GROUP ON EARTH OBSERVATIONS

BLUE PLANET Oceans and Society

Ocean Acidification in relation to SDG-14 (and 13)

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SDGs: Sustainable Development Goals

GEO GROUP ON EARTH OBSERVATIONS
GI-18 Initiative

THE GLOBAL GOALS
For Sustainable Development

SDGs represent a clear opportunity for generating greater coherence between EO and society, environment and economy policy issues.

EO can play key roles in monitoring targets, planning, tracking progress, and helping nations and other stakeholders make informed decisions.

17 goals
169 targets
230 indicators

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SUSTAINABLE DEVELOPMENT GOAL 14

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

10 TARGETS and 10 INDICATORS

"Indicators [are] the backbone of monitoring progress towards the SDGs at the local, national, regional, and global levels. A sound indicator framework will turn the SDGs and their targets into a management tool to help countries develop implementation strategies and allocate resources accordingly, as well as a report card to measure progress towards sustainable development and help ensure the accountability of all stakeholders for achieving the SDGs."

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SDG-14 Targets (1)

14.1 By 2025, **prevent and significantly reduce marine pollution** of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

14.2 By 2020, **sustainably manage and protect marine and coastal ecosystems** to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

14.3 **Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels**

14.4 By 2020, **effectively regulate harvesting and end overfishing**, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

14.5 By 2020, **conserve at least 10 per cent of coastal and marine areas**, consistent with national and international law and based on the

SDG-14 Targets (2)

14.6 By 2020, **prohibit certain forms of fisheries subsidies** which contribute to overcapacity and **overfishing, eliminate subsidies** that contribute to **illegal, unreported** and **unregulated** fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation.

14.7 By 2030, **increase the economic benefits to Small Island developing States** and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

14.A Increase **scientific knowledge, develop research capacity and transfer marine technology**, in order to **improve ocean health** and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

14.B Provide **access for small-scale artisanal fishers to marine resources and markets**

14.C Enhance **conservation and sustainable use of oceans** and their

SUSTAINABLE DEVELOPMENT GOAL 14

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

10 TARGETS and 10 INDICATORS

Themes	Actions
• Marine pollution	• prevent and reduce
• marine and coastal ecosystems	• Conserve, sustainably manage and use, international law
• ocean acidification	• Minimize
• Overfishing	• Regulate,
• Illegal, unreported and unregulated fishing	• Prohibit
• small-scale artisanal fishers	• access to marine resources & markets
• Improve ocean health	• research capacity and transfer marine technology
• Economic benefits to	

SDG-14 Indicators

- **Tier I**: Indicators conceptually clear, established methodology and standards available and data regularly produced by countries.
- **Tier II**: Indicator conceptually clear, established methodology and standards available but data are not regularly produced by countries.
- **Tier III**: Indicators for which there are no established methodology and standards or methodology/standards are being developed/tested.

- 2 SDG-14 indicators are classified as Tier I

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SDG-14 Indicators

Indicator	Tier I	Tier III	Custodian	Others involved	Remote Sensing	In situ
14.1.1 Index of coastal eutrophication and floating plastic debris density		X	UNEP	IOC; IMO; FAO	X	X
14.2.1 Proportion of national exclusive economic zones managed using ecosystem-based approaches		X	UNEP	IOC; FAO	X	
14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations		X	IOC	UNEP		X
14.4.1 Proportion of fish stocks within biologically sustainable levels	X		FAO			X
14.5.1 Coverage of protected areas in relation to marine areas	X		UNEP-WCMC		X	
14.6.1 Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing		X	FAO		?	?
14.7.1 Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries		X	?	FAO; UNEP; WB		
14.a.1 Proportion of total research budget allocated to research in the field of marine technology		X	IOC	UNEP; WB?		
14.b.1 Progress by countries in the degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries		X	FAO		?	?
14.c.1 Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources		X	UN-DOALOS; FAO; UNEP; ILO; other UN Oceans agencies			

Defining Ocean Acidification targets

Target

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

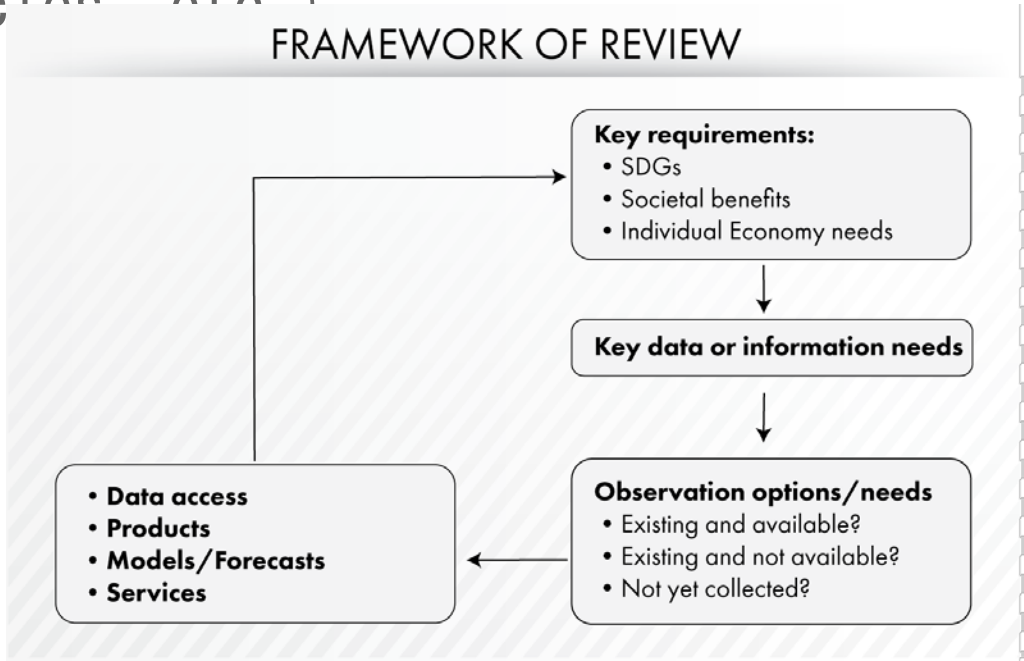
Indicator

14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations

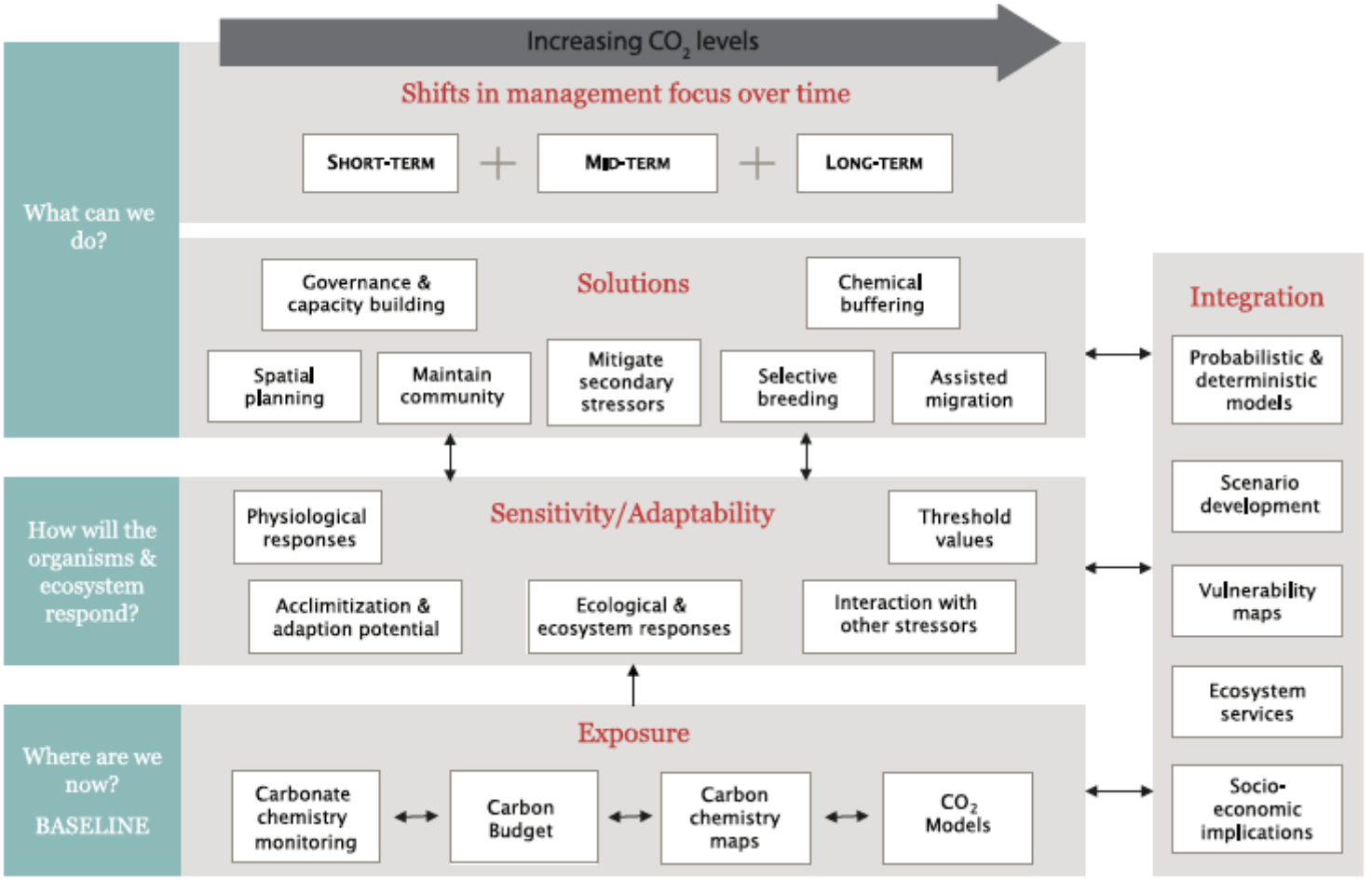
1. Is the OA target conceptually clear-physically, biologically, socio-economically?
    a) If not what are the gaps?
2. Indicator interpretation
    a. what does average mean?
    b. What what criteria should be used to determine representatives sites
3. What methodologies are there available and what might need to be developed?
    a. Measurement
    b. Analysis and interpretation an reporting
4. Are there standards defined for :
    a. Measurement
    b. Baselines and thresholds
5. Are countries making these measurements
    a. What are the barrier to making these measurements

What else is needed for the SDG-14 Tier III Indicators?

I. Institutional Custodian ✓
II. Concepts and definitions (definition, rationale, concept, limitations, etc.)
III. Methodology (computational method, disaggregation, treatment of missing values, sources of discrepancies, etc.)
IV. Data sources
V. Data availability
VI. Calendar
VII. Data providers
VIII. Data Compilers



Ocean Acidification questions and products



From Albright et al (2015)