



Food and Agriculture Organization
of the United Nations

Proposal for Regional Logbook Guidelines

For fishery management and stock assessment purposes

Revision history

Version	Description	Author(s)	Date
1.0	Creation	Yann Laurent	25 August 2016
2.0	Extension for CWP	Yann Laurent	29 May 2017
2.1	Renamed into guidelines Modular approach revised	Yann Laurent June Masters Nancie Cummings Marc Taconet Roy Bealey	12/06/2017
3.0	CORE module reviewed and validated	Nancie Cummings June Masters Yann Laurent	08/09/2017
3.1	v3.0 revision	Marc Taconet	08/10/2017
3.2	Compile all changes in a version ready for distribution	Yann Laurent	19/10/2017
3.3	Edition	Marc Taconet	24/10/2017
3.4	Review /CWP definition update	David Ramm	02/03/2018
3.5	Revise links to CWP web site Compile previous changes	Yann Laurent	03/04/2018
3.6	Adding terms definition	David Ramm	15/04/2018
4.0	Version for distribution	Yann Laurent	23/04/2018

Table of Content

1	INTRODUCTION	1
2	DEFINITIONS	2
2.1	Working definitions	2
2.2	Logbook related definitions	2
3	MODULAR APPROACH TO REGIONAL LOGBOOK	7
3.1	Why a modular approach?	7
3.2	Design/Implementation	8
4	LOGBOOK MODULES	12
4.1	Core Data: mandatory information on the fishing trip	12
4.1.1	Module 0: Administrative information	12
4.1.2	Module 1: Vessel	13
4.1.3	Module 2: Fishing Trip description	15
4.1.4	Module 3: landings / nominal catches	19
4.2	Detailed data	22
4.2.1	Module 4: Daily fishing activity reporting	22
4.2.2	Module 5: Biological data reporting	29
4.2.3	Module 6: Socio economic data	31
4.3	Module7: Logbook User Manual	32
5	APPENDIX	33
5.1	Appendix 1: glossary of all concepts and terms used on these guidelines	33
5.2	Appendix 1: list of reviewed logbooks and catch forms	36
5.3	Appendix 2: vessel and license data and information	37
5.4	Appendix 3: example of log book implementation	38

Acronyms and abbreviations

CECAF	Fishery Committee for the Eastern Central Atlantic
CWP	Coordinating Working Party on fisheries statistics
DCRF	Data Collection Reference Framework
DG MARE	Directorate-General for Maritime Affairs and Fisheries
eRS	electronic Reporting System
ICCAT	International Commission for the Conservation of Atlantic Tunas
IOTC	Indian Ocean Tuna Commission
ISSCFG	International Standard Classification of Fishing Gear
ISSCFV	International Standard Statistical Classification of Fishery Vessels
FAO	Food and Agriculture Organization of the United Nation
FDC	Fisheries Department Commercial
FLUX	Fisheries Language for Universal eXchange
FIRMS	Fisheries and Resource Monitoring System
RFMO	Regional Fisheries Management Organization
t-RFMO	tuna Regional Fisheries Management Organization
WECAFC	Western Central Atlantic Fishery Commission

1 Introduction

The need for guidelines to design logbook for fisheries data collection has been identified in the WECAFC region in response to several initiatives. One key initiative was the endorsement of regional fisheries management plans at regional level for conch, lobster and flying fish, recommending the implementation of data collection instruments such as logbooks for artisanal and industrial fleets (e.g., conch), and for improvement of existing national data collection systems (e.g., flying fish). The recommendation to improve national data collection systems was an output of the WECAFC-FIRMS Data Workshop held in January 2016 in Barbados¹, and was further reinforced after national reviews by Belize², St. Lucia³ and St. Kitts and Nevis⁴ which were done late 2016.

The Coordinating Working Party on fisheries statistics (CWP⁵) has proposed guidelines to logbooks⁶ which are currently being reviewed. The overarching aim of these guidelines was to adopt a broad approach to data collection through logbooks to provide the different and complementary types of information needed for fisheries monitoring and management, for stock assessment (biological data) and to quantify fishery impacts on the ecosystem. Logbooks can also provide the information required for by-catch monitoring and to assess the effectiveness of by-catch mitigation measures. Ultimately, the development of regional logbook guidelines may be submitted to CWP for review and adoption as a standard approach for use by countries and RFMOs worldwide.

In the process of building these guidelines, national and regional logbooks from the WECAFC region were reviewed (e.g., NOAA, Bahamas, Trinidad and Tobago CRFM FAD Fishery Model Logbook) as well as guidelines and recommendations from ICCAT. The review was extended to other national logbooks and other RFMOs recommendations (IOTC and CCAMLR), as well as DG MARE FLUX standards⁷. The list of reviewed documents is in Appendix 1.

The guidelines first present definitions used in the document, and introduce the modular approach used to develop the logbooks. The different modules are described and recommendations are made on developing a logbook user guide.

¹ <http://www.fao.org/3/a-i5789e.pdf>

² <https://goo.gl/kyA3je>

³ <https://goo.gl/r8JyZE>

⁴ <https://goo.gl/zKNDT3>

⁵ <http://www.fao.org/fishery/cwp/en>

⁶ <http://www.fao.org/fishery/cwp/handbook/O/en>

⁷ <https://circabc.europa.eu/w/browse/39c1f865-2f08-4d47-a92d-de327b13dd5d>

2 Definitions

Where possible, the definitions used in these guidelines are those endorsed by the CWP and/or FAO and these sources are indicated when used. Some definitions have been taken from other sources as indicated, and some definitions indicated ‘draft’ where developed for these guidelines and will be submitted to CWP for consideration. All concepts and terms used in these guidelines are defined in alphabetical order in the glossary in appendix 1.

2.1 Working definitions

Fish: The term “fish” refers to all species of living marine resources, whether processed or not. (Port State Measures Agreement - PSMA⁸)

Species: The term ‘species’ is also used herein in the broad sense and refers to both individual species (e.g.: *Epinephelus striatus*, Nassau grouper) and species groups (e.g.: *Epinephelus* spp., Groupers).

Species group: The term ‘species group’ refers to a collection of species which have been grouped together, often because these species are difficult to differentiate without detailed examination (very similar species) or because data for the separate species are not available (e.g. in fishery statistics or commercial categories). (SEAFDEC handbook on data collection⁹)

2.2 Logbook related definitions

A Data Collection Reference Framework is being developed for consideration by WECAFC. This framework proposes a set of indicators to be reported to WECAFC by Member Countries as well as itemizes the standard global or regional reference classifications to be used. The proposed logbook guidelines offer a framework to implement data collection methods to collect necessary fishery-related data for national fisheries management and policy making and stock assessment as well as reporting to WECAFC.

Fishery fleet (CWP¹⁰): The term "fishery fleet" or "fishery vessels" refers to mobile floating objects of any kind and size, operating in freshwater, brackish water and marine waters which are used for catching, harvesting, searching, transporting, landing, preserving and/or processing fish, shellfish and other aquatic organisms, residues and plants.

Fishing trip (draft, based on NOAA): The term ‘fishing trip’ refers to a period of time that begins when a fishing vessel departs from a dock, berth, beach, seawall, ramp, or port to carry out fishing activities and that terminates when the vessel returns to a dock, berth, beach, seawall, ramp, or port.

Fishing activity (draft): The term ‘fishing activity’ refers to activities associated with the catching operation, including searching for target species, catching of bait species, setting and hauling of fishing gear and processing of catch.

⁸ <http://www.fao.org/fishery/psm/agreement/en>

⁹ <http://www.seafdec.org/download/handbook-on-collecting-fishery-statistics/#>

¹⁰ <http://www.fao.org/cwp-on-fishery-statistics/handbook/capture-fisheries-statistics/fishery-fleet/en/>

Fishing vessel (CWP⁸): The term "fishing vessel" refers to a vessel which is engaged only in catching operations.

Non-fishing vessel (CWP⁸): The term "non-fishing vessel" applies to vessels performing other functions related to fisheries, such as supplying, protecting, rendering assistance or conducting research or training.

Fishing gear (FAO¹¹): Equipment used for fishing according to the international standard classification revised version (ISSCFG Rev1, 2010¹²). Each gear can have multiple configurations.

Catch and landings: These guidelines follow the advice of the CWP on catch and landings¹³. The CWP advises that the overall aim for statistics on catch and landings is to report on fisheries contribution to the national economy, to the provision of food (subsistence) and on the total removal of fish and other organisms from the sea. Catch statistics are internationally reported as nominal catch (see definition below) which refers to the landings converted to a live weight basis. However, fisheries impact on the ecosystem goes beyond the landed fish and other organisms and includes species impacted by the gear. Some of these species are brought on deck and later discarded. The various components of the catch are described in the CWP catch concept diagram (Figure 1). There are fisheries where the number of individuals caught is also required to be reported.

National and Regional fisheries organizations publish annually catch statistics in different forms. These statistics are available from the websites of these organizations. FAO publishes global fisheries statistics. These statistics are summarized in "FAO Statistical Yearbooks" and are available in more details from the FAO Fisheries and Aquaculture Statistics website. When using published catch and landing statistics it is to be recognized that non-reporting of landings is a major concern in some fisheries.

¹¹ <http://www.fao.org/cwp-on-fishery-statistics/handbook/capture-fisheries-statistics/fishing-gear-classification/en/>

¹² <http://www.fao.org/3/a-bt987e.pdf>

¹³ <http://www.fao.org/cwp-on-fishery-statistics/handbook/capture-fisheries-statistics/catch-and-landings/en/>

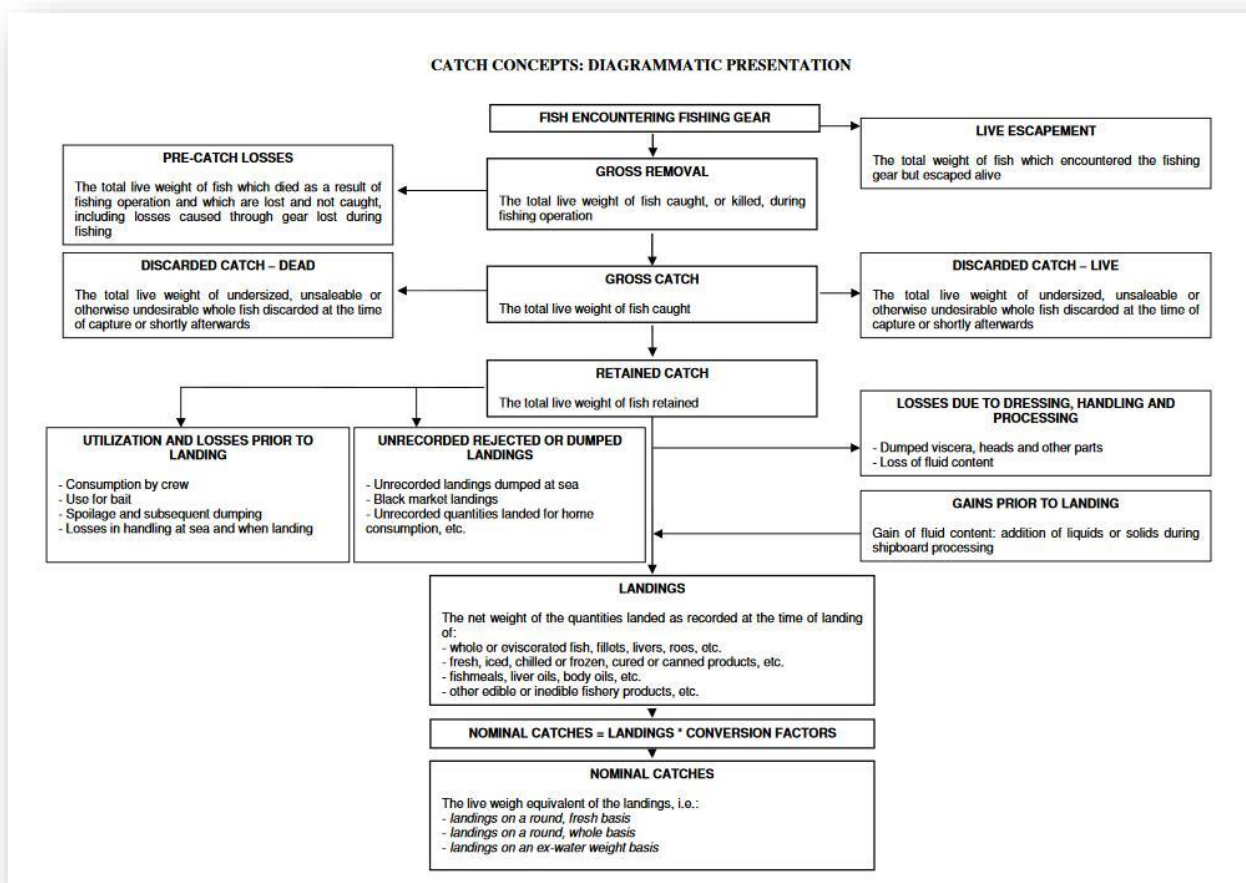


Figure 1: CWP diagrammatic representation of catch concepts. From CWP Handbook¹⁴

Live weight: The term ‘live weight’ refers to the weight of fish or other organisms when brought on board alive and prior to processing.

Retained catch (CWP¹¹): The term ‘retained catch’ refers to the component of the catch which is retained on board the fishing vessel (refer to the catch concept diagram, Fig. 1). The retained catch is reported as total live weight of fish and other organisms retained and in some fisheries the number of individuals retained is also required to be reported.

Discarded catch (CWP¹¹): The term ‘discarded catch’ (or discards) refers to the component of the catch which is discarded overboard (refer to the catch concept diagram, Fig. 1). The discarded catch is the total live weight of undersized, unsaleable or otherwise undesirable whole fish discarded at the time of the capture or shortly afterwards. Discarded fish and other organisms may be discarded dead or alive, and may include species taken as bycatch.

Bycatch (FAO): Part of a catch taken incidentally in addition to the target species towards which fishing effort is directed. Some or all of the bycatch may be returned to the sea as discards, usually dead or dying (i.e. injured).

Incidental catch: to be defined

Landing (CWP¹¹): The net weight of the quantities landed as recorded at the time of landing, including:

¹⁴ <http://www.fao.org/3/bt981t/bt981t.pdf>

- Whole or eviscerated fish, fillet, livers, roes, etc.
- Fresh, iced, chilled or frozen, cured or canned products etc
- Fishmeals, liver oils, body oils etc
- Other edibles or inedibles fishery products, etc.

Landed weight (CWP¹¹): The term ‘landed weight’ refers to the mass (often referred to as weight) of a product at the time of landing, regardless of the state in which it is landed. That is, the fish may be whole, or gutted or filleted. Consequently this measure is of limited use for further analysis except where it is known that the product is homogenous in nature. Where more detailed analysis of the data is required, the landed weight is generally converted to a more meaningful measure, the most frequently used being the "nominal catch" (see below).

Nominal catch (CWP¹¹): The term ‘nominal catch’ refers to the landings converted to a live weight basis. Nominal catch is often referred to as the "Live weight equivalent of the landings" or shortened to the "Live weight", and in some national publications it is also referred to as "Landings on a round, fresh basis", "Landings on a round, whole basis" or "Landings on an ex-water basis". Care should be taken when referring to the nominal catch as the ‘catch’ since in many situations the catch includes components which are not landed (refer to the catch concept diagram, Fig. 1).

Nationality of catch and landings (CWP¹¹): For the purpose of reporting national fishery statistics, the catch and landings is generally assigned to the country of the flag flown by the fishing vessel. However, the CWP recommended that this may be over-ridden only when one of the following arrangements between a foreign flag vessel and the host country exists: the vessel is chartered by the host country to augment its fishing fleet; or the vessel fishes for the country by joint venture contracts or similar agreements (as opposed to the ad-hoc practice of a vessel selling catches to a foreign vessel or landing catches at a foreign port) and the operation of such vessel is an integral part of the economy of the host country. In either case, the assignment of nationality to catch and landings data should be specified in the charter or joint-venture agreements.

Fleet Capacity (draft): the term ‘fleet capacity’ refers to a nominal measure of the capacity of a fleet of fishing vessels’ to conduct fishing activities. For statistical purposes, fleet capacity may be summarized by fishing vessel tonnage or type based on two international classifications adopted by the CWP:

1. The "International Standard Statistical Classification of Fishery Vessels by GRT Categories" (ISSCFV), based on the Gross Register Tonnage of the vessels, approved by the CWP in 1977. See ISSCFV GRT classification ¹⁵
2. The 'International Standard Statistical Classification of Fishery Vessels by Vessel Types' (ISSCFV), based on the type of gear used by the vessels, approved by the CWP in 1984¹⁶.

¹⁵ <http://www.fao.org/3/a-bt982e.pdf>

¹⁶ <http://www.fao.org/3/a-bt983e.pdf>

Fishing effort (CWP¹⁷): The term 'fishing effort' refers to the amount of fishing gear of a specific type used on the fishing grounds over a given unit of time e.g. hours trawled per day, number of hooks set per day or number of hauls of a beach seine per day. The impact of an effort unit on the fish populations and the ecosystem in general differs with the vessel that deploy the gear and effort statistics need to be qualified by vessel type and size/motor power.

The CWP advised that fishing effort should be reported at three levels of precision:

- Category A refers to a detailed unit of measure, e.g. hours fished or number of sets, etc. These units of measure will vary with the gear used;
- Category B refers to "number of days fished", i.e., the number of days on which fishing took place. For those fisheries in which searching is a substantial part of the fishing operation, days in which searching but no fishing took place should be included in "days fished" data;
- Category C refers to "number of days on ground" in addition to days fishing and searching also all other days while the vessel was on the ground should be indicated.

The effort may be nominal, reflecting the simple total of effort units exerted on a stock in a given time period. It may also be standard or effective when corrected to take account of differences in fishing power and efficiency and ensure direct proportionality with fishing mortality and this relates usually to a specific fishery and gear. If more than one gear is considered, standardization in relation to one of them is necessary. For biologists, a good measure of fishing effort should be proportional to fishing mortality. For economists it should be proportional to the cost of fishing.

¹⁷ <http://www.fao.org/cwp-on-fishery-statistics/handbook/capture-fisheries-statistics/fishing-effort/en/>

3 Modular approach to regional logbook

3.1 Why a modular approach?

These guidelines implement a modular approach to the development of regional logbooks, where various modules enable data collection and reporting for a fishing trip and related fishing activities with incremental levels of detail depending on the needs identified by the implementing country.

The goal of this modular approach is to provide the necessary data and information required to meet the fishery monitoring, assessment and management needs of a country which implements these regional guidelines. The logbook covers a broad range of data types which may be reported on a simple logsheet recording the daily activity of a small-scale fisher to a detailed logbook recording information per fishing event (e.g. set or haul). Logbooks may also provide a record of fishing operations for the master of a vessel¹⁸ or a method of collecting statistical information on commercial fishing activities¹⁹. Logbooks are to the relevant fishery authorities where the data information is stored in a secured database.

These guidelines identify common information to be collected in any type of fishery (CORE information) and additional, detailed information to be collected depending on a fishery's or country's requirements. These guidelines also provide a summary of regional best practices in logbook implementation.

The type and detail of information reported in the logbooks will depend on the relevant national and regional legal frameworks. In absence of such frameworks, reporting is done by fishers operating under the code of responsible fishing.

These guidelines reflect this variety of national situations in terms of legal provision for logbook. The modular approach identifies various logbook components (refer herein as sections) which are grouped under two data categories:

- core (mandatory) data to be collected by all fishers and which constitute the minimum data required for fisheries management and stock assessment (core data model). These core data should be reported for any type of logbook.
- detailed data depending on the final goal of the logbook (e.g., biological data required in detailed stock assessments).

Detailed data may also be required to analyse socio-economic aspects of fisheries and guidelines for the collection of such data are currently being developed by the CWP and FAO (refer to Jennifer's work).

The sections of the logbooks may include the term unit (indicated in italics [*Unit*]) which prompts the user to record the unit used for a specific measure (e.g., retained catch weight, recorded in kg or lb depending on the country/region).

¹⁸ https://ec.europa.eu/fisheries/cfp/control/technologies/ers_en

¹⁹ <http://www.fao.org/fishery/cwp/handbook/O/en>

Examples of logbook implementation from these guidelines are shown in Appendix 3.

3.2 Design/Implementation

The modular approach is based on modules made of different sections. Each section contain a set of information to be collected from the fisher / vessel captain. These information can be presented using different layouts or templates (graphical representations).

The guidelines implement the following [modules](#) / [sections](#):

- **CORE DATA** – Summary of fishing trip, applicable to all fisheries. All these information are **mandatory** in a logsheet / logbook as minimum required information of fisheries management.
 1. [Module 0](#): Administrative information on the logbook reporting process
 2. [Module 1](#): Vessel Information
 - a. [Section 1.1](#): vessel description
 - b. [Section 1.2](#): if there is no national vessel registry or record, it is necessary to have the fisher or the vessel captain to declare a comprehensive set of information on the vessel
 3. [Module 2](#): Fishing trip description
 - a. [Section 2.1](#): Trip information
 - b. [Section 2.2](#): Gear used with effort summary
 - c. [Section 2.3](#): Crew list [optional]
 4. [Module 3](#): Landings and nominal catches
 - a. [Section 3.1](#): Retained and discards declaration
 - b. [Section 3.2](#): Landings / nominal catches declaration
 5. [Section 1.3](#): nil fishing activity. A dedicated section is needed for the fisher's declaration of no fishing activity for a given period of time. (Is an independent section from module 2 and 3)
- **DETAILED DATA** – per fishing day, event or set. This detailed information can be requested from the fisher in addition to the CORE DATA to obtain more quantitative and qualitative information on ALL fishing activities during the considered fishing trip. This detailed information can be asked
 6. [Module 4](#): Daily Fishing Activity, with two cases considered: daily catches (retained and discarded) and fishing effort for the artisanal fleet; and detailed information per fishing event/set for the industrial fleet.
 - a. [Section 4.1](#): Catch and effort summary per day for artisanal fleets in small-scale fisheries
 - b. [Section 4.2](#): Catch and effort per event/set for other fleets in Coastal, semi-industrial or industrial fisheries; various templates available.
 - i. [Section 4.2.1](#): Effort per fishing activity
 1. Line set
 2. Net set
 3. Trap set
 4. Dive / compressor

Guidelines for WECAFC Regional Log Book

- ii. *Section 4.2.2*: Catch (retained and discarded) per fishing activity
 - iii. *Section 4.2.3*: Fishing FADs description per fishing activity
7. [Module 5](#): Biological data. This Module can be implemented as a separate observer logbook or an appendix to the fisher logbook
- a. *Section 5.1*: Length, weight, sex and maturity
 - b. *Section 5.2*: By-catch reporting ... should this be part of the catch? Include incidental mortality arising from fishing/ gear interaction
- **ADDITIONAL INFORMATION:**
8. [Module 6](#): Socio-economics data
- a. Fishing trip cost
 - b. Value of catch?

Guidelines for WECAFC Regional Log Book

The modular approach proposes solutions to a country to implement data collection processes. The approach defines a minimum set of information to be collected to address data needs for a country for a given type of fishery (small-scale, coastal, recreational or industrial fisheries) and purpose. For instance:

- **Module 1, 2 and 3** are mandatory as it enables collecting the minimum data required to monitor fishing activity and required to the minimum data required for stock assessment.
- To collect more information for stock assessment, **module 4** with detailed activities per fishing set is high recommended. **Module 5** must be considered to have more accurate data to feed more accurate models.

Table 1 Logbook sections required for fishery monitoring, management and/or assessment based on these guidelines and best practices

	Small Scale Fisheries daily activities summary (example; dinghies in Bahamas, artisanal fisher in the Caribbean)	Small Scale fisheries daily fishing detailed activities (ICCAT, monitoring FMP for conch / lobster / FF)	Mothership Examples conch/ lobster fishery Bahamas and Jamaica	Industrial fleet	
				Longliner	Trawler
Logbook aim	Collecting catch and effort data from small scale fishers going at sea during several days in a context of limited resource (human and financial) and no proper legal framework	Collecting catch and effort for specific reporting to ICCAT on large pelagic from artisanal fleet (legal framework) or for fisheries monitoring for certain species of high commercial value (need for fisheries management plan)	Monitoring landings from the vessel above 20 ft targeting conch and lobster	Collecting catch and effort data for fisheries management and stock assessment specifically for longliner	Collecting catch and effort data for fisheries management and stock assessment specifically for trawler
CORE					
Module 0: Administrative information on the logbook report process	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Module 2: Vessel information	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Detailed vessel information	Required when... (is recommended when no fishing vessel registry exists)	Optional (is recommended when no fishing vessel registry exists)	Not needed – FDC ²⁰ number is required	Optional (usually not need as a fishing vessel registry exists)	Optional (usually not need as a fishing vessel registry exists)
1.1- Trip description					
a) Trip general information	Mandatory	Mandatory	Mandatory	Mandatory	
b) Gear used with effort summary	Mandatory	Mandatory	Mandatory	Mandatory	
c) Catch Summary	Mandatory	Mandatory	Mandatory	Mandatory	
Appendix: no fishing activity reporting	Mandatory	Not needed as detailed daily activity is collected		Not needed as detailed daily activity is collected	Not needed as detailed daily activity is collected
DETAILED INFO					

²⁰ FDC: Fisheries Department Commercial = The Bahamas Department of Marine Resource registration number

Guidelines for WECAFC Regional Log Book

	Small Scale Fisheries daily activities summary (example; dinghies in Bahamas, artisanal fisher in the Caribbean)	Small Scale fisheries daily fishing detailed activities (ICCAT, monitoring FMP for conch / lobster / FF)	Mothership Examples conch/ lobster fishery Bahamas and Jamaica	Industrial fleet	
				Longliner	Trawler
4.1 - Catch and effort summary per day	Recommended	Not relevant as detailed information per day is collected		Not relevant as detailed information per day are collected	Not relevant as detailed information per day are collected
Or 4.1- Catch, effort and discards per fishing activity	Not relevant as summary data per day are collected	Mandatory	Not implemented but should be required	Mandatory: specific module for longline set	Mandatory: specific module for trawl haul
5- Biological data		Recommended on sample from landings	No	Recommended (Observer programme)	Recommended (Observer programme)
ADDITIONAL INFO					
6- Socio-economics data	Optional	Optional	Some trip cost should be collected	Optional	

Table 1: logbook guideline implementation proposal per type of fisheries

The modules in these guidelines may be implemented as paper-based or electronic logbooks as may be required by each country. Paper-based logbooks would require the completion of multiple pages for each module, while users of e-logbooks would create copies of each module as required. E-logbooks should also include error-trapping routines to facilitate the submission of quality assured data. Similar routines would need to be implemented at the data-entry stage of processing paper-based logbooks.

The collection and reporting of core data identified in these guidelines is the responsibility of the flag states and, as such, the data would be collected and reported by fishing vessels' captains and crew. The detailed data may also be collected and reported by the fishing vessels, or delegated to scientific observers (at-sea) or fishery enumerators (at-market). Data collected by observers and enumerators would be collected on separate logbooks and submitted through national or regional programs. The collection of detailed data by observers and enumerators may also require formal agreement between Flag State and the relevant national or regional program in order to coordinate the collection of detailed data and ensure comprehensive coverage of the fisheries.

4 Logbook modules

4.1 Core Data: mandatory information on the fishing trip

4.1.1 Module 0: Administrative information

The institution responsible for data collection should be represented through its official name, logo and address in the logbook header.

This template contains all necessary information for identifying the collecting institution or administration to trace back the document (Name of the officer collecting the information and the date of reception/collection).

Administrative information

Officer Name:

Affiliation:

Date of data submission:

Additional information for the name of the supervision/controller and date of validation may be included if required.

4.1.2 Module 1: Vessel

4.1.2.1 *Vessel description or information*

MODULE 1 - VESSEL INFORMATION

SECTION 1.1 - VESSEL DESCRIPTION

Trip number: [this should be assigned automatically by a system or in the printout book

(book number / book page number)]

SECTION 1.1 – VESSEL DESCRIPTION

Vessel Name:

Registration Number:

Flag:

Vessel home site/port:

Captain Name:

Owner Name:

Identification Number / permit number (fishing license):

Number of Crew:

This section provides a template to identify the vessel, primarily by its name and national unique identifier (identification / registration number). The fishing license number (when available at country level) must be reported. The reporting details for a vessel which is established in a fishery and reporting regularly to national authorities may be reduced to the vessel name and national unique identifier (identification / registration number), and the fishing license number (when available at country level).

The type of vessel information to be reported in this section depends largely on the existence of a centralized vessel registry or record at national level. If such a system is available, a registry unique identifier should be available and requested to be reported in the logbook by the vessel's captain.

If a centralized vessel registry is not available, more detailed vessel information should be reported in this section (see additional vessel description below). It can be also a choice of the country to request the captain to report all vessel information on the logbook for control and surveillance purposes, to

Guidelines for WECAFC Regional Log Book

ensure compliance of declared data on the logbook with registered information in the centralized information system.

Example of additional information to be collected for the vessel description

SECTION 1.2.a – additional VESSEL INFORMATION [Optional] (small-scale fisheries / for vessel registry update)

Owner address (address/city/region or island/country):

Owner phone number:

SECTION 1.2.c – Additional VESSEL INFORMATION [Required if the vessel is not included in a centralized registry]

IMO:

Year of construction:

IRCS:

Construction Location:

LOA: [unit]

Hull type: checkbox with list of hull type

Draught: [unit]
type

Vessel Type: checkbox with list of vessel

Beam: [unit]

GT: [unit]

..... [unit]

Main engine
power: [unit]

Additional information can be collected on the vessel itself (previous vessel name (s), previous Flag(s), Beneficial owner), on the fishing license (date of issuance, expiration date delivered by, etc..) and additional information related to any type of license or fishing authorization. See appendix 2 for proposed information to be collected

In most cases, the number of crew is sufficient. However, for safety at sea, the captain may wish to extend the crew list to include individual names and positions. Passport/ID numbers may also be included.

4.1.3 Module 2: Fishing Trip description

4.1.3.1 Fishing trip information

This section provides the template to collect all information on the fishing trip including date of departure, date of return, number of days spent fishing, area of fishing, etc...

MODULE 2 - FISHING TRIP DESCRIPTION

SECTION 2.1 – Fishing Trip DESCRIPTION

Departure date: / / time :..... Port* departed:

Return date: / / time :..... Port* returned:

Fishing Zone** : -

Time spent in the fishing zone(s): h / days
(h if less than one day at sea . / days if more than one day at sea)

Time spent fishing in the fishing zones): h / days
(h if less than one day at sea . / days if more than one day at sea)

Target Species***: - -
 - -

Type of fishing small-scale commercial fishing sport fishing

*“port” includes all points of departure/return, including port, village, beach, settlement
** drop down; if multiple zones/gears are used during the trip, please enter each separately
Please refer to the user manual for the fishing zones list
*** Please refer to the user manual for the target species list

Additional information can be collected on fishing gear specifications.

Guidelines for WECAFC Regional Log Book



This frame indicates a piece of information to be collected according to the national fishery context:

- **Target Species:** in most types of fisheries like industrial or recreational fishing, target species are clearly defined. In the case of multi-gear fisheries (artisanal fisheries), there can be no specific target species. If the logbook is designed to collect information from a multi-gear vessel, this might not be required but can be kept.
- **Question on commercial / sport fishing:** this is not required if the logbook is designed for a fleet operating only commercial or only sport fishing. This question is required in case vessels can be operated alternatively as commercial fishing (for a processing plant during the lobster season for instance) and as charter boat (during the high touristic season).

4.1.3.2 Gear used during the fishing trip and related effort

This section lists all the gears used during the fishing trip (primary and secondary) with the declaration of the total effort per gear during this period.

SECTION 2.2- Gear and effort DESCRIPTION

SECTION 1.3a – Gear DESCRIPTION

Primary gear (select one)

<input type="checkbox"/> gillnet mesh size:.....[unit] length of net:.....[unit] # nets operated #of hours gear fished :.....	<input type="checkbox"/> Seine mesh size :.....[unit] length of net:..... [unit] #of hours gear fished :.....	<input type="checkbox"/> Cast net mesh size:.....[unit] length of net:.....[unit] #of hours gear fished :.....
<input type="checkbox"/> Long lines Length of main line:.....[unit] # of hooks:..... # lines operated # of hours gear fished:.....	<input type="checkbox"/> Hook & lines Length of main line:.....[unit] # of hooks:..... # of hours gear fished:.....	<input type="checkbox"/> Traps mesh size/trap:....[unit] L W or V (*) # of traps:..... #of hours gear fished:.....
<input type="checkbox"/> Free diving # hours spent diving:.....	<input type="checkbox"/> Scuba diving Number of tanks:..... # hours spent diving:.....	<input type="checkbox"/> Compressor diving # hours spent diving:.....

Indicate if a **secondary gear** was used and which one

<input type="checkbox"/> Gillnet (add similar as above)	<input type="checkbox"/> Seine	<input type="checkbox"/> Cast net
<input type="checkbox"/> Long lines	<input type="checkbox"/> Hook & lines	<input type="checkbox"/> Traps

Use of FAD Yes

If yes: FAD ID, location(s) and hours spent around the FAD and the time:
 FAD ID / Location / hours(h) FAD ID / Location / hours(h)

(*) L = Length / W = width / V = Volume

Secondary fishing gear should be indicated is used. The logbook must be adapted to each country fleet context.

4.1.3.3 Crew list (optional)

SECTION 2.3- Crew list for this fishing trip

SECTION 1.3 - Crew list

Crew first name	Crew family name	Position

4.1.4 Module 3: landings / nominal catches

4.1.4.1 Introduction

This module offers section to collect from fisher information on the total catches done during the fishing trip defined in module 2 with the global effort reported also in module 2.

This module can be implemented to report retained and discards species (in weight; number could be added too) or to report products landings converted in nominal catches with a conversion factor used by the fisher.

4.1.4.2 Landings summary

MODULE 3 – Landings Summary

SECTION 3.1 – Retained and discards declaration (all weight are in live weight equivalent)

Landings	Quantity / Number			
Species	Nominal catch weight* <i>[unit]</i>	Nominal catch number* <i>[optional]</i>	Discarded weight* <i>[unit]</i>	Discarded number* <i>[optional]</i>
Lobster (<i>Panulirus argus</i>)				
Conch (<i>Strombus gigas</i>)				
Nassau Grouper (<i>Epinephelus striatus</i>)				
Barracuda (<i>Sphyraena spp.</i>)				
Wahoo (<i>Acanthocybium solandri</i>)				
Dolphinfish (<i>Coryphaena hippurus</i>)				
...				
...				

*live weight equivalent

If products are reported by the fisher, the section could be changed as follow to report nominal catches converted from the product quantity and the corresponding conversion factors used by the fisher.

Guidelines for WECAFC Regional Log Book

SECTION 3.2 – Landings / nominal catches declaration

Landings	Quantity [Unit]		
Product type	Landed product weight	Conversion Factor [optional]	Nominal catch weight *
Frozen Lobster (<i>Panulirus argus</i>)			
Conch body (<i>Strombus gigas</i>)			
Fresh Nassau Grouper (<i>Epinephelus striatus</i>)			
Fresh Barracuda (<i>Sphyraena spp.</i>)			
Wahoo (<i>Acanthocybium solandri</i>)			
...			
...			

*live weight equivalent

[to be discussed: need for a standard list of processed products.]

4.1.4.3 *Reporting Nil fishing activity*

Fishing vessels which have not conducted fishing activities during a defined reporting period (e.g. week, month, quarter) are required to submit a nil fishing report.

Reporting Nil fishing activity

Section 1.3 - Nil fishing activity report

Date from: DD / MM / YYYY
Date to: DD / MM / YYYY

Reason for nil fishing: maintenance at dock unloading other:

Nil fishing during the month of: MM/YYYY/.....

The implementation of this section in the national logbook can be done in several ways: adding at the end of the book a number of pages offering with the above section repeated many time (see appendix 3 for examples).

4.2 Detailed data

4.2.1 Module 4: Daily fishing activity reporting

This section provides a form to collect more detailed information on catch and effort on a daily basis.

Two distinct types of data are collected: either a daily recap for artisanal vessel activity or a comprehensive reporting of all fishing activities of the day. Both are presented under section 2.2 as both are exclusive.

Module 4 – Daily Fishing Activity
One page per set or haul
need to refer to the above trip description: trip #.... (from
section 1)

4.2.1.1 *Summary daily catch and effort reporting*

In this section (4.1), the captain will report the total catches of the day and when possible discards; effort deployed for these daily catches will be reported.

This section 4.1 shall be used when no detailed data per set (section 4.2) are collected.

SECTION 4.1: summary catch and effort data per day

Day: DD / MM / YYYY

Time spent fishing this day:

Gear 1 : gillnet Seine Cast net
 Long lines Hook & lines Traps

Soaked Time h

Gear 2 : gillnet Seine Cast net
 Long lines Hook & lines Traps

Soaked Time h

Target Species	Quantity <i>[Unit]</i>	Discards
Crawfish (<i>Panulirus argus</i>)		
Conch (<i>Strombus gigas</i>)		
Nassau Grouper (<i>Epinephelus striatus</i>)		
Barracuda (<i>Sphyraena spp.</i>)		
Wahoo (<i>Acanthocybium solandri</i>)		
Mahi Mahi (<i>Coryphaena hippurus</i>)		
...		

4.2.1.2 *Catch, Effort and discards per fishing activity*

This section presents the second option for section 4.1 with the detailed information per fishing activity per day.

SECTION 4.2: catch and effort data per day / per fishing activity

There are at least 4 models depending on the type of gear used as characteristics vary.

4.2.1.2.1 Line set

SECTION 4.2.1: Line Set information

Line Set number:

Start line set: date: DD/MM/YYYY / time: : – Coordinate at start: Longitude / Latitude

End line set: date: DD/MM/YYYY / time: : – Coordinate at end: Longitude / Latitude

Start line haul: date: DD/MM/YYYY / time: : – Coordinate at start: Longitude / Latitude

End line haul: date: DD/MM/YYYY / time: : – Coordinate at end: Longitude / Latitude

Area fished: (please refer to the area(s) defined in the manual section)

No of hooks: – Hook type: – Hook size: – Hook Offset:

Line material: – Line diameter: [unit]

Fishing Depth: Start: [unit] / End: [unit]

Use of baits: Yes No

Type of baits used

Artificial Yes No

If Natural: species: / ... quantity ... [unit]

/ ... quantity ... [unit]

/ ... quantity ... [unit]

/ ... quantity ... [unit]

In some case, start / end time for line lifting could be added.

For longliner, branchline information is also requested.

4.2.1.2.2 Net set

- **Trawler:**

SECTION 4.2.1: Tow information

Tow number:

Set details (see comment)

Start haul: date: DD/MM/YYYY / time::..... – Coordinate at start: Longitude / Latitude .

End haul: date: DD/MM/YYYY / time::..... – Coordinate at end: Longitude / Latitude .

Area fished:.....

Length of net:..... Depth of net:..... Mesh size:.....

Fishing Depth: Start: [unit] / End: [unit] Duration of Drag:.....

In some case, haulback start / end time could be added.

- **Seine net**

SECTION 4.2.1: Seine Set information

Seine Set number:

Start seine set: date: DD/MM/YYYY / time:..... – Coordinate at start: Longitude / Latitude .

End seine set: date: DD/MM/YYYY / time::..... Coordinate at end: Longitude / Latitude .

Start seine haul: date: DD/MM/YYYY / time:..... Coordinate at start: Longitude / Latitude .

End seine haul: date: DD/MM/YYYY / time::..... Coordinate at end: Longitude / Latitude .

Area fished:..... (please refer to the area(s) defined in the manual section)

Net length: – Net drop:

4.2.1.2.3 Trap set

SECTION 4.2.1: Trap information

Trap Set number:

Start trap set: date: DD/MM/YYYY / time::..... Position start: Longitude / Latitude

End trap set: date: DD/MM/YYYY / time::..... Position end: Longitude / Latitude

Area fished:.....

No of traps:

Trap type 1 size : Length (*[unit]*) x Width (*[unit]*) x Height (*[unit]*) - Mesh :

Trap type 2 size : Length (*[unit]*) x Width (*[unit]*) x Height (*[unit]*) - Mesh :

Average Depth Fished: Meters or fathoms

4.2.1.2.4 Daily Diving / use of compressor

SECTION 4.2.1: Diver / use of compressor information

Date: DD/MM/YYYY

Name of diver	Name of dory / canoe / dinghies	Coordinate Area fished		Hours spent diving	Average Depth		Species Catch <i>[unit]</i>	
		Lat	Long		Min	Max	Conch	Lobster
Total								

Guidelines for WECAFC Regional Log Book

4.2.1.2.5 Reporting Catch per set

For each above fishing activity, the table below is used to report catches and discards.

The total of daily reported catch minus discards should equal landing reported in section 4.1.

Note that date is not needed as set details are collected in the effort section.

SECTION 4.2.2: Catch data

Unsuccessful event/set (no fish caught)

Target Species	Quantity [<i>Unit</i>]	Discards
Crawfish (<i>Panulirus argus</i>)		
Conch (<i>Strombus gigas</i>)		
Nassau Grouper (<i>Epinephelus striatus</i>)		
Barracuda (<i>Sphyraena spp.</i>)		
Wahoo (<i>Acanthocybium solandri</i>)		
Mahi Mahi (<i>Coryphaena hippurus</i>)		
...		
...		

4.2.1.2.6 FAD use

If FAD are used for the considered fishing activity, characteristics are requested through this section for each set or trawl

SECTION 4.2.3: FAD use

Position (coordinates):lat / long.....

FAD number when available:

FAD type: drifting natural FAD drifting artificial FAD

FAD design characteristics:

Dimension:*[unit]*

material used in the floating part:

material used in the underwater hanging structure:

Type of the activity: set deployment hauling retrieving loss intervention on electronic equipment other:

4.2.1.2.7 Environmental parameters including SST

SECTION 4.2.3: Environmental parameters

Sea Surface temperature:° [unit]

To be discussed: Other?

4.2.2 Module 5: Biological data reporting

As indicated in section 3.2, this reporting could be done in a separate observers / data samplers book.

MODULE 5– Biological data

This section provides necessary template to collect biological data for stock assessment.

4.2.2.1 Length distribution

SECTION 5.1– landed species size DISTRIBUTION

DR: Similar to templates above, template needs to relate to trip/zone/gear/set etc and be normalized by species and perhaps measurement type? What does 'location' mean below?

Section 5.1

Total catch:[unit].....

Sample selection method:

Sample weight ...[unit]

Species*	Size Class	Number	location
Nassau Grouper	Size class 1 (a from b <i>[unit]</i>)		
	Size class 2 (b from c <i>[unit]</i>)		
	...		
	Size class n (y from z <i>[unit]</i>)		
...			

* See Manual for species list

4.2.2.2 Reporting By-catch data (Or wildlife and other protected Species)

DR: Suggest including bycatch in the catch section

Section 5.2: By-catch data

By-catch Species*	Quantity <i>[Unit]</i>	Discards	Condition when discarded	Location
...				
...				

* See Manual for species list

There could be some information on recapture of tagged animals.

4.2.3 Module 6: Socio economic data

This module can be considered as separate

4.2.3.1 Trip cost

Module 6 – Trip cost

Type of fuel	<input type="checkbox"/> Diesel	<input type="checkbox"/> Gas	other:.....
Cost of fuel:	..... [currency]	Cost of oil:	..... [currency]
Quantity of fuel:	..... [unit]	Quantity of oil:	..... [unit]
Bait cost:	..... [currency]		
Food cost:	..... [currency]		
Ice cost:	..... [currency]		
Other expenses cost:	..... [currency]		
Total trip revenue:	..... [currency]		

To be considered for discussion: crew cost

4.3 Module7: Logbook User Manual

The guidelines will provide guidance to draft the most adequate reference manual.

Module 7: LOGBOOK REFERENCE MANUAL

The user manual should provide the:

- Classifications used in the logbook: target species, by-catch species, gear, etc... For key species, identification elements should be provided
- Guidelines to fill out the different sections
- Examples of filled-out sections for user consideration

It can also provide general information on the fisheries legislations (rights and obligations for the considered fisheries including obligation to report), penalties for non-reporting and on how to report.

The manual should also indicate some quality assurance consideration: ensuring consistency across the different part of the logbook if the implementation is done in 2 separated paper books, sum of trip catch = sum for each individual fishing activity catch etc...

5 Appendix

5.1 Appendix 1: glossary of all concepts and terms used on these guidelines

(Note: this glossary is under development and currently does not include all terms used in the guidelines – definition in blue are draft definition i.e. not CWP definitions)

Biological data (draft): The term ‘biological data’ refers to the collection of data on biological characteristics of target species, bycatch and incidental catches associated with fishing.

Bycatch (FAO): Part of a catch taken incidentally in addition to the target species towards which fishing effort is directed. Some or all of the bycatch may be returned to the sea as discards, usually dead or dying (i.e. injured).

Catch and landings: These guidelines follow the advice of the CWP on catch and landings²¹. The CWP advises that the overall aim for statistics on catch and landings is to report on fisheries contribution to the national economy, to the provision of food (subsistence) and on the total removal of fish and other organisms from the sea. Catch statistics are internationally reported as nominal catch (see definition below) which refers to the landings converted to a live weight basis. However, fisheries impact on the ecosystem goes beyond the landed fish and other organisms and includes species impacted by the gear. Some of these species are brought on deck and later discarded. The various components of the catch are described in the CWP catch concept diagram (Cf. Figure 1). There are fisheries where the number of individuals caught is also required to be reported.

Discarded catch (CWP¹¹): The term ‘discarded catch’ (or discards) refers to the component of the catch which is discarded overboard (refer to the catch concept diagram, Fig. 1). The discarded catch is the total live weight of undersized, unsaleable or otherwise undesirable whole fish discarded at the time of the capture or shortly afterwards. Discarded fish and other organisms may be discarded dead or alive, and may include species taken as bycatch.

Fishery fleet (CWP²²): The term "fishery fleet" or "fishery vessels" refers to mobile floating objects of any kind and size, operating in freshwater, brackish water and marine waters which are used for catching, harvesting, searching, transporting, landing, preserving and/or processing fish, shellfish and other aquatic organisms, residues and plants.

Fishery sector (draft): The term ‘fishery sector’ refers to a subset of a fishery which shares similar technical, regional or socio-economic characteristics, such as a fishing fleet comprised of artisanal, commercial or subsistence fishers, or a fleet operating in domestic/EEZ waters or in the high seas.

Fishing activity (draft): The term ‘fishing activity’ refers to activities associated with the catching operation, including searching for target species, catching of bait species, setting and hauling of fishing gear and processing of catch.

Fishing gear (draft, based on FAO²³): The term ‘fishing gear’ refers to specialized equipment used for catching fish and defined according to the international standard classification revised version (ISSCFG Rev1, 2010²⁴). Each gear can have multiple configurations.

²¹ <http://www.fao.org/cwp-on-fishery-statistics/handbook/capture-fisheries-statistics/catch-and-landings/en/>

²² <http://www.fao.org/cwp-on-fishery-statistics/handbook/capture-fisheries-statistics/fishery-fleet/en/>

²³ <http://www.fao.org/cwp-on-fishery-statistics/handbook/capture-fisheries-statistics/fishing-gear-classification/en/>

²⁴ <http://www.fao.org/3/a-bt987e.pdf>

Fishing trip (draft, based on NOAA): The term 'fishing trip' refers to a period of time that begins when a fishing vessel departs from a dock, berth, beach, seawall, ramp, or port to carry out fishing activities and that terminates when the vessel returns to a dock, berth, beach, seawall, ramp, or port.

Fishing vessel (CWP⁸): The term "fishing vessel" refers to a vessel which is engaged only in catching operations.

Fleet Capacity (draft): the term 'fleet capacity' refers to a nominal measure of the capacity of a fishery fleet to conduct fishing activities. For statistical purposes, fleet capacity may be summarized by fishing vessel tonnage or vessel type based on two international classifications adopted by the CWP:

1. The "International Standard Statistical Classification of Fishery Vessels by GRT Categories" (ISSCFV), based on the Gross Register Tonnage of the vessels, approved by the CWP in 1977. See ISSCFV GRT classification ²⁵
2. The 'International Standard Statistical Classification of Fishery Vessels by Vessel Types' (ISSCFV), based on the type of gear used by the vessels, approved by the CWP in 1984²⁶.

Gear Dive time (draft): the term 'dive time' refers to the period of time during which a diver remains underwater. This period includes descent from the surface, searching, fishing and ascent to the surface.

Gear Mesh size (draft): The term 'mesh size' refers to the distance between the inside surface of diagonally opposite knots of the mesh of a net panel when the mesh is held taut.

Gear Length of main line (draft): the term 'length of main line' refers to the total length of the main line of a longline or the main line used to connect a string of traps.

Gear Length of net (draft): the term 'length of net' refers to the total length of a drift net, seine net or a trawl net.

Gear Number of hooks (draft): the term 'number of hooks' refers to the total count of hooks deployed at the time that a line is set.

Gear Number of nets operated (draft): the term 'number of nets operated' refers to the total count of nets used during a fishing activity or fishing trip.

Gear Number of traps operated (draft): the term 'number of traps operated' refers to the total count of traps used during a fishing activity or fishing trip.

Gear Number of hours gear fished (draft): the term 'number of hours gear fished' refers to the total period of time during which gear is fishing (see also soaktime and tow duration). **Gear trap L W or V (draft):** the term 'trap L W or V' refers to the length (L), width (W) or volume (V) of a trap.

Gear Set start/end datetime (draft): The term 'set start datetime' refers to the date and time when the first part of a line is set. For longlines, the set start time is when the first anchor, weight or drogue is deployed. The term 'set end datetime' refers to the date and time when the last part of a line is set. For longlines, the set end time this is when the last anchor, weight or drogue is deployed.

Gear Haul start/end datetime (draft): The term 'haul start datetime' refers to the date and time when the first part of a line is hauled. For longlines, the haul start time is when the first anchor, weight or drogue is retrieved. The term 'haul end datetime' refers to the date and time when the last part of a line is hauled. For longlines, the haul end time this is when the last anchor, weight or drogue is retrieved.

Gear tow duration (draft): The term 'tow duration' refers to the period of time when a trawl net is fishing at its prescribed fishing depth. The tow starts when the net reaches its fishing depth and ends when the net retrieval begins.

²⁵ <http://www.fao.org/3/a-bt982e.pdf>

²⁶ <http://www.fao.org/3/a-bt983e.pdf>

Fish Aggregating Device (FAD) (draft, based on FAO): The term 'FAD' refers to a permanent, semi-permanent or temporary structure or device made from any material and used to lure fish.

Incidental catch (draft): The term 'incidental catch' refers to a subset of the bycatch which interacts incidentally with the fishing gear and becomes hooked, netted or entangled, such as incidental catch of marine mammals, seabirds and turtles.

Landing (CWP¹¹): The net weight of the quantities landed as recorded at the time of landing, including:

- Whole or eviscerated fish, fillet, livers, roes, etc.
- Fresh, iced, chilled or frozen, cured or canned products etc
- Fishmeals, liver oils, body oils etc
- Other edibles or inedibles fishery products, etc.

Landed weight (CWP¹¹): The term 'landed weight' refers to the mass (often referred to as weight) of a product at the time of landing, regardless of the state in which it is landed. That is, the fish may be whole, or gutted or filleted. Consequently this measure is of limited use for further analysis except where it is known that the product is homogenous in nature. Where more detailed analysis of the data is required, the landed weight is generally converted to a more meaningful measure, the most frequently used being the "nominal catch" (see below).

Live weight: The term 'live weight' refers to the weight of fish or other organisms when brought on board alive and prior to processing.

Nationality of catch and landings (CWP¹¹): For the purpose of reporting national fishery statistics, the catch and landings is generally assigned to the country of the flag flown by the fishing vessel. However, the CWP recommended that this may be over-ridden only when one of the following arrangements between a foreign flag vessel and the host country exists: the vessel is chartered by the host country to augment its fishing fleet; or the vessel fishes for the country by joint venture contracts or similar agreements (as opposed to the ad-hoc practice of a vessel selling catches to a foreign vessel or landing catches at a foreign port) and the operation of such vessel is an integral part of the economy of the host country. In either case, the assignment of nationality to catch and landings data should be specified in the charter or joint-venture agreements.

Nominal catch (CWP¹¹): The term 'nominal catch' refers to the landings converted to a live weight basis. Nominal catch is often referred to as the "Live weight equivalent of the landings" or shortened to the "Live weight", and in some national publications it is also referred to as "Landings on a round, fresh basis", "Landings on a round, whole basis" or "Landings on an ex-water basis". Care should be taken when referring to the nominal catch as the 'catch' since in many situations the catch includes components which are not landed (refer to the catch concept diagram, Fig. 1).

Non-fishing vessel (CWP⁸): The term "non-fishing vessel" applies to vessels performing other functions related to fisheries, such as supplying, protecting, rendering assistance or conducting research or training.

Fish Product (draft): the term 'fish product' refers to any part of a fish which is handled and processed for food, agricultural, industrial or other uses. Products include whole fish, fillets, trunks, heads, roe and oils. Processing may involve heading, heading and gutting, filleting and mincing.

Fish product conversion factor (draft): the term 'conversion factor' (CF) refers to the ratio of the live weight of a fish to its product weight, i.e. $CF = \text{live weight} / \text{product weight}$. A conversion factor applies to a specific product type.

Fish Product Type (draft): the term 'fish product type' refers to the type of product which results from processing the fish. Product types include whole fish, fillets, headed and tailed trunks, headed and gutted trunks, heads, roe, meal and oil.

Primary Gear (draft): the term 'primary gear' refers to the fishing gear which is used in greater than or equal to 50% of the fishing activities during a fishing trip.

Retained catch (CWP¹¹): The term 'retained catch' refers to the component of the catch which is retained on board the fishing vessel (refer to the catch concept diagram, Fig. 1). The retained catch is reported as total live weight of fish and other organisms retained and in some fisheries the number of individuals retained is also required to be reported.

Secondary Gear (draft): the term ‘secondary gear’ refers to a fishing gear which is used in less than 50% of the fishing activities during a fishing trip.

Socio-economic data (draft): the term ‘socio-economic data’ refers to the collection of data on social and economic characteristics of fishers, communities and businesses associated with fishing.

Vessel Beam (draft): is the width of the hull

Vessel Construction location (draft): Location of the vessel shipyard

Vessel Draft (or draught) (draft): Is the vertical distance from the bottom of the keel to the waterline.

Vessel Hull type (draft): type of the watertight body of the vessel (steel, aluminum, fiber glass, wood, etc..)

Vessel IMO number (draft): International Maritime Organization Number

Vessel IRCS (draft): International Radio Call Sign

Vessel Main Engine Power (draft): Power of the vessel main engine (in-board or outboard)

Vessel GRT (draft): Gross Registered Tonnage

Vessel GT (draft): Gross Tonnage

Vessel LOA (draft):: Length OverAll is the extreme length from one end to the other

Vessel Type (draft): Type of fishing vessel according the agreed classification (national, regional, international)

Vessel Year of Construction (draft): Year of the original vessel construction

5.2 Appendix 1: list of reviewed logbooks and catch forms

- IOTC competence area logbook ²⁷ (Tuna oriented logbook for the Indian Ocean):
 - Australia trap fishing daily fishing log, Purse seine daily fishing log, line daily fishing log and pelagic longline daily fishing log
 - Comoros longline logsheet
 - China longline logsheet
 - EU electronic reporting system (eRS) (Cf. DG MARE FLUX)
 - India longline (15m and above)
 - Iran gillnet logbook and purse seiner logbook
 - Japan longline and purse seiner logbook
 - Korea longline, purse seiner and by-catch logbook
 - Madagascar longline and purse seiner logsheet
 - Malaysia longline logbook
 - Maldives longline and handline/pole and line logbook
 - Mauritius longline and purse seiner logbook
 - Mozambique longline logbook
 - Oman longline logbook
 - Philippine longline logbook
 - Seychelles semi-industrial longline, longline, supply vessel and purse seiner logbook
 - Sri Lanka log book (one template with different sheets for ring net, gill net and longline)
 - Tanzania longline logbook
 - Thailand longline logbook
- CEEAF area
 - Mauritanian logbook for (i) pelagic, (ii) cephalopods, (iii) crustacean and (iv) Mauritanian logbook for demersals (Coastal and industrial)

²⁷ www.iotc.org/compliance/fishing-logbooks-templates-samples

Guidelines for WECAFC Regional Log Book

- Mauritanian landing form (Artisanal)
- WECAFC area (Caribbean region)
 - Trinidad and Tobago logbook for trawler (Mainly Shrimp), for longliner (Mainly large pelagic) and for multigear (Could be applied to artisanal fleet)
 - Bahamas log book (Mothership)
 - FAD logbook
 - Bahamas, Belize, Trinidad and Tobago, St. Lucia, St. Kitts and Nevis landing forms
- DG MARE: FLUX standards: <https://circabc.europa.eu/w/browse/39c1f865-2f08-4d47-a92d-de327b13dd5d>
-

5.3 Appendix 2: vessel and license data and information

Nancie / June, this is a proposal at FAO for the minimum data requirement for vessel information to be stored in a vessel registry. Still under discussion

Vessel information	Small Scale vessel record	Industrial vessel record	Proposed standard
Unique identifier	Should be registration number	Should be IMO	
Name	M	M	X
Registration Number	M	M	X
Home Port (Registration Port)	M	M	X
Owner(s)	M	M	X
Flag	M	M	X
Operational status	M	M	X
IMO (*)	Not relevant	O (is on voluntary basis but can be made mandatory by law)	O
IRCS (*)	O	M	X
LOA (m) (*)	?	M	X
Draft (m)	?	Draft or depth	O
Depth (m)	?		O
Beam (m)	X?	M	O
GT (T) (*)	O	M	O
GRT (T) (*)	O	O	O
Main engine Power (kW)	M	M	X
Hull type	M	O	
Vessel Type	M	M	X

Guidelines for WECAFC Regional Log Book

Year of construction	O	M	X
Location of construction	O	O	
Image	X	X	

Please note that GRT is not used (replaced by GT) Other information could be: previous vessel name (s), previous Flag(s), Beneficial owner

5.4 Appendix 3: example of log book implementation

To be developed