CWP

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Towards a statistical definition of Small-Scale Fisheries: an update on the use of a matrix scoring approach to the characterization of scale of fishing units

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CWP

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- **Identified** need for standards on Small-Scale Fisheries (SSF) to monitor SDGs (especially 14.b)

- **Noted** FAO VGSSF, recognize a single, global **definition** of "small-scale fisheries" is not possible

- **Reiterated** CWP mandate to provide standards for enabling comparability of global statistics - <u>not yet instructed to address statistics according operational scale</u>

- **Requested** consideration to develop <u>**non-prescriptive guidelines**</u> on common elements to identify SSF:
    - Support development of a standard for SSF statistics
    - Contribute to sector-disaggregated data collection at country level

- **Recommended** countries, regional & subregional organizations choose own definition of small-scale according to their management needs and political incentive

- **Requested** further input and update from FAO CWP Secretariat

Why characterize small-scale fisheries?

- Challenge to practically identify small-scale fisheries
  - to support policy and management, without using restrictive, overly-rigid quantitative metrics
- National level
  - Differentiation of scale of operations may be required for management or for focussed policy objectives
  - SSF definition may appear in management frameworks or national legislation
  - Typically single/limited number of quantitative metrics
- Global level only soft definitions limits comparison between countries and regions
- No individual metric with a cut-off point capable of distinguishing between small-scale and larger-scale fishing activity

Characterization Matrix approach

- Applied a range of elements related to fishing units
- Characteristics relate:
  - Vessel size, motorization
  - Gears active/passive, mechanization
  - Storage/refrigeration
  - Crew, type of ownership
  - Time commitment, trip duration/distance
  - Harvesting operation
  - Disposal of catch, value adding
  - Integration in management system/economy
- Each characteristic has 4 levels described across range of scale from small to industrial
- A score is given (0 to 3) - Aggregate score indicates location of the unit on the continuum of SSF to LSF
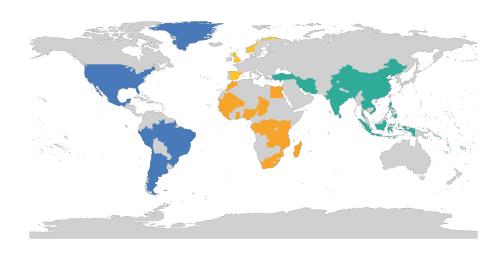
Matrix testing – Illuminating Hidden Harvest SSF study

- Since the 27th Meeting of the FS the matrix scoring approach has been applied within the "Illuminating Hidden Harvests" (IHH) global study of SSF.

- IHH commissioned case studies of SSF from 58 countries

- Individual fisheries covered were scored using the matrix.

- Importantly, the fisheries which were identified by the case study authors were those that we considered to be SSF within their national contexts

58 countries and territories span range of economic status and geographic locations.
Represented:
- 70% global marine catch
- 65% inland catch
- 77% marine fishers,
- 38% inland fishers and post-harvest inland workers
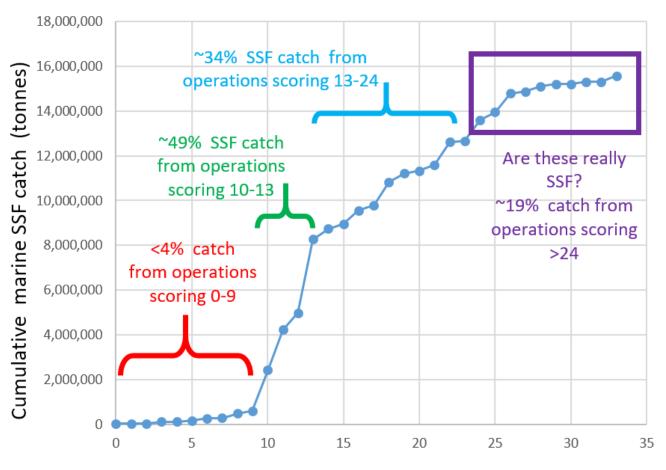
Example scoring result

- A marine fishing unit with the characteristics as follows, scores 11 which is a typical score of the smaller end of SSF

- Vessels less than 12m length with an outboard engine of less than 100hp

- Using gillnets and traps (passive gear) with no onboard mechanization

- Fishing for less than 6 hours per day, less than 10 km from shore, all year round

- Catch is stored in on deck iceboxes

- The vessel is operated by its owner and family members

- The catch is landed chilled and sold to local traders or locally processed

- The fishers/gear is licensed and the vessel is locally registered, but no landing fees are paid on the catch.

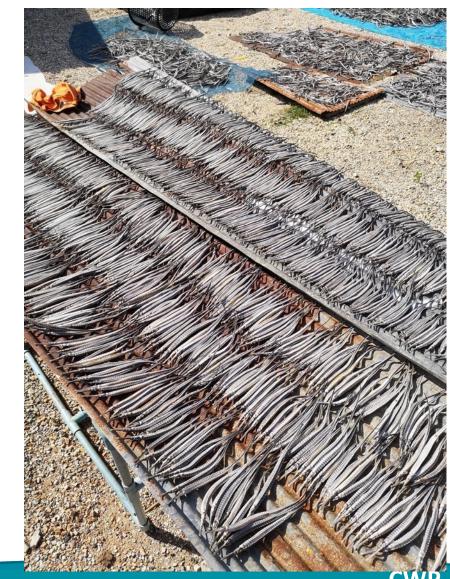| MARINE	SCORE			
Characteristics	0	1	2	3
Indicative gears				
1) Fishing gear	Labour intensive gear	Passive gear	Gear with aggregating devices	Highly active gear
2) Mechanization	No mechanization	Small power winch/hauler powered off engine	Independently powered gear deployment/hauling	Fully mechanized gear deployment & hauling
Vessel				
3) Size of fishing vessel	No vessel	<12m, <10GT	24m, <50GT	>24m, >50GT
4) Motorization	No engine	Outboard engine/inboard engine ≤100hp	inboard engine <400hp	inboard >400hp
Operations				
5) Daily trip/multi-day	< 6 hours	day trip (< 24 hours)	< 4 days	> 4 days
6) Fishing grounds / zone / distance from shore	< 100 m from shoreline/ baseline/ high-water mark	< 10 km from shoreline	< 20 km	>20 km from shoreline/ baselines
Storage / Preservation				
7)Refrigeration / storage	No (cold) storage	Ice box (i.e., on deck)	Ice hold (i.e., below deck)	Refrigerated hold
Employment / Labour				
8) Labour / crew	Individual and/or family members	Cooperative group	≤ 2 paid crew	> 2 paid crew
9) Ownership	Owner / operator	Leased arrangement	Owner	Corporate business
10) Time commitment	Occasional	Full-time, but seasonal	Part-time all year	Full-time
Use of catch				
11) Disposal of catch	Household consumption / barter (exchange for payment in goods or services)	Local direct sale at landing site (exchange for monetary payment)	Sale to traders	Onboard processing and/or delivery to processors
12) Utilization of catch, value adding / preservation	For direct human consumption	Chilled/locally processed/cured	Frozen	Frozen/chilled for factory processing (for human consumption or fishmeal)
13) Integration into economy and/or management system	Informal not integrated (no fees required)	Integrated (registered, untaxed)	Formal, integrated (licensed fisher, payment of landing fees)	Formal, integrated (licensed, taxed)

Aggregate score – IHH Marine SSF

- Smallest scale <4% of total catch

- 49% of SSF marine catch is from fishing units scoring 10-13

- 34% of SSF marine from fishing units that have operational characteristics that are larger scale

- 19% of catch from fishing units that are <u>evidently</u> large-scale, scoring more than 24

Conclusions of the IHH study

- Evident that **rapid, and objective classification** of fishing operations based on multiple characteristics **is possible**

- **Helpful in data poor fisheries**, where comprehensive, statistical fleet data may not be collected or available

- Deeper analysis of the IHH data is expected to yield some more concrete conclusions regarding the **utility of the matrix approach as a tool for identifying key features of SSF at national level**

Will this move us towards a statistical definition?

- Matrix can assist with **developing national definitions**

- Will it support development of a standard for SSF statistics?
  - The matrix approach can provide **a common framework for attributing a score** to a fishing operation that links it to its scale of operation
  - **As part of non-prescriptive guideline** on common elements to identify SSF to contribute to sector-disaggregated data collection at country level are very possible
  - Potential to use the matrix to **identify regional metrics** and **move towards harmonization** at regional level.

- Globally-endorsed, quantitative statistical definition **<u>seems unlikely</u>**
  - Regional differences and those between developed and developing countries means that agreement on a definitive cut-off score is likely to be contentious.

CWP Intersessional Meeting conclusions
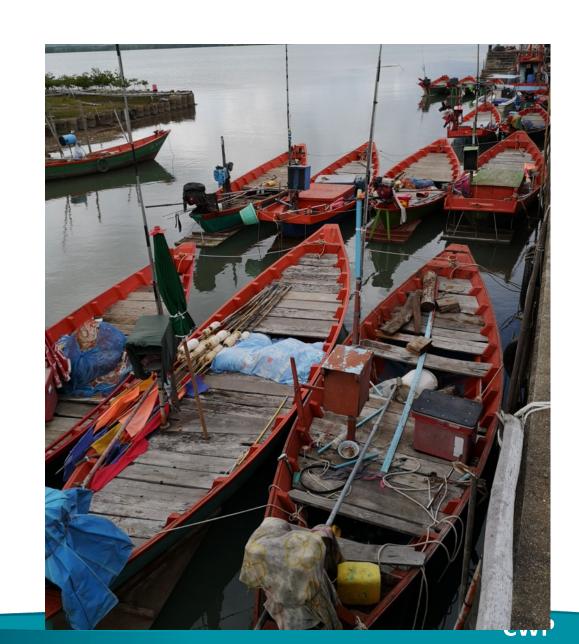
CWP-IS noted that:

- The matrix provides a standardized approach that can be applied to any fishery to understand where it lies along the continuum of small-scale to large scale fishing
- The **methodology** is easily applicable, suitable for data-limited fisheries and readily available for use by RFMOs involved in SSFs (e.g. IOTC, WCFC)
- The methodology is currently available in **English**
- The broad implementation of this methodology would require further consideration of how the data could be **standardized across CPCs and RFMOs**.

CWP parties were encouraged to:

- **test** the SSF Matrix for the characterization of fisheries
- consider **establishing a TG** at CWP27 in 2022 to further progress work on SSF
- consider the need for **translation** of the matrix methodology (currently in English only)

Feedback sought from CWP

- Is there interest in further testing of the matrix?

- Comparative analysis in its applications as research tool for Regional organizations?

- Possible next steps?

Thank you ▪ Merci
Благодарю ▪ ¡Muchas gracias!
謝謝 ▪ شكرا

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