



Data collection and multiple reporting in WECAFC area

Tuna small scale fisheries

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1. The WECAFC Area

2. Statistics reporting needs of WECAFC Member Countries

3. Challenges to report to regional and international organizations

4. Solutions ?

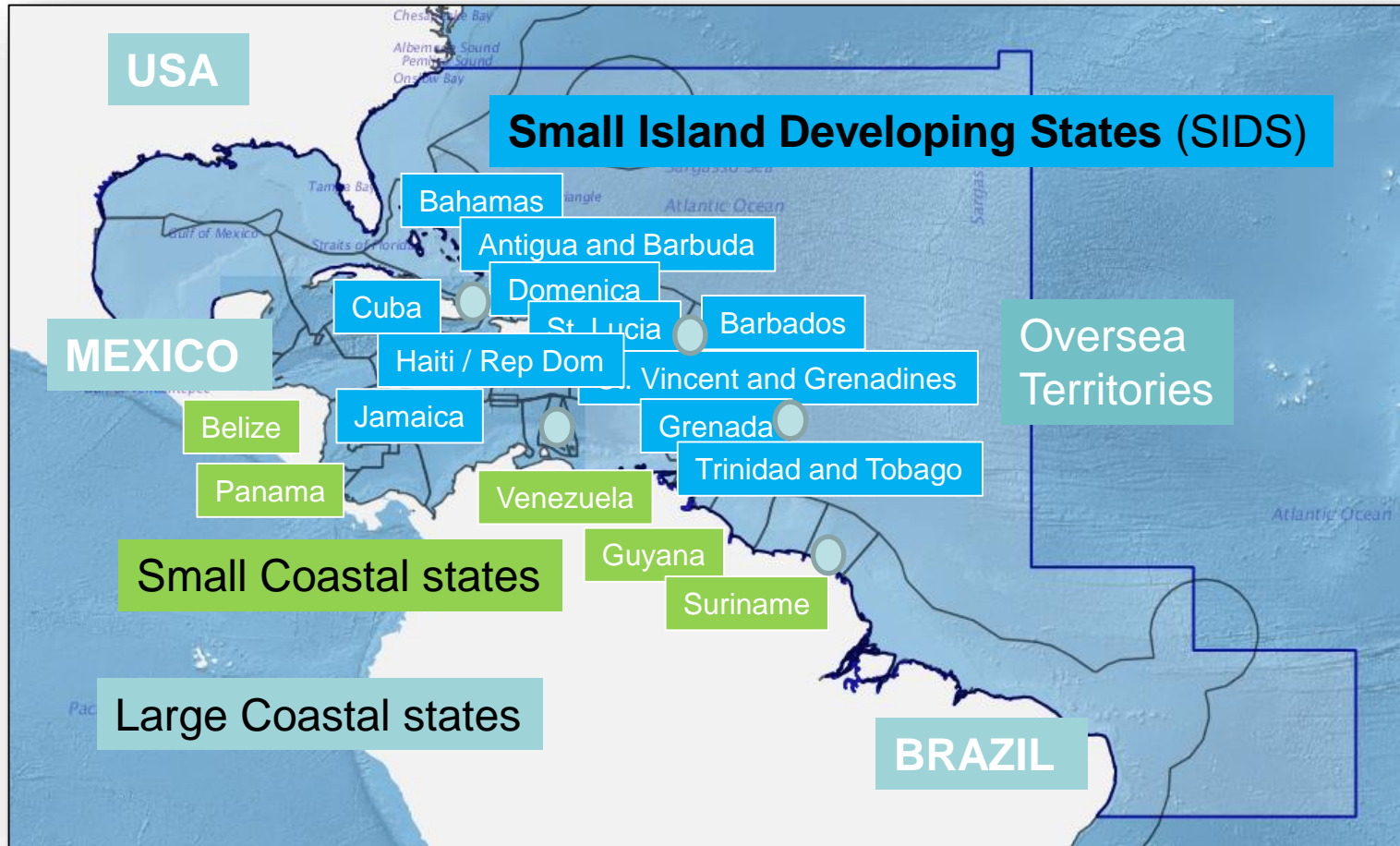


The WECAFC Area

—

Area, Commissions, Member Countries

The WECAFC area: a variety of States

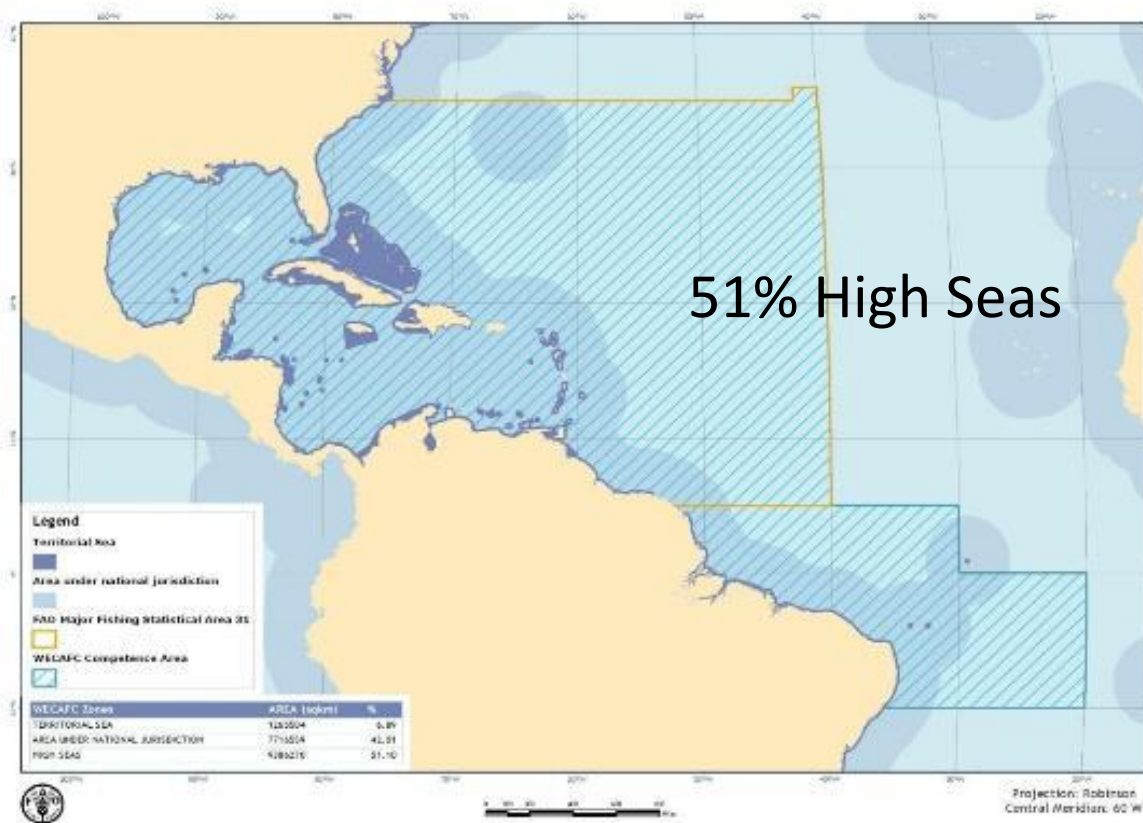


The Western Central Atlantic Fishery Commission: is a Regional Fishery Body (article VI FAO)

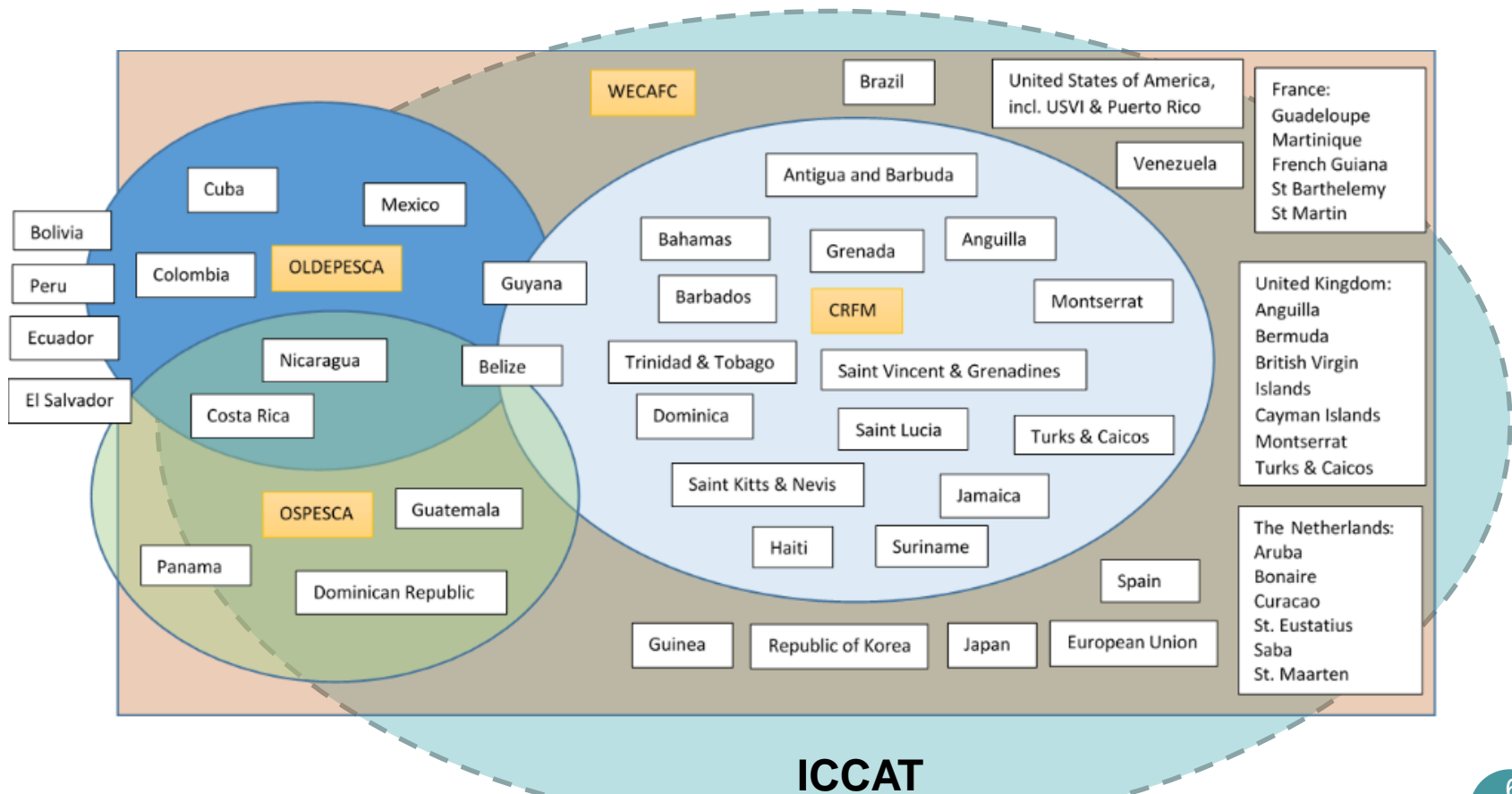


Established in 1973 by Resolution 4/61 of the FAO Council under Article VI (1) of the FAO Constitution

34 Member countries, including also the EU



The Western Central Atlantic Fishery Commission: Membership of the regional fisheries bodies in the Caribbean region and t-RFMO





National Statistics Reporting
–
***Technical, human and financial considerations
challenges***

Reporting to RFB and RFMO:

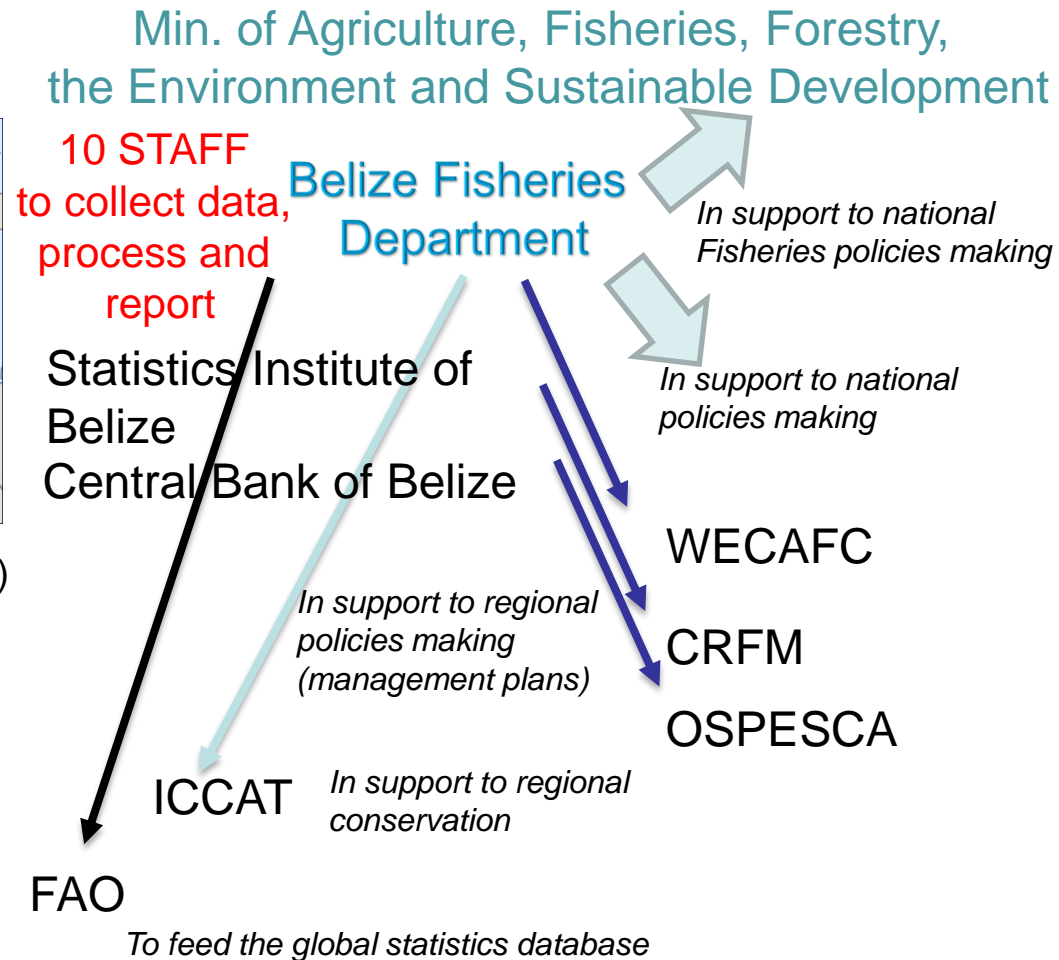


Population: 387,879 (2017 estimate)

Fishing sector: 4.7 % (SIB)

Fishers: 2 459 (2014)

Catches: 400 000 tons in 2010
to near 76 000 tons in 2014
(High Seas fluctuation)



Data collection is a challenging task:

- Importance of artisanal fleet in the region: surveys are costly in man and funds
 - Lack of proper legal framework (T&T fisheries Act: 1914): limited fishing license schema (no proper vessel registry) and distrust of artisanal fishers in data collection system.
 - Lack of proper harmonized classification (see species list in T&T)
 - Lack of statisticians to review methodologies 5 years after the end of the implementation project
 - Lack of IT tools or IT staff
- ➔ The process to compile statistics is usually highly manual.
- ➔ Produce usually only one source of data within SDIS (Excel)



Multi reporting is as a consequence a challenging task:

- One unique source of data that needs to be recompiled according to the needs of the minister, the head of statistics, the OSPESCA species working group on lobster, CRFM on flyingfish, the WECAFC SAG, the FAO questionnaires etc....
- Increasing demand of detailed statistics (t-RFMO) and struggle to have this unique source of data evolving to comply with the data calls (limited involvement of fisheries authority: Grenada or pressure on industry to successfully implement log book: Trinidad)



Reporting to Regional and International Organizations

–

Solutions ?

Opportunities in the region to improve data collection and address the challenge of multi reporting:

- Development of instruments in support to modern fisheries management: 3 regional management plans with provision for vessel registry, licenses.
- In a way or another, vessel records are available in all SIDS Fisheries authorities: for fishing licenses (few), for subsidies, attached to special permit (Free tax, compressor licences):
- One attempt to provide a technical solution: CARIFIS supported by CRFM. Most of SIDS were supported and still use part of it (Vessel registry, data collection). Need for a new iteration (CARIFIS 2?)

Opportunities in the region to improve data collection and address the challenge of multi reporting:

- Many projects in progress in the region to support data and statistics:
 - **WECAFC-FIRMS** to support the first meeting of the newly established WECAFC Fisheries Data and Statistics Working Group (May 2018)
 - **CLME+** with 3 sub projects species specific: Flying fish with CRFM, lobster with OSPESCA, shrimp and groundfish with FAO
 - **REBYC-LAC**: targeting reduction of bycatch in shrimp fisheries
 - **Caribbean Billfish Project**: improving monitoring of billfish catches (SmartForm, regional database)
- ➔ WECAFC-FIRMS task force is liaising with all these projects to identify synergies and co-funding for similar activities (FDS WG meeting)

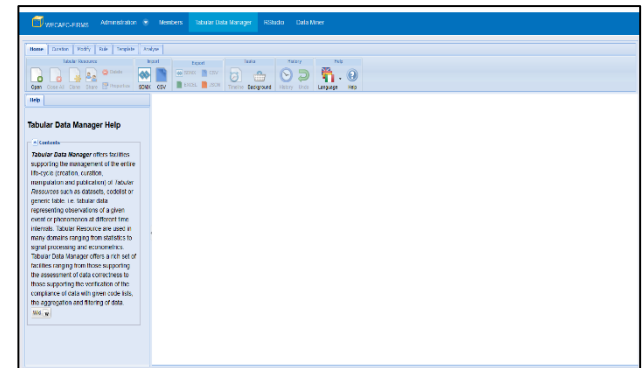
Concretely, how to simplify reporting to regional organization ?

- Development of the WECAFC Regional database:

- The definition of minimum data requirements for reporting:
Data collection Reference Framework DCRF

- A series of tools developed under the BlueBRIDGE project (EU funded) to support reporting:

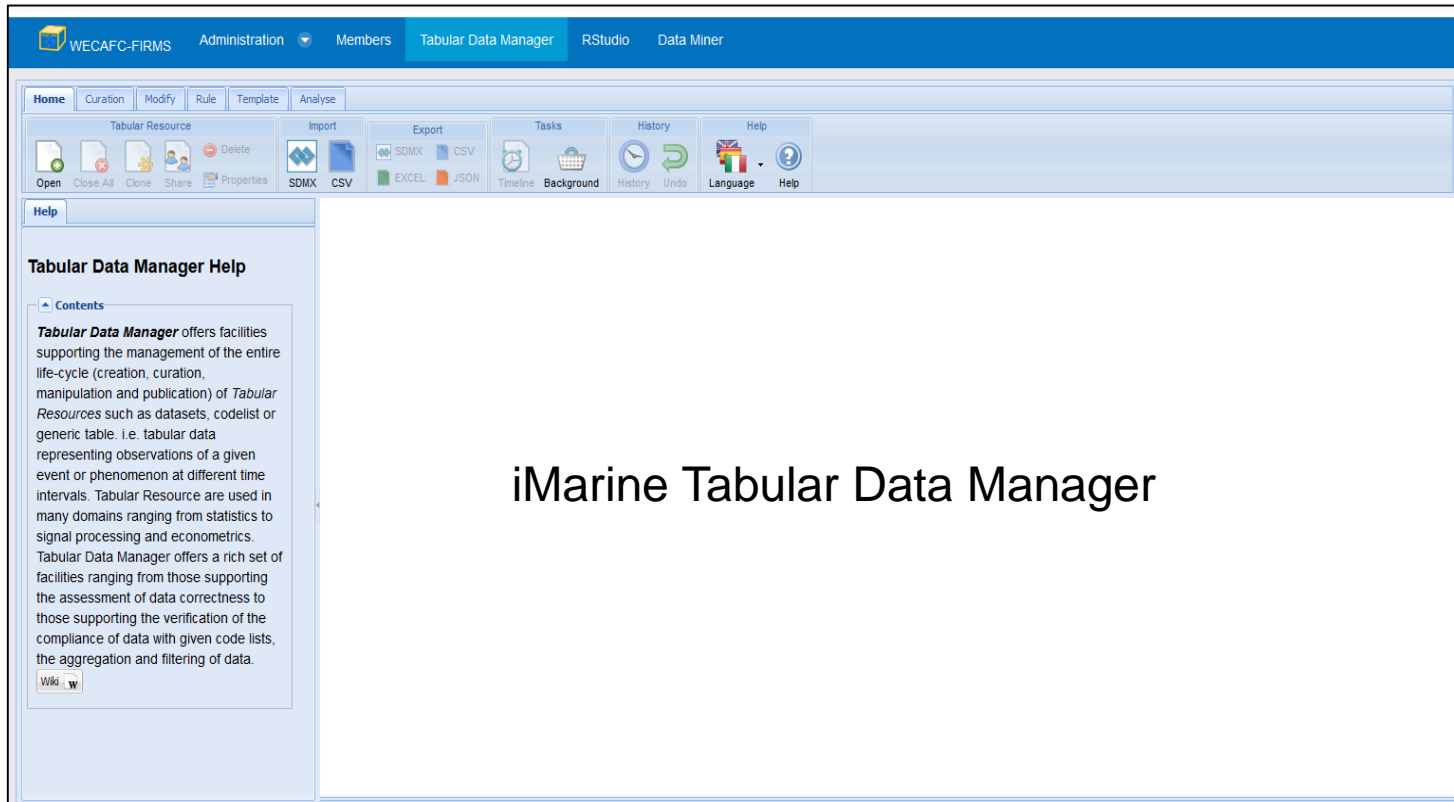
- A simple tool for the regional data manager to create data calls based on the DCRF



- A userfriendly tool based on Excel to help the national data manager to comply with the reporting request (WECAFC being a RFB, it is not yet an obligation!)

Simplifying reporting to regional organization


- WECAFC Regional database: Regional Data Manager



Tabular Data Manager Help

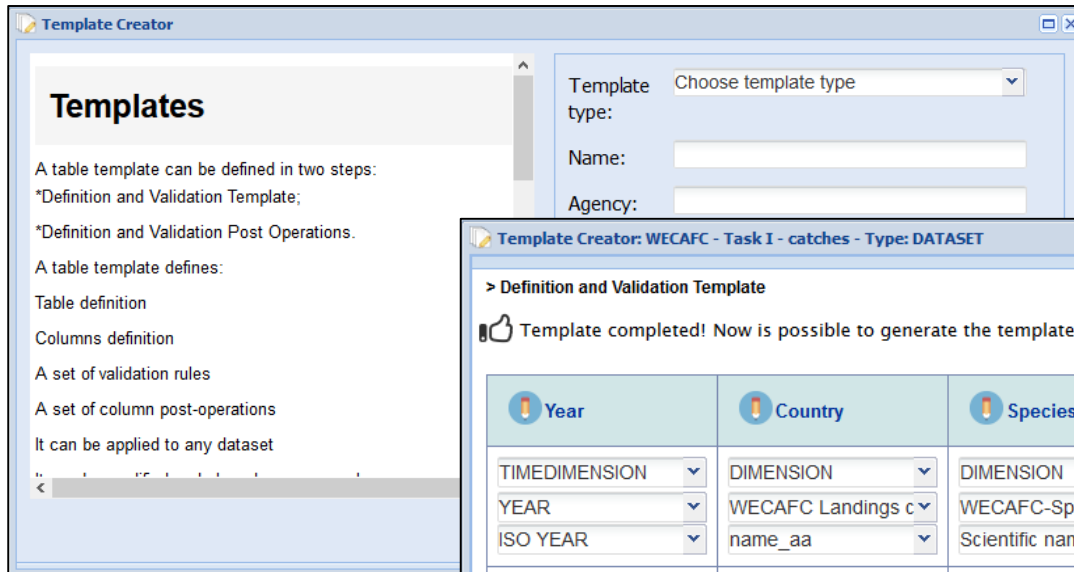
Contents

Tabular Data Manager offers facilities supporting the management of the entire life-cycle (creation, curation, manipulation and publication) of *Tabular Resources* such as datasets, codelist or generic table, i.e. tabular data representing observations of a given event or phenomenon at different time intervals. Tabular Resources are used in many domains ranging from statistics to signal processing and econometrics. Tabular Data Manager offers a rich set of facilities ranging from those supporting the assessment of data correctness to those supporting the verification of the compliance of data with given code lists, the aggregation and filtering of data.

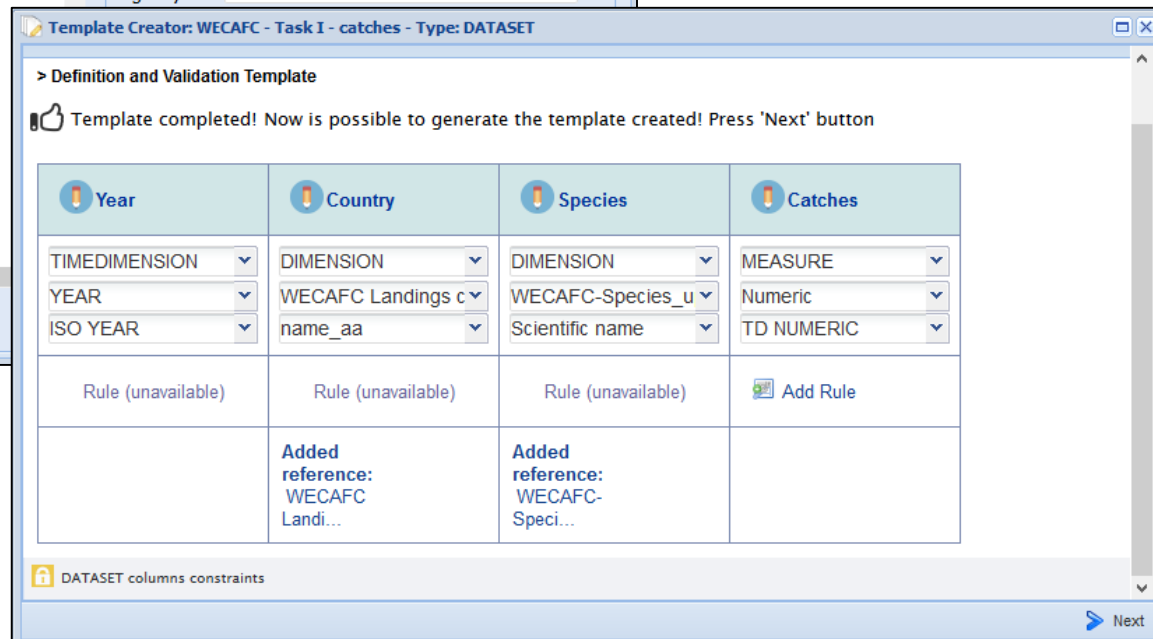
Wiki 

Simplifying reporting to regional organization

- WECAFC Regional database: Regional Data Manager



iMarine Tabular Data Manager
Template creation
A DSD is created

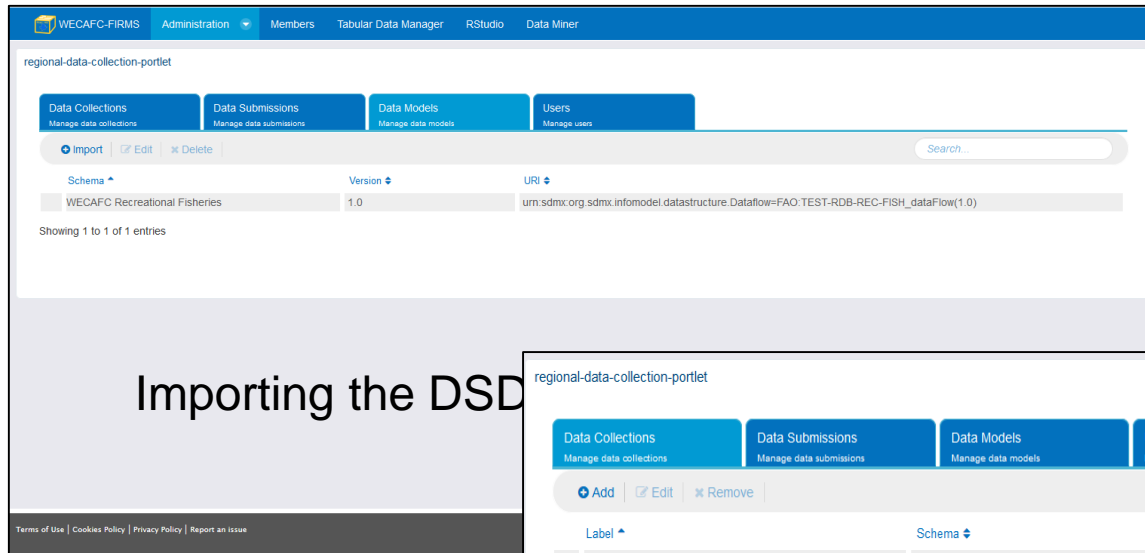


Simplifying reporting to regional organization

- WECAFC Regional database: Regional Data Manager

iMarine Regional database administration

Creation of data calls
Based on the DSD



regional-data-collection-portlet

Data Collections | Data Submissions | Data Models | Users

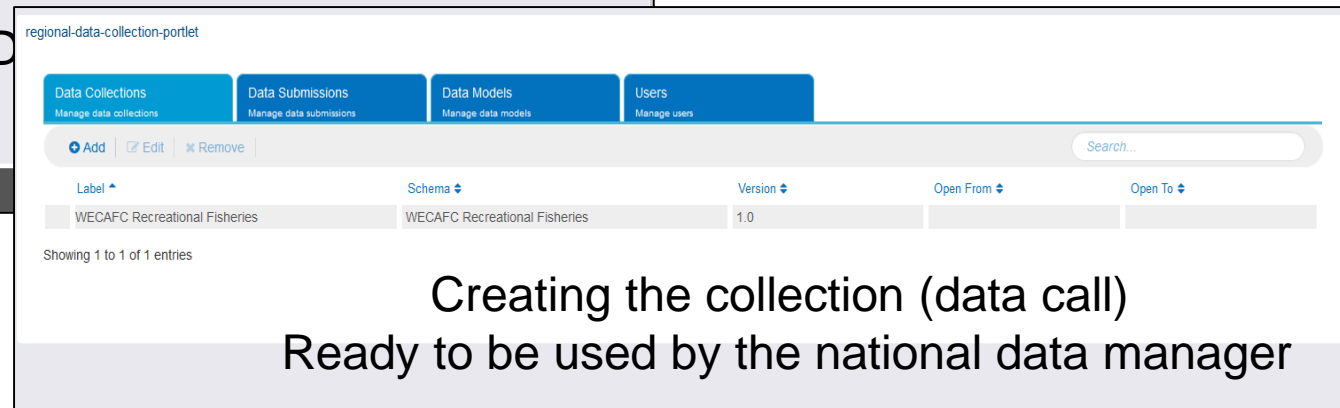
Import | Edit | Delete | Search...

Schema	Version	URI
WECAFC Recreational Fisheries	1.0	urn:sdmx:org.sdmx.infomodel.datastructure.Dataflow=FAO:TEST-RDB-REC-FISH_dataFlow(1.0)

Showing 1 to 1 of 1 entries

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Importing the DSD



regional-data-collection-portlet

Data Collections | Data Submissions | Data Models | Users

Add | Edit | Remove | Search...

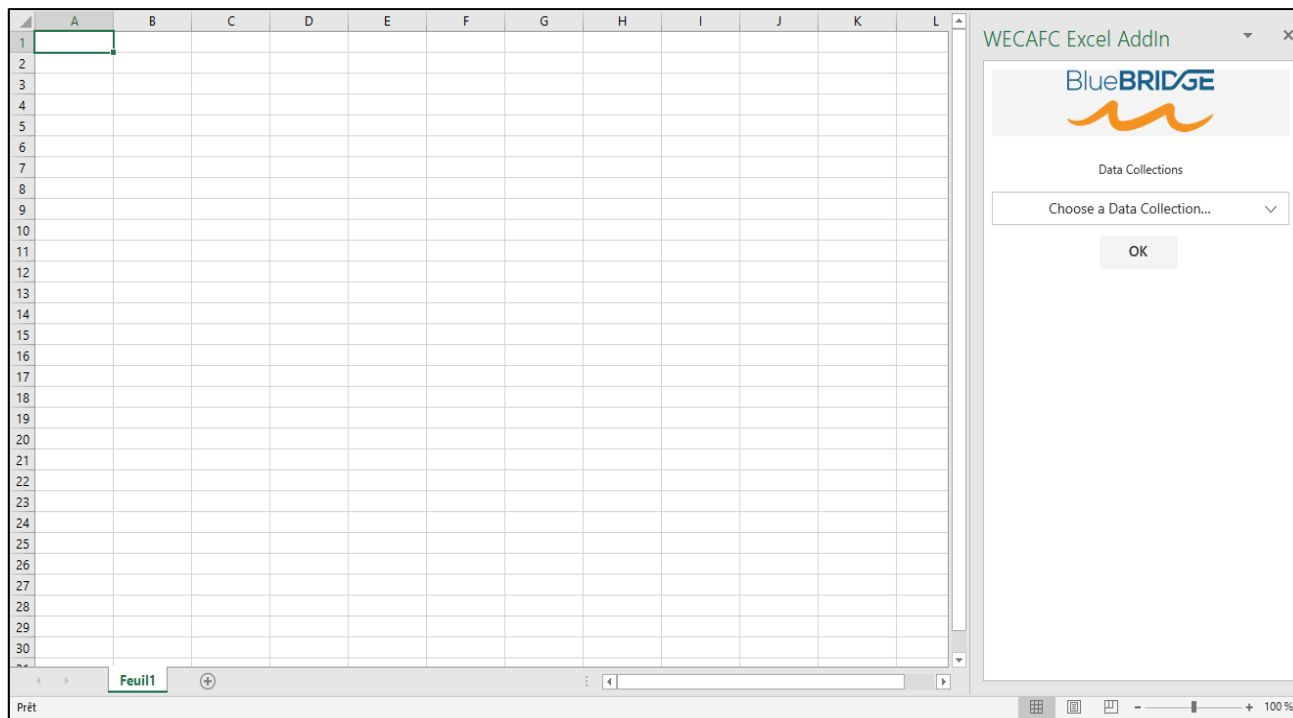
Label	Schema	Version	Open From	Open To
WECAFC Recreational Fisheries	WECAFC Recreational Fisheries	1.0		

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Creating the collection (data call)
Ready to be used by the national data manager

Simplifying reporting to regional organization

- WECAFC Regional database: National Data Manager
Install an iMarine plugin in Excel
Validation services (web services; no macro)



Simplifying reporting to regional organization

- WECAFC Regional database: National Data Manager
Will use his Excel to fill out the form

Country	Species	Year	Catches
Bahamas	Panulirus argus	2015	6525,97152
Bahamas	Strombus gigas	2015	4055,74097
Bahamas	Epinephelus striatus	2015	53,3777223
Bahamas	Mycteroperca venenosa	2015	10,5123866
Bahamas	Serranidae	2015	41,4726316
Bahamas	Lutjanus spp	2015	357,205159
Bahamas	Caranx spp	2015	29,0222323
Bahamas	Haemulon spp	2015	30,7254991
Bahamas	Haemulon album	2015	37,7214156
Bahamas	Sphyraena spp	2015	2,86524501
Bahamas	Lachnolaimus maximus	2015	39,7943966
Bahamas	Pterois volitans	2015	4,23321234
Bahamas	Panulirus argus	2014	6568,74905
Bahamas	Strombus gigas	2014	4177,67294
Bahamas	Epinephelus striatus	2014	127,375907
Bahamas	Serranidae	2014	113,730898
Bahamas	Lutjanus spp	2014	555,027405
Bahamas	Caranx spp	2014	41,0399274
Bahamas	Haemulon spp	2014	76,5328947
Bahamas	Haemulon album	2014	9,9469147
Bahamas	Sphyraena spp	2014	60,3659256
Bahamas	Panulirus argus	2013	6087,95142
Bahamas	Strombus gigas	2013	2274,13816
Bahamas	Epinephelus striatus	2013	84,5893829
Bahamas	Serranidae	2013	211,071915
Bahamas	Lutjanus spp	2013	550,803426
Bahamas	Caranx spp	2013	59,8536751
Bahamas	Haemulon spp	2013	89,2560572
Bahamas	Sphyraena spp	2013	5,48094374

WECAFC Excel Addin

2018 WECAFC task I catches

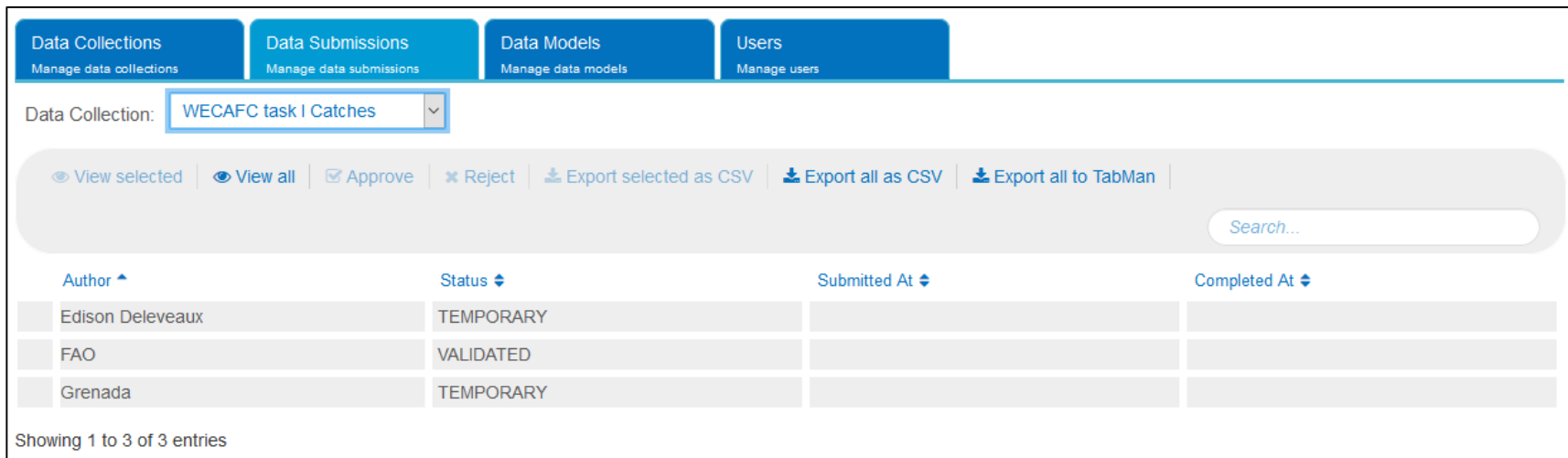
Submit

Validate

Ready for submission !

Simplifying reporting to regional organization

- WECAFC Regional database: Back to Regional Data Manager
iMarine Regional database administration
Review of submitted data and final validation



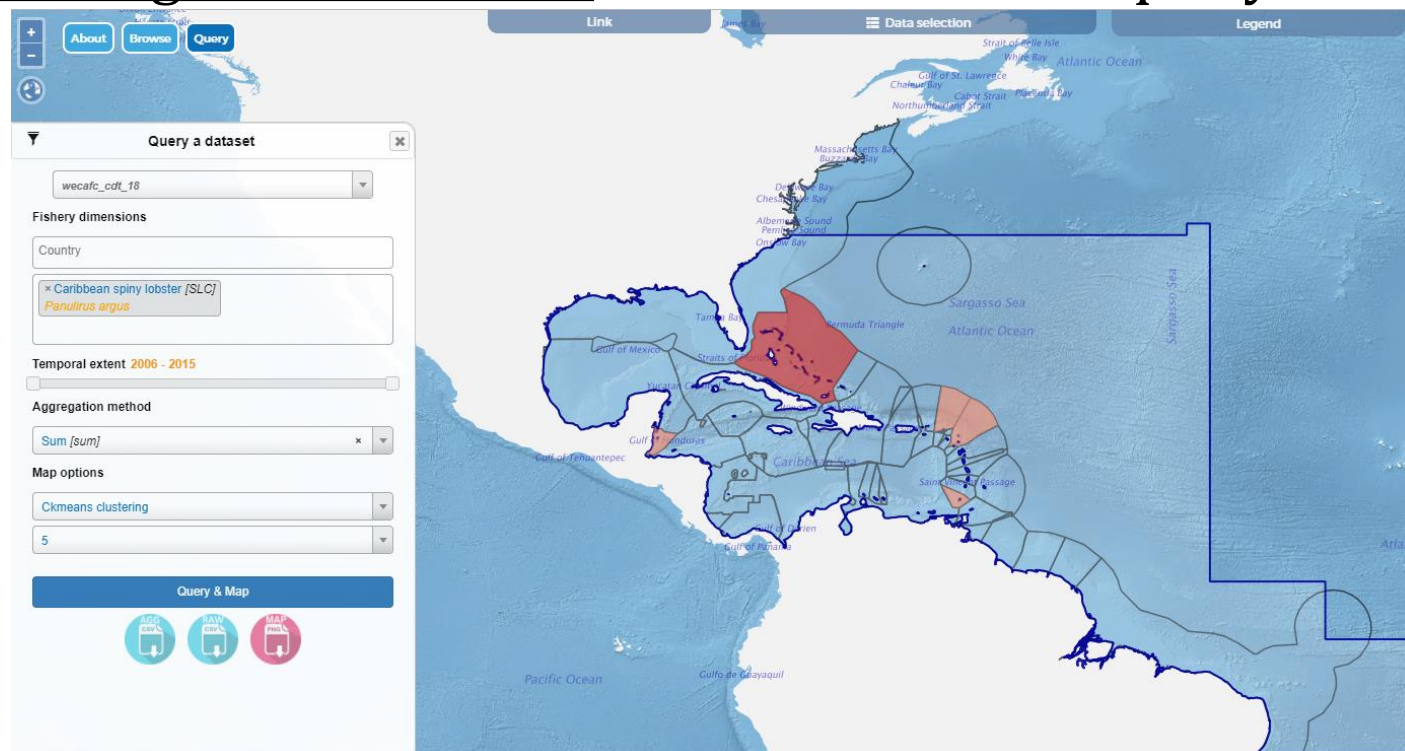
The screenshot displays the 'Data Submissions' section of the Regional Data Manager. It features a navigation bar with four tabs: 'Data Collections', 'Data Submissions', 'Data Models', and 'Users'. The 'Data Submissions' tab is active, showing a dropdown menu for 'Data Collection' set to 'WECAFC task I Catches'. Below the navigation bar, there is a toolbar with actions: 'View selected', 'View all', 'Approve', 'Reject', 'Export selected as CSV', 'Export all as CSV', and 'Export all to TabMan'. A search bar is also present. The main content area is a table with columns: 'Author', 'Status', 'Submitted At', and 'Completed At'. The table contains three entries:

Author	Status	Submitted At	Completed At
Edison Deleveaux	TEMPORARY		
FAO	VALIDATED		
Grenada	TEMPORARY		

Showing 1 to 3 of 3 entries

Simplifying reporting to regional organization

- WECAFC Regional database: A data viewer and query



Only possible if WECAFC data and metadata are harmonized and standardized !



Simplifying reporting to international organization (FAO)

- WECAFC Regional database can report to FAO:
 - Mapping of regional classification to international ones (ASFIS, regional gear to ISSCFG, FAO AREA 31, part of 41)
 - Uses of similar harmonized concepts (nominal catches in live weight equivalent)
 - Would need a simple transformation similar to the one done for FisMIS in R as all classifications are mapped

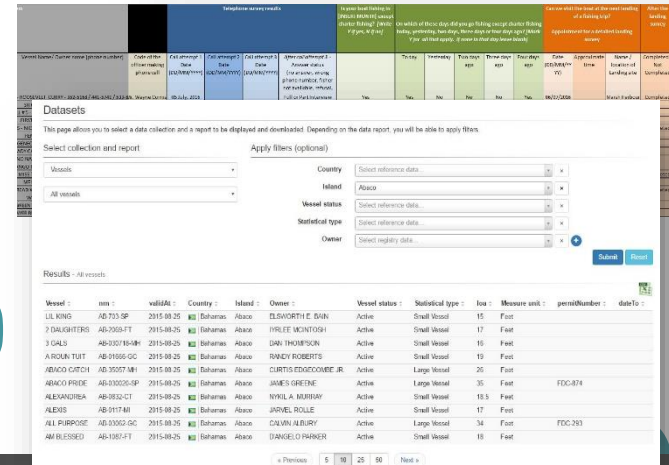
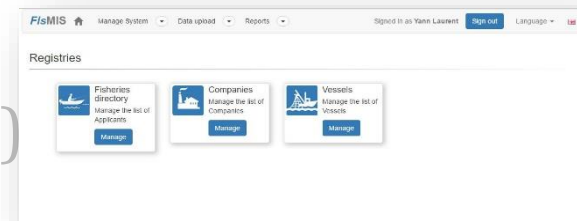


Data are produced at national level: Preparing the ground for modern fisheries management in SIDS:

- Support countries to improve their legal framework: provision for vessel registry, vessel licensing, obligation to report catches and effort, for logbook, VMS, AIS etc...
- Support to outreach artisanal fishers: catches declaration is not for yet another tax !
- Outreaching industries, private sector to report purchases for certification schema and fight against IUU (sales notes are a reliable source of data for Fishing Authorities)
- Involving the civil society for modern management and conservation of resource (TNC in the Bahamas)

Modern fisheries management requires modern tool:

- FisMIS Bahamas (TCP) / Scalable Software Framework for T&T (Japan Fund):
 - Standard harmonized classifications, mapped to regional and international standards (UN/CEFACT)
 - Data collection (survey, logbook, sale notes, administrative records of vessel and fishers)
 - Methodologies (sample based survey),
 - Automatic processing (R),
 - Automatic reporting to ICCAT and FAO
- And capacity building, training, pilot, long term maintenance (new CIO policies)





Modern tools for the WECAFC region: FIT4CC project (not yet validated)

- Seeking support from DEVCO (15 countries in WECAFC):
 - Capacity building / training in fisheries and aquaculture statistics (classification, methodologies)
 - Support to the improvement of legal framework
 - Modern information systems: a CARIFIS 2 for the region with modern tools (mobile, big data?)
 - Communication and outreach for all stakeholders
- ➔ One key expected outcome: Improvement of the overall quantity and quality of statistics in the region in support to national and regional policy making, in the context of growing threat related to Climate Change



Thank you for your attention