Ocean observation & DG MARE

towards a sustainable global vision

DG Maritime Affairs & Fisheries
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with inputs from

Unit A1
Maritime Innovation, Maritime Knowledge and Investment

Unit B1
Ocean Governance, Law of the Sea, Arctic Policy

Copernicus for SDGs, International Agreements and Conventions Workshop
24 January 2019, Brussels

International Assessment tools in place

- UN 2030 Agenda for Sustainable Development (SDGs)

ambitious, time-bound, mostly connected to established methodologies, availability of data or capacity to collect data under discussion

- UN CBD Aichi Biodiversity Targets

specific for biodiversity, some overlap with SDG's, vague identification of indicators, change is expected with the adoption of the post-2020 agenda, more to the point targets

- International Ocean Governance

aims at supporting the implementation of SGD's, Aichi targets and other priorities set by IA's as CITES, the Paris Agreement, etc. – mainly as a set of actions and not (yet) with quantifiable indicators

Challenges of Ocean Observation

- The multi-dimensional nature of the marine environment

information is required both for the surface, the water column and sea-bed

- Multi-use of the coastal and marine space

space can be occupied simultaneously by different activities

- Date collection can be more complicated, time-consuming, expensive compared to earth observations

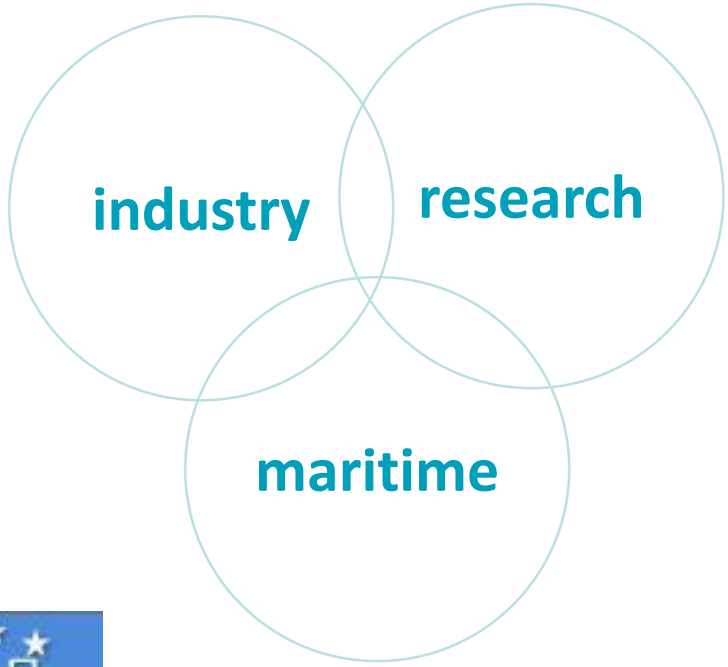
Need for integration of information from multiple sources, systems, tools

- Different analysis resolution is required depending on the area and intensity of human activities

more information is required where the density of H.A.s is high

- The majority of marine areas falls into International Agreements' territory *64%*

EC's Ocean Observation and Info systems



3 Commission departments

Fisheries Data Collection Framework

Sustainable Development Goal 14

Conserve & sustainably use the oceans…

- Prevent & reduce marine pollution

coastal eutrophication & floating plastic density

- Manage, protect & restore coastal & marine ecosystems

EEZ managed with EB approaches

- Address ocean acidification

average pH

- Regulating harvesting, overfishing, illegal fishing…

% of sustainable stocks

- Conserve at least 10% of coastal & marine areas

% coverage of protected areas

- Prohibit & eliminate subsidies contributing to illegal or over-fishing

national progress on reducing IUU fishing

Sustainable Development Goal 14

Conserve & sustainably use the oceans…

- Support maritime economies of developing Small Island developing States

% of sustainable fisheries in GDP

- Increase scientific knowledge, research capacity & transfer marine technology

% of budget for marine technology

- Protect & support small-scale fisheries

progress in regulatory instruments

- Implement UNCLOS

No of countries implementing UNCLOS through their national policy frameworks

eurostat

Legend:

- Significant progress towards SD objectives
- Moderate progress towards SD objectives
- Moderate movement away from SD objectives
- Significant movement away from SD objectives

Marine conservation

Sufficiency of marine sites designated under the EU Habitats Directive	:

Sustainable fishery

Catches in major fishing areas	:
Assessed fish stocks exceeding fishing mortality at maximum sustainable yield (Fmsy)	↑

Ocean health

Mean ocean acidity	:
Bathing sites with excellent water quality	↑

Actual & potential contribution of OOIS to SGD14

coastal eutrophication	EMODnet, Copernicus Europe's eyes on Earth, SeaDataNet
floating plastic density	Copernicus Europe's eyes on Earth
EEZ managed with EB approaches	*potential* EMODnet
average pH	EMODnet
% of sustainable stocks	*potential* EMODnet, Data Collection
% coverage of protected areas	*potential* Copernicus Europe's eyes on Earth, EMODnet

Actual & potential contribution of EU's OOIS to SGD14

national progress on reducing IUU fishing	*potential*
% of sustainable fisheries in GDP of SIdS	*potential*

Identification of the potential of ocean observation systems

Collaboration for the creation of indirect tools for the assessment of indicators

What about other SDGs & IA's

- Goal 7: Energy for all

indirect link to 7.2.1 renewable energy share

- Goal 8: Economic growth

indirect link to 8.9 sustainable tourism

- Goal 13: Climate change

No indirect link to indicators but monitoring and assessment of impacts

- Aichi Targets 3, 5, **6**, 7, 8, 9, 10, 11, 12, 14

eliminate harmful subsidies, develop positive incentives; halve the rate of loss of habitats; manage fish & invertebrate stocks sustainably and with EA; sustainable management of aquaculture areas; no detrimental levels of pollution; address alien species challenges; minimize anthropogenic pressures to coral reefs; designated MPAs; prevent extinction of species; ecosystem restoration

International Ocean Governance

- Pillar 1: Improving the international ocean governance framework

Promoting regional fisheries management and cooperation in key ocean areas to fill regional governance gaps + Ensuring the safety and security of seas and oceans

- Pillar 2: Reducing pressure on oceans and seas and creating the conditions for a sustainable blue economy

Fighting illegal fishing and strengthening the sustainable management of ocean food resources globally + Fighting marine litter

- Pillar 3: Strengthening international ocean research and data

A coherent EU strategy on ocean observation, data and marine accounting + International ocean research, innovation and science partnership

European Commission

20m km²
is the total area of the combined
Exclusive Economic Zone of the EU Member States.
This marine territory is around 380% larger than its land counterpart, and is the world's largest.

The EU has the world's largest EEZ.

400m **passengers** pass through **EU PORTS EVERY YEAR.**

90% of international and **40%** of internal EU trade is **MARITIME.**

€350m/y of EU investment funds dedicated to marine and **MARITIME RESEARCH.**

The maritime economy contributes up to **4m JOBS** and **€500bn/y** to the EU economy, a strategic area with scope for large and **SUSTAINABLE GROWTH.**

€52.2bn/y The EU is the world's largest **SEAFOOD MARKET IN VALUE.**

Paris Agreement

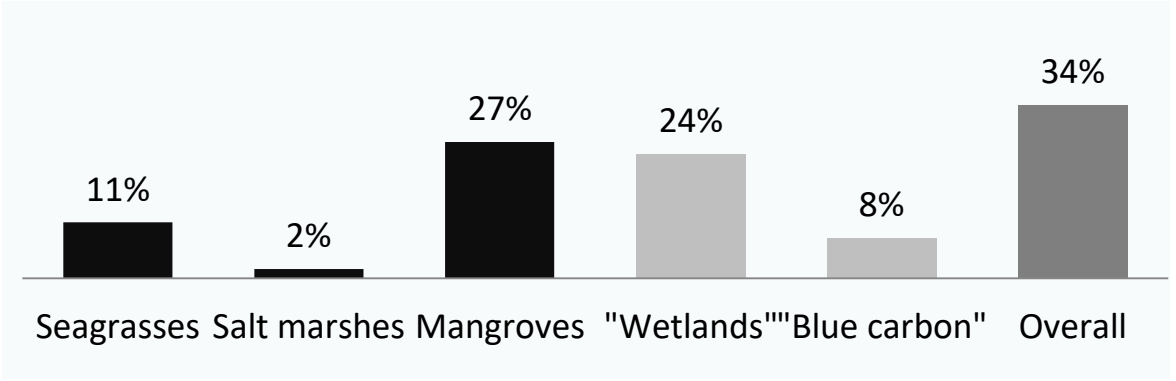
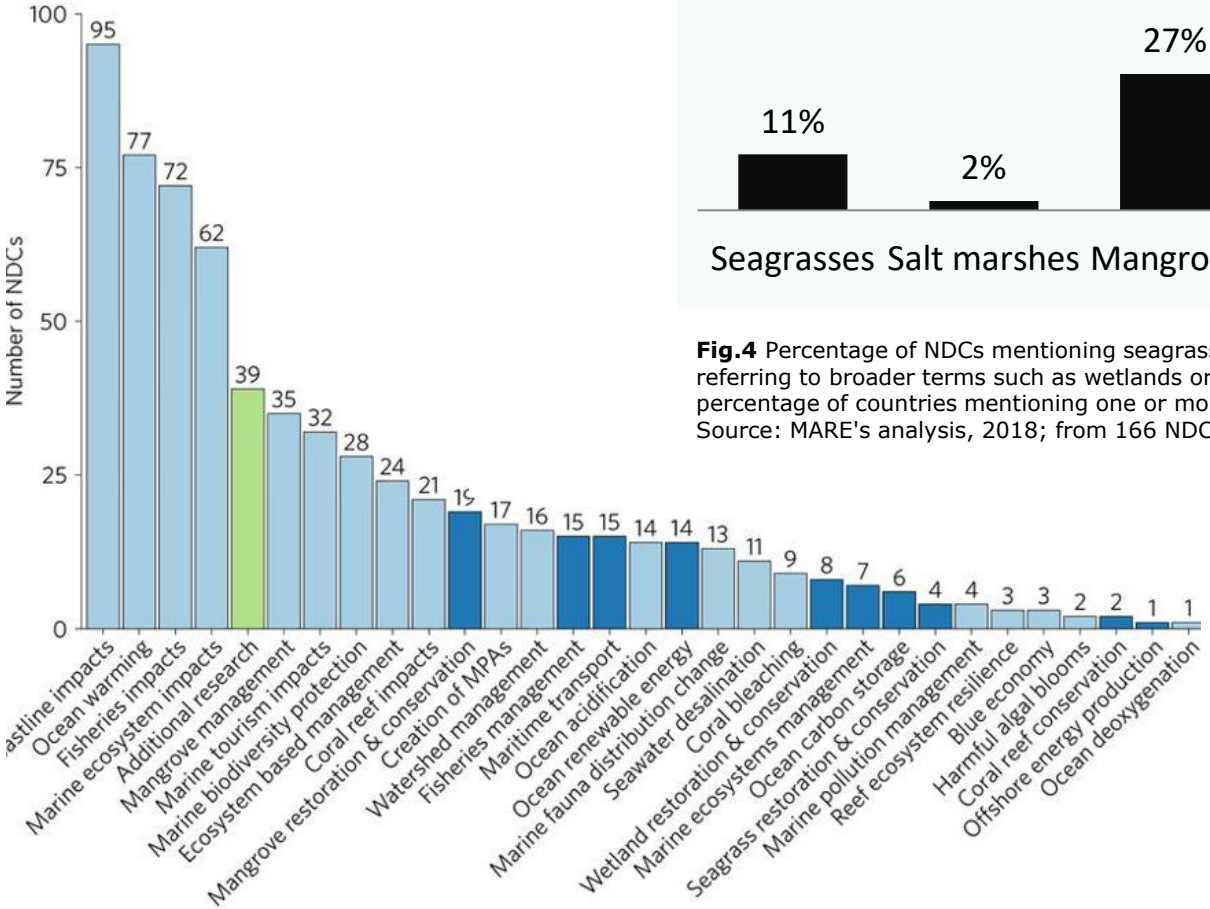


Fig.4 Percentage of NDCs mentioning seagrass, salt marsh or mangrove ecosystems (black bars), or referring to broader terms such as wetlands or blue carbon (light grey bars). "Overall" shows pooled percentage of countries mentioning one or more time blue carbon ecosystems (dark grey bar). Source: MARE's analysis, 2018; from 166 NDCs.



ecosystem	Global extent (Mha)
Mangroves	13.8-15.2 (14.5)
Tidal Marsh	2.2-40 (5.1)
Seagrass	17.7-60 (30)
Total	33.7-115.2 (48.9)

Fig.2 (Gallo et al. 2017) Frequency of different marine mitigation (dark blue) and marine impacts and adaptation (light blue) categories included in NDCs. Number of NDCs requesting additional marine research shown in green.

Ocean observation: to assess and to lead

- SDG 14 guide the EU's actions on oceans in the coming decade
- UN ocean science decade

Need for adaptation strategies and science-informed policy responses

- Copernicus makes a valuable contribution on observation, monitoring and surveillance
- Focus, not only in what information/data are available today but also what we aim to have, or what we should develop/collect, not only to assess but also to refine and make the indicators more efficient and more useful

2021 2030 United Nations Decade of Ocean Science for Sustainable Development

Thank you!

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