



MedFisis

Fishery Statistics and
Information System in
the Mediterranean

Report of the first coordination meeting

Beirut, Lebanon 19 – 24 January 2004

**Enabling Participation in the fishery statistics and
information system in the Mediterranean (TCP/INT/2904)**



MedFisis Technical Document No. 1
GCP/INT/918/EC - TCP/INT/2904/TD-1



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Abstract:

This document reports on the first coordination meeting of the TCP project 'Enabling participation in the fishery statistics and information system in the Mediterranean (TCP/INT/2904)'. The meeting was held to establish a working strategy and planning for the project.

Countries of the Eastern Mediterranean (Cyprus, Egypt, Lebanon, Syria and Turkey) are participating in this project. The project aims to prepare participating countries to set-up and harmonize their fishery statistics systems and participate in full in the activities of the MedFisis project. The General Fishery Commission for the Mediterranean (GFCM), at its Twenty-sixth Session (Ischia, September 2001), endorsed a project proposal to develop a Mediterranean Fishery Statistics and Information System (MedFisis), as presented by the Scientific Advisory Committee (SAC) Sub-Committee on Statistics and Information (SCSI). The three year project MedFisis is jointly financed by FAO and the European Union. Such a regional system is recognized to be necessary to complement other fisheries management means and serve as the basic vital tool for international bodies to monitor the state of the Mediterranean fisheries and the well-being of the whole ecosystem in the basin.

During the meeting the five participating countries presented an overview of the national statistical systems, organizations involved presented their work (FIDI, GFCM, FIRM), several options for upgrading national statistical system were presented, some examples of countries where the MedStat approach was applied presented their experiences, and finally a strategic working paper was produced and a planning for implementation was agreed upon.

Mediterranean Fishery Statistics and Information System - MedFisis

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Opening of the meeting

The first coordination meeting on the Technical Cooperation Programme (FAO TCP-INT 2904) project 'Enabling Participation in the fishery statistics and information system in the Mediterranean - MedFisis' was held in Beirut, Lebanon, from 19 to 24 January 2004.

The meeting was attended by delegates from five participating countries, project staff, invited experts from the Copemed and Adriamed projects, regional experts, and national observers. A list of participants is given in annex 1 (Page 8).

Mr Salvatore R. Coppola, Programme Coordinator, in opening the meeting, thanked the Government of Lebanon on behalf of the Director General of the Food and Agriculture Organization, Mr Jacques Diouf, and the Assistant Director General, Mr Ichiro Nomura (FAO Fisheries Department), for hosting the meeting. He also thanked the Governments of participating countries for the high level of their representatives following FAO's request that the meeting be attended by two officers with specific profiles and functions in their respective countries. [Specifically, a senior official responsible for the Statistical and data collection system in the country at as high a level as possible on the decision scale (normative mandate) and a second officer in charge of the development and implementation of the statistical system and data collection system in the country (functional mandate) who should also be the counterpart assigned to follow the implementation of the TCP activities on a continuing basis].

Mr Coppola stressed that for modern and sustainable fishery management the knowledge of the 'system as a whole' is needed, where national information and regional data need to be synchronised and used for mutual interest and in respect of the environment where the activity is performed. The establishment of sound and functional information systems with observance of the Code of Conduct for Responsible Fisheries should therefore be considered with appropriate priority.

He also stated that for a fishery statistics and information system to be viable at national level, it must meet the needs of

- stakeholders (administrators, fishermen, fish processors, marketers consumers),
- decision makers
- those who have to provide basic data and information to the national entity

and must be backed and interrelated with relevant research in the biological, socio-economical and environmental fields.

From the regional viewpoint, he recalled that the urgent need to re-orient the national statistics systems of the countries in such a way that they can meet international standards had been reiterated several times.

The project would attempt to ensure a sustainable long-term implementation of the data/information component within the country by taking into strong consideration the upgrading of technical staff and national fisheries statistics institutes in the fields of methodology, processing power, analytical strength, reporting, and interfacing national with regional and global references.

Mr Coppola expressed the project's deep commitment, as the project is seen as an investment to bring all Mediterranean countries up to the same level with respect to data collection and information systems.

Mr. Matthew Camilleri, Coordinator of the Scientific Advisory Committee Sub-Committee on Statistics and Information of the "GFCM-SAC" expressed his pleasure at seeing the Eastern Mediterranean countries participating in a project of regional coverage. He stressed that the Sub-Committee had collaborated greatly to achieve this. He also introduced some of the priorities of the SAC and expressed his desire for more collaboration between Mediterranean countries and the FAO-GFCM in data exchange. He was looking forward to seeing their participation in the SAC of the GFCM, to be held in Malaga (Spain) in May 2004.

Mr Abdessalam Ould Ahmed, FAO Representative in Lebanon, thanked the Lebanese Government for hosting the First Coordination Meeting of the regional project, and stressed the importance of fisheries for the socio-economical equilibrium in the Mediterranean basin. Fisheries constituted a resource for income, employment and nutrition for a considerable part of the population. The fisheries resources, however, were endangered, due to over-fishing of a considerable number of pelagic and demersal species, the main part of the fish resources in the region. Because of the migratory nature of many of the species, these species need to be managed in a collaborative way, through the creation of an

integrated information system and coherent database at the regional level. The TCP aims to help the participating countries with the adoption of common approaches in fishery statistics and with the establishment of an integrated information system in harmony with the MedFIsis system of the GFCM (General Fisheries Commission for the Mediterranean).

Mr Louis Lahoud, Director General of the Ministry of Agriculture of Lebanon, stressed the importance of fish as a natural resource (9000 fishermen and 3000 vessels, predominantly artisanal and wooden) for Lebanon. The fish stocks had been dwindling because of overfishing. Mr Lahoud emphasized the responsibility of everybody concerned to coordinate, cooperate and develop effective measures for sustainable management of the stocks. For such management a statistical system was needed, but currently data and information was lacking. The Director General expressed the hope that the project would be a good addition to the Lebanese General Agriculture Census Project and set up a modern and sustainable statistical system.

Adoption of the agenda and arrangements for the meeting

The participants were then invited to introduce themselves. After this introduction, Mr Majdalani (representative of Lebanon) proposed that Mr Coppola chair the meeting. The other participants agreed, and Mr Coppola was elected Chairman. Mr Felix Marttin (Fishery Statistician of the MedFIsis project) was nominated as rapporteur of the meeting. The Agenda was adopted as attached in **Annex 2: Agenda** (Page 15).

Introduction of the project.

Mr S. Coppola, Programme Coordinator, briefly introduced the project, the rationale and the MedFIsis framework in which this TCP Project was going to operate. With the assistance of a detailed presentation the FAO Regional Projects co-financed by the European Union (Mediterranean Fisheries) was presented and its main objectives highlighted: a) “the improvement and consolidation of national fishery statistics and information systems, with a view to meeting the relevant national needs and the requirements of the regional institutions for reliable fishery statistics and the related information for sustainable management of Mediterranean living marine resources and aquaculture”. and b) “the establishment of a Mediterranean regional fishery statistics and information system using national fishery statistics and information systems as the source, with a specific space–time coverage, with a view to providing the GFCM with the data bases, the methodology, the network and the know-how needed to monitor and manage the fisheries sector”.

The position of the TCP Project vis-à-vis MedFIsis was clarified. The TCP project ‘Enabling participation in the fishery statistics and information system in the Mediterranean (TCP/INT/2904)’ would prepare countries in the Eastern part of the Mediterranean to set-up and harmonize their fishery statistics systems and participate in full in the MedFIsis regional activities. The meeting in Beirut was intended as a coordination gathering for this TCP project. During the meeting three subjects would be dealt with: assessment of the situation in each country, an inventory on what had been done in each country, and what was needed per country. It was also made clear that the Project did not want to interfere with national programmes. Mr Coppola stressed that before a regional system could be started, the national systems needed to be in order, for which the TCP project might possibly assist.

Country reports

National representatives had, at the time of the invitation, been requested to analyse their national fisheries and fisheries statistics system according to a prepared template (Annex 3: Country presentation template), and to report to the meeting. The full national reports are given in Annex 4: Country reports. All participants presented their reports and comments were invited.

The chairman of the GFCM/SAC Sub Committee for Statistics and information systems, Mr Camilleri, noted that the participating countries had reported many similar problems. Now, with the advent of this TCP project and the MedFIsis project a new phase had started from which the participating countries could move forward. The SAC/SCSIS representative also noted that different countries had different needs, and that assistance to the countries needed to be customized to their needs.

The representative of Cyprus noted that there were also differences in areas such as legislation and data collection methodology. He also noted some common problem due to retirement of qualified staff and administrative difficulties in the early recruitment of their successors (as in Syria and Cyprus).

A regional expert noted that with any system there was the need for harmonization of the data sheets.

The representative of Syria noted that the project could assist the participating countries in this harmonization, by facilitating the supply of data to the regional system.

It was strongly emphasised, and finally agreed, that as each country faced different problems and targeted specific needs with respect to the fishery statistics system, an adaptive approach, although more time consuming, would be the best one to assist countries in improving their fishery statistics system.

FAO/FIDI/FIGIS presentation

The representative of the Fishery Information, Data, and Statistics Unit (FIDI) of the Fishery Department of FAO, Mr. A. Bensch, introduced to the meeting the Strategy for Improving Information on Status and Trends of Capture Fisheries (Strategy-STF). He listed the data sets managed by FIDI for the Mediterranean and presented the methodologies and computerized web-based tools implemented in the Fisheries Global Information System (FIGIS) to handle activities in which the FAO Fisheries Department was involved:

- the Coordinating Working Party on Fishery Statistics (CWP)
- the forthcoming FishCode data project, designed to support the implementation of the Strategy-STF.

Activities in which the GFCM was or should be an active partner were outlined: inventories of fisheries and exploited marine resources and inventory of national statistical systems.

On an "if-and-when-applicable" basis, FIDI recommended that the project:

- apply the FAO sampling guidelines in order to enhance the quality of data collected,
- promote international norms, standards and classifications developed by the CWP,
- make the national statistical systems able to produce aggregated data sets compatible with global requirements under standardized data exchange formats,
- encourage the Mediterranean countries to participate in the global data base of high seas fishing vessels to be developed with agreed confidentiality rules.

Finally, the FIDI representative mentioned that the CWP recommended the organization of a FAO workshop for the comparison and evaluation of statistical systems. The participation of MedFisis in this exercise was recommended.

Role and functions of the GFCM/Scientific Advisory Committee - Sub-Committee on Fisheries Statistics and Information (SCSI)

The member of the GFCM-SAC (and chairman of the sub-committee on Statistics and Information), Mr Camilleri, explained that the GFCM had a Scientific Advisory Committee (SAC) to advise the GFCM on management of shared stocks. This SAC had four sub-committees to provide information and advice to the SAC:

- Sub-committee on Stock assessment (SCSA)
- Sub-committee on Statistics and Information (SCSI)
- Sub-committee on Economic and Socio-economic Indicators (SCESS)
- Sub-committee on Marine Environment and Ecosystems (SCMEE)

The five countries participating in the TCP project could start to contribute to the GFCM through this SCSI. The SCSI assisted the other three sub-committees, and provided information to the SAC. The SCSI had served as a discussion forum, and had conducted a number of studies. The backstopping officer from FAO to the SCSI was Mr Coppola.

Mr Camilleri explained that the SCSI advised the establishment of operational units to manage fisheries through effort control. These operational units should not only be established at national level, but should be linked to a regional operational unit. He continued to explain that currently the

standardization of effort was a major task the GFCM (SCSI) had to undertake. Another field where a lot of work lies was the establishment of a Mediterranean information system, which currently did not exist. The SCSI had decided that regional data were required.

Mr. Camilleri reiterated the importance of the participation of the countries in the SCSI.

At the request of the meeting a tentative schedule of SAC meetings is included in Annex 6: Tentative schedule of SAC meetings during the intersessional period 2004.

Mr Coppola stressed the importance of projects (Copemed, MedSudMed and Adriamed) for the SAC. Without the projects the SAC would not have reached its current level of work. He also pointed out that the participation of the five countries in the SCSI could be supported by the TCP project

MedStat and other fishery statistics systems approaches

Mr S. Coppola presented the MedStat approach as it was applied in the Copemed and Adriamed projects. He stressed that a customised implementation of the Statistical System in many countries belonging to the same partnership was necessary to encompass all the peculiarities and requirements of the different situations and pointed out that this was crucial to the success of these projects.

Three representatives of countries who had participated in the Copemed and Adriamed implementation of MedStat (Mr. A. Srour from Morocco, Mr. M. Camilleri from Malta, and Mr. E. Hoxsa from Albania) presented the systems being implemented in their countries.

Two regional experts presented the approach the Greek government had taken to implement a fishery statistics system where the requirements of the European Union were very important. Talking in general, and commenting the presentation seen by other colleagues, they stressed that they felt that an important feature of a system was the separation between monitoring and management. Not all participants agreed with the need for such separation. It was also highlighted that another feature of the Greek system was that all data entry points were connected through the internet with the national statistics centre. At the end of the discussion, Mr. Coppola thanked the Copemed and Adriamed participants warmly for their efforts, and a special thanks was also extended to the Coordinators of these two projects, Mr. R. Robles and Mr. F. Massa, for having supported their participation.

How to proceed?

This question was put on the table in order to generate full participation from the participants.

In the ensuing discussion, the national representatives indicated that, apart from the funding and direct technical assistance, three steps were found to be indispensable to put the project on the right track:

- The importance of identifying clear national objectives aimed at having a customised fishery statistics system properly formulated and implemented. Specifically, why the country needed a fishery statistics system and what was going to be done with the data/information needed to be properly addressed.
- The Fishery Census covering the complete fishing fleet (artisanal/industrial) and the infrastructure (for example ports) should be considered as the primary need. If a census had been conducted recently, then a quality assessment was needed to verify contents, consistency and coverage in order to fulfill national and regional requirements and be compliant with the FAO-GFCM references.
- A catch assessment survey, CAS (including fishing effort estimates), needed to be designed and conducted. Each country should make its own choices concerning the proper design of the CAS, according to its needs. It was underlined that, before a complete CAS was implemented, a pilot CAS should be conducted in order to validate the design and the choices of the complete CAS.

For all these three priorities, national staff would surely need training. The project would make an inventory of each country's training needs and would provide training accordingly. The possibility of providing training at the regional level was also discussed. It was also stressed that on-the-job training would form the bulk of this activity and was considered a priority over formal training.

The question on how to deal with limited human resources problems was once again introduced. The group recommended following up on this issue which all agreed to be a basic element for efficient data management to monitor and that solutions had to be found.

The project would assist countries in making the best use of available resources: examples of this were the Technical Cooperation among Developing Countries (TCDC) programme and cooperation with already-existing projects dealing with fishery statistics (Copemed, Adriamed, MedSudMed).

It was noted that a web page could be useful for dissemination of information among the five participating countries, and to the others.

Emphasis was put on the need for a national unit within the ministry of fisheries (or comparable) dealing only with the fishery statistics system. From the project side, it was reiterated that a national unit was a pre-requisite for the smooth and successful implementation of the project. It was also underlined that resource allocation from the national governments to this unit was needed and that the national unit should have at least one person capable of programming the database software.

The participants noted that assistance might be needed in convincing national governments of the importance of the project. With the assistance of FAO the project and national unit might get the right priority with the allocation of funds.

Finally, trying to put together all the issues discussed and guide the project to follow an agreed framework with clear objectives, tasks, results and commitments, it was proposed to jointly develop a strategic paper and the associated workplan. The preliminary formulation was made during the final part of the meeting and successively finalised through E-mail. In Annex 7: Skeleton content of the Working strategy of the MedFiSis - TCP Component, the main issues of the strategic paper are presented. The final paper with all national inputs would be presented after the project staff had contacted the national focal points and authorities directly and would form the starting point of the MedFiSis regional activity.

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Annex 2: Agenda

 <div style="text-align: center;"> 1st Coordination Meeting TCP/INT 2904 Beirut, Lebanon 19 – 24 January 2004 </div> 		
Date	Time	Subject
Monday 19/1		Registration of participants
Tuesday 20/1	9:00 – 9:15	Project Representative remarks
	9:15 – 9:30	FAO Representative in Lebanon welcome speech
	9:30 – 9:45	Director General, Ministry of Agriculture
	9:45 – 10:15	Coffee/Tea break
	10:15 – 10:30	Opening and adoption of the agenda
	10:30 – 10:40	Election of Chairman
	10:40 – 11:10	Introduction of the Project
	11:10 – 11:40	Cyprus presentation Description of current fisheries statistics system (data collection system, resources available, size of fleet, area to be monitored) Strengths and weaknesses of the current system, opportunities for and threats to the system Needs of the fisheries statistics system (what are the data used for?) Possibilities of synergy with other national activities
	11:40 – 12:10	Egypt presentation Description of current fisheries statistics system (data collection system, resources available, size of fleet, area to be monitored) Strengths and weaknesses of the current system, opportunities for and threats to the system Needs of the fisheries statistics system (what are the data used for?) Possibilities of synergy with other national activities
	12:10 – 13:30	Lunch break
	13:30 – 14:00	Lebanon presentation Description of current fisheries statistics system (data collection system, resources available, size of fleet, area to be monitored) Strengths and weaknesses of the current system, opportunities for and threats to the system

		Needs of the fisheries statistics system (what are the data used for?) Possibilities of synergy with other national activities
	14:00 – 14:30	Syria presentation Description of current fisheries statistics system (data collection system, resources available, size of fleet, area to be monitored) Strengths and weaknesses of the current system, opportunities for and threats to the system Needs of the fisheries statistics system (what are the data used for?) Possibilities of synergy with other national activities
	14:30 – 15:00	Coffee/Tea break
	15:00 – 15:30	Turkey presentation Description of current fisheries statistics system (data collection system, resources available, size of fleet, area to be monitored) Strengths and weaknesses of the current system, opportunities for and threats to the system Needs of the fisheries statistics system (what are the data used for?) Possibilities of synergy with other national activities
	15:30 – 16:00	Summary and closure of the day
Wednesday 21/1	9:00 – 10:00	FAO/FIDI/FIGIS presentation What statistics/data does FAO/FIDI/FIGIS need from the countries (fields, format, form, etc.) and what can countries expect from FAO/FIDI/FIGIS in this respect
	10:00 – 10:30	Role and functions of the GFCM/Scientific Advisory Committee - Sub-Committee on Fisheries Statistics and Information System (SCSI)
	10:30 – 11:00	Tea/Coffee break
	11:00 – 12:00	MedStat approach presentation
	12:00 – 12:30	MedStat experience from a Copemed country
	12:30 – 14:00	Lunch break
	14:00 – 14:30	MedStat experience from a Copemed country
	14:30 – 15:00	MedStat experience from an Adriamed country
	15:00 – 16:00	Review of MedStat approach/Comparison with other approaches Short overview of other approaches (experiences, challenges and opportunities) from external experts
	16:00 – 17:00	Discussion on the MedStat approach Evaluation and validation (feasibility) for the countries involved
Thursday 22/1	11:30 – 17:00	Countries' reactions to and considerations on the proposed process and method identify key statistical criteria, their mutual definition, and eventual adoption by participating countries

		comparison/evaluation of different approaches of statistical systems, with regard to efficiency, reliability, practicability and fulfillment of the needs of marine fishery management and policy makers
Friday 23/1	9:00 – 16:30	What next? Building the network Commitments Assignment of tasks Resources needed Proposed work plan
23/1	16:30 – 17:00	Meeting summary
23/1	17:00	Closing of the meeting

Annex 3: Country presentation template

Draft
17.12.2003

Enabling participation in the fishery statistics and information system in the Mediterranean (TCP/INT/2904)

First Coordination Meeting – Beirut 19 January 2004

Template for country paper/presentation:

Description of current fisheries statistical system

(methodology applied, resources available [giving objective considerations and evaluation including staffing situation], size of fleet, area monitored and any other relevant information).

An overview of the fishery sectors; the Industrial Fishery and the Artisanal Fishery.

Identification of the **goals/objectives** of the fishery statistical system. What are the needs from the fisheries statistics system (what are the data used for?)

The strengths, weaknesses of the current system, and opportunities for the system and threats to the system (**SWOT analysis**)

Strengths: what internal assets help (or can help) meeting the goals/objectives of the fishery statistics system. Key questions could be (for instance): What are we good at? What are our internal resources?

Weaknesses: What internal deficits hinder meeting the goals/objectives of the fishery statistics system. Key questions could be (for instance): What are we doing badly? How come we don't reach our goals/objectives.

Opportunity: Which external circumstance(s) will help meeting goals/objectives of the fishery statistical system

Threat: Which external circumstance(s) will work against meeting the goals/objectives of the fishery statistical system

Possibilities of **synergy** with other complementing interventions.

Are there any other activities (national/regional) which could be cooperated with, to have an increased effect on the improvement of the statistical system?

Information on the **Reporting Organization/Officer**

Date:.....

Annex 4: Country reports

The fishery and data collection system of Cyprus

By Nicos Hadjistephanou, Ph.D., Department of Fisheries and Marine Research

Introduction

Cyprus is situated at the north-eastern end of the Mediterranean basin and is the third largest island, with an area of 9251 sq km. It has a coastline perimeter of 773 km and a continental shelf of 846 sq.nautical miles.

Cyprus became an independent Republic in 1960 and based its promising economy on the potentialities of all Cypriots, reinforced by governmental development policies. The Fishery sector was from the very beginning considered a development task and was included in the "Development Budgets" of the Governments. As a result it started improving.

However, it is well known that, since 1974 the most important fishing grounds of Cyprus are not under Government control. About 40% of the continental shelf and 55% of the coastline are not accessible to the Government of Cyprus.

The fishery of Cyprus

The Cyprus capture fishery consists of the Inshore fishery, the Trawl fishery, the Multipurpose fishery and the Sport fishery. There is also one purse seiner operating in the waters of Cyprus.

The inshore fishery

The Inshore fishery is practised with small wooden boats of 6 to 12m., which mainly fish with bottom set nets and long lines. In 2002 694 persons were occupied as full time fishermen in 500 licensed boats.

Total production of the Inshore fishery, number of working days and boats, total fleet size and H.P. as well as production per working day for the years 1994 to 2002 are given to Table 1.

The Trawl Fishery

This fishery consists of 22 trawlers of 21,4 to 26,8m (OAL) with 220-750 HP diesel engines. All of them are stern trawlers of steel or wooden hull. Eight trawlers are licensed to operate in the waters of Cyprus, whereas the others exclusively operate in international waters in the Mediterranean. In 2002 198 fishermen were fully occupied on these 22 trawlers.

Total production, number of working days, fleet total size and HP as well as production per working days of the 8 trawlers fishing in the waters of Cyprus are given on Table 2 for the years 1994 to 2002. The same information on the trawl fishery in the international waters is given on Table 3.

The Multipurpose Fishery

The Multipurpose fishery is practised with boats of about 16m OAL using long lines in the waters of Cyprus and in international waters in the east Mediterranean. In 2002 75 fishermen were fully occupied in 24 boats licensed for multipurpose fishing.

Table 4 gives the production, number of working days, fleet total size and HP as well as the the production per working day for the years 1994 to 2002 in the multipurpose fishery.

The Sport Fishery

In Cyprus about 2000 persons are licensed sport fishermen, while many other persons fish with rod and line and spear gun for pleasure, without the need of licence.

Licences were given to the following categories of sport fishing:

- boats with nets and long lines
- scuba divers
- divers with lights and spearguns
- fishing with nets-without boats

The Sport fishery captures about 15% of the total catch of Cyprus. Its catch is not yet reflected on the Fishery Statistics, as our attention has only recently focused on this fishery.

The department of fisheries and marine research

The authority responsible for the fishery matters of Cyprus is the Department of Fisheries and Marine Research (DFMR) of the Ministry of Agriculture, Natural Resources and Environment. The DFMR has its Headquarters in the Capital Nicosia and four District Units, located in the four coastal towns of Paphos, Limassol, Larnaca and Paralimni. Four to six Fisheries Inspectors are employed in each District Office.

The activities of the DFMR concern the development and management of fisheries and aquaculture, marine ecology, the protection of endangered species and habitats, physical and chemical oceanography and the prevention and combat of marine pollution. Furthermore, the Department promotes supporting programmes for the fishermen, including the construction of fishing shelters. It is also responsible for the enforcement of the relevant Legislation.

The Department of Fisheries and Marine Research, is according to the Fisheries Law responsible for the collection and processing of fishery statistics, as well as their transmission to all international organisations and agencies.

The fisheries statistical system

Data Collection Practices

Fishery statistical data are collected by:

- a. Direct Reports given by the various segments of the Fishery
- b. Legislative procedures
- c. Interviews

a) *Direct Reports*

- i) *Trawl Log-books:* All trawlers are required by law to keep log-books. Collection of data is carried out by daily return of log-book sheets, which all skippers are required to hand in prior to landing their catch. The log-book sheets are handed to the Fisheries Inspectors, while landed catches are inspected upon landing, to ensure that they are weighed and recorded accurately.

Trawl log-books include the following information: Identification of the trawler, place and depth of fishing, number of active fishing days, dates of the trip, port of landing, the total catch of 22 demersal fish species and breakdown of the catch by species and by quality.

The log sheets are collected every day by the Fisheries Inspectors and sent at intervals of one to two months to the Headquarters of the Department to process the data.

- ii) *Inshore Fishery Production Reports:* Production data from the Inshore fishery are collected from a sample of this category of fleet. In this system a 10% random sample of the boat owners are provided with files of weekly production reports and are required to record their daily production.

Inshore fishery reports include the following information: Identification of the fisherman and the boat, the fishing station, month and the week of the month. The fishermen report their daily catch and the breakdown of the catch by species summed by week. A total of 40 demersal fish species are reported.

The sheets are collected at irregular intervals of one – two months by the Fisheries Inspectors and sent to the Central Offices of the Department to process the data.

It is noted that the fishing equipment of every fisherman (i.e nets, type of nets and length, longlines etc) are known from the application for fishing licence.

- iii) *Multipurpose Fishery log-books:* All the multipurpose vessels are provided by log books, which they return to the Fisheries Inspectors every month.

The Multipurpose fishery log books include the following information: Dates of departure and return to the port, area of fishing and distance from Cyprus, number of hooks, species of the fish, number of fish and weight of each fish captured. Seven pelagic fish species are reported on these forms.

Similarly to the other reports, these log-books are sent to the Headquarters of the DFMR for data processing.

- iv) *Purse-seiner Production Reports*: The purse seiner is also provided with production reports, which are similar to the Inshore fishery reports. The catch is reported daily and by species and summed up every week. These reports include 12 pelagic species. The area of fishing month and week of the month is noted on the reports, which are collected at irregular intervals and sent to the HQ of the DFMR for data processing.

b) Legislative Procedures

- i) *Boat Registration Forms*: All fishing boats with tonnage of less than 15 tons are registered in the Fishing Register, kept by the Fisheries Department. Registration forms include the following information: Boat characteristics (length, width, depth, type and construction material), engine data (type, construction, power), the fishing equipment (nets, traps, longlines), the mechanical and electronic equipment, as well as identification of the owners and the crew.

Similar as well as additional data are given upon registration of the trawlers, which are larger than 15 tons, and they are registered in the Cyprus Register, administered by the Merchant Shipping Department.

- ii) *Fishing Licences*: The fishermen apply for fishing licence every year. Fishing licence applications include the following information: Identification of the fisherman and crew (ages, addresses, I.D., insurances, etc.) boat and engine characteristics, fishing equipment, mechanical and electronic equipment (as above).

Thus, the information on the fishing fleet is obtained by processing the data given in the application forms for boat/trawler registration and for fishing licences, which are verified by the Fisheries Inspectorate Service.

c) Interviews

Interviews are employed for calculation of the average prices.

According to the system of the trading of fish, the prices of the various species and grades of fish are mostly fixed in Cyprus. Interviews with the first hand buyers and the skippers/fishermen give the prices of the landings of trawlers and of the inshore fishery. Estimation on the quantities, grades and species breakdown are not necessary, because they are reported on the log-book sheets for the trawl fishery; for the inshore fishery the above data are estimated from the relevant reports.

At this point it is worthwhile to make a reference to Aquaculture statistics.

Aquaculture statistics: Production reports, Fishfood consumption reports, Prices reports, Personnel reports: The collection of data on aquaculture is based on the information given by the farm owners/managers on reports on Production, Fishfood consumption, Prices and Personnel. These forms are provided to the farmers at the beginning of the year and are to be returned to the Department within three months. The production reports include detailed information on the production of table size fish, fry and eggs for local use and for export, as well as the fry stocked in the farm. These data are verified by Fisheries Officers, from the veterinary certificates issued by the Veterinary Services Department for the export of aquaculture products, and the statistics kept on the supply of dry food to the fish farms. The provision of the above data to the Department of Fisheries is a contractual obligation of the farmers who operate their farms under the conditions contained in the respective licence. The Fisheries Officers regularly visit the farms and observe, consult and supervise their activities.

The prices of the aquaculture products are submitted on the Prices Reports to the Department of Fisheries every year by the fish farmers. Price Reports include the following information: maximum and minimum wholesale and retail price of table size and fry fish for every species sold in the local market and maximum and minimum price and total values for table size fish, fry and eggs for each species exported. The prices are verified by data collected during the year by the personnel of the Fisheries Department, from fish mongers and retail outlets, as well as from the data stated on the export of the Veterinary Certificates.

Fishing area monitored

The inshore fishery fleet of Cyprus operates exclusively in the territorial waters of Cyprus under the Government control. It is unfortunate that no data are available from the area, which is not accessible to the Government of Cyprus. The same applies for the trawlers, licensed to operate in the waters of Cyprus. However, during the closed season some trawlers travel for fishing in international waters. These trawlers land their catch in Cyprus after being given landing permits and report their catch on log-book sheets. (In the statistics this catch is referred as catch from "International Waters"). The log-book is by far the source of information on the fishing area and it is verified by the Fisheries Inspectors.

The Processing of the Statistical Data

The statistical data reports are collected by the Fisheries Inspectorate Service, located at the main fishing ports of Cyprus or by Fisheries Inspectors based in Nicosia. The collection is usually completed in January/February of the following year. These data are sent to the Statistics Section of the Department for computer processing and analysis. One person is full-time occupied on the processing of the data; another person is responsible for the computer programmes, which are used in the Department, also working part-time on the processing of the data.

The computer programs were designed to meet the Department's statistical requirements and are adequate for this purpose. Every year a statistics report is published by the Department around May or June. A total of 36 tables are included in this report. These Tables are presented on Table 5.

Goals/objectives of the fishery statistical system

The data collected by the fishery statistical system are used to fulfil the following objectives:

- a. As a guide for management purposes, i.e. to direct the DFMR to decide on the introduction of measures and regulations for the fishery.
- b. For transmission to other bodies: The data are transmitted to the International Organizations and Agencies, where Cyprus has the legal obligation to send, i.e. FAO, GFCM, ICCAT and the European Union.
- c. For scientific purposes: Along with length distributions collected by sampling, the data are used to evaluate the stocks of the five most important commercial demersal fish species.

Regional co-operation

Regional co-operation can improve the statistical system of Cyprus in many ways: The experience of the neighbouring Countries, the exchange of technical and other information and the co-operation on data collection are some of the benefits which can be gained from this co-operation. In this respect cooperation, within the MedFisis Project is expected to highly improve the statistical system of Cyprus.

SWOT ANALYSIS

Strengths	Weaknesses	Opportunities	Threats
<ol style="list-style-type: none"> 1. The Fisheries Law (provides for obligatory reporting of data) 2. Small scale fishery (easy access and cross checking of data) 3. The small number of trawlers and multipurpose vessels (all data collected) 4. The existence of the District Offices of DFMR (collection of data) 5. The experienced and trained personnel. 	<ol style="list-style-type: none"> 1. The age of personnel (soon on pension – new personnel not available) 2. The small number of personnel involved 3. Not well defined structure of the collection system 4. Fishermen indifferent to return their forms – some uneducated 5. Delays in sending the forms to the HQ. 	<ol style="list-style-type: none"> 1. MedFisis 2. Accession of Cyprus to the European Union 3. The new generation of scientist (better background in electronic means) 	<ol style="list-style-type: none"> 1. Inadequate time for replacing the existing personnel by new and trained personnel.

TABLE 1: INSHORE FISHERY PRODUCTION AND FISHING EFFORT (1994-2002)

YEAR	PRODUCTION	WORKING	No. OF	FLEET	FLEET	PRODUCTION/
	M. TONS	DAYS	BOATS	TOTAL m.	TOTAL	WORKING DAY
				O.A.L.	H.P.	Kg
1994	1.789,5	104.192	438	3.574,0	18.225,0	17,18
1995	1.587,2	109.379	491	3.978,0	20.237,0	14,51
1996	1.648,5	110.124	500	4.216,0	23.266,0	14,97
1997	1.498,0	96.657	466	3.724,0	20.035,0	15,50
1998	1.520,9	101.289	490	3.945,0	21.539,0	15,02
1999	1.299,6	113.589	498	4.017,3	22.771,5	11,44
2000	1.341,4	111.391	500	4.274,1	26.017,5	12,04
2001	1.168,7	101.098	500	4.420,3	27.841,0	11,56
2002	1.062,8	84.257	500	4.514,7	31.942,5	12,61

TABLE 2: Trawl fishery production and fishing effort (Cyprus waters) 1994 - 2002

YEAR	PRODUCTION	WORKING	No. OF	FLEET	FLEET	PRODUCTION/
	M. TONS	DAYS	VESSELS	TOTAL m.	TOTAL	WORKING DAY
				O.A.L.	H.P.	Kg
1994	452,5	1.261	8	187,6	2.290	358,8
1995	427,7	1.314	8	187,6	2.290	325,5
1996	526,7	1.321	8	187,6	2.290	398,7
1997	462,5	1.308	8	187,6	2.290	353,6
1998	451,0	1.305	8	187,6	2.290	345,6
1999	405,8	1.308	8	193,0	3.365	310,2
2000	313,6	1.000	8	193,0	3.365	313,6
2001	415,6	1.305	8	193,2	3.365	318,5
2002	375,3	1.412	8	191,9	3.400	265,8

TABLE 3: Trawl fishery production and fishing effort (International waters) 1994 - 2002

YEAR	PRODUCTION M. TONS	WORKING DAYS	No. OF VESSELS	FLEET TOTAL m. O.A.L.	FLEET TOTAL H.P.	PRODUCTION/ WORKING DAY Kg
1994	348,4	852	6	96,2	1.785	408,9
1995	400,4	1.001	10	234,2	3.915	400,0
1996	333,9	852	10	235,3	3.815	391,9
1997	275,9	769	11	265,1	4.395	358,8
1998	350,7	1.051	13	258,7	4.135	333,7
1999	420,3	1.155	13	288,6	5.055	363,9
2000	406,8	1.309	12	292,5	5.470	310,8
2001	425,2	2.316	16	387,7	7.573	183,6
2002	236,7	916	22	531,1	9.663	258,4

TABLE 4: Multipurpose fishery production and fishing effort (1994 – 2002)

YEAR	PRODUCTION M. TONS	WORKING DAYS	No. OF VESSELS	FLEET TOTAL m. O.A.L.	FLEET TOTAL H.P.	PRODUCTION/ WORKING DAY Kg
1994	218,8	1.148				190,6
1995	122,0	899				135,7
1996	74,9	803				93,3
1997	71,3	778				91,6
1998	94,5	679				139,2
1999	139,5	1.146				121,7
2000	157,1	1.286				122,2
2001	237,1	1.615	24	405,3	5.965,0	146,8
2002	211,2	2.006	24	378,9	5.451,0	105,3

Table 5: Tables included in the Statistics Report of the DFMR

1. Production by each segment of the fishery
2. Production by source and year comparisons
3. Aquaculture Production by species
4. Monthly fish landings and values
5. Landings by species of each segment of the fisheries
6. Landings by species and year comparisons
7. Fishing craft and fishermen
8. Wholesale fish prices by segment of the fishery
9. Trawl monthly landings and effort
10. Trawl monthly landings and effort - Cyprus waters
11. Trawl monthly landings and effort - International waters
12. Trawl monthly landings by fish quality with values
13. Trawl monthly landings by species – Cyprus waters
14. Trawl monthly landings by species – International waters
15. Trawl monthly landing by species - Cyprus and International waters
16. Trawl landings by species and area of Cyprus
17. Trawl landings by area – year comparisons.
18. Trawl landings by month with fishing effort by area.
19. Trawl fishery production – Cyprus waters - year comparisons
20. Trawl fishery production – International waters - year comparisons
21. Trawl fishery production – Cyprus and International waters - year comparisons
22. Inshore fishery landings by species – year comparisons
23. Inshore fishery monthly landings with details of fishing effort
24. Inshore fishery landings by area – year comparisons
25. Inshore fishery landings by area by species.
26. Inshore fishery landings by month with fishing effort-by area
27. Inshore fishery monthly landings by species and values
28. Swordfish fishery production and effort
29. The fleet: Inshore and Sword fishery Distribution of fishermen
30. The fleet: Inshore fishery – The ages of fishermen
31. The fleet: Inshore fishery – Boats
32. The fleet: Inshore fishery – Engines
33. The fleet: Trawl fishery
34. Imports of fish and fish products for home consumptions
35. Consumption of fish, Fresh, Frozen and Processed by source
36. Fish names

Egypt

Background

Fishing resources and aquaculture represent a considerable economic riches in Egypt. It has got more than 2450km. of coastline (11200 000 feddan) beside about 6000 sq km of inland water area. These riches exploitation produce about 425170 mt of different fish species (GAFRD, 2002). Per capita consumption of fish has exceeded 12 kg. in 2002 from the local fish production. Fish contribute about 20% of the national consumption of animal protein.

The General Authority for Fish Resources Development (GAFRD) established by the presidential decree number 190 for year 1983. GAFRD is the only responsible governmental authority for fish sector in Egypt, issues licenses for aquaculture farms, fishing units, fishermen, fish cooperation sector and to assure that fisheries decrees are respected from fishermen through coast guard and environment guard.

The registered fishing fleet in 2002 consists of 3 812 powered vessels of which 2 871 are operating in the Mediterranean Sea using trawls, purse seine, long line, trammel and other gears. In the Red Sea there are 941 power vessels using the same types of gear as in the Mediterranean. The sizes of the engines range from as small as 10 hp. to over 800 hp. in the bigger vessels. In addition there are about 40 379 boats propelled by sail and operate mainly in the inland and lake fisheries.

In the Mediterranean Sea fisheries, the fishing grounds are located on the wide continental shelf in front of the Nile Delta and the Sinia Peninsula. It has a coastline of about 1 100 km. long, extending from Sallum in the west to Rafah in the east. The continental shelf of 200m. deep along the coast is largely composed of salty mud and muddy sands. It widens up to a maximum of 70 m. long in front of the Delta. Most of the fishing operations are concentrated in the coastal zone, from Alexandria to Port Said, about 300 km. in length using principally trawls, at depth of 10-100 m. the rest of the shelf is hardly exploited. The shelf area is estimated at about 87 120 km. sq.

The Mediterranean fishery has been influenced by the construction of the High Dam at Aswan in Upper Egypt. The reduction in the outflow of nutrients carried by Nile floods reduced the production of sardine and shrimp. However, it seems that when the outflow from the Nile increases, total production increases as was the case in 1998 and 1999. It should be noted that the decreases in the Mediterranean sea fishery has been compensated by the creation of the world's largest man-made lake, lake Nasser as a new fishery resource for Egypt. The fleet in 2002 consisted of 3 812 powered vessels of which 1 337 are trawlers, 1 676 long liners, 447 vessels use trammel nets, 342 purse seines and 10 use a variety of other gears. The main fish species landed are Sardine, Silverside, mullet species and Shrimp.

Description of current fisheries statistical system:

The General Authority for Fish Resources Development GAFRD (through it's hierarchal system) do the following:

- Setup a statistical system covers all the landing sites for marine and lakes catches and most of the River Nile landing sites.
- GAFRD Establish the licenses for fishing unit, fishermen and fancier and renew them every January.
- Register all fishing units in a registration book describe fishing units (length, horse power, fishing gears and fishermen names) for each fishing unit.
- Record all catching fish (after specify) in a daily book describe each species amount and fishing unit/units involved in the landing sites.
- Collecting daily data in a monthly list according to species, amount and landing site.
- The manager of each catch office send the monthly data to the central statistical department in GAFRD.
- The central statistical department in GAFRD establish statistical tables for catch production for each landing site and production area.
- The information department register the data on a computer application, establish the annual statistical report in English and Arabic beside some specific publications.
- The information department analyses the data present it in a graphic presentation to the higher management.

- GAFRD is responsible to train the whole staff working in the statistical field.

Overview of the fishery sectors:

Sector performance:

The fishery sector is one of the most important sector in the economic structure of Egypt. The investment in fishing units represent more than on billion Leg. (about 19741966 US\$), (Source Cooperation Union for Fish Resources, 2003).

The fisheries national income represent about 10% of the national income from agriculture. The total agriculture production in 2001 was 7457.3 million US\$ (59.9% of the total national production), the animal total production was 4000.5 million US\$ (32.12% of the total national production) and fish production represent about 999 million US\$ (about 8% of the national production).(GAFRD 2002). table (1) shows Egypt's fleet size for marine fisheries.

Number of marine fishing vessels

using different gears in 2002

Gears	Trawling	Purse Seine	Long Line	Trammel	Others	Total
Sources						
Mediterranean	1159	234	1021	447	10	2871
Red Sea	178	108	655	-	-	941
Total	1337	342	1676	447	10	3812

(Source GAFRD, Annual Statistic Report, 2002)

In year 1995 the total licenses for Mediterranean fishing units was 1852 beside 1631 sail boats and about 29837 licenses for fishermen. In year 2002 the total licenses for Mediterranean fishing units was 2871 beside 4526 sail boats and about 22337 licenses for fishermen (GAFRD, 2002).

The recorded fishermen through fishermen cooperation system about 90055 fishermen, and 11748 non cooperation licenses, beside about the same number of fishermen non registered officially and working in the fisheries sector (manufacturing, transportation, suppliers, preparations, net and equipment manufacturing, fishing units manufacturing and maintenance, vessels power unit maintenance..

The average of fishermen families about 5 persons which tell us that the total fisheries society contains about one million person.

The sector has to be consolidating by a perfect and a suitable industrial basis, which allow to guarantee a durable equilibrated development even for the activities before and after the production operation. Most of fisheries Industries are medium or small size. It is summarized in:-

- Building, repairing and maintaining the fishing equipment.
- Mechanical maintenance of fishing boat and marketing of spares.
- Consolidating means used to keep the fishing units in the ports.
- Establishing companies for conditioning, transforming and marketing the product.
- Organizing the national Chamber of Fishing and aquaculture, as well as the National Assembly of Fishing.

Egypt's fishery sector continuously undergoes biological, ecological and socio-economic changes that are not fully documented. In addition, there is an evident absence of an adequate information system

that provides credible fisheries data for government officials, industry executives and other decision makers.

Recent estimations of the maximum sustainable yield (MSY) for marine and inland fisheries are not available. The increase in the landings from some resources should be looked upon with reservation. Further confirmation of these statistics is urgently required.

Objectives of the project

The development objective of the project is to provide the decision-makers, planners and researchers with accurate, reliable and timely information to allow making future work strategies, and to develop needed policies with the purpose of the upgrading the sector as well as maintaining the sustainability of fisheries sector development for the future.

- Evaluate the available data, data collection and registration system, types of registration and statistical reports produced, and personnel responsible in each stage of collection.
- Develop a manual system, to collect data on different aspects of the fishery industry in selected Egyptian governorates using standard data collection forms.
- Determine the data flow from different selected governorates to the H.Q of GAFRD.
- Develop a computerized information system to store and retrieve different data, and produce the required reports to the end-users.
- Implement a computerized fishery information system, testing, debugging and documentation.
- Produce regular periodicals on different aspects for the end-users.

Developing an effective information system for the fishery industry will achieve the following:-

- Introducing an accurate and effective data collection system that reflects the actual situation of the fish industry on a regular and systematic basis.
- Prompt retrieval of accurate data using computerized network with sufficient storage capacity and minimum risk of losing or distorting the data .This will provide the ability to propagate this data at the national and international levels in the future.
- Providing a data bank that will fulfil the needs of decision-makers, planners, investors and other users in a uniformed and standardized fashion.
- The information system management will prevent unwanted data in order to ensure integration between the content of the system's files to obtain required reports, rapid retrieval of the information system's content, complete data security with the ability to avoid unexpected disasters such as fires, power failuresetc.
- The centralization of information system management through GAFRD will reduce data redundancy, avoid data inconsistency, sharing and exchange of data, enforce standards, apply security restrictions, maintain data integrity and rapid retrieval of the information system's contents with the ability to protect it from unexpected disasters.
- Provide the end-users with accurate, reliable, and timely information on the various aspects of the fishery sector.

Project outputs needed:-

- Planning observation operations, supervision, financing and executions in a way amid to increase the ability to prevent illegal fishing operations (or at least reduce it to the minimum).
- Increase the awareness of the foundations and manufactures decision makers and planners in order to have their support in controlling the observation activities to prevent illegal fishing operations.
- Establish information data bank and activate some workshops to promote national and regional dialogue.
- Such data bank should include (Ship registration number, responsible commander, international marks, gears, equipment, statistical data, fishing effort, ..).
- Develop the scientific base to plan and operate management strategy to maintain the ecological systems considerations and to maintain sustainable yield.
- Design a system to observe the weather variation and it's influence on production ecological systems.

- Improve the side catch.
- Support researches and improve fisheries equipment technology.
- Increase the production and preserve the fisheries resources.
- Exchange data between Mediterranean region in one form, using the same standards and units.
- Cooperate with other Mediterranean countries to collect data concerning fisheries.
- International cooperation in transferring experiences, technology, observation, controlling operation thru international agreements

Weakness and Strengths of our current statistical system:

Weaknesses:

- Inaccurate socio-economic data for fisheries sector.
- Insufficiency data for industry, marketing, distributing and assistance services in fishery sector.
- High partiality during collecting data because of financial shortage, facilities (transportation, storage equipments ..).
- Shortage of qualified staff, beside unawares stoical ware at the producers.
- Shortages on register data electronically at landing sites.
- Using different forms to register fisheries data.

The current statistical system has some good points to mention, Strengths:

- Collecting fisheries data through large-scale system from landing sites using registration books and daily fishing units' movement books.
- General Authority for Fish Resources Development (GAFRD) is the only governmental authority to collect fisheries data, establish decisions and decrees concerning the fisheries sector.
- General Authority for Fish Resources Development (GAFRD) is the only governmental authority to establish all fisheries data in a yearly-based reports (electronic or paper forms).

There is a substantial need for an information system for fisheries management and development planning which is currently lacking in the present information infrastructure available.

The following are some of the shortcoming of the present system:-

- Inaccurate socio-economic data for fishermen society.
- Insufficient data about manufacturing, marketing and supporting services in the fisheries sector.
- Shortage of financial supplies which affect the accuracy of collecting data, store it on a computer system and analyzes it statistically.
- Entraining collecting data staff beside lack of statistical conscious at the producers.
- Disability of registering landing data on the site.
- Weakness of collecting data electronically, send it to central office at Cairo.

Possibilities of synergy with other complementing interventions:

Egypt co-operate in many workshops, seminars and conferences concerning fisheries sector. Egypt founding most of the regional bodies such as MEDRAP I, MEDRAP II, GFCM and SIPAM and always welcome any new projects under the umbrella of United Nation and FAO.

Lebanon Country Report

Description of current fisheries statistical system

Methodology applied: until 1975: general censuses

1975-2000: nothing

2000 & 2001: samples of 50 vessels

2002: FAO commissioned study (400 vessels, 6 ports) through the private sector

Resources available: no assigned personnel, no allotted transportation or no other facilities and equipment.

Size of fleet:

- Available vessels: 4,846
- Operational vessels: 2,836
- + Most vessels <10m long. All are wooden
- + 71 vessels between 10-18 m
- + Vessels >24m are not licensed to fish in territorial water

Number of licensed/registered fishermen: 9,131

Area monitored: all coast (220 km)

Number of official **fishing ports:** 28

Number of other fishing ports: 9

Number of Fishermen **cooperatives:** 30

Number of Fishermen **Syndicates:** 4

Fish catch: 7,000 tons

Fish Imports: 9,000 tons

An overview of the fishery sector:

Lebanon is a predominantly mountainous country, with an area of 10,452 sq.km. and a population of around four millions. The Lebanese coastline is 220 km long. The continental shelf is narrow, especially in the South. Bottom grounds are mainly rough with intensive rocky patches good for stationary demersal gear.

The fisheries of Lebanon are classified as small scale "artisanal" and traditional based mainly on bottom stationary gear (trammels and longlines), purse seine nets and beach seines. Fishing operations, with the exception of longlines, are mostly carried out at depths of up to 50m. Most of fishing nets used have extremely small mesh size (less than 2x2 cm). Fishing equipment is expensive. Moreover, the traditional fishermen have no access to institutional credit.

Industrial Fishery does not exist.

Organogram

Ministry of Agriculture

Directorate of Rural Development & Natural Resources

Department of Fisheries & Wildlife

- Head of Department
- Agricultural Engineer
- 1 Ranger

Oceanographic Institute-Batroun (Mariculture)

- Head of Institute
- Agricultural Engineers

Anjar Fish Center (Trout Hatchery)- Anjar

- Head of Center
- 3 Rangers

Chouaifat Fish Center (Tilapia)

- Head of Center
- 1 Ranger

Beirut Fisheries Center

- 4 Rangers

Jounieh Fisheries Center

- 3 Rangers

Regional Rural Development Departments and Forestry & Fisheries Centers

Goals/Objectives/Problems of the fishery statistical system

- i- No accurate data about catch is available
- ii- Obtain statistically Significant Data about the sector
- iii- Data utilization for:
 - a- Future Policy and New Fisheries Law
 - b- Other Stakeholders & Interested Parties

The strengths, weaknesses of the current system, and opportunities for the system and threats to the system (**SWOT analysis**)

Strengths:

Internal Assets: few willing personnel who require proper training
[DFW: 6 engineers and 43 rangers (forests, hunting & fisheries)]

Weaknesses:

No training
No assigned staff
No assigned vehicles and fuel
No equipment or facilities
No assigned premises
Possible conflict with other departments
Skepticism, by some, about real need of data and thus expected expenditure

Opportunity:

Training:
+ Data collection methodology e.g. representative sample versus census
+ Questionnaire preparation
+ Data collection: e.g. personal interviews & re-interviewing
+ Data entry
+ Data analysis & reporting
Facilities:
+ Transportation means and requirements (e.g. vehicles, fuel & spare parts)
+ Computer and accessories
+ Software
Premises

Threat:

Reluctance/resistance of fishermen to supply correct information or any information at all. They tend to understate and dramatize the situation. They fear information to be used for taxation or prohibition of certain gear purposes.

Financial.

Lack of cooperation by other public sector departments

Jurisdiction is divided among several ministries/agencies e.g. Ministry of Transportation decides on seaworthiness of the vessels.

Possibilities of **synergy** with other complementing interventions.

Lebanese General Agricultural Census Project (UTF/LEB/016/LEB). Most paper work was completed. Require questionnaire finalization. Will be launched in March 2004. Original plan was for a general census including vessels, landings and socioeconomic information. To avoid information overlap and conflict, will coordinate with (TCP/INT/2904).

Enabling participation in the fishery statistics and information system in the Mediterranean (TCP/INT/2904)

Information on the **Reporting Organization/Officer**

Department of Fisheries & Wildlife

Directorate of Rural Development & Natural Resources

Ministry of Agriculture

Lebanon

Date: January 19, 2004

Synopsis of The Fishery Statistics And Information System In The Syrian Arab Republic

By *Issam KROUMA**

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Introduction:

It was not earlier than 1995, when the first Syrian fishing vessel was licensed for fishing exclusively beyond the territorial sea, that Syrian marine fishing activity overreached the zone of 12 nautical miles.

Still, the majority of fishing activity is practiced on the continental shelf of a short strip of coastline (183 km). The shelf is known to be:

- narrow; (varying from /1/ up to /9/ nautical miles, with an average of /5/ n. miles),
- of a rocky bottom prevailing on 75% of its area,
- void of coral reefs, caves or similar shelters essential for fish,
- with a single inhabited island, in addition to very few rocks,
- poor with nutrients and upwelling.

Thanks to a.m. characteristics, the productivity of the continental shelf is relatively low; not exceeding 90 kg/sq. km. Consequently, national landings from the territorial sea is very low; ranging from /1500/ up to /2800/ tones per year.

Description of current fisheries statistical system:

Methodology applied:

The reporting system depends on checking whole-fish markets on a day-by-day basis. Information on landings in total, as well as on fish species, quantities and prices are sent to the field fisheries offices for registration. Records are put down in month-report forms, and submitted on paper to the headquarter of the Department of Fisheries Resources for further processing and consideration.

Resources available:

The statistical and information system derives its data from main auction places and whole fishmonger. Information outcome is believed to be indicative, but not realistic. Reasons behind could be as follows:

- small auction places located in small coastal villages may not, regularly, be checked,
- fishery officers may miss some auction cases, since several are carried out in the early morning,
- figures claimed by whole sellers may, to some extent, not be realistic owing to their fear of taxation.
- very small landings may not end up at auction places,
- some consumers prefer to visit landing sites to buy fish while still alive.
- reporting system from industrial fishing vessels operating beyond the territorial sea, so far, has not been established.

As to staffing situation, the leading marine fishery officers have been engaged in this job for the last /18/ years. Naturally, some are motivated but others may not be so. Existing officers need to be trained on new concepts and systems of fishery statistics, in addition to electronic data recording and processing. New officers would need multilateral training, comprising recognition of fish species, approaching fishers/fishmongers, data recording and processing

Size of fleet:

The majority of Syrian fishing fleet is artisanal, with a few fishing vessels of industrial scale. Round /1850/ small motored boats ranging from /10/ to /22/ m. with /15/ to /360/ hp. engines practice coastal

fishing. Relatively big vessels fish on pelagic fish, while small ones fish on demersal species. Another /26/ fishing vessels of /12/ to /40/ m. with /120/ up to /1500/ hp. engines fish mainly beyond the limits of /12/ miles.

Area monitored:

Monitoring of fishery is restricted to the territorial sea. This is practiced by two governmental institutions on two completely different bases. The Harbour Authority, administrating sailing and fishery licensing, checks fishing vessels on safety criteria/measures and validity of both licenses. The Ministry of Agriculture, represented by the Department of Fisheries Resources, being responsible for managing marine fish resources, takes care of the wealth of fish stock, the safety of marine environment, the sustainability of production and socioeconomic issues concerning fishing societies. Worth mentioning that fishing licenses issued by the Harbour Authority are based on prior approval of the Department of Fisheries Resources.

Goals/objectives:

The fishery statistical system is supposed to secure enough information mainly needed for management of the resource and development planning. It is up to specific goals/objectives that the system design differs. Whether the statistics system completely or partly fulfils the needs of managers and/or policy makers, it is an issue to be regularly reconsidered.

In Syria, the data of the fishery statistical system are, more or less, used for the following:

- Having a holistic view of the sector.
- Securing essential tools needed for management of the resource.
- Obtaining data for building concepts for development strategies.
- Having convincing arguments and justification for actions and new projects proposed to decision makers.
- Evaluation of the national self-supply capacity, consequently, adoption of importation/exportation policy.
- Assessing the fishing pressure on fish groups/species, for eventual protection actions.
- Evaluating the economic value of the sector in relation to the national economy.
- Making cost/benefit analysis needed for either expansion supporting or limiting.
- Pinpointing critical issues/gaps that is supposed to be tackled/filled in the sector.
- Assessing the national capacity of exploiting national marine resources; territorial sea and exclusive economic zone, for eventual recruitment or licensing of foreign fleets.

SWOT analysis

The present fishery statistics system in the Syrian Arab Republic is simple and conventional. The same, even being as such unable to meet regional needs, is expected with some modifications and upgrading to pace with modern systems. The strengths, weaknesses of the current system, and opportunities for the system and threats to the system are summarized below.

Strengths:

The internal assets of the current system that could help meeting the goals/objectives of the fishery statistics system are as follows:

- Staff entitled to carry out fishery statistics system is of a university level.
- The presence of fisheries field officer is about to be permanent in major fish markets.
- Present licensing system secures, theoretically, fishermen/fishing vessels` compliance with the needs of the statistics system to be implemented.

Weaknesses:

The main internal deficits that hinder meeting the goals and objectives of the fishery statistics system are:

- Present statistics system depends mainly on paper documentation. While electronic networks, so far, are not existing.

- Concerning computer literacy, most of fisheries officers are illiterate.
- Overtime allowance, being negligible, creates no motivation for fishery statistics officers who are supposed to spend quite a long time checking fish markets, and/or contacting fishers.
- The prevailing artisanal fishing fleet, with numerous and small scale fishing units, makes information system more complicated and less efficient.
- The fear of taxation hinders fishers from giving real figures.
- Monitoring of industrial vessels fishing in Syrian EEZ is still beyond the technical capability of the Syrian Harbor Authority.

Opportunity:

Some external circumstances will help meeting the goals and objectives of the fishery statistical system. These are:

- The national network plan known as "*The Electronic Government*" is believed to provide suitable background for a vital component of the objectives of the fishery statistical system.
- The implementation of the regional project, in question, is supposed to upgrade the efficiency of the national fishery statistics and information system. This would be achieved through training and motivation of staff, and securing facilities for exchange of information with neighbouring countries.

Threat:

Another external circumstance will, on the other hand, work against meeting the goals/objectives of the fishery statistical system. The most important could be:

- Conceivable national laws prohibiting the affiliation with regional networks, or probable absence of legislations regulating such issues.
- Eventual imposing high-level taxes on fishery sector, having in hands almost realistic view of the cost-benefit balance.

Synergy possibilities:

Some complementing and positive interventions could give advantage and have an increased effect on the improvement of the statistical system.

On the national level:

Synergy with "*The Harbour Authority*" is likely to help achieving better results in fishing fleet monitoring and checking of national landings. Such collaboration becomes more efficient in improvement of the statistical system, when industrial vessels fishing in the EEZ are concerned.

On the Regional level:

Projects on regional level cannot completely achieve their objectives if no cooperation with neighbouring countries is taken into consideration. When management of a joint resource, that exceeds and neglect political borders, is in question, synergy becomes indispensable.

Accordingly, a technical dialogue between "The Department of Fisheries Resources" in the Syrian Arab Republic and "The Service of Terrestrial Hunting & Fishery" in Lebanon has been established in the course of collaboration and synergy between ministries of agriculture in both countries. The dialogue aims at standardization/unification of marine fisheries legislations. It is believed that similarity in concepts and approaches of both countries to marine resources will represent a unique case of synergy. This will, in turn, facilitate achieving project objectives in both countries.

Similar dialogue is hoped to be held with Turkish Fisheries Authorities. The Syrian wish was put to the attention of a high-ranking diplomatic officer at the Turkish Embassy in Damascus. We hope that this will be materialized as early as possible to go side-by-side with this regional project.

5. Reporting Organization/Officer:

The organization:

The Department of Fisheries Resources (DOF) was established in the Ministry of Agriculture and Agrarian Reform in 1986, and authorized to hold the following responsibilities:

- Proposing and implementing fishery policy and strategy.
- Planning and implementing fishery development projects.
- Supervising and licensing of aquaculture and fishing activities.
- Implementing the laws of protection of aquatic life.
- Drafting of related laws, regulations and instructions.
- Monitoring fish markets; prices, demand, species, etc....
- Issuing statistical data on the sector.
- Issuing import/export approvals for fish and fishery products and prerequisites.
- Training and extension activities.
- Representing the country against regional & international organisations concerned.

In addition to its headquarters in Damascus, DOF has /14/ field services in the centers of /14/ provinces of the country, each of which has /1/ to /6/ peripheral fishery watching points.

The Officer:

The reporting officer graduated from “The Faculty of Agricultural Sciences” in “The University of Damascus”, in 1972. He got his M.Sc (1980) and Ph.D (1983) degrees in fisheries and aquaculture from “The University of Zagreb”, Yugoslavia. He was the one who founded and directed the “The Department of Fisheries Resources” along the past /18/ years, with the exception of the period 1997-2000 when he worked as external consultant to the Ministry of Environmental Affairs in the field of aquatic biodiversity. He has been a member of the national committee on the law of the sea in the Prim minister’s office for the last /19/ years. His fields of interest are:

- The law of the sea,
- Nature preservation policy and strategy,
- Working out development strategies & work plans,
- Carrying out programs, all in the fields of:
 - Sustainable aquaculture and fisheries.
 - Biological & ecological diversity.
 - Preservation & rehabilitation of natural resources.
 - Protection of environment (in general) & aquatic environment (in particular).

Date: January, 18th 2004

Fisheries Statistics in Turkey

Until 1967, data on fishery products based on records of provincial fish markets were compiled by the Ministry of Commerce. Starting from 1967, the State Institute of Statistics (SIS) has compiled statistics on fisheries. It is published annually in `Fisheries statistics`.

Fishery statistics compiled by two types are as follows;

- statistics of marine fisheries (including crustaceans, molluscs etc. And
- statistics of inland fisheries and aquaculture production.

THE MARINE FISHERY SURVEY

PURPOSE

- to compile catch of marine and freshwater fish, crustaceans and molluscs species,
- to determine the distribution of production and type of marketing,
- to determine type of fishing vessel and fishing equipments,
- to compile information for investment and expenditure of fishing activities, and
- to determine number of workers at fishing total working day and payment.

COVERAGE OF THE SURVEY

This survey covers all Professional fishermen for only fishing territorial waters. Fishermen is the unit of survey.

Professional fishermen: A Professional fishing person is defined as one of who engages in the activity of fishing in territorial waters for livelihood and for income and who employs specialized equipment and materials to this end.

METHOD

The method was complete enumeration (by conducting individual interviewers with all fishermen at their addresses) for the years 1967-69 and sampling surveys for the years 1970 and 1971. large scale fishermen are covered by complete enumeration and small scale fishermen are covered by sampling methods from the year 1980.

Large scale fishermen: it is a fisherman who has a vessel more than 12 meter in length and has 5 or more persons engaged.

Small scale fishermen: it is a fisherman who has a vessel less than 12 meters and less than 5 person engaged.

D. APPLICATION

Annual surveys conducted during January and February is compiled as a information of the previous year.

THE CATCH OF FRESHWATER FISH AND AQUACULTURE PRODUCTION

Data are taken directly from the Ministry of Agriculture and Rural Affairs.

E.COLLECTION

Data collected have been analyzed by comparing with the previous years data.

F. PUBLICATIONS

The current data are published "FISHERIES STATISTICS" at provincial, regional and national level.

ACTION PLAN

MAIN LEGISLATION		OTHER LEGISLATION	ACTION					
NUMBER	NAME	NUMBER	SHORT TERM			MIDDLE TERM		
			TECHNICAL	LEGAL	INSTUTIONAL	TECHNICAL	LEGAL	INSTUTIONAL
2807/83	Commission Regulation(EEC) No: 2807/83 of 22 September 1983 laying down detailed ryles for recording information on Member States' catches of fish.	1382/91 2847/93 788/95 1543/2000 1639/2001 2000/439			*to be harmonized logbook, landing declaration according to EU norms *training of fishery department on subject of EU	*to set up database and network system *to distribute and withdraw logbook with landed fish data and set up control system being tested by staff	To set up legal amendments to fill logbook, landing declaration, transshipment forms and any relevant forms *to encharougeope n/high sea fishing and to support by low interest credit directed towards increasing the technology of vessel (processing on board etc.)	*training of fishermen *training of MARA staff * to set up General Directory (fishery information system) *to set up port offices by being referred on the fourt of article *to evaluate stock by using compiled data

Biological and Economic Data Collection

It is unclear how accurate and complete the data on the sector is. Only vessels over 20m in length are required to submit logbooks (and therefore data on catches); for the vast majority of the small-scale fishery there is no obligation to keep records. In addition, the data that is available is collected on the basis of voluntary completion of (annual?) questionnaires. For vessels under 12 m in length a sampling technique is used to ascertain landings.

There is a perceived concern (at the State Statistical Institute) about the accuracy of information collected, plus of course there is no on-going monitoring if data is collected on an annual basis (or use of this data by MARA for improved management of the fisheries). Landings are also equated directly to catches, therefore ignoring potential 'black' (illegal) landings and discards, and the level of under-reporting of catches is also not known. Improving the catch and landing data collection system is therefore a priority. In addition there appears to be little detailed information (or analysis) of economic data on the sector, relating for example to foreign trade in fish and fish products (and balance between imports and exports), and employment within the sector.

State Statistical Institute (Prime Ministry) is the main authority collection, processing, evaluation and publication of the fisheries statistics. Although it is aimed to publish the statistics one year after, due to the methodology applied and the unawareness of the fishermen and producer organisations, it usually takes more than 1 year. The latest issue belongs to the year of 2000. Surveys for the data collection are carried out by two methods: full enumeration for the large-scale fishermen (having vessels 20 m) using questionnaires and interviewers and sampling for small-scale fishermen.

Data on fishery products are sometimes adversely affected by the reluctance of fishermen to answer questionnaires. After the completion of the surveys all the results are checked in order to final evaluation by the committee which the members are formed from State Statistical Institute (DIE), Ministry of Agriculture and Rural Affairs (MARA), State Planning Organisation (DPT) and representatives of fishermen's cooperatives. All of the professional fishermen registered within territorial waters are covered. Annual surveys are conducted during January and February in the related year. In the application, the interviewers compile information of the previous year'. All the information given by the fishermen is assumed as true so there may be some inconsistencies in survey results, especially during the collection of catch and expenditure data. Information gathered from the fishermen are processed and divided by regarding the regions given below. This is slightly different from the original geographical data by means of management considerations.

Regions and provinces used to collect marine fisheries data by the State Statistical Institute (DIE).

Eastern Black Sea Region	Western Black Sea Region	Marmara Region	Aegean Region	Mediterranean Region
Artvin	Kastamonu	Istanbul	Edirne	Antalya
Rize	Zonguldak	Adalar	Çanakkale	Icel
Trabzon	Bolu	Avcılar	Merkez	Adana
Giresun	Sakarya	Bahçeli	Ayvacık	Hatay
Ordu	Kocaeli	Bakırköy	Bozcaada	
Samsun	Kandıra	Besiktas	Eceabat	
Sinop	Istanbul	Beyoglu	Ezine	
	Beykoz	Minönü	Gokceada(Imroz)	
	Catalca	Eyüp	İzmir	
	Sarıyer	Fatih	Balıkesir	
	Sile	Gaziosmanpasa	Ayvalık	
	Kirklareli	Kadikoy	Burhaniye	
	Bartın	Kagithane	Edremit	
		Kartal	Gomec	
		Maltepe	Aydın	
		Pendik	Mugla	
		Sisli		
		Tuzla		
		Uskudar		
		Zeytinburnu		
		Büyük Cekmece		
		Silivri		
		Tekirdag		
		Canakkale		
		Biga		
		Gallipoli		
		Lapseki		
		Bursa		
		Balıkesir		
		Bandırma		
		Erdek		
		Gönen		
		Marmara		
		Kocaeli		
		Merkez		
		Gebze		
		Golcuk		
		Karamürsel		
		Korfez		
		Yalova		

Institutional Structure and Information Flow

Administration of the fisheries sector in Turkey appears extremely complex. There are four General Directorates within MARA dealing with fisheries related management and administration (see Organogram in Annex 4) plus a number of other institutions, such as the Coastguard, State Statistical Institute and Provincial Directorates involved in the sector. A thorough analysis of the institutional make-up and linkages within the sector is required. This will be an output from this project as part of the process of possible institutional re-structuring. This is considered one of the most important issues for the sector that need to be addressed by MARA.

SWOT Analysis – Turkey Fisheries Sector

Fleet Registration & Fisheries Information Systems & Statistics

Key Area	Sub-Areas		Internal		External	
			Strengths	Weaknesses	Opportunities	Threats
Legal			<ul style="list-style-type: none"> • IMO Standards applied in Under-secretariat of Maritime Affairs • DIE is the experienced institution legally organised to collect fishery statistics • Harmony of the legal issues of MARA 	<ul style="list-style-type: none"> • Unawareness of the information on the fishery management data , fishing effort data based on vessel engine power or overall length • Ineffectiveness of the measure 	<ul style="list-style-type: none"> • MARA will be the authority to collect and publish 	<ul style="list-style-type: none"> • No accurate info for assessment for TAC's
Institutional	Human Resource		<ul style="list-style-type: none"> • Experienced staff is needed for the vessel registration system needs 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> •
	Infrastructure	Capital Investment	Needs an online system among the designated ports	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> •

		Operational	<ul style="list-style-type: none"> • Most (90%) of the registry system of MARA completed 	<ul style="list-style-type: none"> • No centralised system(two systems of registration • VRD belongs to M. JUSTICE • No online system • No log book QA (insufficient data) • No specialist unit for fisheries protection & control • Extra staff recruitment • Delegation of authority needed 	<ul style="list-style-type: none"> • Introduce electronic system 	<ul style="list-style-type: none"> • MARA's priorities and governments political interests • Taxation fear
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Annex 5: Tentative Schedule of SAC meetings during the intersessional period 2004

Meeting	Venue/Date	Remarks/Focus
SAC Seventh Session	TBD, Morocco (TBD 7-10?) September 2004	Annual session -Review work of Sub-committees and ad hoc Working groups
SCESS Working Group on Socio-Economic Indicators	Barcelona, Spain 15-17 March 2004	Identification of economic and social reference points for selected OUs
SCSA Workshop on Biological Reference Points	Rome, Italy 20-21 April 2004	Identification of biological reference points for shared stocks
SCSA Working Group on Demersal Species	Malaga, Spain (6-7) May 2004	Assessments in GSAs not covered by the 2002-2003 stock assessments
SCSA Working Group on Small Pelagic Species	Malaga, Spain (6-7) May 2004	Assessments in GSAs not covered by the 2002-2003 assessments. Overview of driftnet and surface gillnets fisheries
Meeting of SAC Sub-Committee on Stock assessment	Malaga, Spain (10-12) May 2004	Preparation of resources advice from 2004 assessments in GSAs not recently covered Analysis of stock assessment methods for multispecies fisheries
Meeting of SAC Sub-Committee on Economic and Social Sciences	Malaga, Spain (10-12) May 2004	Economic assessment of resource advice in selected GSAs using bio-economic model
Meeting of SAC Sub-Committee on Information and Statistics	Malaga, Spain (10-12) May 2004	Review preliminary results of CopeMed and AdriaMed pilot studies on Operational Units Review of MedFisis progress
Meeting of SAC Sub-Committee on Marine Environment and Ecosystem	Malaga, Spain (10-12) May 2004	Identification of nursery areas and sensitive habitat
Joint GFCM/ICCAT Working Party on Large Pelagics	Malaga, Spain (13-14) May 2004	Update status of albacore, small tuna and tuna like species
Coordinating Group of the Sub-Committees	Malaga, Spain (13) May 2004	Meeting of SAC Bureau; consolidation of management advice

Meeting	Venue/Date	Remarks/Focus
Workshop on IUU fishing in the Mediterranean	Rome, Italy 7-8 June 2004	Preparation of medium term plan for addressing IUU fishing with short-term focus on black/white list register
3 rd Joint GFCM (SAC/CAQ)/ICCAT Working Group on Tuna Farming	TBD, Italy (TBD) 2004	Finalize guidelines on BTF Farming

Annex 6: Skeleton content of the Working strategy of the MedFiSis - TCP Component

Background:

The General Fishery Commission for the Mediterranean (GFCM), at its Twenty-sixth Session (Ischia, September 2001), endorsed a project proposal to develop a Mediterranean Fishery Statistics and Information System (MedFiSis) as presented by the Scientific Advisory Committee (SAC) Sub-Committee on Statistics and Information (SCSI), and emphasized the importance and urgency of setting-up an integrated statistical system. The three year project MedFiSis is jointly financed by FAO and the European Union. Such a regional system is recognized to be necessary to complement other fisheries management means and serve as the basic vital tool for international bodies to monitor the state of the Mediterranean fisheries and the well-being of the whole ecosystem in the basin. For the system to be effective regional use, all countries around the Mediterranean should have a national system that collects, processes, stores and disseminates an agreed common set of data; i.e., with the same data standards and definitions (unit of measurement, frequency, classification, terminology, etc.).

Moreover, a standardized methodology is already being introduced in countries in the Western Mediterranean and on the Adriatic Sea, through the activities of two donor-supported FAO projects (Copemed and Adriamed).

The countries of the Eastern Mediterranean (Cyprus, Egypt, Lebanon, Syria and Turkey) , which are not benefiting from the aforementioned assistance, are participating in the TCP-project 'Enabling participation in the fishery statistics and information system in the Mediterranean' (TCP/INT/2904) in order to be in a position to upgrade their national systems and enable their affiliation in the regional network. The implementation of the project will be in accordance with FAO rules and regulations and financial procedures and according to the approved project documents.

Introduction

During the first Coordination Meeting of the project, attended by qualified national representatives, project staff and the project coordinator (Beirut, Lebanon, 19 – 24 January 2004), country representatives decided to draw up a strategic paper. This exercise was proposed to institute in this project a participatory way of working and to guide and monitor project activities to achieve results as close as possible to countries' expectations. This document is the result of a joint attempt of all participants and contains objectives, tasks, activities, input/output characteristics and assignments to each party (participating countries, FAO-TCP/INT/2904 project) to meet the projects' objectives. It is believed that this planning document could also help participating countries to prepare their national plans in order to establish, improve or consolidate a data collection programme at national level. Following the guidelines of this paper, the project management will apply a step-by-step implementation process, in order to gradually secure consolidated results according to an established plan.

As far as the spectrum of data and information to be treated are concerned, it is anticipated that the project's activities should target statistical data collection and processing issues related to all kinds of types and classes of marine fishing units (vessels, gear, fishermen) operating in the Mediterranean areas (subsistence, traditional, commercial). The oceanic fishery (distant water), sport and recreational fishing are not covered by the project.

Recalling the objectives of the project (TCP/INT/2904)

The longer-term development objective is to contribute to the maintenance of the Mediterranean Sea ecosystem, of its living marine resources and fish production, through sustainable and responsible fisheries management.

The medium-term objective is to create a sustainable basis for the operation of a Mediterranean Fishery Statistics and Information System, which will provide a sound basis and contribute to the optimum management of living marine resources of the Large Marine Ecosystem of the Mediterranean.

The immediate project objectives are:

To promote the introduction of agreements on standardization of statistical and information parameters and of the necessary intergovernmental arrangements according to FAO and the GFCM mandatory conformity;

To strengthen the capacity of the fisheries institutions of the Eastern Mediterranean countries in marine fishery statistics and information systems, with a view to meeting the relevant national needs and requirements for participation in and complementing in its entirety the Mediterranean Fishery Statistics and Information System - MedFisis

As a main result, the national marine fisheries statistics systems will be apt to meet both the national and regional statistical requirements, which would enable the Eastern Mediterranean countries' participation in the MedFisis regional project. This would enhance the common monitoring of the Mediterranean fisheries resources and the decision-making process for the management and preservation of the Mediterranean marine ecosystem

- ✚ **Primary expectations and outputs**
- ✚ **Tasks identified by the participating countries**
- ✚ **Immediate Activities**
- ✚ **General problems and constraints in the region identified by the participating countries:**
- ✚ **Specific recommendations**
- ✚ **Technical needs and requirements**
- ✚ **Tentative Work Programme**



Fishery Statistics and Information System in the Mediterranean MedFisis

The present Status of the Fishery and Information System in “Country”

An assessment study before the implementation of MedFisis Regional Project

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Commercial (Industrial) Fishery

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Objectives and Coverage
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Main data elements
Small-scale (Artisanal) Fishery
Commercial (Industrial) Fishery

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Fishing Vessel Class and Category with national codes
Fishing gear classes and national codes
Major commercial fish species and national codes
The area stratification
Maps and Pictures
Other useful material

List of Sample Documents

Sample Register book for the commercial fishery
Sample Questionnaire for the Census of Industrial Fleet .
Sample Questionnaire for Census of Artisanal Fishery
Sample Logbook form for the Industrial Fishery
Sample LogSheet form for the Industrial Fishery
Sample Daily Landing Form for Artisanal Catch and Effort Survey
Sample Annual Report for Catch and Effort Statistic – Industrial Fishery
Sample Annual Report for Catch and Effort Statistic – Artisanal Fishery
Sample Fishing Vessel Licence – Industrial Fleet
Sample Fishing Vessel Licence – Artisanal Fleet
Sample Fishing Licence

Appendix 2

Work plan and timetable

(Phases one and two [till July 2004]):

Project will send the final draft of the strategic paper

Project staff to visit the countries

Preparatory work finished before GFCM-SAC meeting in Madrid (May 2004)

MedFIsis meeting can be combined with the GFCM-SAC in Madrid (back to back)

One day during SAC can be MedFIsis day

Presentation of summaries of national reports (concerning the status of statistics system) prepared for SAC

Preliminary work should be done before visit Lebanon and Syria (end of February, early March)

End of February project staff visit Lebanon and Syria (preliminary visit).

Whenever applicable: soon after this visit, a training course will be run to assist field staff to fulfil the tasks required coming out of the preliminary visit.

The field work should start immediately after this training. Resources to be provided by the project will be tailored at that moment.

The data processing component will be developed in parallel with the fieldwork.

Preliminary work should be done before visit Egypt (end of March)

End of March visit Egypt (preliminary visit).

Whenever applicable: soon after this visit, a training course will be run to assist field staff to fulfil the tasks required coming out of the preliminary visit.

The field work should start immediately after this training.

Resources to be provided by the project will be tailored at that moment. The data processing component will be developed in parallel with the fieldwork.

The project will support the countries for the preparation of the preliminary reports by making available resources.

Cyprus and Turkey will communicate possible dates at their earliest convenience.

Allocation of working station according to requirements supplied by project.

Next actions will be formulated according to requirements coming from phase one.

The project will take care of the participation of one officer (of the participants) per country to the GFCM-SAC

◇ establish a unit in the fishery department (or equivalent);

- ◇ identify staff and assign them to the relevant duties;\
- ◇ draw up terms of reference for a scientific officer to cover the statistics and data processing domain, and put forward a request for his/her secondment, recruitment, assignment (depends on the national situation);
- ◇ identify and assign adequate computer resources to the unit'
- ◇ inform the central statistical office and the Fishermen's Cooperative/Associations as required.

Simultaneously, The TCP component of the MedFiSis project will elaborate with the national counterparts a detailed statistics programme (thought visiting each country), identify supporting expertise, and carefully evaluated and select the most appropriate methodological approach to be applied.

The proposed national statistical programme should then be presented to the national authorities, discussed in depth and endorsed. As far as the methodological design for implementation of the Census and the Catch and Effort Sample Survey was concerned, the Beirut meeting recommended the already-tested approach applied in the Copemed and Adriamed area could be used as the starting model.

Annex 7: GFCM standards, vessel, country, species, gear, resources

Fishing Vessels by Vessel Types Bateaux de Pêche par Types de Bateaux Embarcaciones de Pesca por Tipo de Embarcación

Code Código	<u>FISHING VESSELS</u>	<u>BATEAUX DE PECHE</u>	<u>EMBARCACIONES DE PESCA</u>	Code Código	<u>FISHING VESSELS</u>	<u>BATEAUX DE PECHE</u>	<u>EMBARCACIONES DE PESCA</u>
01.00	TRAWLERS	CHALUTIERS	ARRASTREROS	06.00	LONG LINERS	PALANGRIERS	PALANGREROS
	Factory Trawlers Freezer Trawlers Wet-fish Trawlers Outrigger Trawlers Beam Trawlers Trawlers nei	Chalutiers usines Chalutiers congélateurs Chalutiers pêche fraîche Chalutiers à tangons Chalutiers à perche Chalutiers nca	Arrastreros factoría Arrastreros congeladores Arrastreros pescado fresco Arrastreros de tangones Arrastreros de vara Arrastreros, nep		Freezer Long Liners Factory Long Liners Wet-fish Long Liners Long Liners nei	Palangriers congélateurs Palangriers usines Palangriers pêche fraîche Palangriers nca	Palangreros congeladores Palangreros factoría Palangreros pescado fresco Palangreros, nep
02.00	PURSE SEINERS	SENNEURS A SENNE COULISSANTE	CERQUEROS CON JARETA	07.00	OTHER LINERS	AUTRES LIGNEURS	OTRAS EMB. CON LINEA
	Tuna Purse Seiners Purse seiners nei	Thoniers-senneurs Senneurs à senne coulissante nca	Cerqueros-atuneros Cerqueros con jareta, nep		Jigging Line vessels Handliners Pole and Line vessels Trollers Liners nei	Ligneurs à turluttés Ligneurs à ligne à main Canneurs Ligneurs à lignes de traîne Ligneurs nca	Emb. con calamareras Emb. con línea de mano Emb. con caña y línea Curricaneros Emb. con línea, nep
03.00	OTHER SEINERS	AUTRES SENNEURS	OTROS CERQUEROS	08.00	MULTIPURPOSE VESSELS	BATEAUX POLYVALENTS	EMB. POLIVALENTES
	Seine Netters Seiners nei	Senneurs à senne de fonde Senneurs nca	Cerqueros sin jareta Cerqueros, nep		Trawlers-purse seiners Multipurpose vessels nei	Chalutiers-senneurs Bateaux polyvalents nca	Arrastreros - cerqueros Emb. polivalentes, nep
04.00	GILL NETTERS	TREMAILLEURS	EMBARCACIONES CON REDES DE ENMALLE	09.10	DREDGERS	DRAGUEURS	RASTREROS
05.00	TRAP SETTERS	BATEAUX POUR PIEGES	EMB. CON TRAMPAS	9.00	OTHER FISHING VESSELS	AUTRES BATEAUX DE PECHE	OTRAS EMB. DE PESCA
	Pot vessels Trap setters nei	Caseyeurs Bateaux pour pièges nca	Embarcaciones con nasas Emb. con trampas, nep		Lift netters Lift net. using boat operated net Lift netters nei Vessels using pump for fishing Platforms for mollusc culture Recreational fishing vessels Fishing vessels nei	Bateaux pêchant au filet soulevé Bateaux manoeuvrant un filet soulevé Bateaux filets soulevés nca Bateaux pêchant à l'aide de pompes Barges pour l'aquaculture (mollusques) Bateaux de pêche sportive Bateaux de pêche nca	Emb. con redes de izado Emb. con una red de izado Emb. con redes de izado, nep Emb. con bombas de absorción Emb. para pesca deportiva Embarcaciones de pesca, nep

Please note: The above list has been prepared to assist the reporting authority in identifying the correct vessel type to assign to each vessel.
Veillez noter: La liste ci-dessus a été établie pour aider les autorités chargées de communiquer les statistiques à le type de bateau auquel correspond chaque bateau.
Nota: La lista que procede se ha preparado para ayudar a la autoridad informante a determinar el tipo de embarcación correcto que habrá de asignarse a cada embarcación.

Annex 8: EU regulations (minimum requirements)

COMMISSION REGULATION (EC) No 1639/2001

of 25 July 2001

establishing the minimum and extended Community programmes for the collection of data in the

fisheries sector and laying down detailed rules for the application of Council Regulation (EC)

No 1543/2000

Collection of data concerning fishing capacities

Parameters:

- ▶ Gross tonnage (GT)
- ▶ Engine power (kW)
(Maximum continuous engine power actually developed by the main gear)
- ▶ Age of the vessel
(calculated on the basis of the age of the hull)

Complementary parameters:

- ▶ Maximum continuous power of the main engine before derating
- ▶ Maximum overall power of the auxiliary engine(s) used for hoists and winches for the vessels with an overall length of more than 12 metres
- ▶ Characteristic of a standard fishing gear associated with each fishing technique, including the dimension and the insured value of the standard gear
- ▶ Average number per vessel of the fishing gears associated with the various type of fishing techniques

Collection of data related to fishing effort

Parameters:

- ▶ Fuel consumption
- ▶ Fishing effort by type of technique
They are measured by the weighted sum of the fishing days associated with an area and with a specific period:
 - each day is weighted by a measuring unit related to the nominal fishing power of each vessel
 - a day at sea is regarded as a calendar day of fishing if at least one fishing operation has been carried out by a fishing vessel on that day, or if a passive fishing gear has been left at sea during this day

- each day is attributed to the area where the first fishing operation took place within this day
(However, for passive gears, if no operation took place from the vessel within a day while at least one (passive) gear remained at sea, this day will be associated to the area where the last setting of a fishing gear was carried out on that fishing trip)

- ▶ Specific fishing efforts: they are associated with stocks of special interest.

Collection of data related to catches and landings

Parameters:

- ▶ Data collection must make it possible to access
 - Commercial landings for all stocks
 - Total catches, landings and discards (for stocks mentioned in appendix XII)
 - Catches from recreational and game fisheries in marine waters (for stocks mentioned in Appendix XI)
- ▶ Each members State must describe the conversion factors it has applied

Complementary parameters:

- ▶ Landings from stocks mentioned in Appendix XIII
- ▶ Catches from game and recreational fisheries for stocks other than those mentioned in Appendix XI
- ▶ For salmon, the catches taken in estuaries, lakes and rivers in the geographical area of the Baltic Sea and the North Sea.

Collection of economic data by groups of vessels

Parameters:

- ▶ Data must be collected to cover all the parameters mentioned in Appendix XVII according to the segmentation set out in Appendix III
- ▶ Investment must be measured in order to estimate the overall value of assets, including the capital value of the leased equipment. Insured values must be preferred. If the collection of the insured value proves too difficult, the replacement value of the vessel can be gathered by default. In such a case, the need for this substitution must be shown in the national programme
- ▶ Within production costs, labour costs must cover all expenditures paid by employers, including social security, health insurance, retirements and other related taxes.

Annex 9: List of MedFisis publications

MedFisis 2004. Enabling Participation in the fishery statistics and information system in the Mediterranean (TCP/INT/2904). Project document. GCP/INT/918/EC - TCP/INT/2904/TD-0. MedFisis Technical Document No. 0. 26pp.

MedFisis. 2004. Enabling Participation in the fishery statistics and information system in the Mediterranean (TCP/INT/2904). Report of the first coordination meeting. Beirut, Lebanon 19 – 24 January 2004. GCP/INT/918/EC - TCP/INT/2904/TD-1. MedFisis Technical Document No. 1: 58pp.