

General remarks from Manuel Pérez

This proposal should be evaluated by the FDS WG and participating countries through the implementation of pilot surveys, as it includes concepts that may seem attractive in theory or are usual in developed industrial fisheries or nations with advanced, well-managed fisheries. Nevertheless, these elements may have limited practical value in the Caribbean (e.g. in small scale fisheries) where socioeconomic data are not considered a priority or seen as important, since their benefits are not fully understood.

The collection of socio-economic data is typically not included in ongoing data collection frameworks, with data generally gathered only when project funding is available for a limited period. Socio-economic data is primarily collected through frame surveys, which are conducted every 5 -10 years and provide a snapshot of fisheries during specific timeframes. Additionally, many countries lack management plans with clearly defined operational objectives for fisheries management, as well as benchmarks or reference points to assess the performance of their fisheries.

Transmission frequency and deadlines can change based on the type of fishery resource and extension of the fishing season. Therefore, reporting data by calendar year might not always be feasible.

It should be clear whether socioeconomic data is collected solely at the primary level or across the whole fishery or value chain. The data type and its relevance can differ based on the actors/ stakeholders involved at each stage. For example, in the Caribbean spiny lobster fishery prices depend on size, presentation (whole or tail), market (local or export), and season. Fishers rarely know the final price, making it difficult to estimate margins, profits, and how earnings are distributed.

1.1.1 Task VI: Socioeconomics

Objective

Monitor the economic and social status of the fishing sector in support to appropriate policies and strategies, especially in relation to promoting fishing as a source of livelihoods thanks to the long-term sustainability of resources and fleets.

Economic and social data are generally collected through sampling surveys using questionnaires, but for some fleet segments and some variables, other data sources could be used (e.g. administrative records, auction sales and census).

1.1.1.1 Task VI.1: Employment

Objective

Employment in the fishery sector is a useful indicator of the importance of the fishery sector in the region, with specific attention to be paid to gender, youth, decent/child labour, and more generally to the dynamics of populations engaged in fishing activities (primary production sector).

Description

This task aims to present the total number of fishers by fleet segment, gender (male/female), age group, time-use (full time employment, part time employment or occasional), level of education, and area for the reference year.

Age groups are set according to the ILO guidelines “Decent work indicators: for producers and users of statistical and legal framework indicators”, with categories <15 (for child labour); 15–24 (for youth employment); 24–65; >65 (See Appendix 7.1).

Time-use categories (full-time fisher / part-time fisher / occasional) refer to CWP and are described in Appendix 7.2. While country members should follow these definitions, they should provide along with the data the related metadata qualifying what is a full-time fisher, a part-time fisher and an occasional one.

Level of education is classified following the International Standard Classification of Education (ISCED 2011). For reporting purposes, education levels should be grouped into three categories: low education (ED 0–2), medium education (ED 3–4), and high education (ED 5–8) (See Appendix 7.3). Countries should report education data using this classification and, where necessary, provide metadata explaining how national education levels were mapped to ISCED categories.

Scope



This task addresses the primary fishery production sector.

WECAFC members involved

All WECAFC members.

Data to be reported *(fields in italics are optional)*

Field	Definition
Flag state	The ISO 3-alpha code of the country under which the fishing activity is conducted (See Appendix 1)
Year	The reference year for the collected data
Area	The fishing area or subarea (See Appendix 2)
Fleet segment	The fleet segment code (See Appendix 4)
Gender	The gender of fishers: Male / Female
Age group	The age group of fishers: 0-15 / 15-24 / 24-65 / >65 (See Appendix 7.1)

Time-use category	The level of involvement in fishing activities: Full-time fisher / Part-time fisher / Occasional (See Appendix 7.2)
Level of education	The level of education category: ED 0-2 / ED 3-4 / ED 5-8 (See Appendix 7.3) 
Count of fishers 	The number of fishers within the fleet segment for the specified gender, age group, time-use category and level of education (excluding workers in secondary sector)

Frequency and deadline of transmission

Once a year before the end of the first semester of the following year.


Data access and sharing rules (see Section 3.2)



- *First/preliminary data submission accessible to WECAFC member and FAO data manager for validation;*
- *The integration and validation are under the responsibility of the sole WECAFC data manager, who eventually decides the publishing as final reported data;*
- *Eventually publicly available.*

1.1.1.2 Task VI.2: Participation in fishing activities


Objective

The participation in fishing activities, measured by the number of fishers actively taking part in fishing activities, the intensity of such involvement and the number of full-time equivalent (FTE) jobs, is key for assessing the productivity of manpower, the assessment of individual income levels, and overall, the social impact of management decisions on specific fisheries. This Task is particularly important for hand collection fishing operations from shore. 

Description



The intensity of employment for fishers actively engaged in fishing activities, measured in numbers of persons and total number of days spent fishing and employment standardized as full-time equivalent (FTE).

FTE represents the number of fishers converted into full-time equivalent jobs, based on total annual hours worked, calculated using the national threshold for full-time employment in the fishery sector (See Appendix 7.3). Countries must specify in the metadata the national threshold used for FTE calculation to ensure transparency and comparability. 



Scope

This task addresses the primary fishery production sector, and concerns all fisheries with however a primary focus on fisheries under WECAFC Fishery Management Plan.

WECAFC members involved

All WECAFC members.

Data to be reported (*fields in italics are optional*)

Field	Definition
Flag state	The ISO 3-alpha code of the country under which the fishing activity is conducted (See Appendix 1)
Year	The reference year for the collected data
<i>Quarter/Month</i>	<i>Optional - The quarter or month if available</i> 
Area	The fishing area or subarea (See Appendix 2)
Fleet segment	The fleet segment code (See Appendix 4)
<i>Geartype</i>	<i>Optional – The ISSCFG geartype code (See Appendix 5.1)</i>
<i>Fishing mode</i>	<i>Optional, but important for fishing activities without vessel – The fishing mode code (See Appendix 5.2)</i>
Count of fishers	The number of fishers actively taking part to fishing activities within the fleet segment
Count of fishers x Days fishing	The number of fishers multiplied by number of fishing days (intensity of fishers' involvement in fishing activities)
Full-time equivalent (FTE) 	The number of fishers converted into full-time equivalent jobs, based on the total number of hours worked during the year. It is calculated by dividing the total hours worked in the fleet segment by the national threshold for full-time work in the fishery sector (See Appendix 7.4).

FDS-WG2 noted that in future developments, this indicator could be provided by fishery as identified in the WECAFC-FIRMS inventory of fisheries.

Frequency and deadline of transmission

Once a year before the end of the first semester of the following year.

Data access and sharing rules (see Section 3.2)

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1.1.1.3 Task VI.3: Value of catches

Note: There is increasing global policy demand for assessing the value of capture fisheries, and CWP has added at its 26th session (May 2019) this variable as part of the minimum data requirement for socioeconomic statistics at the global scale.

Objective

Assessment of the total income of the primary fishing sector and its contribution to national GDP e.g. for SDG indicator 14.7.1, trends analysis of average annual prices for commercial species; also a foundation for the assessment of the fleet socioeconomic performance.

Description

The monetary value of total capture fisheries production at first sale after landing of the catch (ex-vessel price), and the average value of species' prices/kg, in local currencies available for conversion in USD using appropriate average annual exchange rates. The value should exclude taxes, transportation costs and marketing expenses, and the profit of fishers. The concept of the ex-vessel price in some countries can correspond to the landed value and of first-hand selling (or first sale) price.

To ensure accurate regional comparison, countries must provide, as part of the metadata, a brief explanation of how ex-vessel price is defined and calculated nationally, including any components that may be included or excluded in their valuation.


Scope

Value of catches should be reported in the WECAFC regional database for all species of the WECAFC reference list of aquatic species (Appendix 3).

WECAFC members involved

All WECAFC members.

Data to be reported (*fields in italics are optional*)

Field	Definition
Flag state	The ISO 3-alpha code of the country under which the fishing activity is conducted (See Appendix 1)
Year 	The reference year for the collected data
Area	The fishing area or subarea (See Appendix 2)
Fleet segment	The fleet segment code (See Appendix 4)
Species	The scientific name of the commercial species (See Appendix 3)

Total nominal catch	The weight of total landed fish for the given species in live weight equivalent (in tonnes).
Unit price by species	The average ex-vessel price for the given species (price/kg) during the reference year (in local currency) - (converted into US\$ in the regional database)
Total landing value	The total monetary value of total landed fish for the given species, based on ex-vessel prices (in local currency) - (converted into US\$ in the regional database)
Currency	The ISO 4217 currency code (e.g. USD for US dollar) in which the species value is reported (See Appendix 7.5)

Frequency and deadline of transmission

Once a year before the end of the first semester of the following year.

Data access and sharing rules (see Section 3.2)

- *First/preliminary data submission accessible to Member country and FAO data manager for validation; includes conversion of local currencies into USD by FAO manager;*
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1.1.1.4 Task VI.4: Income breakdown

Objective

Income breakdown provides detailed data on the various sources of income earned by fishers, allowing for a comprehensive understanding of their economic livelihoods. This task supports the assessment of fishers' dependency on fishing activities, the role of vessel-related activities, and the extent of their diversification into other economic sectors. Such information is important for evaluating the socio-economic resilience of fishing communities and informing policies aimed at improving fishers' welfare and sustainability.

Description

This task presents fishers' annual income differentiated by income source. Income is broken down into three distinct categories: income derived directly from fishing activities (ex-vessel earnings from the sale of catches), income from vessel-related activities (e.g. boat-based tourism, transportation, leasing of fishing equipment or vessels), and income generated from sectors outside the fishing industry (e.g. agriculture, construction, or other non-fishing economic activities). Income data should be reported annually by fleet segment and fishing area, clearly specifying the currency used).

The "Income from fishing" reported in this task should be based on ex-vessel prices, and should be consistent with the species-specific "Total landed value" reported under Task VI.3. To obtain this value, countries can aggregate the total landed value across all species reported under Task VI.3. Where differences exist due to data sources or estimation methods, these should be explained in the metadata.

Scope

This task addresses the primary fishery production sector.

WECAFC members involved

All WECAFC members.

Data to be reported

Field	Definition
Flag state	The ISO 3-alpha code of the country under which the fishing activity is conducted (See Appendix 1)
Year	The reference year for the collected data
Area	The fishing area or subarea (See Appendix 2)
Fleet segment	The fleet segment code (See Appendix 4)
Income from fishing	The total annual amount of income specifically from the sale of fish caught (ex-vessel earnings)
Income from fishing-related activities	The total annual amount of income from vessel-based tourism, transport, leasing, or other activities that directly involve the fishing vessel, gear, or equipment (excluding income from fish sales)
Income from other sectors	The total annual amount of income from non-fishing sources (e.g. agriculture, construction, etc.)
Currency	The ISO 4217 currency code (e.g. USD for US dollar) in which the species value is reported (See Appendix 7.5)

Frequency and deadline of transmission

Once a year before the end of the first semester of the following year. Countries that do not have annual socio-economic surveys in place can submit this task on a biennial basis.

Data access and sharing rules (see Section 3.2)

- *First/preliminary data submission accessible to Member country and FAO data manager for validation; includes conversion of local currencies into USD by FAO manager;*
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1.1.1.5 Task VI.5: Operating costs

Objective

Monitoring operating costs provides essential information on the economic performance of fishing activities. The collection of cost data allows for an assessment of cost structures across different fleet segments and provides insights into the financial burden faced by fishers. This information is key for evaluating trends in profitability and analyzing the economic sustainability of fishing operations.

Description

This task captures the main operating costs incurred in the primary fishery production sector. Data should be collected on personnel costs, energy consumption and costs, repair and maintenance, commercial costs, and other variable costs directly or indirectly related to fishing effort. Costs should be reported in local currency and cover the reference year. The information collected will contribute to economic assessments of fisheries performance, including analyses of Gross Value Added (GVA) and Gross Profit at the fleet segment level. It may also be used to calculate macroeconomic indicators at the national level, such as the Contribution of the fisheries sector to GDP and the GVA-to-revenue ratio.

Scope

This task addresses the primary fishery production sector.

WECAFC members involved

All WECAFC members.

Data to be reported

Field	Definition
Flag state	The ISO 3-alpha code of the country under which the fishing activity is conducted (See Appendix 1)
Year	The reference year for the collected data
Area	The fishing area or subarea (See Appendix 2)
Fleet segment	The fleet segment code (See Appendix 4)

Personnel costs	Crew wages, including social security costs and imputed value of unpaid labour (e.g. the vessel owner's own labour).
Energy consumption	The consumption of fuel in litres (regardless of the fuel type).
Energy costs	Total amount paid for fuel in local currency.
Repair and maintenance costs	Costs for maintenance and repairs of fishing equipment, gear and vessel parts.
Commercial costs	Costs related to sales of vessel output. This includes fish market or wholesaler's fees, transportation of production, purchasing of ice, boxes and packaging.
Other variable costs	All purchased inputs (goods and services) related directly or indirectly to fishing effort (e.g. bait, food consumed during the fishing operation) plus the purchase of components of assets (gear or vessel) only if these do not improve the lifetime of the asset itself (consumed within the given year).
Fixed costs	The costs not directly connected with the operational activities and that are incurred regardless of the level of fishing activity during the year. These may include bookkeeping, vessel insurance, legal and/or bank expenses, annual quotas for fishers' associations, dock expenses, renewal of fishing licences, and other similar fixed obligations.
Currency	The ISO 4217 currency code (e.g. USD for US dollar) in which values are reported (See Appendix 7.5)

Frequency and deadline of transmission

Once a year before the end of the first semester of the following year. Countries that do not have annual socio-economic surveys in place can submit this task on a biennial basis.

Data access and sharing rules (see Section 3.2)

- *First/preliminary data submission accessible to Member country and FAO data manager for validation; includes conversion of local currencies into USD by FAO manager;*
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1.1.1.6 Task VI.6: Other economic aspects (optional)

Objective

Monitoring capital value, capital costs, operating subsidies, and investments in physical capital provides essential information on the financial structure of fishing activities. The collection of these data allows for an assessment of fleet value, depreciation, and financial support mechanisms across different fleet segments.

Description

These data are optional but can contribute to a better understanding of financial sustainability and investment patterns in the sector. Countries are encouraged to report available information, even if only partial data can be provided.



Scope

This task addresses the primary fishery production sector.

WECAFC members involved

All WECAFC members.

Data to be reported

Field	Definition
Flag state	The ISO 3-alpha code of the country under which the fishing activity is conducted (See Appendix 1)
Year	The reference year for the collected data
Area	The fishing area or subarea (See Appendix 2)
Fleet segment	The fleet segment code (See Appendix 4)

Capital costs	<p>Depreciation costs plus Opportunity costs.</p> <ul style="list-style-type: none"> • Depreciation costs: consumption of fixed capital; this represents the reduction in value of the fixed assets used in production during the accounting period resulting from physical deterioration, normal obsolescence or normal accidental damage. • Opportunity costs: the capital value is related to the opportunity cost of capital, or the required rate of return that is the rate of return that a company would otherwise be able to earn at the same risk level as the investment that has been selected. The opportunity cost of production is the value of the firm's best alternative use of its resources.
Capital value	Value of the vessel (i.e., the hull, engine, all on board equipment and gear). The capital stock must be valued at the prices of the current year and should be depreciated.
Operating subsidies	Direct payments received for operational support (e.g., fuel refunds, compensation for halted fishing). Excludes social benefits and indirect subsidies.
Investment in physical capital	Value of improvements made to vessels and gear that extend asset lifetime (not consumed within the year).
Currency	The ISO 4217 currency code (e.g. USD for US dollar) in which values are reported (See Appendix 7.5)

Frequency and deadline of transmission

Once a year before the end of the first semester of the following year. Countries that do not have annual socio-economic surveys in place can submit this task on a biennial basis.

Data access and sharing rules (see Section 3.2)

- *First/preliminary data submission accessible to Member country and FAO data manager for validation; includes conversion of local currencies into USD by FAO manager;*
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- *Eventually publicly available.*

Appendix 7 – Socioeconomics

Appendix 7.1 – Age groups

The age groups adopted for WECAFC employment statistics follow the ILO guidelines “Decent work indicators: guidelines for producers and users of statistical and legal framework indicators” (ILO, 2013).

The categories are:

- <15 years old (for child labour considerations)
- 15–24 years old (for youth employment considerations)
- 24–65 years old
- >65 years old

Source: ILO. 2013. *Decent work indicators – Guidelines for producers and users of statistical and legal framework indicators. ILO Manual, Second version.* December 2013. Geneva. www.ilo.org/wcmsp5/groups/public/---dgreports/---integration/documents/publication/wcms_229374.pdf

Appendix 7.2 – Time-use classification

The Coordinating Working Party on Fishery Statistics (CWP) Handbook provides a standardized time-use classification to distinguish fishers based on their level of engagement in fishing activities.

The three categories defined by the CWP are as follows:

- **Full-time fisher:** Receives at least 90% of their livelihood from fishing or spends at least 90% of their total working time engaged in fishing activities.
- **Part-time fisher:** Receives at least 30% but less than 90% of their livelihood from fishing, or spends at least 30% but less than 90% of their working time engaged in fishing activities.
- **Occasional fisher:** Receives less than 30% of their livelihood from fishing or spends less than 30% of their working time engaged in fishing activities.

Source: FAO. 2025. Coordinating Working Party on Fishery Statistics (CWP) – Fishers. In: FAO Fisheries and Aquaculture Division. Rome. Cited 30 March 2025. <https://www.fao.org/cwp-on-fishery-statistics/handbook/capture-fisheries-statistics/fishers/en/>

Appendix 7.3 – Level of education

The level of education groups adopted follow the 2011 International Standard Classification of Education (ISCED 2011) aggregated into three reporting groups:

[ED0-2] Low education: Less than primary, primary and lower secondary education (ISCED levels 0-2)

- ISCED 0: Early childhood education ('less than primary' for educational attainment)
- ISCED 1: Primary education
- ISCED 2: Lower secondary education

[ED3-4] Medium education: Upper secondary and post-secondary non-tertiary education (ISCED levels 3 and 4)

- ISCED 3: Upper secondary education
- ISCED 4: Post-secondary non-tertiary education

[ED5-8] High education: Tertiary education (ISCED levels 5-8)

- ISCED 5: Short-cycle tertiary education
- ISCED 6: Bachelor's or equivalent level
- ISCED 7: Master's or equivalent level
- ISCED 8: Doctoral or equivalent level

Source: UNESCO. 2012. *International Standard Classification of Education: ISCED 2011*. Montreal, Canada, UNESCO Institute for Statistics <https://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>

Appendix 7.4 – Full-time equivalent (FTE)

Full-time equivalent (FTE) is an indicator expressing the workload of employed individuals in a standardized manner, making workloads comparable across fisheries, regions, and employment types. It represents employment in terms of full-time jobs, considering actual hours worked relative to a nationally defined threshold for full-time employment.

FTE is calculated based on the ratio of the total annual hours worked to the national threshold. Each fisher or crew member is counted as follows:

- If a fisher or crew member's annual working hours are equal to or exceed the national threshold, they are counted as exactly 1 FTE:

$$FTE = 1$$

- If a fisher's annual working hours are below the national threshold, the fisher's FTE is calculated proportionally:

$$FTE = \text{Annual hours worked} / \text{National threshold}$$

The FAO Handbook for fisheries socio-economic sample surveys (Pinello, Gee & Dimech, 2017) proposes a methodology to calculate FTE at the fleet segment level:

$$FTE = \frac{\text{Total annual hours worked in the fleet segment}}{\text{National threshold}}$$

with:

$$\begin{aligned} & \text{Total annual hours worked in the fleet segment} \\ &= (\text{Number of vessels per segment from the fleet register}) \\ &\times (\text{Average number of days at sea for the fleet segment}) \\ &\times (\text{Average number of crew per vessel for the fleet segment}) \\ &\times (\text{Average number of hours of work per crew member per day at sea for the fleet segment}) \end{aligned}$$

Each country sets its own national threshold according to the specific characteristics of its fisheries sector. Common approaches include adopting the standard annual working hours defined by national labour laws or regulations (e.g., 1,760 hours/year, calculated as 8 hours/day × 20 days/month × 11 months/year) or using the annual working hours from comparable economic sectors (such as agriculture), typically ranging from approximately 1,760 to 2,000 hours per year.

Source: Pinello, D., Gee, J. & Dimech, M. 2017. *Handbook for fisheries socio-economic sample survey – principles and practice*. FAO Fisheries and Aquaculture Technical Paper No. 613. Rome, FAO.
<https://openknowledge.fao.org/server/api/core/bitstreams/63929db4-4651-4fd2-9867-144723650992/content>

Appendix 7.5 – Currency

The international standard for currency codes ISO 4217 (e.g. USD for US dollar):

	Country	Currency	ISO 4217 currency code
1	Antigua and Barbuda	East Caribbean Dollar	XCD
2	Bahamas	Bahamian Dollar	BSD
3	Barbados	Barbados Dollar	BBD
4	Belize	Belize Dollar	BZD
5	Brazil	Brazilian Real	BRL
6	Colombia	Colombian Peso	COP
7	Costa Rica	Costa Rican Colon	CRC
8	Cuba	Cuban Peso	CUP
9	Dominica	East Caribbean Dollar	XCD
10	Dominican Republic	Dominican Peso	DOP
11	European Union	Euro	EUR
12	France	Euro	EUR
13	Grenada	East Caribbean Dollar	XCD
14	Guatemala	Quetzal	GTQ
15	Guinea	Guinean Franc	GNF
16	Guyana	Guyana Dollar	GYD
17	Haiti	Gourde	HTG
18	Honduras	Lempira	HNL
19	Jamaica	Jamaican Dollar	JMD
20	Japan	Yen	JPY
21	Mexico	Mexican Peso	MXN
22	Netherlands	Euro	EUR
23	Nicaragua	Cordoba Oro	NIO
24	Panama	Balboa	PAB
25	Republic of Korea	Won	KRW
26	Saint Kitts and Nevis	East Caribbean Dollar	XCD
27	Saint Lucia	East Caribbean Dollar	XCD
28	Saint Vincent/Grenadines	East Caribbean Dollar	XCD
29	Spain	Euro	EUR
30	Suriname	Surinam Dollar	SRD
31	Trinidad and Tobago	Trinidad and Tobago Dollar	TTD
32	United Kingdom of Great Britain and Northern Ireland	Pound Sterling	GBP
33	United States of America	US Dollar	USD
34	Venezuela (Bolivarian Republic of)	Bolívar Soberano	VES

Source: ISO. 2022. ISO 4217 Currency codes. In: *International Organization for Standardization*. Geneva. Cited 12 December 2022. www.iso.org/iso-4217-currency-codes.html