

Workshop on Data Collection Methods

**Applied to all segments of the Fleet and their
coherence with the requirements of
GFCM Task 1**

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Eric Muscat, Francesca Gravino & Darcelle Vassallo
Agriculture & Fisheries Regulation Department (AFRD)
Capture Fisheries Section

Introduction

- Malta collects the following fisheries-related data:
 - Biological data
 - Transversal data
 - Economic data

- Malta collects data as required by the EU Data Collection Framework (EC 93/2010)

	<h2>Biological Data</h2>
	<ul style="list-style-type: none"> ■ Biological data is collected through; <ul style="list-style-type: none"> – Scientific dependant surveys (MEDITS, MEDIAS) – Scientific independent surveys by; <ul style="list-style-type: none"> ■ On-board observations for metiers chosen by the ranking system (which have discards) as explained in EC 93/2010 ■ Market sampling for the other metiers chosen by the ranking system (which have no discards) ■ Type of biological data collected: <ul style="list-style-type: none"> – Length – Weight – Sex – Maturity stage – Age

	<h2>Biological data (2)</h2>
	<ul style="list-style-type: none"> ■ Species sampled: <ul style="list-style-type: none"> – For length, all groups of species (listed in Appendix VII of EC 93/2010) encountered during biological sampling (on-board/market) AND target species of MEDITS surveys, including all sharks and rays – For weight, sex and maturity stage; <ul style="list-style-type: none"> ■ data from MEDITS survey ■ data from concurrent sampling for all Group 1 species (Appendix VII of EC 93/2010), and some Group 2 species (<i>Octopus vulgaris</i>, <i>Coryphaena hippurus</i>) – For age; <ul style="list-style-type: none"> ■ <i>Coryphaena hippurus</i> ■ <i>Thuunus thynnus</i> ■ <i>Xiphias gladius</i>

	<p>Transversal data</p>
	<ul style="list-style-type: none"> ■ Malta collects transversal data namely; <ul style="list-style-type: none"> – LANDINGS data; <i>Census approach for vessels > 10 m LOA and sampling survey for vessels < 10 m LOA.</i> – EFFORT data; <i>Census approach for vessels > 10 m LOA and sampling survey for vessels < 10 m LOA</i> – CAPACITY data; <i>Census approach From Fleet Register</i>

	<p>Economic data</p>
	<ul style="list-style-type: none"> ■ Malta collects fisheries-related economic data annually for the following; <ul style="list-style-type: none"> – Economic survey for the evaluation of the fishing sector; <i>sampled vessels are according to the fleet segmentation in Appendix III of EC 93/2010</i> – Economic data on the Aquaculture industry; <i>Census</i> – Economic data on the Processing industry; <i>Census</i>

	<p style="text-align: center;">Malta’s approach for the compilation of GFCM Task 1 “Operational Units Matrix” & Problems encountered in data collection and transmission</p>

	<p style="text-align: center;">Task 1.1 – Fleet and Area variables</p>
	<ul style="list-style-type: none">■ SAC Fleet segment No problem encountered,■ Total number of vessels No difficulties encountered.■ Tonnage unit and value (GT) No difficulties encountered.

	<p align="center">Task 1.1 – Fleet and Area variables (cont).</p>
	<ul style="list-style-type: none"> ■ GSA No major difficulties encountered. <p>However in the current European Commission Logbook Regulation EC2807/83, it is not a requisite to report catches by GSA. This should be improved with the proposed GFCM logbook. Maltese data is reported in GSA 15.</p>

	<p align="center">Task 1.2 – Main resources and activity components variables per Operational Units.</p>
	<ul style="list-style-type: none"> ■ Fishing gear, Gear Classes, Activity No difficulties encountered. ■ Target species <p>The target species is not a requisite neither in the current Commission Logbook Regulation EC2807/83 nor in the market sales vouchers and thus for the purpose of compilation of GFCM Task 1. Malta determines the target species based on <u>gear used</u> and <u>composition of the catch</u>.</p>

Task 1.2 – Main resources and activity components variables per Operational Units (cont).

■ Group of target species and main associated species

For certain species it is difficult to determine the group of target species especially for shelf slope species i.e. if they are to be classified as “demersal shelf species” or “demersal slope species” (e.g. *Merluccius merluccius*).

Code	Group of target species
31	Small gregarious pelagic (e.g., anchovies, sardines, mackerel)
32	Large pelagic (e.g. tunas, amberjacks)
33	Demersal shelf species
34	Demersal slope species
35	Sessile organisms (e.g., clams, mussels, warty venus)
36	Monospecific (e.g., lobsters, red porgy)

Level 1	Level 2	Level 3	Level 4	Level 5	
Activity	Gear classes	Gear groups	Gear type	Target assemblage	
Fishing Activity	Dredges	Dredges	Boat dredge [DRB]	Molluscs	
			Bottom otter trawl [OTB]	Demersal species Deep water species Mixed demersal species and deep water species	
	Trawls	Bottom trawls	Multi-rig otter trawl [OTT]	Demersal species	
			Bottom pair trawl [PTB]		
			Beam trawl [TEB]		
			Midwater otter trawl [OTM]	Mixed demersal and pelagic species	
	Pelagic trawls	Pelagic pair trawl [PTM]	Hand and Pole lines [LHP], [LHP]	Small pelagic fish Finfish	
			Trolling lines [TL], Drifting longlines [LLD], Set longlines [LLS]	Cephalopods Large pelagic fish Large pelagic fish Demersal fish	
	Hooks and Lines	Rods and Lines	Pots and Traps [PPO]	Demersal species	
			Longlines	Demersal fish	
	Traps	Traps	Fyke nets [FYN]	Demersal species	
			Stationary uncovered pound net [FON], Trammel net [OTR]	Large pelagic fish Demersal species	
	Nets	Nets	Set gillnet [GNS]	Small and large pelagic fish Demersal species	
			Driftnet [GND]	Small pelagic fish Demersal species	
	Seines	Surrounding nets	Purse seine [PS]	Small pelagic fish Large pelagic fish	
			Lampara nets [LA], Fly shooting seine [SSC], Anchoree seine [SON], Pair seine [SPR]	Small and large pelagic fish Demersal species	
	Other gear	Misc. (Specify)	Beach and boat seine [SB], [SV]	Demersal species	
			Glass eel fishing	Glass eel	
	Other activity than fishing				Other activity than fishing (OATF)
	Inactive				Inactive
Recreational fisheries				Only for these species: Blue tunas, Bala (BTFE)	

Task 1.2 – Main resources and activity components variables per Operational Units (cont).

■ Fishing period (start and end month) and Fishing Area

No problems encountered.

Other constraints:

- In cases where the fishing period of a particular fishery starts in one year and ends in the next (e.g. *Coryphaena* season between Aug 2009 and Jan 2010), which data is to be reported, while also taking into consideration the biological and economical parameters?
- It is not possible to separate data of three different traps specifically designed to target three different species namely, *Octopus vulgaris*, *Boops boops* and *Spicara* spp., under the same heading “traps” during the same fishing period. (Technical problem).

Task 1.4 – Effort variables

- **Effort measure** - according to Annex 2 of Resolution GFCM/31/2007/3.

Clarifications:

- Trawls: Gt*days means “average GT*Number of fishing days or days at sea?”
- Purse seine: Fishing sets means “number of fishing operations”?
- FAD’s: Number of FAD’s means “number of FAD’s fished” or number of FAD’s laid?”

Due to the above for 2009 the values of effort were expressed as follows:

- Time in Fishing Days
- Capacity in Average GT

The screenshot shows a software window titled 'Catch and Effort Details'. It contains several tabs and input fields. The 'Task 1.4 - Effort Details' tab is active, showing fields for 'Month', 'Value', 'Species', and 'Effort'. Below this, there are sections for 'Task 1.4 - Catch Details' and 'Task 1.4 - Effort Details' with various input fields and buttons. The interface is designed for data entry and calculation of effort variables.

Task 1.4 – Effort variables (cont).

Other constraints:

Calculation of fishing effort for trawls targeting both demersal shelf and demersal slope species during the same fishing operation/trip. (For the DCF Malta adopts the segmentation as detailed in EC 949/08, EC 93/2010 i.e. Mixed demersal and deep water species)

Solution: Divide effort in days by 2? (1 day/2 = 0.5 days)?

- **LPUE**
No difficulties encountered.

Task 1.5 – Provisional biological parameters

■ Length range of captured species and length average

At present, Malta can provide the mean length and length range for the following target species:

- *Thunnus thynnus* caught by drifting longlines and Tuna purse seines.
- *Xiphias gladius* caught by drifting longlines.
- *Coryphaena hippurus* caught by FAD's and drifting longlines.
- *Aristaeomorpha foliacea*, *Parapenaeus longirostris*, *Merluccius merluccius*, *Mullus barbatus* and *Mullus surmuletus* caught by bottom otter trawls.
- *Octopus vulgaris*, *Eledone* spp., and other cephalopods caught by pots, traps and trawls
- Shark species caught by longlines and, trawls

For other species such information may be obtained from survey data (MEDITS).

Task 1.5 – Provisional biological parameters (cont).

■ Sex & Maturity

These parameters were removed following discussions during the 10th Session of the CSI meeting in Malaga, Spain, 30 November – 3 December 2009.

During this meeting it was agreed that “Task 1.5 should only give partial biological information on the fraction of the population targeted by Operational Unit. Following the discussion, the SCSI suggested to maintain in this section only the fields related to the size of the fish (min, max and mean of the length measure) and remove the fields regarding sex and maturity scales”.

To be clarified as these parameters still appear in the database.

	<p>Task 1.3 – Economic components variables</p>
	<p>Economic variables collected as part of the Data Collection Framework (DCF) can be used with slight modification in terms of presentation for the purpose of the GFCM Task 1 concept</p> <ul style="list-style-type: none"> ■ Engine power No difficulties encountered. ■ Employment Total number of people employed per vessel will be used for the calculation of this variable. No difficulties are expected to be encountered.

	<p>Task 1.3 – Economic components variables (cont).</p>
	<ul style="list-style-type: none"> ■ Salary Share (%) <ul style="list-style-type: none"> ➤ Revenue used to calculate the percentage of salary share must include possible subsidies received and any other income apart from the revenue earned from the sale of landings? <i>Malta believes that total income including subsidies and other income for the purpose of this calculation should be used.</i> ➤ Guidelines state that salary and wages must be derived by deducting costs from revenue. It is also possible for Malta to calculate this as part of crew costs as it is already collected for the purpose of the Data Collection Framework.

	<p>Task 1.3 – Economic components variables (cont).</p>
	<ul style="list-style-type: none"> ■ Landing weight and Landing value No problems encountered ■ Vessel value of total fleet The capital replacement value per vessel will be used for the calculation of this variable. No difficulties are expected to be encountered. ■ Fishing days per year Means fishing days per year <u>per vessel?</u> ■ Fishing hours per day Means fishing hours per day <u>per vessel?</u>

	<p>Task 1.3 – Economic components variables (cont).</p>
	<ul style="list-style-type: none"> ■ Cost of fishing per day Malta assumes that the name of the variable cost of fishing per day means cost of fishing per day per vessel. ■ Yearly fixed costs Malta assumes that the name of the variable yearly fixed costs means yearly fixed costs per vessel. <p><i>Malta will not be able to present data (Task 1.3) of year n-1 by the month of May of year n but will only be able to present the data of the year n-2. This is due to the fact that an accounting year closes on the 31 December of each year and by May of the following year the accounts would not be readily available.</i></p>

	General Conclusions
	<p><i>By May 2011, if these clarifications are addressed, Malta should be able to overcome most of the above problems and constraints and thus be able to fulfil its obligations towards Recommendation GFCM33/2009/3 and submit its data related to GFCM Tasks 1.1, 1.2, 1.3, 1.4 and 1.5 on an annual basis.</i></p>

	<p>THANK YOU</p>