MEDAC WG1-WG5, Ljubljana 10 October 2019

Socio-economic indicator

Geographical and technical aggregation for indicators

MISEA
Fisheries and Aquaculture Economic Research

Main indicators used by STECF and GFCM

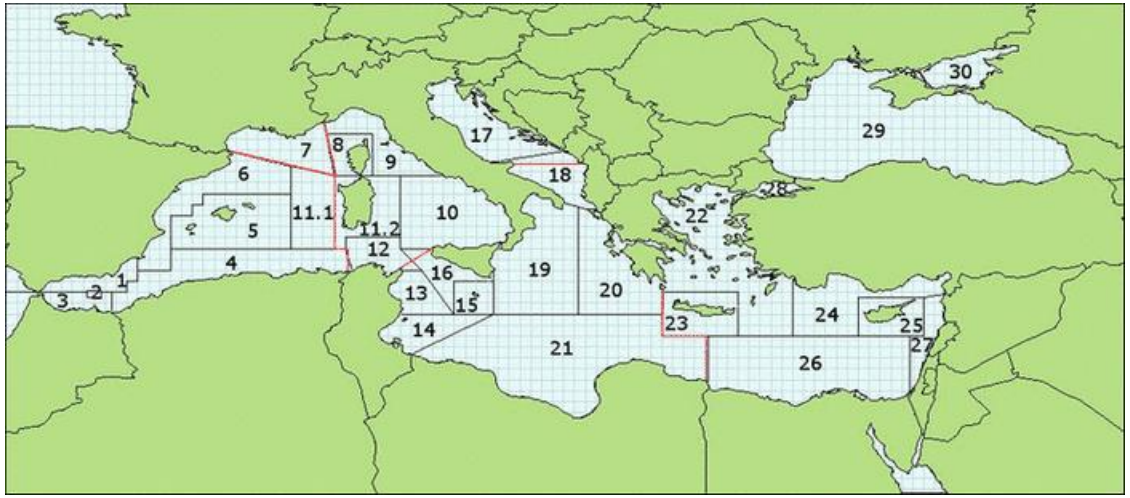
Indicators	Brief description
Indicator of the economic sustainability	Current Revenue (CR) /Break-even Revenue (BER)
Net Profit Margin (NPM) indicator of profitability	net profit / revenues
Return on Fixed Tangible Assets (ROFTA) and ROI (Return on Investment)	Measures of the efficiency of an investment estimated by comparing net profits to the capital invested
Economic dependency on the stocks	$Sum_{species\ of\ MAP}$ (weight * price) / Total revenues
Fleets' contributions to total landings	$Weight_{stock}$ / Total weight of stock
Gross Value Added	Added value that the fishery contributes to the economy
Social Indicators - FTE	Full-Time Equivalent (FTE)
Social Indicators - Average salary per employee	Labour cost / Number of employees

Aggregation Levels

- The level of aggregation of vessels for socio-economic indicators follows the levels of availability of data used to be estimated.
- Official statistics on fisheries socio-economic data are provided by EU-MAP (Reg. 2017/1004) and GFCM DCRF (Rec. GFCM/41/2017/6).
- Two main aggregation levels are defined:
  - Geographical level: Data are submitted by MS under EU-MAP and by GSA under DCRF.
  - Technical level: Data are submitted by fleet segment under EU-MAP and DCRF (fleet segments definitions are slightly different under the two data collection programmes)

Geographical level

- The geographical level is equivalent under EU-MAP and DCFR when the MS waters fall within a single GSA (like Slovenia, Croatia and Cyprus). It does not for other countries (like Italy, Spain and Greece).



- When data are provided, the most detailed level of geographical aggregation for the estimation of socio-economic indicators would be the GSA.

EU-MAP Technical level

- A fleet segment is the combination of a particular fishing technique category and a vessel length category.
- If a vessel spends more than 50 % of its time using a specific type of fishing technique, it should be included in the corresponding segment. If not, the vessel shall be allocated to the following fleet segment:
  - ‘vessels using Polyvalent active gears' if it only uses active gears;
  - ‘vessels using Polyvalent passive gears' if it only uses passive gears;
  - ‘vessels using active and passive gears'.

				Vessel_Length classes (LOA) (1)					
				0-06m ; 0-10m	6-12m ; 10-12m	12-18m	18-24m	24-40m	40 or larger
Fishing Tech	Active vessels	Active gear	TBB						
			DTS						
			TM						
			PS						
			DRB						
			MGO						
			MGP						
		Passive gears PG	HOK	(2)	(2)				
			DFN						
			FPO						
			PGO						
			PGP						
		Polyvalent gears	PMP						
	Inactive vessels (3)								

DCRF Technical level

- A vessel is assigned to a group on the basis of the dominant gear used in terms of percentage of time: more than 50percent of the time at sea using the same fishing gear during the year.
- "Polyvalent vessels" are defined as all the vessels using more than one gear, with a combination of passive and active gear, none of which exceeding more than 50 percent of the time at sea during the year.

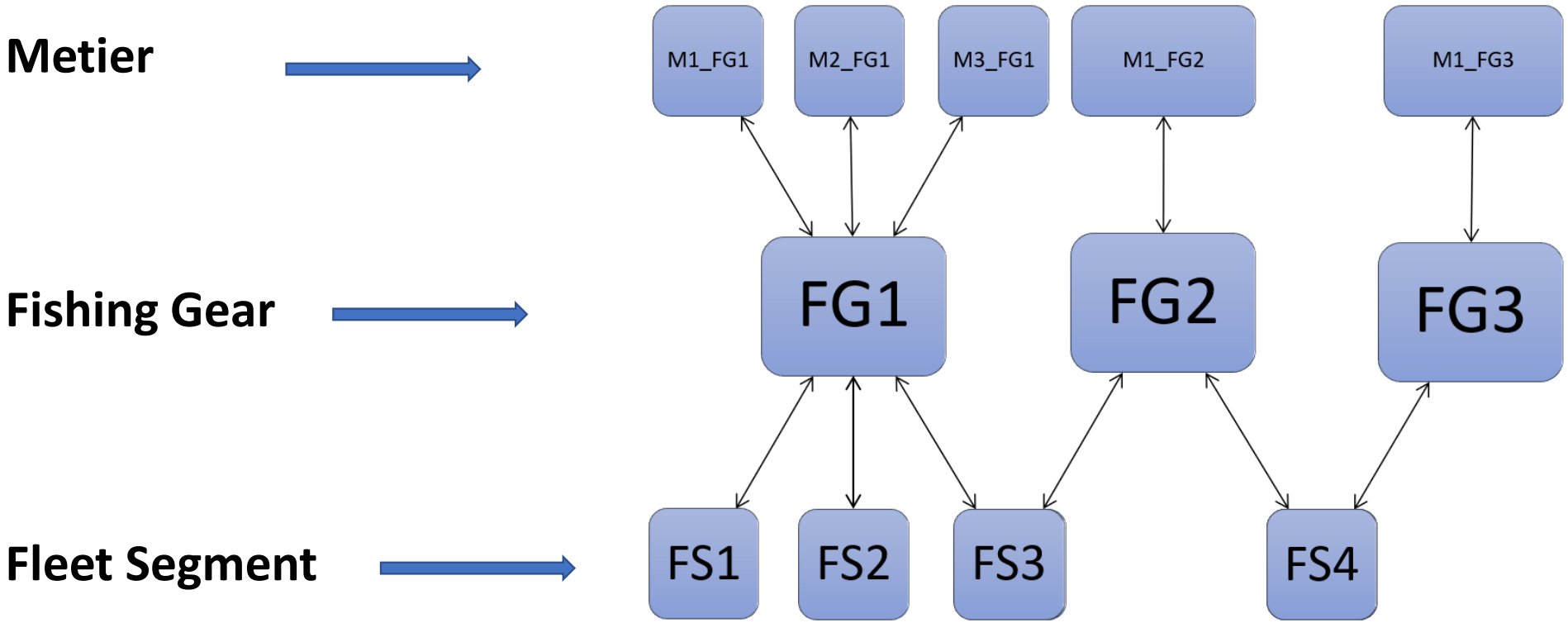
VESSEL GROUPS			LENGTH CLASSES (LOA)			
			< 6 m	6 - 12 m	12-24 m	> 24 m
Polyvalent	P	Small-scale vessels without engine using passive gear	P-01	P-02	P-03	P-04
			P-13			
		Small-scale vessels with engine using passive gear	P-05	P-06	P-07	P-08
		Polyvalent vessels	P-09	P-10	P-11	P-12
					P-14	
Seiners	S	Purse seiners	S-01	S-02	S-03	S-04
					S-09	
		Tuna seiners	S-05	S-06	S-07	S-08
					S-10	
Dredgers	D	Dredgers	D-01	D-02	D-03	D-04
				D-05		
Trawlers	T	Beam trawlers	T-01	T-02	T-03	T-04
		Pelagic trawlers	T-05	T-06	T-07	T-08
				T-13		
		Trawlers	T-09	T-10	T-11	T-12
Longliners	L	Longliners	L-01	L-02	L-03	L-04
				L-05		

Is “Fleet segment – GSA” always sufficient?

- The aggregation level assumes homogeneity in the economic structure of vessels included in the group:
  - Is the combination “FS – GSA” always sufficient to ensure homogeneity in the economic structure?
- Does the combination “FS – GSA” provide enough information for fisheries management?
- Are there informative needs requiring estimates of socio-economic indicators at alternative aggregation levels?
- Two examples:
  - Fishing activity (métier);
  - The Jabuka/Pomo Pit.

Fishing activity or Metier

A fleet segment can use a number of fishing gear and a fishing gear can be used in a number of metier.



Jabuka/Pomo Pit authorized vessels

GSA	Fishing Tech.	LOA	N. 2018	N. Auth. 2019	%
17	DTS	VL1218	250	8	3%
17	DTS	VL1824	188	31	16%
17	DTS	VL2440	32	14	44%
17	PGP	VL1218	31	1	3%
17	PGP	VL1824	1	1	100%
17	TBB	VL2440	28	1	4%
18	DTS	VL1218	274	1	0%
18	HOK	VL1218	30	15	50%
18	PGP	VL1218	8	1	13%

Economic indicators from official statistics