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Intergovernmental
Oceanographic
Commission



3.3.2. IOC OF UNESCO SUB-COMMISSION FOR THE CARIBBEAN AND ADJACENT REGIONS:

15TH SESSION OF IOCARIBE, ORANJESTAD, ARUBA, 6–10 MAY 2019

**Mr. ARNULFO SANCHEZ
IOCARIBE CHAIRMAN**

Toxic algae bloom creeping up the west coast of Florida is killing wildlife and keeping residents and tourists away from the acclaimed beaches along the Gulf of Mexico.
abcn.ws/2Mkv9OW

Traducir Tweet



6:24 - 13 ago. 2018



- ❖ Implementation of the IOC Ciguatera Strategy.
- ❖ Foster regional collaboration.
- ❖ Action Plan 2019-2021.

- ❖ IOCARIIBE is working with UN, National Institutions, NGOs, and other Partners to enhance ocean acidification integrated ocean observations, science, mitigation, and adaptation for the region.



<http://www.ciep.cl>



<http://www.ciep.cl>

- ❖ Collaborate and develop strategies for building resilience to ocean acidification with Latin American Ocean Acidification Network (LAOCA)

- ❖ Capacity development workshops to bring together scientists, policy-makers, and industry professionals from around the region



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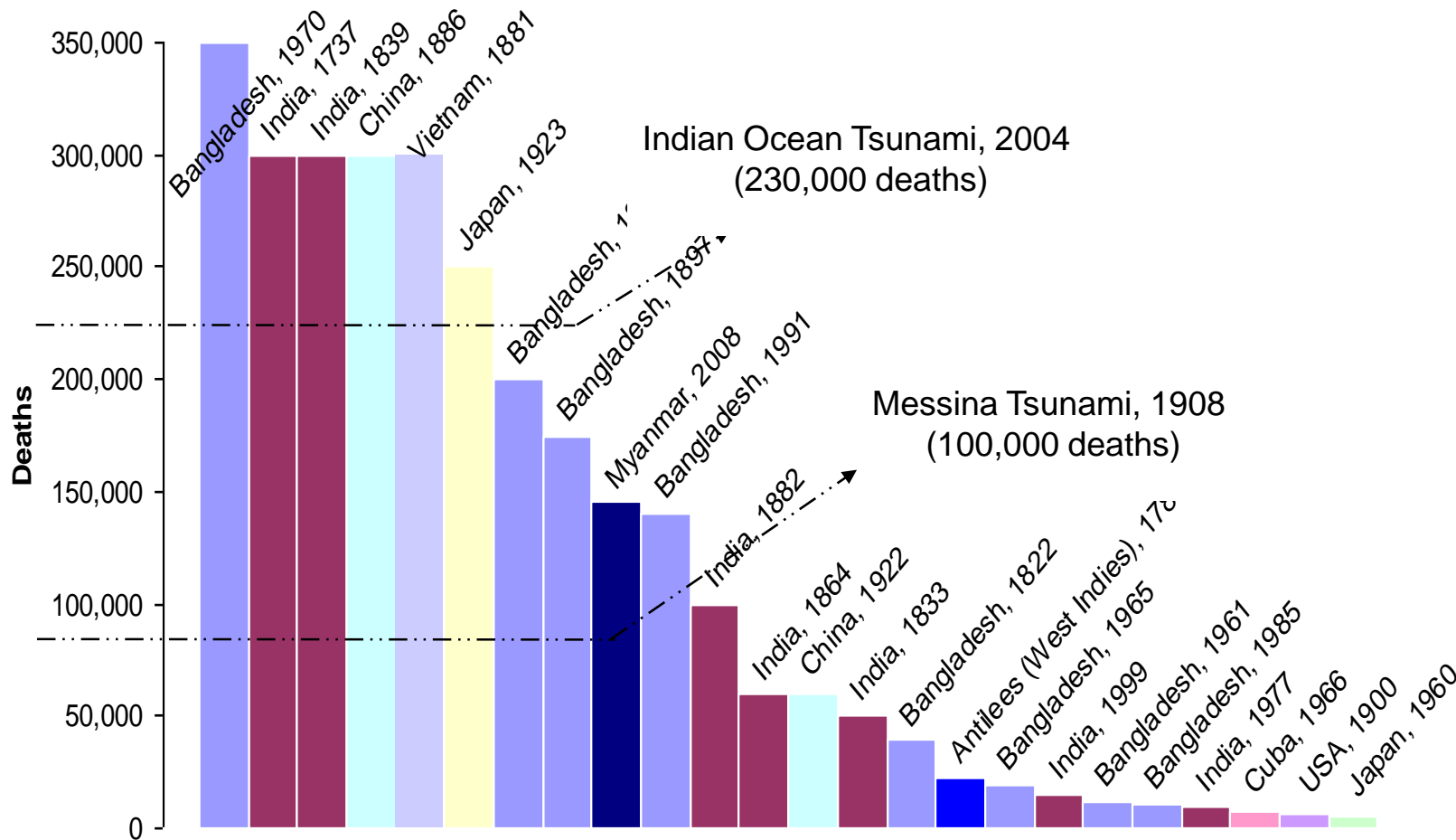


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OCEAN ACIDIFICATION

Coastal Inundation is a major threat to economies of countries



Deaths in tropical cyclones in each year, for highest ranks in the history. Most of fatalities in tropical storms are due to storm surges.

IOCARIBE to implement CIFDP-C in several countries next biennia

(Dube, 2007)



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IOCARIBE GOOS - CIFDP-C

PILOT PROJECT ON IMPROVEMENT OF HURRICANE OBSERVING FORECASTING CAPACITY

Hurricane MARIA

Graphics Archive

Initial Wind Field and Watch/Warning
Graphic

Establishment of a **pilot project** on improvement of Hurricane Observing Forecasting Capacity jointly with many government agencies, academic and research institutions, and private industry, enhancing observations with advanced technologies.

Strengthening IOCARIBE-GOOS Alliances in the Region and establishing new partnership with

Atlant**S**



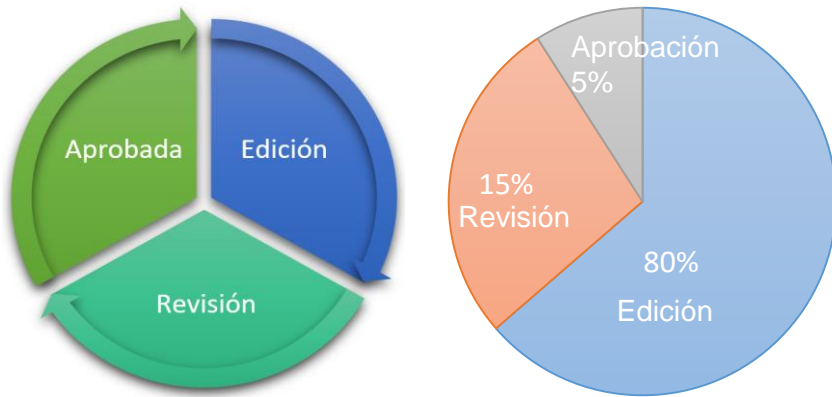
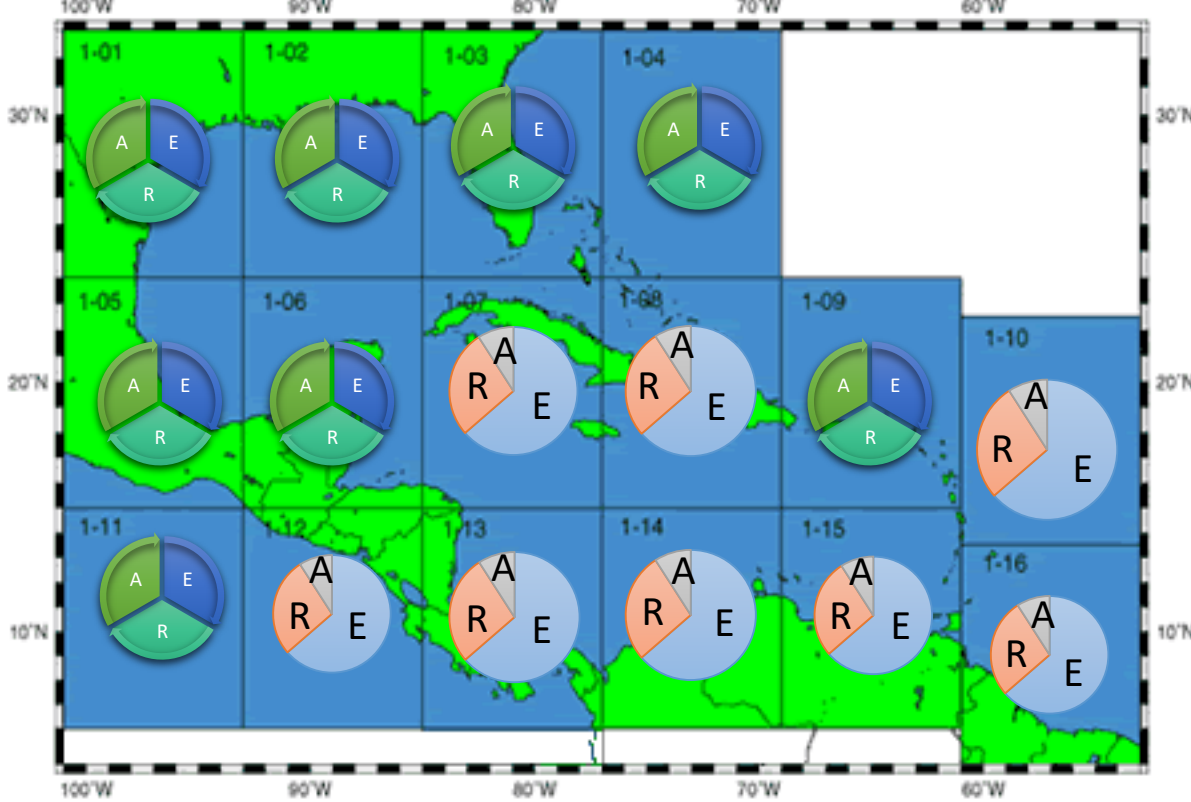
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IOCARIBE GOOS



50% of the Bathymetric Chart is completed. The second 50% is in the editorial and revisión stage to be completed by early 2020.

IBCCA second phase was approved- to produce a higher resolution Chart as a contribution to GEBCO-SEABED 2030, and aligned with Meso American Caribbean Sea Hydrographic Commission (MACHC) programmes.



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**IBCCA - INTERNATIONAL BATHYMETRIC CHART OF THE
CARIBBEAN SEA AND THE GULF OF MEXICO**

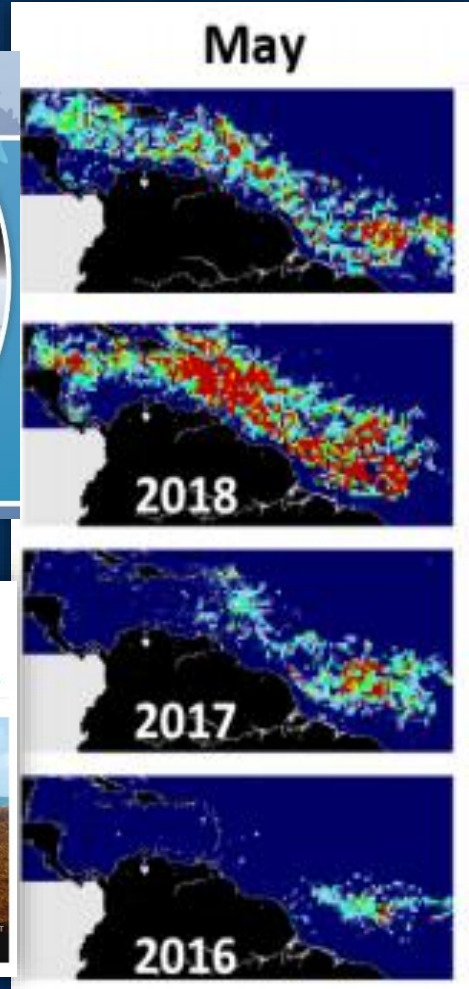
In recent years, the Caribbean region has faced challenges from oil spills and an influx of floating Sargassum seaweed.

Large-scale oil spill incidents and Illegal dumping of oil-contaminated waste by ships operating in the region are common occurrence.

Only for 2018 tourist season in the Riviera Maya (Mexico) the sargassum beaching economic impact was estimated to 275 USD millions.

IOCARIBE GOOS, GEO Blue Planet and other partners to continue efforts to:

- i) develop an operational region-wide information and forecasting system for sargassum and oil spills and
- ii) develop of a guide on best management practices for sargassum events in the coastal environment



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**SARGASSUM AND OIL SPILLS INFORMATION AND
FORECASTING SYSTEM FOR THE WIDER CARIBBEAN**

Main products



860 Layers

Geoviewer for consult layers and building/downloading maps



169 Maps

Maps (spatial viewer for consult /creation /downloading maps and layer / Layers (shapefile, raster, WMS) / free access to data and information

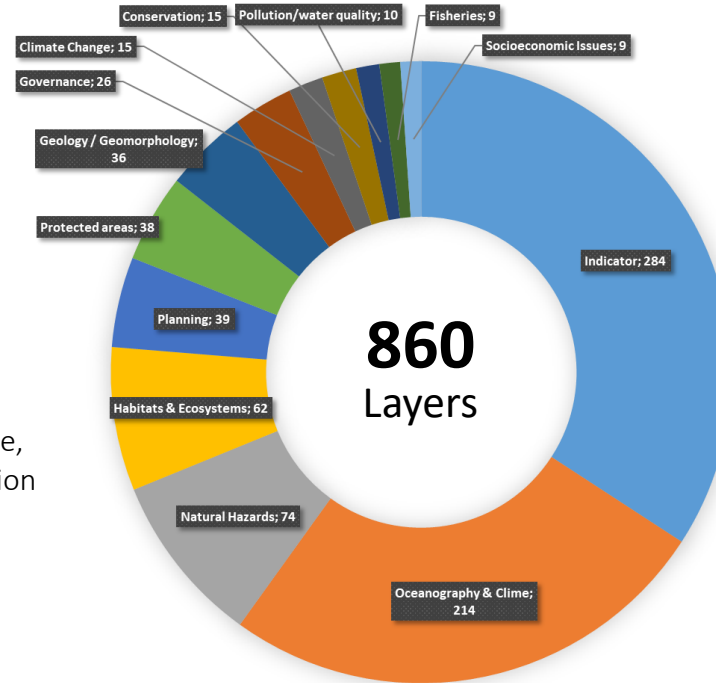


156 Catalogue

63 Documents

93 Information sources

Documentation related to spatial information and links with external information sources (projects, countries, institutions)



guaranteed interoperability
through webservice
(WMS, WFS, CSW)



10 Indicators



Coastal population
density change



Sea
Level change



Coral reef health



Marine fisheries
Capture production
by country



Marine and
Coastal protected
areas



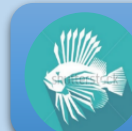
Ecosystems
representativeness



Threatened
Species



Economic activities
on marine-coastal
zone



Invasive
Species



Natural hazards
frequency

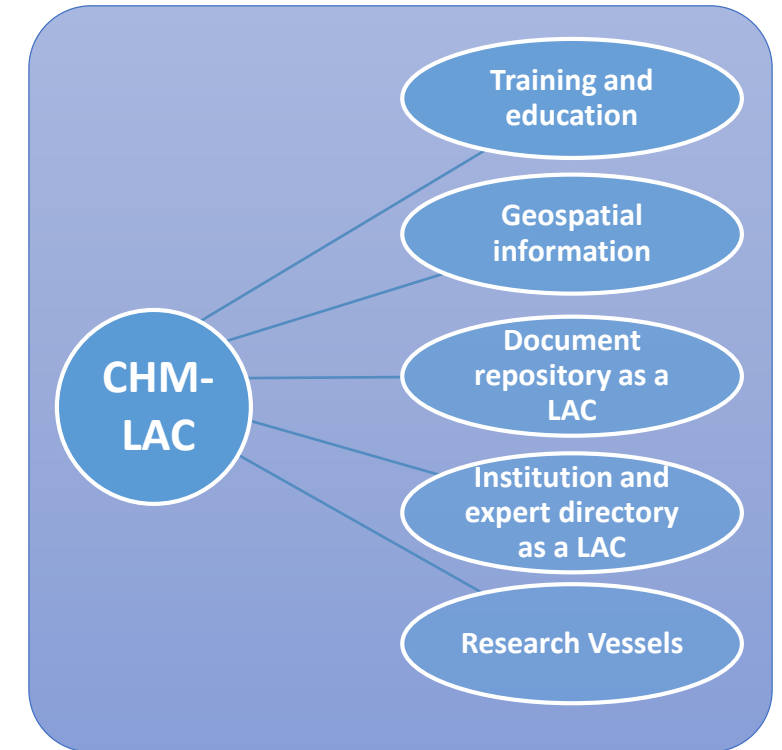
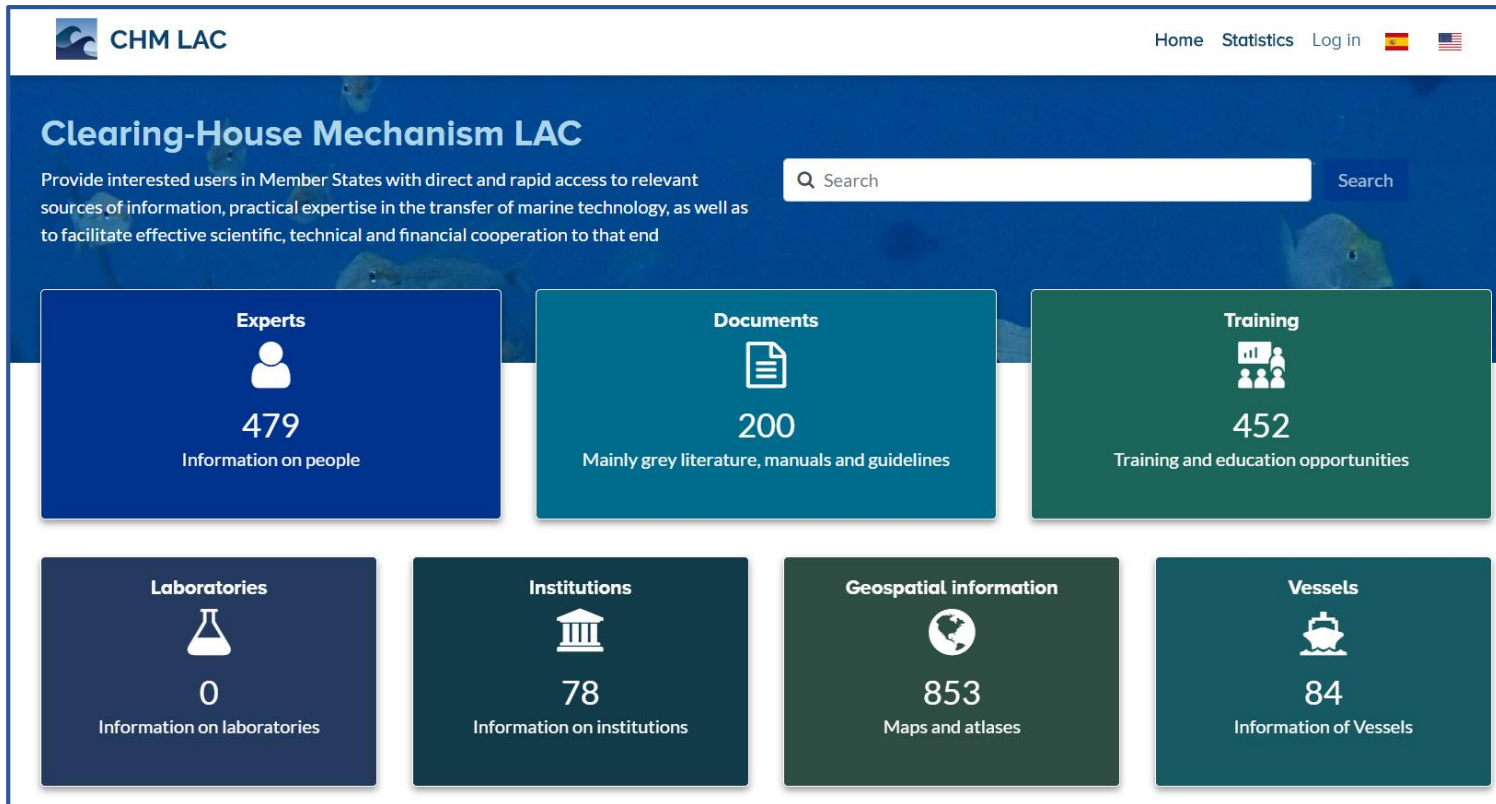
Permanent and detailed reviewing allowed a collection to date of maps, layers or documents. Each one include a **metadata** minimum based on ISO 19115 standard. Available on URL <http://atlas.caribbeanmarineatlas.net/>



Caribbean Marine Atlas



CHM/TMT Prototype for LAC

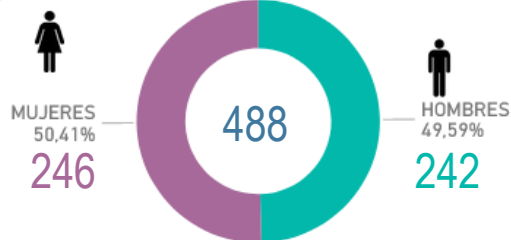
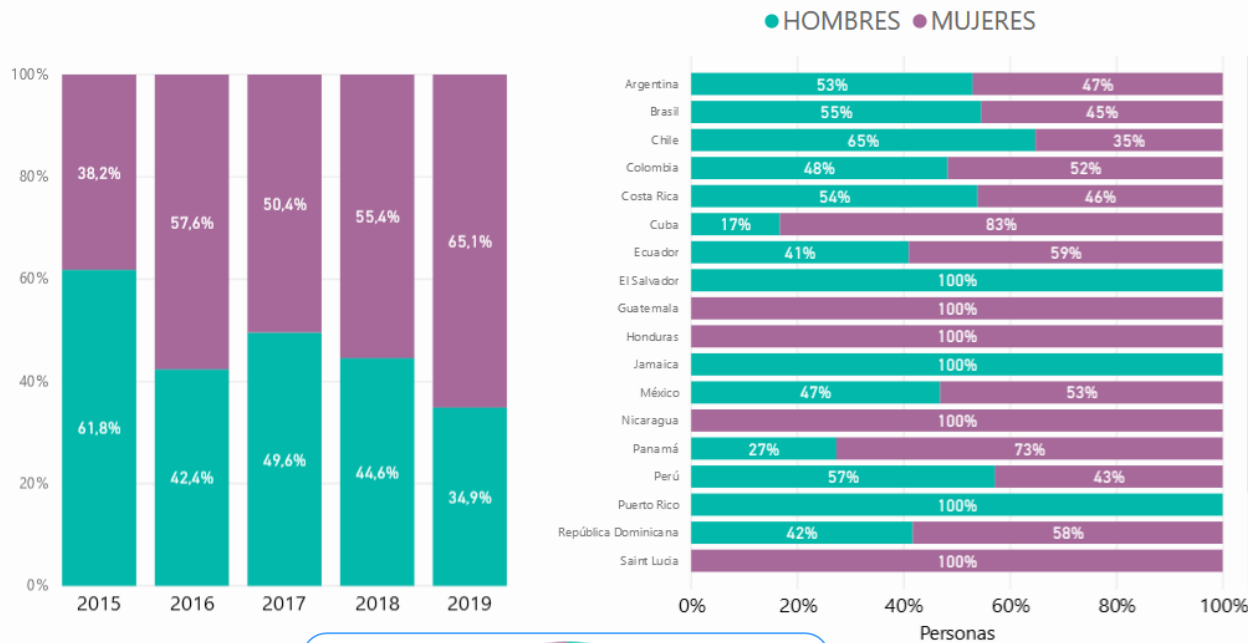


Next Steps:

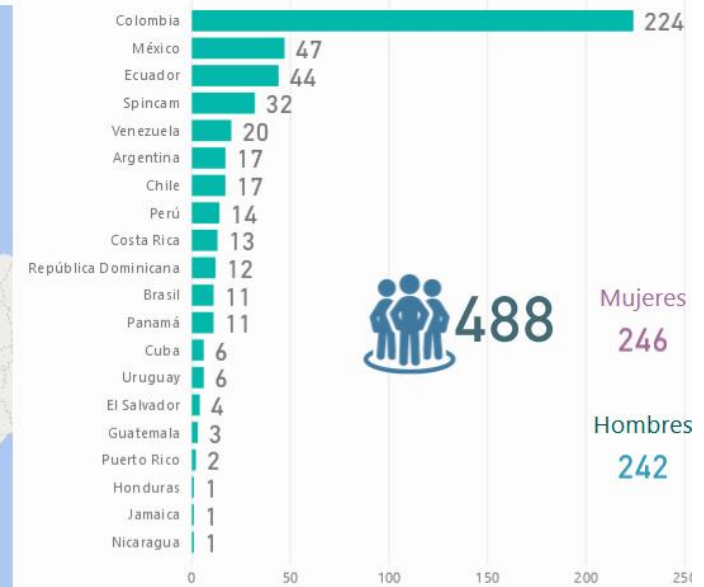
- Global Node
- More Regional nodes

<http://portete.invemar.org.co/chm>

Datos por género



Estudiantes por país



Contexto general

CLME+ is a project born 25 years ago as an IOCARIBE MS initiative with more than 20 mill GEF support, and over 100 mill co-financing.

CLME+: Supports implementation of the politically endorsed 10-year CLME+ Strategic Action Programme (SAP)

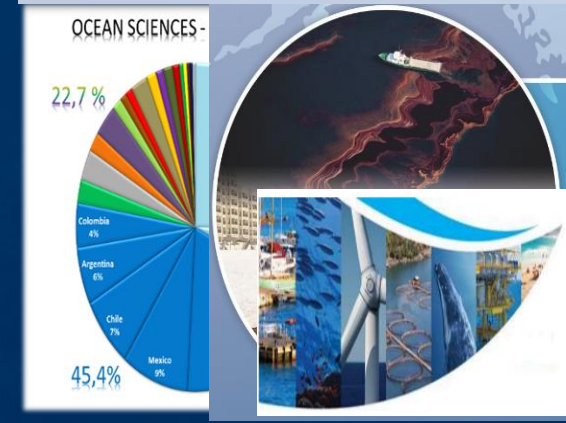
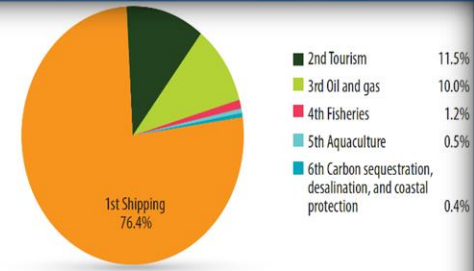
Facilitates implementation of ecosystem-based management

Supports the region strengthen the Regional Governance Framework

- SAP Interim Coordination Mechanism established in 2017 and consist of 8 IGOs
- CLME+ Region considering requirements to establish a permanent Coordination Mechanism, inclusive of a Sustainable Financing Plan, for enhanced ocean governance

OCEAN is a major resource for IOCARIBE countries economies. Particularity for SIDS. It represents a defining cultural, historical and socio-economic component for people in the Region.

- Launch the Decade based on IOCARIBE experience, capabilities and needs
- **Prioritize themes/activities where we can achieve more together than alone**
- Mobilize existing and new partnerships that support a smart sustainable economy, resilient communities and ecosystem health and services
- **Advance capacity development and broaden access to data and tools to apply knowledge for sustainable development, including Marine Spatial Planning and Ocean Literacy**
- Foster inclusive engagement of diverse sectors, disciplines, cities/ indigenous communities, women and youth



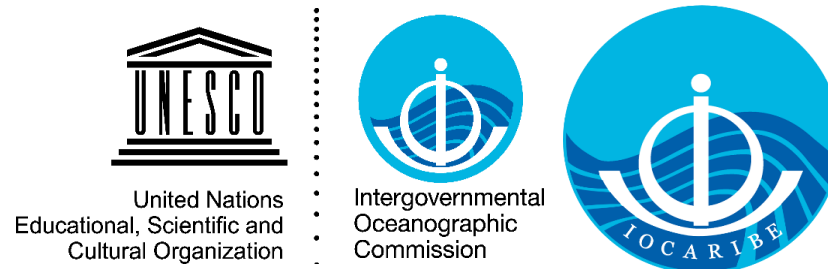
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UN DECADE OF OCEAN SCIENCE FOR SUSTAINABLE DEVELOPMENT



ioc.unesco.org
iocaribe.ioc-unesco.org/

IOCARIBE specially thanks:

The Government of **Colombia** for their continuous financial and human resources support to the IOCARIBE Secretariat
The Government of **Flanders (Kingdom of Belgium)** for their financial support to IOCARIBE Programmes and initiatives,
The Government of **Aruba (The Kingdom of The Netherlands)** for hosting IOCARIBE XV, and
The Government of **Barbados**
The Government of **Brazil**
The Government of **Mexico**
The Government of **Panama**
The Government of the **Republic of Korea**
For their in-kind and financial support to IOCARIBE Programmes



감사합니다!
¡Muchas gracias!
Merci beaucoup!
Thank you!
شُكْرًا
Спасибо
谢谢
Danki

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