develop the infrastructure required.
5.3 Wholesale Market established according to requirements of COM of CFP.
5.4 A pilot designated harbour (large) has been developed.
5.5 A pilot designated harbour (small) has been developed.
5.6 Effective use has been made of all available EU pre-accession financial instruments.

Activities | Means | Assumptions
--- | --- | ---
4.1 Purchase orders. | 4.5 EC progress report on Croatia. | Result 4
4.1 Manual for standard MCS operating procedures drafted by December 31, 2007. | 5.1 Register of POs. | 4.1 Technical infrastructure is secured through the acquisition of necessary equipment.
4.2 Provision of vehicles and vessels, operating VMS system, other communication equipment, fully equipped offices operational, fisheries monitoring centre functioning. | 5.2 EC progress report on Croatia. | 4.2 Judicial support provided to enforcement of regulations.
4.3 Fisheries monitoring centre established by January 1, 2008. | 5.3 Extension service reports. | 4.3 The police and military continue to cooperate in fisheries inspection activities.
4.4 VMS for vessels above 24 m. fully operational by January 1, 2008. | 5.4 DF reports. | 

Result 5

5.1. By January, 2009 at least 3 POs are active with a combined membership in excess of 300.
5.2. By January, 2009, COM applied in at least two landing places.
5.3. An appropriate wholesale mechanism has been identified and at least 2 pilot schemes are in operation.
5.4. By January 1, 2009, two pilot landing harbours are functioning.
5.5. By January 1, 2009, at least €5 million of aid has been disbursed, or is in the pipeline to be disbursed, to Croatian fishery sector for approved projects.
5.6 Fish buyers register to use the fish wholesale system.
5.7 A limited quantity of fish landed by artisanal fishers enters the market.
<table>
<thead>
<tr>
<th>Result 1</th>
<th>Component 1: Twinning Supply Contract</th>
<th>Result 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1.1 Evaluation of current capacities and additional needs of DF in context of MCS, structures and marketing.</td>
<td></td>
<td>Other institutions wish to collaborate.</td>
</tr>
<tr>
<td>A1.2 Identification of the need for collaboration with other institutions.</td>
<td>Component 2: Twinning</td>
<td>Required quality of staff available.</td>
</tr>
<tr>
<td>A1.3 Contracting of required staff.</td>
<td></td>
<td>Result 2</td>
</tr>
<tr>
<td>A1.5 Procurement of required equipment.</td>
<td></td>
<td>Result 3</td>
</tr>
<tr>
<td><strong>Result 2</strong></td>
<td></td>
<td>Capacity for demersal assessment exists in Croatia</td>
</tr>
<tr>
<td>A2.1 The identification of gaps in Croatian legislation covering MCS, organization, structures and marketing.</td>
<td></td>
<td>Result 4</td>
</tr>
<tr>
<td>A2.2 The drafting of required new legislation.</td>
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<td>Acceptance of need to improve statistical data collection.</td>
</tr>
<tr>
<td>A2.3 The incorporation of approved regulations within legislative framework.</td>
<td></td>
<td>Result 5</td>
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<tr>
<td><strong>Result 3</strong></td>
<td></td>
<td>Stakeholders wish to establish POs</td>
</tr>
<tr>
<td>A3.1 Completion of “Fisheries Census”</td>
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<td>Regional support for designated landing places.</td>
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<tr>
<td>A3.2 Completion of demersal assessment</td>
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<tr>
<td>A3.3 Options assessment of input and output fishery management control mechanisms in context of CFP.</td>
<td></td>
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<tr>
<td>A3.4 Consultation with stakeholders.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3.5 Definition of National Fisheries Management Strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3.6 Drafting of Fishery Management Plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Result 4</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A4.1 The design and implementation of an efficient and effective MCS system.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| A4.1.1 Fisheries monitoring centre  
| A4.1.1.1 Organization of framework  
| A4.1.1.2 Standard operating procedures  
| A4.1.2 Implementation of MCS system  
| A4.1.3 Drafting of annual inspection plan.  
| A4.2 The redesign of vessel registration programme.  
| A4.3 To redesign statistical data collection system | Result 5  
| A5.1 The design and implementation of 3 pilot projects for development of POs.  
| A5.2 Pipelining for EU financial assistance (pre accession & post accession)  
| A5.3 Market study for mariculture products  
| A5.4 Market study for freshwater aquaculture products  
| A5.5 Selection and development of a designated landing port (large)(pilot project)  
| A5.6 Selection and development of a designated landing port (small)(pilot project) | Component 5:  
| Service Contract  
| Work Contract | Preconditions:  
| PC1. There is a political decision to support development of the fisheries sector.  
| PC2. The EU supports Croatian initiatives.  
| PC3. Adequate resources are allocated to the Croatian fisheries administration.  
| PC4. DF initiatives are supported by other parts of the Croatian government. |
Annex 2. Contracting/Implementation Chart (Provisional):

<table>
<thead>
<tr>
<th>Component</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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<td>Institutional</td>
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<td>Support Twinning</td>
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<tr>
<td>Component 1</td>
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<tr>
<td>Service Contract -</td>
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<tr>
<td>Component 3</td>
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<td>T</td>
<td>T</td>
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<tr>
<td>Service Contract -</td>
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<td></td>
<td></td>
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<tr>
<td>Component 5</td>
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<td>Supply Contract</td>
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<td>Work contract 2</td>
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<td>- Component 5</td>
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<td>Work contract 3</td>
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<td>- Component 5</td>
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<td>T</td>
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</tbody>
</table>

T - Tendering  
C - Contracting  
I - Implementation  
X - Closure
<table>
<thead>
<tr>
<th>Component</th>
<th>Activity</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1.1</td>
<td>Evaluation of current capacities and additional needs of DF in context of MCS, structures and marketing.</td>
<td>D D D</td>
</tr>
<tr>
<td>A1.2</td>
<td>Identification of the need for collaboration with other institutions.</td>
<td></td>
</tr>
<tr>
<td>A1.3</td>
<td>Contracting of required staff.</td>
<td>D D D</td>
</tr>
<tr>
<td>A1.4</td>
<td>Implementation of staff training schedule, including element covering CFP and specific programmes.</td>
<td>D D D D</td>
</tr>
<tr>
<td>A1.5</td>
<td>Procurement of required equipment.</td>
<td>D D D</td>
</tr>
<tr>
<td>A1.6</td>
<td>Implementation of work programmes.</td>
<td>D D D D</td>
</tr>
</tbody>
</table>

**Component 2**

| A2.1 | The identification of gaps in Croatian legislation covering MCS, organization, structures and marketing. | D D D D D D D |
| A2.2 | The drafting of required new legislation. | D D D D D D |
| A2.3 | The incorporation of approved regulations within legislative framework. | D D D D |

**Component 3**

| A3.1 | Completion of “Fisheries Census” | D D D D |
| A3.2 | Completion of demersal assessment | D D D D D D D D |
| A3.3 | Options assessment of input and output fishery management control mechanisms in context of CFP. | D D D D |
| A3.4 | Consultation with stakeholders. | D D D D |
| A3.5 | Definition of National Fisheries Management Strategy | D D D D |
| A3.6 | Drafting of Fishery Management Plans | D D D |

**Component 4**

| A4.1 | The design and implementation of an efficient and effective MCS system. | D D D D |
| A4.1.1 | Fisheries monitoring centre | D D D D D D |
| A4.1.1.1 | Organization of framework | D D D D |
| A4.1.1.2 | Standard operating procedures | D D D D D D |
| A4.1.2 | Implementation of MCS system (including equipment installation) | D D D D D D |
| A4.1.3 | Drafting of annual inspection plan. | D D D D D D |
| A4.2 | The redesign of vessel registration programme. | D D D D D D |
| A4.3 | The redesign of statistical data collection system | D D D D D D |

**Component 5**

| A5.1 | The design and implementation of 3 pilot projects for development of POs. | D D D D D D D D |
| A5.2 | Pipelining for EU financial assistance (pre accession & post accession) | D D D D |
| A5.3 | Market study for mariculture products | D D D D D D |
| A5.4 | Market study for freshwater aquaculture products | D D D D D D |
| A5.5 | Selection and development of a designated landing port (large)(pilot project) | D D D D D D D D |
| A5.6 | Selection and development of a designated landing port (small)(pilot project) | D D D D D D D D |


D - Delivery
Annex 3 Contracting and Disbursement Schedule by Quarters in EUR (Provisional)

**Cumulative contracting schedule by quarters in EUR (provisional)**

<table>
<thead>
<tr>
<th>Contract Type</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>QI</td>
<td>QII</td>
</tr>
<tr>
<td>1. Twinning</td>
<td>926,900</td>
<td></td>
</tr>
<tr>
<td>2. Service contract 1</td>
<td>576,850</td>
<td></td>
</tr>
<tr>
<td>3. Service contract 2</td>
<td>300,000</td>
<td></td>
</tr>
<tr>
<td>4. Supply contract (IT)*</td>
<td></td>
<td>131,250</td>
</tr>
<tr>
<td>5. Supply contract (MCS)*</td>
<td></td>
<td>1,065,000</td>
</tr>
<tr>
<td>6. Work contract 1</td>
<td>300,000</td>
<td>300,000</td>
</tr>
<tr>
<td>7. Work contract 2</td>
<td>1,000,000</td>
<td></td>
</tr>
<tr>
<td>8. Work contract 3</td>
<td>200,000</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (EUR):</strong></td>
<td><strong>1,803,750</strong></td>
<td><strong>1,978,750</strong></td>
</tr>
</tbody>
</table>

**Cumulative disbursement schedule by quarters in EUR (provisional)**

<table>
<thead>
<tr>
<th>Contract Type</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>QI</td>
<td>QII</td>
<td>QIII</td>
</tr>
<tr>
<td>1. Twinning</td>
<td>300,000</td>
<td>500,000</td>
<td>926,900</td>
</tr>
<tr>
<td>2. Service contract 1</td>
<td>300,000</td>
<td>400,000</td>
<td>576,850</td>
</tr>
<tr>
<td>3. Service contract 2</td>
<td>100,000</td>
<td>200,000</td>
<td>300,000</td>
</tr>
<tr>
<td>4. Supply contract (IT)*</td>
<td>100,000</td>
<td>100,000</td>
<td>131,250</td>
</tr>
<tr>
<td>5. Supply contract (MCS)*</td>
<td></td>
<td>400,000</td>
<td>1,065,000</td>
</tr>
<tr>
<td>6. Work contract 1</td>
<td>100,000</td>
<td>200,000</td>
<td>300,000</td>
</tr>
<tr>
<td></td>
<td>200,000</td>
<td>400,000</td>
<td>600,000</td>
</tr>
<tr>
<td>----------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>7. Work contract 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Work contract 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (EUR):</strong></td>
<td>700,000</td>
<td>800,000</td>
<td>1,600,000</td>
</tr>
</tbody>
</table>

*Note: Supply contracts shall entail installation service*
Anex 4: Preparatory Work
CARDS 2004: Administrative Capacity Building Facility, Croatia
Support to PHARE Programming in the Fisheries Sector
Sector Report

1. Background and Introduction

Croatia presented its application for Membership of the EU on 21 February 2003 and the Council of Ministers decided on 14 April 2003 to implement the procedure laid down in Art. 49 of the Treaty on the European Union. In applying for membership on the basis of the treaty, Croatia has accepted without reserve the basic aims of the Union, including its policies and instruments.

The EU has supplied funding support to Croatia since 1991, first under the European Commission’s Humanitarian Aid Office (ECHO) and the Obnova programme, focusing on emergency support (1991-2000), then from 2000 to 2004 under the Community Programme for Assistance, Reconstruction, Development and Stabilisation (CARDS). This Programme was superseded by a €60 million PHARE support programme covering the year 2005. PHARE funding is committed up until 2007. Thereafter, it is expected that additional pre-accession support funding will be forthcoming up until Croatia’s membership of the EU, anticipated for 2009/2010. CARDS and PHARE form part of an integrated approach, together with SAPARD, to help Candidate countries prepare for accession. Fisheries is one of the priority areas for support in facilitating further integration of Croatia and the EU. The Community’s priority in respect to fisheries is to continue the establishment of adequate administrative structures and equipment to ensure effective implementation of the fisheries policy including management of the resources, inspection and control of fishing activities, markets, structural programmes, a fishing vessel register and a management plan for the fleet capacity in accordance with available fish resources. The programme should start by establishing adequate administrative and inspection structures for the fisheries policy, and to put in place adequate structures to manage market instruments.

There has been no previous donor project on public administration reform targeted at DF. However, the DF has partially implemented several fisheries-related projects, funded either through multilateral or bilateral cooperation. The DF has also benefited from short-term technical assistance provided by The Netherlands Management Cooperation Program Agency. A €1 million CARDS funded project was launched in October 2004 running until September 2006. Two out of the three components have a direct relevance to support to the DF. These are:

- to improve the operational capacity, efficiency and effectiveness of the MAFWM for developing and implementing new policies and legislation in relation to the SAA process.
- to support the Department of Fisheries (DF) in the EU integration process and in adopting the acquis in fishery related areas (specifically in the harmonization of national legislation with CFP measures).

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8 Council Decision on the principles, priorities, conditions contained in the European Partnership with Croatia (COM (2004) 275 final)
9 "FAO-AdriaMed Scientific Support to Responsible Fisheries on the Adriatic Sea", financed by the Republic of Italy through FAO
10 "Monitoring and Management of demersal Resources in Eastern Adriatic" and "Guidelines to Coastal Zone Management Plan for Croatia with particular focus on Aquaculture", both funded by the Kingdom of Norway.
11 ‘Operational Capacity Building within the Ministry of Agriculture and Forestry’
The contract for the work activities was awarded to German Federal Ministry of Consumer Protection, Food and Agriculture (BMVEL) and Fisheries General Director at the Ministry of Agriculture of the Hellenic Republic (Greece).

The purposes of this project, financed from residual funding from the CARDS Programme, are:

- to design a multi annual PHARE funded support programme for the Directorate of Fisheries (DF) and the fisheries sector.
- to successfully complete programming for PHARE 2005 (develop a multi-annual project fiche (PF) with all annexes, including draft tender documentation) and to enhance the programming capacity of the relevant institution.

This report is an Annex to the Project Fiche. It represents a descriptive report of the fisheries sector and Administration and is meant to be informative to the Twinning Partner and Technical Assistance.

2. **The Importance of Fisheries to the Croatian Economy**

The fisheries sector in Croatia includes several sub-sectors: marine capture fisheries, marine aquaculture freshwater aquaculture, freshwater capture fisheries, fish processing. The coastline is 5,800 km in length and includes some 1,200 islands. The marine fishery is conducted mainly on an area of 34,000 square kms of territorial seas and in freshwater systems mainly on two major rivers (Sava and Danube) and their tributaries. Marine fisheries have an artesanal character, and can be in general divided to coastal (inland - from coastline to baseline, channel area) and open-seas (territorial waters). Trawling is the key activity in coastal fisheries, while purse seining dominates in the open-seas.

**Figure 1: Map of Croatia**
The Fishery sector in Republic of Croatia accounts for less than 1 per cent of GDP. The coastal community and islands are highly dependent on the fishery sector, while fisheries and particularly fish farming has been strongly linked with the development of rural tourism. In general, this sector is considered strategically important.

Total Croatian annual consumption of fish and fish products is low relative to other Mediterranean States at an estimated 8 kg per person. However, given that a large proportion of catches is under-recorded, it may be that this is an underestimate. Unofficial data suggest that the actual level of annual consumption may be 12 kg per person, with a higher amount on the coast, moderate in Zagreb, and low in other parts of the country.

The overall export value of marine fisheries including fishery products amounted to €93 million (22,687 tons) in 2003. Tuna farming represents a major growth area. Exports from this sector (€52 million in 2003) accounted for 55 per cent of the total value of exports. The value of imports amounted to €71 million (57,315 tons), with large quantities of low-value small pelagic species (herring and pilchard) used as feed for the tuna farming sector.

3. Croatian Fisheries in the Context of the European Union

Croatia has an estimated 2,500 commercial fishers who own boats, together with an unknown number of crew. Additionally, there are an estimated 12,230 subsistence fishers. Other sector employment, including processing and aquaculture, provides about 2,000 places.

Recorded catches (29,000 tons) represent 5.2 per cent of the EU Mediterranean total (561,288 tons). It appears, however, that real catches could be as high as 47,000 tons. Croatian catches of the key species of nephrops, hake, sardine, anchovy and Bluefin tuna represent between 5 and 10 per cent of the total Mediterranean catch. In mariculture, Croatia produces around 3 per cent of Mediterranean total of bass and sea bream (2,510 tons) and 2 per cent of Mediterranean mussel production (3,000 tons).

4. Resource Status

The Adriatic Sea, as a part of the Mediterranean, reflects overall conditions in the sea area in terms of species dynamics and overall fisheries characteristics. Scientific research shows that the majority of demersal stocks in the Adriatic are typical short-lived species, with oscillations in catch influenced by fluctuation in recruitment resulting from the hydrodynamics and hydrological characteristics of the basin.

Ten species account for 80 per cent of the marine demersal catch. The main species comprise hake (*Merluccius merluccius*), striped mullet (*Mullus barbatus*), pandora (*Pagellus erythrinus*), Norwegian lobster (*Nephrops norvegicus*) and octopus (*Eledone* sp.). Commercially important small pelagic species comprise sardine (*Sardina pilchardus*), anchovy (*Engraulis encrasicoles*) and sprat (*Sprattus sprattus*).

Hake is exposed to a very high fishing pressure resulting in negative changes in CPUE and catch composition, especially in international waters in the open central Adriatic sea[12]. CPUE appears to have stabilized in 2003. Data on Norwegian lobster are currently being reviewed within the national monitoring of demersal resources with preliminary results indicating there have been low levels of recruitment in the past 3 years, which is attributed

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largely to hydrological and hydrodynamic changes and peculiarities in the Adriatic. The main commercial species, Norwegian lobster and hake, have shown decreases in biomass.

Croatia, through bilateral cooperation with Norway, set up a demersal monitoring program in 2002. This program comprised a 12-month full on-board survey of trawling activities (catch and effort survey, ichthyologic survey including abundances index, species composition, sex and age ration) in Croatia’s fishing zones. This program was jointly orientated towards research and monitoring. The program was initiated in June 2002 and completed in September 2003. The program was conducted using commercial fishing vessels, guaranteeing strict confidentiality of the data linked to owners and vessels, but using the results as an average correction factor in assessing the data entered into the logbooks. The basis of this program have been incorporated into the national monitoring of demersal resources which continued along the same lines using a limited number of subsequent scientific trawls that have continued under contract from the Croatian authorities. Scientific results have as yet only partially been applied for design and application of fishery management options.

Through FAO AdriaMed, another monitoring project was initiated which grew into a national monitoring system for small pelagic species. Trial monitoring was conducted using sonar equipment and was undertaken jointly with Italian scientists, running to mid-line in North Adriatic on either side. National monitoring employs the same techniques and methods and is conducted in North and Mid Adriatic from coast-line to mid-line (now outer border of extended zone) and in South Adriatic from coast-line to 200 m isobate. The aim of monitoring is to assess the abundances of sardine and anchovy in the Adriatic and to provide sound scientific basis for management options. A third important monitoring programme is undertaken on a national level and comprises benthic communities of western Istra peninsula. This monitoring program looks to assess the status of the benthic communities in order to provide sound scientific basis for management options in fishing activities along the shores of western Istra (shallow North Adriatic, mainly sole and flat-fish fisheries). Other monitoring programs include shellfish zones and larvae monitoring aimed at assessing the status and abundances of shellfish species (oyster and mussel).

Findings are:

- CPUE is declining in the Adriatic. The highest levels of reduction are to be found in international waters as opposed to within the territorial zone;
- the decrease in commercially important species in total catch from 85 per cent to 68 per cent;
- the catch comprises mainly relatively short lives species and abundance trends reflect more the fluctuation in recruitment than fishing mortality;
- the Sardine stock biomass in the area surveyed was assessed from 232,418 tonnes (maximum values) to 134,660 (minimum values);
- for anchovy from 82,316 tonnes (maximum values) to 52,575 tonnes (minimum values); and
- for sprat from 26,899 tonnes (maximum values) to 15,647 (minimum values) in the survey period13.

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13 According to 95% confidence interval
Medium values were used for projection and analysis. Results of comparison of biomass/catch/catch as % of biomass are presented in Table 1 and the distribution per different area in Table 2 (Source: MAFWM).

### Table 1: Biomass and catch of small pelagic species in Republic of Croatia in 2002

<table>
<thead>
<tr>
<th>Species</th>
<th>Biomass (t)</th>
<th>Catch (t)</th>
<th>Catch as % biomass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sardine</td>
<td>183,000</td>
<td>9,950</td>
<td>5,43</td>
</tr>
<tr>
<td>Anchovy</td>
<td>67,000</td>
<td>3530</td>
<td>5,26</td>
</tr>
<tr>
<td>Sprat</td>
<td>21,000</td>
<td>92</td>
<td>0,43</td>
</tr>
</tbody>
</table>

Source: MAFWM

### Table 2: Distribution of biomass and catch of small pelagic species per different fishing area in Republic of Croatia in 2002.

<table>
<thead>
<tr>
<th>Fishing area</th>
<th>Biomass (t)</th>
<th>Catch (t)</th>
<th>Catch as % biomass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer fishing area</td>
<td>164,000</td>
<td>1,487</td>
<td>0,90</td>
</tr>
<tr>
<td>North Adriatic channels</td>
<td>83,000</td>
<td>8,585</td>
<td>10,34</td>
</tr>
<tr>
<td>Middle Adriatic channels</td>
<td>42,000</td>
<td>3,500</td>
<td>8,33</td>
</tr>
</tbody>
</table>

Source: MAFWM

Catch level at outer fishing area is particularly low and it is in this zone that the fishing effort shall be increased within safe biological limits.

### 5. Production

A summary of domestic fish production is shown in the Table below

### Table 3: Summary Croatian fish production in 2003

<table>
<thead>
<tr>
<th>Marine</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelagic</td>
<td>24,369</td>
</tr>
<tr>
<td>Demersal</td>
<td>3,556</td>
</tr>
<tr>
<td>Other</td>
<td>1,177</td>
</tr>
<tr>
<td>Aquaculture</td>
<td></td>
</tr>
<tr>
<td>Marine Aquaculture</td>
<td></td>
</tr>
<tr>
<td>Tuna</td>
<td>4,679</td>
</tr>
<tr>
<td>Bass &amp; Bream</td>
<td>2,510</td>
</tr>
<tr>
<td>Mussels</td>
<td>2,800</td>
</tr>
<tr>
<td>Oyster (pieces)</td>
<td>800,000</td>
</tr>
<tr>
<td>Fingerlings</td>
<td>5,500,000</td>
</tr>
<tr>
<td>freshwater aquaculture</td>
<td></td>
</tr>
<tr>
<td>Fingerlings</td>
<td>1,365</td>
</tr>
<tr>
<td>Marketed product (tons)</td>
<td>3,711</td>
</tr>
</tbody>
</table>

Source: MAFWM

Overall production in marine capture fisheries in 2003 is reported as 29,102 tons, out of which 24,369 tons were small pelagics (sardine, pilchard, and anchovy) and the remaining 4,556 tons from demersal catches. However, the official catches of demersal and other benthic species by commercial fishers are reported to represent 30 per cent of the actual landings.
(11,853 tons), and landings of subsistence fishers up to around 6,250 tons\textsuperscript{14}. This suggests that total production of demersal species (including nephrops) may be in the region of 18,000 tons. The recordings of catches of pelagic fish are believed to be accurate since fishers are paid Government price subsidies.

Freshwater fisheries are represented mainly by sport and recreation fisheries, and there are a limited number of traditional fishermen on Danube and Sava rivers. Main species are carp (\textit{Cyprinus carpio}), grass carp (\textit{Ctenopharyngodon idella}), tench (\textit{Tinca tinca}), catfish (\textit{Silurus glanis}), pike perch (\textit{Stizostedion lucioperca}), pike (\textit{Esox lucius}) and trout (\textit{Oncorhynchus mykiss}).

There are 146 concessions for marine aquaculture. There are 39 registered companies engaged in freshwater aquaculture in Croatia, out of which 16 are farming warm-water species (carp) and 23 cold-water species (trout). Most fish farms are small-size family-owned enterprises.

All marine farming activities (Table 4), with the possible exception of oysters have seen production increase significantly in the last 5 years. Tuna farming, or on-growing, represents the major growth area, with a fourfold increase in the past 5 years. Mussel, bass and bream and fingerling production has also grown.

\textbf{Table 4: Marine aquaculture production 1999-2003}

<table>
<thead>
<tr>
<th>Year</th>
<th>Bass and bream (t)</th>
<th>Mussel (t)</th>
<th>Oyster (pieces)</th>
<th>Tuna (t)</th>
<th>Fingerlings (pieces)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>1.760</td>
<td>1.100</td>
<td>900.000</td>
<td>672.17</td>
<td>3.350.000</td>
</tr>
<tr>
<td>2000</td>
<td>2.500</td>
<td>1.200</td>
<td>1.000.000</td>
<td>1.200.00</td>
<td>4.500.000</td>
</tr>
<tr>
<td>2001</td>
<td>2.500</td>
<td>2.000</td>
<td>1.000.000</td>
<td>2.500.00</td>
<td>4.600.000</td>
</tr>
<tr>
<td>2002</td>
<td>2.500</td>
<td>2.400</td>
<td>1.000.000</td>
<td>3.971.00</td>
<td>4.900.000</td>
</tr>
<tr>
<td>2003</td>
<td>2.510</td>
<td>2.800</td>
<td>800.000</td>
<td>4.679.00</td>
<td>5.500.000</td>
</tr>
</tbody>
</table>

Source: MAFWM

Freshwater aquaculture production has been declining steadily in the last decade. 2003 production was half the levels of the production in 1995. This is largely due to the closure of the market channels and overall problems of transitional economy.

\textbf{Table 5: Freshwater aquaculture production 1999-2003}

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carp (\textit{Cyprinus carpio})</td>
<td>Fingering</td>
<td>2.010</td>
<td>1.594</td>
<td>1.127</td>
<td>1.266</td>
</tr>
<tr>
<td></td>
<td>market-size</td>
<td>2.418</td>
<td>2.358</td>
<td>2.578</td>
<td>1.606</td>
</tr>
<tr>
<td>Grass carp (\textit{Ctenopharyngodon idella})</td>
<td>Fingering</td>
<td>126</td>
<td>68</td>
<td>76</td>
<td>149</td>
</tr>
<tr>
<td></td>
<td>market-size</td>
<td>238</td>
<td>265</td>
<td>228</td>
<td>185</td>
</tr>
<tr>
<td>Silver carp (\textit{Hypophthalmichthys molitrix})</td>
<td>fingerling</td>
<td>26</td>
<td>11</td>
<td>61</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>market-size</td>
<td>97</td>
<td>281</td>
<td>21</td>
<td>86</td>
</tr>
<tr>
<td>Bighead carp (\textit{Aristrichthys nobilis})</td>
<td>fingerling</td>
<td>36</td>
<td>37</td>
<td>27</td>
<td>57</td>
</tr>
</tbody>
</table>

\textsuperscript{14} DF data analysts indicated that observations of log books returned and catch data suggested that official recordings on demersal catch species represent approximately one third of their real catch. In addition, subsistence fishers are believed to be catch in the region of 6,250 tons.
market-size | 119 | 72 | 226 | 301 | 414
--- | --- | --- | --- | --- | ---
Tench *(Tinca tinca)* | fingerling | 12 | 2 | 2 | 3 | 1
 | market-size | 27 | 6 | 2 | 6 | 11
Catfish *(Silurus glanis)* | fingerling | 60 | 20 | 7 | 22 | 18
 | market-size | 87 | 38 | 31 | 36 | 54
Pike perch *(Stizostedion lucioperca)* | fingerling | 2 | 1 | 2 | 1 | 1
 | market-size | 7 | 8 | 6 | 9 | 6
Pike *(Esox lucius)* | fingerling | 25 | 2 | 1 | 2 | 0
 | market-size | 35 | 19 | 11 | 11 | 2
Trout *(Oncorhynchus mykiss)* | fingerling | 156 | 217 | 41 | 46 | 178
 | market-size | 474 | 945 | 1,039 | 1,620 | 1,222
Other | fingerling | 1 | 52 | 24 | 17 | 50
 | market-size | 51 | 33 | 39 | 60 | 23
Total | fingerling | 2,454 | 2,004 | 1,369 | 1,580 | 1,365
 | market-size | 3,553 | 4,025 | 4,181 | 3,921 | 3,711
GRAND TOTAL (in tonnes) | 6,007 | 6,029 | 5,550 | 5,501 | 5,076

Source: State Bureau of Statistics & MAFWM

6. Fish Catching Sector

6.1 Commercial Fisheries

The sector comprises around 2,500 fish vessel owners with 3,150 registered vessels (2003). The fishing fleets are spread throughout the coast but the main concentration of activity is focussed in Istra to the north, Rijeka, Sibenik and Split. The purse seine vessels are highly mobile throughout territorial waters, whilst the trawlers work in localised areas outside 2 Nautical miles, or inshore, if under a certain size. All gill net activity is highly localised.

Croatia’s fishing activity tends to be highly concentrated in inshore waters, within 12 nautical miles. Smaller craft fish only in coastal waters and channels. Larger vessels, upwards of 15 GT, fish in out-shore waters. However, the high average age of this fleet also leads to high levels of effort concentration for parts of the year in the coastal and channel areas. Croatia’s inshore waters are divided in fishing zones. Zones E, F, and G are the inner fishing waters and include a large number of no trawl zones, while zones A, B, C and D are the open fishing waters. On 3 October 2003, the Parliament declared a protected ecological and fishing zone in the Adriatic Sea, which is currently not enforced on EU-vessels, following the amended Parliamentary decision of 3rd June 2004.

Figure 2: Zonal fishing locations

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15 Ordinance on the Borders of the Fishing Sea of the Republic of Croatia (OG 46/96),
16As of 1st January 2004 trawling in zones A, E, F and G is prohibited within 2 NM of the coastline unless 50m isobate has not been reached before that distance, noting that trawling is in any case prohibited within 1 NM of the coastline.
Table 6 illustrates the distribution of the fleet. The figures stated need to be treated with caution, as there is no restrictive licensing regime and individuals holding a vessel license may have retired or ceased to use the vessels for fishing. Licenses are not surrendered. An added complexity is that many of the fishing vessel owners own up to three vessels, utilizing each vessel for different fishing activities.

### Table 6: Number of registered vessels by county (field office jurisdiction area), 2003

<table>
<thead>
<tr>
<th>Field office</th>
<th>Trawlers</th>
<th>Purse seines</th>
<th>Polyvalent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vessels</td>
<td>Boats</td>
<td>Vessels</td>
</tr>
<tr>
<td>Pula</td>
<td>50</td>
<td>230</td>
<td>15</td>
</tr>
<tr>
<td>Rijeka</td>
<td>45</td>
<td>130</td>
<td>10</td>
</tr>
<tr>
<td>Senj</td>
<td>0</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Zadar</td>
<td>26</td>
<td>53</td>
<td>36</td>
</tr>
<tr>
<td>Šibenik</td>
<td>12</td>
<td>40</td>
<td>0</td>
</tr>
<tr>
<td>Split</td>
<td>82</td>
<td>99</td>
<td>39</td>
</tr>
<tr>
<td>Dubrovnik</td>
<td>16</td>
<td>39</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>231</strong></td>
<td><strong>601</strong></td>
<td><strong>110</strong></td>
</tr>
</tbody>
</table>

Source: MAFWM

Some caution needs to be applied to the above definitions by method since all vessel activity is presently undergoing re-classification. Polyvalent is the predominant technique, followed by trawling and purse seines. Polyvalent vessels comprise purse seine nets and drift nets where the target species are pilchard and anchovy, along with trammel-net and gillnet fisheries. Most of the small pelagic resources are distributed in the area of the open sea of the north and central Adriatic. Hake and shrimp resources are mainly distributed around the Jabuka pit, which is also the most important spawning ground for these species. Besides the Jabuka pit area, these species are distributed in the Velebit channel. The Government has now capped the introduction of new trawlers, following a significant shift from seining to demersal / benthic trawl activities.

The Croatian national fishing fleet has not been modernized since the beginning of the 1980’s and the hygiene and safety standards of existing vessels have dramatically decreased.

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17 Note: A vessel is considered to be >12m and >15 GRT
over the past 20 years. Freezing and storage capacities are inadequate and the fish deteriorates quickly, contributing to the low profitability of the industry. Fish caught with by purse seiners is of low quality when reaching the market and usually not suited for human consumption as fresh fish.

A description of the types of gear used in these fisheries is as follows:

**Trawl fisheries**: According to Croatian national regulation, there are no specific provisions on dimensions of the gear in terms of length or width. This is defined by the power of the engine and the possibilities of the vessel. The minimum mesh size for bottom trawl nets is 20 mm knot-to-knot in outer zones and 24 mm knot-to-knot in channel areas. The minimum mesh size of pelagic trawl is 10 mm. A Regulation on commercial fisheries (OG 83/00) and subsequent changes cover a complex scheme of open/closed zones and season for this gear. Trawling is prohibited within 1 NM off the coastline, and additional prohibitions are currently under consideration.

**Purse seine fisheries**: Croatian national legislation provides for several different types of purse seine nets, depending on the targeted species. Each type of net has strictly defined mesh sizes. Purse seines for tuna fish (mesh size and closed season/area) comply with ICCAT specifications. For small pelagic species mesh size are set to 8 to 10 mm; for mullet (*Mugil* and *Lisa* sp.), 26 to 32 mm; for garfish 10 to 12 mm. Open and closed seasons and zones, as well as usage of artificial light, are also covered in national regulation.

**Hydraulic dredges and dredges** in general target shellfish species. Size limits for different dredges have been set (the width of the rigging may not exceed 280 cm). The minimum mesh size for all shellfish nets has been set to 40 mm. National regulations provide strict set of measures on fishing grounds and open/closed seasons.

**Beach seines**: National regulations cover several different types of nets depending on the targeted species. In beach seines for sardine the minimum mesh size is 8 to 10 mm, in beach seines for picarel the minimum mesh size is 12 to 14 mm, for mullets and amberjack 28 to 32 mm, and for garfish 10 to 12 mm. Provisions on fishing area and season for these nets are also given in national regulations. The maximum length of ropes used in these nets is set to 500 m on each side of the net. There are two specific beach seines used in Republic of Croatia, for picarel species, *kogol* and *strašin*. In these two nets the net is kept open with wooden beams at the end of the cod-end. The mesh size on both is set to 12 mm. There are particular provisions on area and time restrictions for these two types of beach seines. The number of these nets is fixed. No new commercial fishing licenses for these two types of beach seines are allocated.

**Trammel and gillnet fisheries**: Gillnets are classified (Table 7) according to target species. Trammel nets are classified separately and again differentiate according to target species. Mesh sizes for both trammel and gillnet are defined accordingly, as well as the height of each type of net (in number of vertical meshes). Strict regulation on fishing area and season are also provided.

**Traps (gear type 7)**: Traps mainly target demersal fish species and crustaceans. The number of traps, as well as the mesh size, is specified on the licence.
**Hook and line gear (gear type 8):** Hook and line gear mainly target cephalopods, while long lines mainly target fish. The number of hooks is limited both in hook and line gears as well as in long line gears. A maximum of 5,000 hooks may be used in floating long lines.

**Gear type 10** refers to fishing techniques as opposed to fishing gears, but is listed as types of gears for traditional reasons. All gears listed are different combinations of encircling gillnet, trammel and beach seine techniques and gears. A section of marine area is encircled with ropes and the fish is chased towards coast, where it is fished using gillnet or covering nets, trammel nets or beach seines. Strict regulations on these gears are provided, with limits to mesh sizes, rope length, and very strict area/season limitations. No new licenses for these gears will be issued.
Table 7: Gear characteristics for gillnets and trammel nets

<table>
<thead>
<tr>
<th>Code</th>
<th>Gillnet for</th>
<th>mesh size (knot to knot)</th>
<th>height (in no. of mesh)</th>
<th>max length allowed per license (in m)</th>
<th>Total length (in m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5A</td>
<td>Big-scale sand smelt (Atherina boyeri)</td>
<td>6 to 8 mm</td>
<td>300</td>
<td>200</td>
<td>48390</td>
</tr>
<tr>
<td>5B</td>
<td>Mediterranean sand smelt (Atherina hepsetus)</td>
<td>10 to 12 mm</td>
<td>400</td>
<td>500</td>
<td>166937</td>
</tr>
<tr>
<td>5C</td>
<td>Picarel (Spicara smaris)</td>
<td>15 to 17 mm</td>
<td>400</td>
<td>1000</td>
<td>171535</td>
</tr>
<tr>
<td>5D</td>
<td>Small pelagic species</td>
<td>16 to 18 mm</td>
<td>450</td>
<td>n/a</td>
<td>16010</td>
</tr>
<tr>
<td>5E</td>
<td>Blotched picarel (Spicara flexuosa)</td>
<td>18 to 26 mm</td>
<td>80</td>
<td>n/a</td>
<td>127236</td>
</tr>
<tr>
<td>5F</td>
<td>Bogue (Boops boops)</td>
<td>22 to 30 mm</td>
<td>400</td>
<td>2000</td>
<td>659790</td>
</tr>
<tr>
<td>5H</td>
<td>Demersal species (cackarel)</td>
<td>32 to 50 mm</td>
<td>400</td>
<td>2000</td>
<td>1830535</td>
</tr>
<tr>
<td>5I</td>
<td>Atlantic bonito (Srada sarda)</td>
<td>40 to 60 mm</td>
<td>400</td>
<td>1000</td>
<td>81080</td>
</tr>
<tr>
<td>5J</td>
<td>Sharks</td>
<td>60 to 100 mm</td>
<td>20</td>
<td>2000</td>
<td>1726320</td>
</tr>
<tr>
<td>5K</td>
<td>Lobsters (Palinurus elephas, Homarus gammarus, Scyllarides latus)</td>
<td>120 to 130 mm</td>
<td>4.5</td>
<td>1000</td>
<td>145500</td>
</tr>
<tr>
<td>5M</td>
<td>Angle-shark</td>
<td>130 to 148 mm</td>
<td>4.5</td>
<td>2000</td>
<td>136350</td>
</tr>
<tr>
<td>5N</td>
<td>Crab (maja squinado)</td>
<td>150 to 180 mm</td>
<td>4.5</td>
<td>2500</td>
<td>943200</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Trammel net for</th>
<th>mesh size (knot to knot)</th>
<th>height (in no. of mesh)</th>
<th>max length allowed per license (in m)</th>
<th>Total length (in m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6A</td>
<td>Salema (Sarpa sarpa)</td>
<td>40 to 50 mm (mid and single netting) 120 to 200 mm (trammel)</td>
<td>150 (mid)/8 (single netting, trammel)</td>
<td>800</td>
<td>286520</td>
</tr>
<tr>
<td>6B</td>
<td>Various demersal fish</td>
<td>40 to 50 mm (mid netting) 120 to 200 mm (trammel)</td>
<td>42 (mid)/5,5 (trammel)</td>
<td>800</td>
<td>891200</td>
</tr>
<tr>
<td>6C</td>
<td>Sole</td>
<td>40 to 42 mm 150 to 170 mm</td>
<td>25 (mid)/3 (trammel)</td>
<td>3500</td>
<td>2014898</td>
</tr>
<tr>
<td>6D</td>
<td>Cuttle-fish (Sepia officinalis)</td>
<td>32 to 38 mm 150 to 170 mm</td>
<td>100 (mid and single)/6 (trammel)</td>
<td>n/a</td>
<td>346601</td>
</tr>
</tbody>
</table>

Source: MAFWM

Minimum landing sizes

Minimum landing sizes apply for most commercial species. A list of minimum landing sizes is shown in Table 8 below, comparing these with the current EU (EC Reg 1625/94) and proposed amended EU Regulations (EC (Proposal for a Regulation 973/2001).
Table 8: Minimum fish sizes (cm)

<table>
<thead>
<tr>
<th>Fish Species</th>
<th>Croatia</th>
<th>Current EC 1626/94</th>
<th>Proposed (EC 973/2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diplodus spp</td>
<td>15</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Dicentrarchus labrax</td>
<td>23</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td>Engraulis encrasicolus</td>
<td>9</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Merluccius merlucius</td>
<td>16</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Mugil cephalus</td>
<td>20</td>
<td>Na</td>
<td>Na</td>
</tr>
<tr>
<td>Mullus spp</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Pagellus erythrinus</td>
<td>12</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Sardina pilchardus</td>
<td>10</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>Scomber scombrus</td>
<td>18</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Solea vulgaris</td>
<td>20</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Homarus gammarus</td>
<td>24</td>
<td>24</td>
<td>30</td>
</tr>
<tr>
<td>Nephrops Norvegicus</td>
<td>7</td>
<td>7</td>
<td>2 (CL) 7 (TL)</td>
</tr>
<tr>
<td>Palinuridae</td>
<td>28</td>
<td>24</td>
<td>105mm (CL)</td>
</tr>
<tr>
<td>Pecten jacobus</td>
<td>10</td>
<td></td>
<td>11 cm</td>
</tr>
</tbody>
</table>

6.2 Subsistence Fishing

Subsistence fishing has a special status in Croatian legislation and evolved from the war when the local populous, particularly in the island communities, had limited food sources. ‘Subsistence fishing’ is defined by the Marine Fisheries Act. It may be conducted in maximum three fishing zones, and the fish and other marine organism caught in the course of this activity may not be placed on the market, but are intended solely for direct consumption of the fishers and their families. There are strict limits to the number and size of gear that may be used. The gear allowed is restricted to gillnet for sand smelt, gillnet for smelt and gillnet (various fish species); traps (maximum three pieces); hook and line gear (lure – 6 pieces with 3 hooks each maximum, hooks for squid – total 2 pieces and long-line with a maximum of 150 hooks), trap for sea worms (2 pieces), two tridents and one piece of shellfish-collecting tools. It is not allowed to fish for tuna, swordfish nor Mediterranean spearfish. When engaging in fishing activities, it is permitted to use a maximum of 200 meters of netting at any one time. Nets have to be taken out no later than 09:00 hours, and may be set into the sea no earlier than 2 hours before the sunset. It is not allowed to use artificial light other than when fishing for squid, when it is allowed to use a maximum of 1000 candela-light and this only when fishing from a row-boat. The maximum amount of fish caught daily in this type of fisheries is limited to 5 kg excluding cartilaginous fish and capital specimen. One fishing vessel may hold a maximum of two licenses for subsistence fisheries. Vessels used are small fishing boats, less than 12 m in length and 15 GT. Subsistence fishermen are not authorised to fish in outer fishing waters. The total number of subsistence fishermen as registered in License Register is given in Table 9.

Table 9: Total number of Subsistence fishermen (according to the License Register)

<table>
<thead>
<tr>
<th>Local Office</th>
<th>No. of Subsistence Fishermen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pula</td>
<td>250</td>
</tr>
<tr>
<td>Rijeka</td>
<td>2,750</td>
</tr>
<tr>
<td>Senj</td>
<td>370</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>--------</td>
</tr>
<tr>
<td>Zadar</td>
<td>3,147</td>
</tr>
<tr>
<td>Šibenik</td>
<td>1,059</td>
</tr>
<tr>
<td>Split</td>
<td>2,134</td>
</tr>
<tr>
<td>Sub-Office PLOČE</td>
<td>180</td>
</tr>
<tr>
<td>Dubrovnik</td>
<td>2,340</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12,230</strong></td>
</tr>
</tbody>
</table>

Source: MAFWM

6.3 **Recreational Sector**

There are up to 35,000 recreational fishers, including freshwater and marine

7. **Reciprocal Access**

The Republic of Croatia currently has two fisheries agreements, one with the Republic of Slovenia on a transitional cross-border regime (Piranski Bay), and the other with Serbia Montenegro. The agreement with Slovenia makes provision for reciprocal access for 5 trawlers and 20 gill net licences for each country in each zone. No Serbian vessels currently fish inside the Croatian zone.

There is no reciprocal agreement with Italy.

8. **Fisheries Infrastructure**

Croatia has neither dedicated port structure nor designated ports. There are a number of regions where fishing is highly concentrated (Pula, Rijeka and Split) and others where it is less so, or at least more widely dispersed. Fishing vessels tend to have to share port facilities with recreational and other craft and the spread of landing activity within each region is extensive. The ports broadly lack storage, working areas and often have insufficient depth for the larger vessels. The more mobile fleets, particularly the purse seiners, have problems finding berth space as and when they work away from their home ports. Total number of places where the fish is landed is estimated at around 160, but none of these is listed as a fishing port.

There are no dedicated markets, no ice plants and no supporting chill facilities.

9. **Aquaculture**

Aquaculture represents a potential major growth area for Croatia. Specific assets include location and high water quality. Constraints relate to lack of credit, poor organisation for the smaller units (mussels and bream / bass), heavy environmental and licensing constraints and insufficient capacity for local authorities to undertake appropriate veterinary and quality inspections. Tuna “farming”\(^{18}\) is a highly profitable export industry. Activity mainly takes place in the Zadar and Split regions. There are ten farms and nine leased sites with 45 cages spread throughout the region. Farming does not represent a full cycle, as tuna are wild caught and then fed rather than reared, but in recent years farmers have started

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\(^{18}\) Tuna farming as opposed to fattening is the accepted definition when the fish are retained in cages for more than 1 year.
“rearing” juvenile wild-caught tuna over a period of 2 to 3 years. The tuna is exported mainly to Japan for the sushi and sashimi market.

Sea bass and sea bream represent another important sector. There are 40 farms producing these species. Most tend to be small scale.

There are 40 mussel and 80 oyster production units. These are all family owned farms. Istria, around Šibenik (estuary of river Krka) and in Mali Ston Bay area, are the main areas of activity. There are no collecting and purifying centres in Croatia. EU hygienic and health standards still have to be met, the major restriction being access to quality verification and testing facilities. As a result, this sector is under achieving. Scientific bases as well as physical planning documents indicate that oyster and mussel farming in Mali Ston Bay could increase from the present level of 800,000 pieces and 1,500 tons respectively to as much as 5,000 tons and a minimum of 2,000,000 pieces. However, expansion is strongly dependant on the quality standards and opening of the EU market.

Freshwater aquaculture production has been declining steadily in the last decade. 2003 production areas were half the levels of the production areas in 1995, and the productivity is also decreasing. This is largely due to the limited market channels. Trout and carp are the main species. There are around 39 registered companies (16 carp and 23 trout).

All sectors, with the exception of the tuna farming sector which involve joint ventures with foreign companies, experience severe lack of capital. Government credit schemes exist but there are delays in obtaining loans and there are no significant benefits over and above commercial loans.

10 Fish Processing

In the past, fish processing in Republic of Croatia has been orientated towards the production of canned fish, however only four fish canning companies remaining, some of which are in a poor state. Canned products include sardines and anchovies and occasional imported primary products such as mackerel. The canning sector has lost many of its former East European markets, and finds it difficult to compete with the product from countries such as Morocco and Thailand.

<table>
<thead>
<tr>
<th>Product</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salted fish</td>
<td>40</td>
<td>350</td>
<td>1.881</td>
<td>2.500</td>
<td>2.800</td>
<td>2.900</td>
</tr>
<tr>
<td>Frozen fish</td>
<td>650</td>
<td>250</td>
<td>470</td>
<td>850</td>
<td>1.500</td>
<td>3.200</td>
</tr>
<tr>
<td>Canned fish</td>
<td>13.000</td>
<td>14.000</td>
<td>14.500</td>
<td>15.500</td>
<td>14.000</td>
<td>11.700</td>
</tr>
<tr>
<td>Other (salads, mixtures)</td>
<td>90</td>
<td>120</td>
<td>60</td>
<td>110</td>
<td>120</td>
<td>1,200</td>
</tr>
</tbody>
</table>

Source: MAFWM

The majority of enterprises are small family-owned businesses employing less than 50 people. Four major companies include Adria Zadar, Sardina Postira, Mirna Rovinj and Ledo. All of them are reported as being licensed to export to the European market.

In 2003, there were three large factories and some twenty small and medium-size enterprises for salting and freezing marine fish processing, with 2.900 tons of fish being salted and 3.200 tons filleted/frozen. This is in addition to the 11.700 tons canned and 1.200 tons...
processed into other forms (marinated, prepared as ready-meals, prepared as salads or pates). Production premises of the small and medium-size enterprises do not comply with the EU standards mainly because the buildings are old and in most cases outdated, with the equipment aged over 15 years.

All processing factories are located along the coast, with 9 of them are on the islands. In addition to canned sardines (62 per cent of production), other major products include filleted tuna and filleted mackerel. Total production in 2003 was just 40 per cent of production in 1989. It is estimated that the overall level of capacity utilization has dropped to 30 per cent. In terms of freshwater processing, in 2003 40 tons of carp, 100 tons of trout, 5 tons of catfish and 15 tons of other fish were processed. Main products included smoked (trout) and filleted (carp, catfish) fish.

Lack of major capital investment has contributed to the situation. Forthcoming SAPARD programme is expected to support measures to help towards some injection of capital for the sector. However, the overall investment capital is low and development may not achieve expectations.

Most of fish processing facilities are located along the Adriatic Sea and process mostly marine organisms, while few (6) of them are located inland close to aquaculture facilities and are oriented towards freshwater species' processing. A limited joint stock company is the most common form of the enterprises.

11 Fish Marketing

11.1 Annual Consumption.

Available figures indicate a per capita annual consumption level of between 7 kg and 9 kg per year. Given the lack of reliable landing data, it is difficult to judge the correctness of this data. It is understood that, and as might be expected, per caput consumption on the coast is substantially higher than inland.

According to Ruckes,\(^\text{19}\) the Department of Agricultural Marketing at the University of Zagreb estimated annual per caput fish consumption in the capital to be 9.0 kg., divided into household consumption\(^\text{20}\) at 8.3 kg. (7.8 kg. marine, 0.5 kg. freshwater)\(^\text{21}\) and restaurant consumption at 0.7 kg. On the basis of a population of 1.5 million, total annual consumption is calculated at 13,500 tons, of which 12,450 tons is household consumption (11,700 tons of marine fish and 750 tons of freshwater) and 1,050 tons is taken by the catering trade.

The key to increased consumption is seen to be making fish more price competitive compared to substitute foodstuffs by limiting the number of intermediaries in the distribution chain, and improving product quality. Related areas are identified as limiting the informal market in fish and fish products and improving the infrastructure in landing places and the distribution chain.

11.2 Retail

\(^{19}\) ibid

\(^{20}\) Based on sample household survey.

\(^{21}\) There is no indication of a breakdown between different product types i.e. fresh, frozen, dried, salted, canned, prepared.
In coastal towns and villages fresh fish is retailed at local markets along with other fresh produce. Individual traders may specialise in specific species. In certain towns, fishermen have joined together in small cooperatives to market their product through a retail market stall. In general ice is used. Labels normally indicate the variety and the price per kilogram. The fish is normally high quality fresh product, but some frozen product was observed. Although against regulations, at a number of fish landing places fresh fish is sold directly to consumers from the boat or the quay.

11.3 Tourism

The demand from holiday makers is an important constituent of the total market.

11.4 Infrastructure

Landing places for demersal fish including shellfish are dispersed along the coast of Croatia, few of which are of any meaningful size. None of the landing places provide the basic facilities required for operation of a fishing fleet in terms of designated berthing area, landing facilities, adequate working space, storage, and provision of basic items such as fuel, ice and other supplies. The closure of on-shore processing companies and associated landing facilities has reduced the options for marketing of small pelagics.

11.5 Catering

The demand from restaurants, especially along the coast and in the summer tourist period, is high. The majority of transactions are informal, with no sales note. It is reported that restaurants buy from preferred individual fishermen without taking into account whether these are professional or subsistence.

11.6 Institutional

It is reported that in the former Yugoslavia, the military consumed a large quantity of canned fish.

11.7 Industrial

There is limited production of fish meal, by-product of canning operations. The main “industrial” demand is for frozen small pelagic fish to feed tuna in growing-out facilities. The indications are that, due to oil content and price, a major part of this sub-sector’s needs is satisfied by imports.

11.8 Trade

Croatia imports more in quantity than it exports, but this is partly as a result of imports of frozen herring as fish feed for the tuna farming sector. High value exports include the sale of tuna, exported direct by ship to Japan and canned fish.

Fishery sector in Republic of Croatia represents a specific sub-sector, accounting for a rather small share in the GDP, but playing an important role in the socio-economical situation of a large number of people. Excluding the tuna farming, recently developed in Croatia, the total share of fisheries in the GDP is less than 1.0%. Tuna farming, on the other
hand, is the only food producing industrial activity that has a positive balance (high export values, amounting to 63,201,809 USD in 2003.). Overall export value of marine fisheries including fishery products in 2003 amounted to 114,881,084 USD (22,687 t tons). Out of this value, major share was the worth of tuna exported to Japanese market alone. Import values in 2003 were higher on the quantity side (57,315 t) but lower in value (82,741,215 USD). This is due to import of higher quantities of low-value small pelagic species (herring, pilchard) and export of high-value products. In terms of freshwater production, in 2003 a total of 158,780 USD was imported while 1,781,117 USD was exported, leaving a positive balance in this segment of the sector as well.

In 2004 the trade in fishery products between Croatia and the enlarged EU reached 66,2 mil EUR, which represents a decrease of 18.8% compared to the previous year. This is a result of significant decrease of import (34.2%). On EU15 level the decrease of import in fisheries is even bigger (36.6%), while the import from new member states increased by 15.1%. The export to EU25 has increased by 17.3% (on EU15 level the increase is 32.8%, but on EU10 level the export decreased by 31.5%). A positive trend for Croatia is the decrease of the deficit in fisheries trade by 72.7% compared to 2003.

Table 11. Trade in fisheries in mil. EUR:

<table>
<thead>
<tr>
<th></th>
<th>Export from Croatia</th>
<th>Import to Croatia</th>
<th>Trade balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade with EU-15</td>
<td>8.5</td>
<td>4.6</td>
<td>32.8</td>
</tr>
<tr>
<td>Trade with NMS</td>
<td>0.9</td>
<td>0.0</td>
<td>8.5</td>
</tr>
<tr>
<td>Trade with EU-25</td>
<td>4.4</td>
<td>8.6</td>
<td>17.3</td>
</tr>
</tbody>
</table>

(Source: Bureau of Statistics)

In export to EU25 the biggest share (36.8%) of total exported value goes to fresh or chilled fish falling within tariff code 030269. Other most exported products registered certain increase, except prepared and preserved sardines, for which the exported value decreased by 43%.

Table 12: Top 5 fishery products exported to EU25 in 2004:

<table>
<thead>
<tr>
<th>Cn code</th>
<th>Product description</th>
<th>Thousand tones</th>
<th>Mil. Eur</th>
<th>Share in total in 2004 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>030269</td>
<td>Other fish, fresh or chilled</td>
<td>3.9</td>
<td>4.8</td>
<td>8.9</td>
</tr>
<tr>
<td>030563</td>
<td>Anchovies, salted or in brine</td>
<td>1.5</td>
<td>2.2</td>
<td>2.9</td>
</tr>
<tr>
<td>030530</td>
<td>Fish fillets, dried, salted or in brine</td>
<td>0.5</td>
<td>1.4</td>
<td>0.7</td>
</tr>
<tr>
<td>030223</td>
<td>Sole (solea spp.) Fresh or chilled</td>
<td>0.3</td>
<td>0.3</td>
<td>1.9</td>
</tr>
<tr>
<td>160413</td>
<td>Prepared or preserved sardines</td>
<td>1.5</td>
<td>0.9</td>
<td>3.3</td>
</tr>
</tbody>
</table>

(Source: Bureau of Statistics)
On the import side the most traded products were cuttle fish and squid, with a share of 19.9% of total import in fisheries from EU25. The import of live fish falling within tariff code 030199 registered a huge decrease (76.5%), but it still occupies the third place on the list, with a share of 8.4% of overall import of fishery products.

Table 13: Top 5 fishery products imported from EU25 in 2004:

<table>
<thead>
<tr>
<th>Cn code</th>
<th>product description</th>
<th>thousand tones 2003</th>
<th>thousand tones 2004</th>
<th>mil. eur 2003</th>
<th>mil. eur 2004</th>
<th>Share in total in 2004 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>030749</td>
<td>cuttle fish and squid, other</td>
<td>2.7</td>
<td>2.6</td>
<td>6.7</td>
<td>7.5</td>
<td>19.9</td>
</tr>
<tr>
<td>030350</td>
<td>herrings frozen</td>
<td>17.9</td>
<td>14.1</td>
<td>8.5</td>
<td>5.9</td>
<td>15.7</td>
</tr>
<tr>
<td>030199</td>
<td>other live fish</td>
<td>1.2</td>
<td>0.5</td>
<td>13.4</td>
<td>3.1</td>
<td>8.4</td>
</tr>
<tr>
<td>160420</td>
<td>other prepared or preserved fish</td>
<td>0.9</td>
<td>1.0</td>
<td>2.3</td>
<td>2.4</td>
<td>6.4</td>
</tr>
<tr>
<td>160414</td>
<td>tunas, prepared or preserved</td>
<td>0.4</td>
<td>0.4</td>
<td>2.1</td>
<td>2.2</td>
<td>5.9</td>
</tr>
</tbody>
</table>

(Source: Bureau of statistics)

11.9 Organisational Issues

In certain areas, fishermen have formed cooperatives. Up until 2004, these were of a limited nature, with small groups coming together to resolve a specific problem e.g. the management of a direct retail outlet with a fish stall in the local retail market. In 2004, two cooperatives were formed in Istria, with membership in excess of 100 fishers. These two cooperatives could form the nucleus for establishment of fish producers organisations capable of implementing specific aspects of the CFP.

12. Fisheries Administration

12.1 Institutional Framework for the Fisheries Sector

12.1.1 Department of Fisheries

DF forms part of MAFWM. Its organisational structure is defined by the Ordinance on internal organization and the Regulation on internal organization. DF has four divisions: policy; marine fisheries; freshwater fisheries; and fisheries inspection (Figure 3). DF is headed by the Assistant Minister. Each Division is headed by a Head of Division. Some divisions are further divided into units responsible for different segments of the administrative work. In addition to the Central Office of DF (located in Zagreb), there are 7 field offices in coastal counties, directly responsible for the work on fishing vessel and license register and data collection. All inspectors, including inland, share offices with local government or the State Inspectorate. At present, the total number of employees in DF is 39, with provision for increase to 56. The appointment of new staff will be contained in a forthcoming Regulation on internal organisation.

Policy Division. This division comprises a Head of Division and three support staff who are responsible for development of the national programme and integrating EU legislation. This Division will inevitably take on some or all of the responsibility for the management of EU structural funds.

22 Official Gazette 42/04.
24 An Assistant Minister is an administrative post. The Assistant Minister is appointed by the ruling political party. The existing Assistant Minister has been in post through a series of governments.
**Marine Fisheries Division.** This division has a Head of Division at HQ. Related units:

(i) Fisheries Statistics forms a component of this Division headed by an Head of Section (Statistician / economist) based in Zagreb and 7 log book data inputters at each of field offices. It is proposed that this unit is to be enhanced by an additional 6 data inputters based at the field offices. These numbers have been excluded from the above specification.

(ii) Marine Capture Fisheries unit with a Head of Unit in Split. This unit is responsible for the 7 field offices where three officers (including where assigned, one of the log book data assistants) have specific responsibilities for licensing commercial, subsistence and sport fishers respectively.

(iii) Marine Aquaculture Unit, with the Head of Unit in Zadar. Freshwater Fisheries Division. This has a Head of Division in Zagreb has two unit, capture fisheries and freshwater fish farming.

**Fisheries Inspection Division.** This division has a Head of Unit in Zagreb and presently five fishery inspectors.\(^{25}\) This is for an area covering 5,800 km of coastline and some 1,200 islands. An additional ten posts have yet to be filled. Inspection activities are shared with the police and harbour authorities. The Fishery inspection Division also has a freshwater fishery inspection unit comprising seven inspectors. The Current organizational scheme foresees senior inspectors who are aided by junior assistants for surveillance and control. Given the length of the Croatian coast, and the area which is subject to surveillance by Croatian Fishery Inspection, it is expected that additional personnel shall be needed to fully perform the surveillance tasks.

\(^{25}\) Pula, Split, Sibenik (2) and Dubrovnik.
Figure 3: Organigram of the Department of Fisheries
The Republic of Croatia has set up Governmental Coordination for surveillance and control at sea. The unit coordinates the work of all relevant ministries conducting the control of the environment itself, as well as the transport of people and goods at sea. These include the Ministry of Environmental Protection, Physical Planning and Construction, Ministry of Sea, Tourism, Traffic and Development, Ministry of Internal Affairs, Ministry of Defence and Ministry of Agriculture, Forestry and Water Management. The police fall under the responsibility of the Ministry of Internal Affairs. Shared sea inspections are limited to one day per week in each of the regions where an inspector is present. The police also undertake day to day inspections in conjunction with their other activities. By creating Governmental Coordination, the existing infrastructure in all four ministries is best used in control and surveillance activities. The existing infrastructure includes both the technical infrastructure (vessels, speed boats) and human resources (maritime police officers, port authorities). Through Governmental Coordination, the Fishery Inspectors (under the MAFWM) shall act as “instructors” to other personnel in issues of fishery inspection. By using this type of organization, the total number of personnel authorized to conduct activities in fishery inspection will significantly increase, while the costs of technical infrastructure will be reduced. It is foreseen that the fishery inspectors shall also actively work in training of other authorized personnel in issues specifically linked with fisheries inspection (mesh size, minimum landing size, closed periods or closed areas).

Fisheries inspectors perform activities using their own cars, and when working at sea they use vessels owned by the Ministry of Interior (maritime police) and the Ministry of Maritime Affairs, Transport and Communications (port authorities). Maritime police officers have at their disposal 39 police patrol boats.

In order to successfully perform and complete fisheries inspection tasks, fisheries inspectors require fully equipped vessels for surveillance and inspection at sea, measuring instruments (for mesh size, luxmeters, ichthyometers, digital cameras, cellular phones and computers) and adequate protective clothing and shoes. Inspection vessels should be rigged with radar and satellite equipment for finding and locating of fishing vessels. The average age of the police fleet exceeds 15 years, and the maritime capabilities of the vessels are rather limited. The presently available fleet is not adequate for the scope of the tasks, and is in need of modernization. In order to successfully conduct surveillance and inspection on the fishing seas of Republic of Croatia, there is a need to increase the number of modern, well-equipped vessels, increase their engine power and the state of equipment.

Training and qualifications. A fisheries inspector may be a person with an appropriate university diploma (bachelors of sciences in fisheries, Faculty of Fisheries and Fisheries Technology at the University of Split). Exceptionally, bachelors of sciences in veterinary medicine, agronomy or biology are also eligible. An Inspector’s induction period runs for a year. Training comprises attendance at a course on: Legislation and Evidential issues. Other aspects of training – species identification, gear technology and boarding procedures are undertaken via practical experience; new recruits accompany senior fishery officers during inspection.

Powers of inspection. Inspection powers are defined in the Marine Fisheries Act and the Freshwater Fisheries Act.

Fisheries inspectors are authorised to:
control premises and offices, as well as other premises where fisheries activities are conducted; products, equipment, tools, working gear and fishing tools; vehicles and vessels, accounting books, registers, documents, contracts, identifications and other working documentation which provides insight into the work of a natural or legal person conducting the activities of fisheries;

request and inspect documents of identification (identity card, passport etc.), and the persons subject to inspection must provide insight into this document;

take statements from representatives of the controlled legal or natural persons and witnesses; temporarily, until the final decision of a competent court, the inspector may revoke the commercial fishing license, fishing right, subsistence fishing license, sport and recreational fishing license or rearing license;

prohibit commercial fishing activities and the use of certain fishing tools, gear or vessel which conducted commercial fishing, if commercial fishing activities are conducted without the license or contrary to its contents;

order the elimination of the irregularities by administrative decision, if it has been determined that regulations has been violated;

temporarily, until a decision of the competent court, confiscate catch, gear and tools with which the violation has been made;

file a request to initiate misdemeanour proceedings or commercial offence proceedings and criminal proceedings

charge the pecuniary penalties directly on site, as prescribed by law

Infringements and Penalties. The penal provisions of the Marine Fisheries Act and the Freshwater Fisheries Act set the legal framework for the sanctioning of infringements. The Marine Fisheries Act contains provisions on infringements and offences and sets the amount of fines, as well as protective measures which may be stated for such infringements (confiscation of catch, gear etc)

A fisheries inspector files a request for initiation of proceedings before the competent misdemeanour court, which then handles the procedure and passes the sanction measure according to the provisions of the Misdemeanours Act

The administrative procedure (the passing of a decision which orders the offender to eliminate the stated irregularities) in the first degree is conducted by inspectors. The appeal to such a decision is in the second degree processed by a special Committee appointed by the minister of the MAFWM. The misdemeanour proceedings are handled by the relevant misdemeanour court, and the judge of such a court proclaims the sanction for a given misdemeanour.

Fisheries inspectors may by formal decision:

- temporarily, until the final decision is passed by the official body, revoke the commercial fishing license, fishing right, subsistence fishing license, sport and recreational fishing license or marine and freshwater farming licence
- prohibit commercial fishing activities and the use of certain fishing tools, equipment or vessel by means of which commercial fishing, if commercial fishing activities are conducted without license or contrary to its contents;
order the elimination of certain irregularities by formal decision, if it has been determined that a provision of law or some other regulation in the area of fisheries has been violated.

At present there are no records of the number of infringements detected or the number of fines applied, but it is stipulated that the inspectors keep the record.

According to the Marine Fisheries Act the levels of the fines are set from 100 to 300,000 HRK (15-40,000 €), and the inspectors are authorized to charge the fine on the spot up to 500 HRK (60 €). The level of the fine depends on the type of the infringement of the Marine Fisheries Act. In practice, the perpetrators are usually fined with the lowest amount foreseen for such an infringement, or are reprimanded, or the statutory limitation is applied.

The Marine Fisheries Act determines that for certain infringements, beside a fine, the precautionary measures of confiscation of catch, fishing gear and tools should also be set, regardless of ownership. Misdemeanour courts rarely pass the measures of confiscation of catch and fishing gear.

The Act also foresees augmentation of the penalty and/or fine should the offences be repeated.

Principal Constraints. Prior to referring to constraints it should be noted that staff is educated to a high standard, they are highly motivated and have excellent communication skills, while individuals have a high proficiency in English.

Constraints within the current structure include: inadequate staffing levels to undertake both the tasks at hand and forthcoming obligations required to implement the aquis; in general there is inadequate communication and reporting between the offices; and inadequate support equipment, particularly in relation to the means to undertake enforcement activity and statistical data collection.

Inadequate staffing is apparent at all levels of administration but particularly in fisheries inspection. Attempts to recruit additional staff members have proved to be very slow, and even if in place, it will take up to one year before an inspector is appropriately qualified. All inspectors are required to have specific fisheries related degree level education in either fisheries technology or fisheries veterinary science.

Whilst a system of Government coordination exists between different administrations, the priority given to fisheries tasks within the periods of joint collaboration is low. Deployment of police patrol or harbour authority vessels is restricted to approximately one per week if a vessel is available.

Regional Fisheries Inspectors presently lack adequate office space and are located away from the DF fisheries office, usually housed in the offices of the State Inspectorate which undertakes non fisheries related activities.

Communications between the Head of Division and port inspectors is said to be excellent; and the regional fishery inspectors have excellent liaison with the police authorities.
The Marine Fisheries Division has the capacity to implement its existing areas of responsibility but this is under the environment that there is limited compliance with log book reporting. If the level of compliance were to increase, data entry obligations would increased by a factor of 3. This is excludes any provision for analysis of landing declarations which do not presently exist. There is little liaison between the fisheries inspector and data inputters, and the data inputters do not have the appropriate software available to interpret data which might assist the inspector’s duties.

The software available to the Marine Fisheries Division is inadequate and requires upgrading in order to improve data interrogation. The existing data collected does not meet with the EU’s data and control regulations. Transmission of data from the regional offices to HQ is slow and none of the regional offices have access to broadband. Broadband is available at the Zagreb HQ.

12.1.2 Croatian Agricultural Extension Institute

CAEI undertakes support activities, including:

- promoting development, production and reconstruction in all rural areas in Croatia, including coastal communities;
- providing expert advice to fishermen and fish farmers
- acting as the link between the Croatian Government and fishermen and fish farmers in relation to the implementation of fisheries policy.

Two officers currently undertake these activities and act as a valuable link with the fishery sector. However, the lines of communication between this MAFWM and CAEI are presently poorly defined.

Institute of Oceanography and Fisheries

12.1.3 Institute of Oceanography and Fisheries

The most important scientific organisation in the Republic of Croatia in the sector of fisheries is the Institute of Oceanography and Fisheries in Split. The institute comprises 10 units, 8 based in Split and 2 in Dubrovnik. Of these units, 1 specialises in fisheries research and 2 in Aquaculture. The Institute employs 106 personnel, 40 per cent have a Doctorate of Science, 18 per cent have MScs. The Ichthyologic laboratories of this Institute collect an array of data through various scientific and research projects, as well as through specialised studies done upon the request of DF. The Institute of Oceanography and Fisheries has recently, upon the request of the Ministry, initiated national monitoring of small blue pelagic fish. The movement and abundance of small blue pelagic fish stocks (sardine and anchovy) are being monitored using echolocation equipment. The monitoring of small blue pelagic resources has been set up in accordance with the methodology used on the western coast of the Adriatic (Italian Republic), in order to enable the integration of data and an adequate stock assessment. Standard methods of echo-interpretation and statistical modelling of stocks are being used in data analysis. Besides monitoring small pelagic resources, numerous data are being collected on the quantity and quality of demersal stocks and communities, the status of coastal resources, spawning grounds, development and the reproductive biology of commercially important organisms. Also, many scientific and research expeditions have been organized, some of which were conducted in the framework of international expeditions (Croatian scientists actively participated in the MEDITS expedition - Mediterranean Trawl
Survey, financed by the EU). Standard data collected from trawl expeditions include qualitative and quantitative catch composition, data on population dynamics, sex ratio and maturity.

In 2002 the DF initiated several projects in cooperation with the Institute of Oceanography and Fisheries, with the goal of gaining better insight into the status of the stocks and securing a solid scientific basis for management measures. Beside ichthyologic research, the Institute of Oceanography and Fisheries, together with other scientific research institutions in Republic of Croatia (i.e. Institute Ruder Bošković), participates in many other scientific research projects on ecology and natural processes in the Adriatic Sea. As some of the research is conducted upon the request of the Directorate of Fisheries, the data collected are directly used in management measures in Adriatic fisheries. As the Directorate and the Institute of Oceanography and Fisheries also closely cooperate in the process of developing legislation the availability and accessibility of scientific data is guaranteed.

12.1.4 Stakeholders in the fisheries sector

The Chamber of Commerce and Chamber of Trade are the recognised bodies for representing the fishery sector in Croatia. These organisations have a regional structure in which fishermen and traders are affiliated. The representatives are elected.

13. Fisheries Policies and Plans

13.1 Increasing Consumption

The Government of the Republic of Croatia has adopted a National programme oriented towards increase of catch and consumption of small pelagic fish. For that purpose, construction of 30 vessels from 90 to 120 GT has been started. This programme foresees, in the period 2004-2009, the construction of 30 new vessels against withdrawing of an unspecified amount of old fleet capacity. However, no activity has taken place to date.

13.2 State Aid

Croatia has a wide range of schemes to support fishing, rearing and processing of fish, namely for rearing autochthonous species. Schemes vary from market and price policy measures to structural policy measures and aids for aquaculture and freshwater fishing. Some of these measures will need to be brought into compliance with the acquis.

13.3 Fisheries Regulations

The basic legislation in this area consists of the Marine Fisheries Act and the Freshwater Fisheries Act. Commercial fishing requires possession of the relevant license, which, for subsistence fishing, can be issued only to Croatian citizens. Fishing tools and gears are regulated through an Ordinance on Commercial Marine Fisheries. There is no quota system, except for large pelagic species. Specific provisions are laid down for tuna fishing.

The basic fisheries regulation for marine fisheries is Marine Fisheries Act of 22 April 1997 and its subsequent amendments (last 6. April 2005). It has been supplemented by numerous Regulations on fishing licences, commercial fishing and minimum landing sizes. Overall, marine fisheries regulations cover commercial fisheries, sport and recreational
fisheries and aquaculture. Commercial fishing in Croatian waters is subject to a licensing system established by the Marine Fisheries Act. Currently, the minimum landing sizes are set up according to the sizes listed in the EC Regulation 1626/94 and are given in Ordinance 101/2002 in Official Gazette. In order to ensure rational management and protection of commercially valuable species of fish and other marine organisms, MAFWM is according to Marine Fisheries act, empowered to limit the number of commercial fishing licences, establish TACs per area or zone or quotas, restrict number, size and power of fishing vessels allowed to fish, close areas or zones and restrict usage of gear. These regulations are brought in Ordinances and Regulations supplementing the Marine Fisheries. The protection of fish stock is mostly based on technical measures, including the minimal landing size regulations, mesh size regulation, seasonal catching regulations for some areas and the restrictive use of some fishing gears regulations.

13.4 Registration

The Croatian fleet register is kept manually by each port authority. Each vessel is also registered in the computerised database of the register of licenses for commercial fishing. Croatia is preparing to introduce an operational electronic fishing vessel register in conformity with the acquis.

13.5 Licensing

Commercial fishing in Croatian waters is subject to a licensing system established by the Marine Fisheries Act. There are three types of fishing licenses: commercial, subsistence and sport and recreational fishing license. An applicant for commercial fishing license must be registered in the Small Enterprises Register or in the Trade Court. A license is also needed for fish rearing. In Croatia the structural actions will be managed by the Ministry of Agriculture.

A commercial fishing license is a permit allowing a natural or a legal person to engage in commercial fishing or fish rearing activities. A subsistence fishing license allows a natural person to engage in subsistence fishing activities, while a sports and recreational license allows a natural person to engage in sport and recreational fishing activities. Foreign natural or legal persons may not obtain a commercial fishing license for fishing in Croatian territorial waters unless there is an international agreement on fishing. All forms of fishing activities may be performed only on the basis of an appropriate license. Rearing may be performed on the basis of a rearing license, which is issued upon a concession for usage of a section of marine demesne according to the Maritime Code. A request is made to the field office of the MAFWM in the coastal county in which the applicant (natural person) resides or in which it (the company) has its seat. In case the applicant does not reside or does not have its seat in a coastal county, the request can be submitted to any field office.

Both natural and legal persons must provide proof of the vessel’s registration for fishing activities at sea; proof of ownership of the vessel; name and registration number of the vessel for which a commercial fishing licence is requested; the vessel’s port of registration; the engine power’s certificate from the manufacturer; the type and quantity of fishing gear and equipment to be used and the zones in which commercial fishing is intended to be undertaken.
The relevant field office must issue the license or reject the license application within a month from the date the regular request was filed. The competent field office keeps the commercial fishing license register. Once issued, the commercial fishing license must be kept on board the vessel at all times. When applying for a commercial fishing license, minutes of the inspection must also be submitted, establishing that the vessel, fishing gear and equipment meet the conditions determined by the Maritime Fisheries Act and regulations adopted pursuant to it. The expert inspection of the engine and fishing gear is performed by expert inspectors and the costs are borne by the vessel’s owner. Information contained in the license includes the vessel’s technical characteristics (size of vessel in GT, power of engine in kW, length of vessel), registration number and sign of the vessel, name of the license holder, fishing zones where fishing is permitted and type and quantity of fishing gear that can be carried on board and used from the vessel.

A citizen is allowed to engage in subsistence fishing within Croatian waters if he/she has been granted a subsistence fishing license by a field office of the Ministry. The license is valid only if confirmation of an annual fee payment is provided. The license is issued by the field office of the Ministry in the county where the applicant resides or where he/she intends to engage in subsistence fishing activities. It is important to note that in Croatia subsistence fishing is a social category, and that it is strictly prohibited to sell the catch from subsistence fishing activities. Hence, only Croatian citizens are entitled to apply for a subsistence fishing license. To be eligible for a subsistence fishing license, the applicant must fulfil the following conditions: be a Croatian citizen; be at least fifteen years old; be in possession of a subsistence fishing qualification certificate; be the owner of the vessel, fishing gear and equipment to be used in subsistence fishing or have full control over such vessel, gear and equipment; show evidence that the fishing gear and equipment to be used in subsistence fishing comply with relevant fisheries regulations; demonstrate that he/she is not subject to any administrative or criminal sanction preventing him/her from conducting small scale fishing activities. The required evidence is obtained by the responsible field office in the line of duty. A subsistence fishing license must contain the name, surname and address (place, street and number) and personal identity card number of the applicant; the vessel’s name and port of registration or the vessel’s registration number, dimensions (in meters and tonnage in GT) and engine power in kW and HP; the type and quantity of gear and equipment that can be used by the license holder for subsistence fishing operations and fishing zones in which the license holder is authorized to operate. The competent field office of the MAFWM must approve or reject any request for a subsistence fishing license within a month from the submission of a complete request form. Should the competent authority fail to act within such a period, it would be assumed that the application has been approved and that the license has been issued. An appeal against the decision may be filed with the MAFWM. The issuance of a subsistence fishing license is subject to the payment of an annual fee, the amount of which is determined by the Minister. Subsistence fishing may be done in 3 fishing zones at the most.

Sports and recreational fishing may be performed on the basis of a sports and recreational license. A license holder must always keep the license when engaging in fishing activities. The license is issued by a field office of the MAFWM, but can also be sold on behalf of the MAFWM by natural and legal persons authorised by the Minister to do so. A license for sports and recreational fishing can, upon payment of a fee, both for Croatian and foreign citizens, be issued for a period of one, three, seven or thirty days (daily licenses and licences for several days). For each kind of license a fee has been set. A special sports and recreational fishing license for big game fishing (Thunnus thynnus, Xiphias gladius and Tetrapturus belone) is also available. License for fish rearing is issued by the field office of
the MAFWM. The license must contain the following information: the name of the natural person or the company of the legal person to which the license is issued, area or zone where the rearing shall take place, contract on concession for usage of a part of maritime demesne and the quantity and species of fish and other organisms intended to be reared. A separate concession is issued for each section of the maritime demesne on which rearing is to take place.

Natural and legal persons may conduct rearing activities on a section of maritime demesne only on the basis of concession and may rear only the species of fish and other organisms as listed in the rearing license. The rearing licence must be kept at the farm or in the seat of the company. Sections of maritime demesne intended for rearing are determined by the County council in accordance with physical plans of the county and the criteria determining the suitability of a section of maritime demesne for rearing. The criteria for suitability for rearing are set by the Minister of the MAFWM, with the agreement of the Minister of the Ministry of Environmental Protection and Physical Planning.

As the Croatian logbook system presently covers all vessels, and not just those over 12m in length, it is envisaged that in the future the statistical system shall employ a random representative sample system for vessels under 10m, and shall continue to follow the vessels over 10m.

13.6 TACs and Quotas

The only catch quotas currently in place in the fisheries of the Republic of Croatia are those set by the International Commission for Conservation of Atlantic Tuna (ICCAT), and are set for blue-fin tuna. Data reporting for bluefin tuna management purposes is also governed by the ICCAT.

The catch quota for blue-fin tuna (*Thunnus thynnus*) for 2005 is set by the ICCAT at 945 tonnes. As last year's quota has not been fully used, the excess has been transferred to this year and the total quota is set at 1069 tons (one thousand and sixty nine). Out of this amount, 19 (nineteen) tones are set as a quota for hook gear.

13.7 International relations

The Republic of Croatia is a member of the International Commission for Conservation of Atlantic Tuna (ICCAT), General Fisheries Commission for the Mediterranean (GFCM) and of EUROFISH.
### 14: SWOT analysis of the Croatian fishery sector

<table>
<thead>
<tr>
<th>Fishery resources</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Acoustic analysis of pelagic stocks reveals under-exploitation</td>
<td>• Evident excessive catch, exhaustion of biological resources manifesting through decreased catch per fishing unit, increased number of juvenile fish individuals, and prevalence of economically unimportant species – all pointing to disturbances in food chain</td>
<td>• Some expansion in pelagic activity</td>
<td>• Inadequate knowledge of the state of the resource (demersal species)</td>
</tr>
<tr>
<td>• Strong and growing aquaculture sector</td>
<td>• Poor insight into the present condition of biological resources</td>
<td>• Rapid expansion in aquaculture particularly in shellfish culture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lack of systematical monitoring of biological resources habitats</td>
<td></td>
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<tr>
<td></td>
<td>• Lack of statistical indicators of total catch and of catch of economically important individual species</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Environmental and vetribary constraints for the aquaculture sector</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Institutional (Administration)</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Appropriate organigram exists for the fisheries department</td>
<td>• Understaffing in all fisheries divisions</td>
<td>• Improved communication and reporting</td>
<td>• Inadequate budgetary support to undertake the duties of MAFWM</td>
</tr>
<tr>
<td>• High quality of staff (education and linguistic skills)</td>
<td>• Inadequate communications particularly between Zagreb and the regional offices</td>
<td>• Development of a fleet structures policy</td>
<td>• Failure to introduce the necessary reform will result in a loss of staff</td>
</tr>
<tr>
<td>• Staff are well motivated</td>
<td>• Inadequate fleet structures policy</td>
<td>• Improved statistics programme</td>
<td>• Inadequate salary structure capable of retaining good staff</td>
</tr>
<tr>
<td></td>
<td>• Inadequate awareness at HQ and filed office level of the implications of the CFP</td>
<td>• Increased utilisation of the personnel skills (statistics verification and forensic checks)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lack of organized fishing inspection, and consequent lack of control over implementation of fishing regulations</td>
<td>• Dedicated Fisheries Monitoring Centre</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inadequate statistical programme capable of supporting the requirements of the CFP</td>
<td>• Dedicated hardware to support fisheries control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inadequate office equipment</td>
<td>• Improved coordination of inspection activities with the Ministry of Interior (Inshore) and Navy</td>
<td></td>
</tr>
<tr>
<td>Institutional (Research)</td>
<td>Strengths</td>
<td>Weaknesses</td>
<td>Opportunities</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----------</td>
<td>------------</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td><strong>Strengths</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technically competent staff with reasonable resources for undertaking stock assessment</td>
<td>Insufficient budget available for stock assessment</td>
<td>Increased emphasis on stock assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Weaknesses</strong></td>
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<th>Legal framework</th>
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<td><strong>Strengths</strong></td>
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<td></td>
<td>Well developed democratic and stable legal system</td>
<td>Fisheries regulations are not the primary regulation. In cases of inspection and control, fisheries inspectors are required to check with the Court before taking action or implementing fines</td>
<td>Further development of technical regulations</td>
<td>Further development of the precautionary approach</td>
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<td>Fisheries legislation regularly revised and reflects modern principles of management</td>
<td>No provision for the precautionary approach in the legislation</td>
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<td>Objectives of fisheries legislation based on sustainability</td>
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<td>Effective legal structure available for enforcement and wide range of tools available including administrative penalties</td>
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<td>Extensive participation in International agreements</td>
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<td>The nucleus of organisational structures (three to four cooperatives)</td>
<td>Inadequate knowledge of the real extent of fishing effort</td>
<td>Legitimisation of fish sales and Improved access to EU market will generate investment</td>
<td>Overfishing within the Adriatic</td>
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<td>Old fishing fleet with low catches (far inferior to the Italian’s in the same waters)</td>
<td>Review of some of the onerous requirements reducing operational costs</td>
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<td>no capacity for fishing outside territorial waters</td>
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<td>Investment is low and operative expenses</td>
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<td>High (particular the annual safety Certificate • Many fish sales are unrecorded • The fishery sector has no organizational structure at ground levels</td>
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<td><strong>Marketing and Processing</strong></td>
<td>• Strong market exists for fish products – exports to Italy • Export custom barriers • Limited and outdated local processing capacity • No registration of buyers • Limited knowledge of market channels • No fish auctions</td>
<td>• Coordinated structure of fish sales • Establishment of dedicated port</td>
<td>• Status quo prevails with no increase in fish prices and vulnerability to monopolistic buying practices</td>
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Annex 5 Reference List of Relevant Laws and Regulations


COUNCIL REGULATION (EC) No 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy

Amended by: Official Journal


COMMISSION REGULATION (EC) No 2090/98 of 30 September 1998 concerning the fishing vessel register of the Community
(OJ L 266, 1.10.1998, p. 27)


COMMISSION REGULATION (EC) No 26/2004 of 30 December 2003 on the Community fishing fleet register


Corrigendum, OJ L 302, 15.12.1995, p. 45 (95/528/EC)
Corrigendum, OJ L 105, 22.4.1999, p. 32 (2846/98)

COMMISSION REGULATION (EC) No 2244/2003 of 18 December 2003 laying down detailed provisions regarding satellite-based Vessel Monitoring Systems


**Croatian national legislation:**

*Act on Amendments of the Marine Fisheries Act, OG 48/05*
*Marine Fisheries Act, OG 46/97*
*Freshwater Fisheries Act, OG 49/05*
*Maritime Code, OG 181/04*
*State Inspectorate Act, OG 76/99*
*Ordinance on amendments of Ordinance on sport and recreational fisheries at sea, OG 4/02*
*Ordinance on fishing gears and equipment for subsistence fisheries, OG5/02*
Ordinance on license for farming of marine fish and other organisms and on Register of licences issued, OG 29/02
Ordinance on aquaculture license and on Register of issued aquaculture licences, OG 29/02
Ordinance on amendments of Ordinance on fishing gears and equipment for subsistence fisheries, OG 29/02
Ordinance on amendments of Ordinance on suitability of a section of maritime estate for marine aquaculture, OG 56/02
Ordinance on commercial fishing license and on the Register of commercial fishing licences issued, OG 56/02
Ordinance on criteria for establishing the compensation amounts for damages to fish and other marine organisms, OG 101/02
Order on protection of fish and other organisms, OG 101/02
Order on limits of commercial fisheries' areas, OG 118/02
Ordinance on form, content and manner of keeping of the Register of fishing areas and fishing zones, OG 149/02
Order on the purpose, type and quantity of fishing gears and equipment in commercial marine fisheries as well as on type and quantity of fishing gears, equipment and bates in sport and recreational fisheries, OG 149/02
Ordinance on determining the amount of compensation amounts for damages to fish stocks, OG 149/02
Ordinance on amendments of Ordinance on logbooks and data submission on commercial marine fisheries, OG 152/02
Ordinance on form of licence for subsistence fisheries and on form, content and way of keeping Register of licences issued, OG 32/03
Ordinance on logbooks on fish and other organisms farming, OG 66/03
Order on amendments of Order on the purpose, type and quantity of fishing gears and equipment in commercial marine fisheries, OG 91/03
Order on limits of fishing areas and fishing zones, OG 91/03
Ordinance on manner of usage of financial means gained through sale of fishing licences for marine fisheries, OG 144/03
Ordinance on licences for sport and recreational fisheries, OG 187/03
Order on tuna (Thunnus thynnus) fishing, OG 24/04
Ordinance on amendments of Ordinance on licence for fish and other organisms farming and on register of licences issued, OG 42/04
Ordinance on amendments of Ordinance on licences for sport and recreational fisheries, OG 58/04
Ordinance on program for exams for commercial marine fishing, form and issuing procedure of certificate of skills for commercial marine fisheries, OG 57/04
Ordinance on amendments of Ordinance on commercial marine fisheries, OG 54/04
Ordinance on special habitats of fish and other marine organisms and on regulation of fishing activities in Velebit channel, Novigrad and Karin bays, Lake of Prokljan, Marina bay and Neretva channel, OG 148/04
Ordinance on amendments of Ordinance on special habitats of fish and other marine organisms and on regulation of fishing activities in Velebit channel, Novigrad and Karin bays, Lake of Prokljan, Marina bay and Neretva channel, OG 152/04
Ordinance on amendments of Ordinance on limits of fishing zones in the sea of the Republic of Croatia, OG 159/04