OCEAN UNIVERSITY INITIATIVE

POLICY BRIEF

Issue #1, 2018

Publisher: Denis Bailly *ISSN:* 2647-2201

FR EN

Monitoring Sustainable Development Goal 14 on the ocean

SUMMARY

This policy brief explains the role of Sustainable Development Goal 14 on the Ocean and points to the related major initiatives of the United Nations through a short interview with Vladimir Ryabinin, Executive Secretary of the Intergovernmental Oceanographic Commission. It sets out the relevance of indicators for monitoring the SDG 14 agenda, illustrates progress in this area globally and nationally in France and South Africa, goes over certain coordination challenges and highlights future areas of research.

Laura Recuero Virto
Research coordinator
Ocean University Initiative
University of Brest (UBO)
i³-CRG, Ecole Polytechnique

Anne-France Didier
Special Adviser for Regional and Local Governance and Co-ordinator for SDG14
French Ministry for the Ecological and Inclusive Transition

Kumi Kitamori
Head of Division
Green Growth & Global Relations
Environment Directorate
OECD

Small-scale fisheries in Manaus, Brazil (photo by *Tadeu Jnr*)

What are the Sustainable Development Goals (SDGs)?

On 25th September 2015, the 193 Member States of the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development. The 2030 Agenda is the world's first global agreement to provide a comprehensive agenda for action to support transformations towards social, economic and environmental sustainability. Its 17 SDGs and 169 targets will guide the activities of a wide range of stakeholders over the next 14 years.

Interview: *Vladimir Ryabinin*
Executive Secretary of the Intergovernmental Oceanographic Commission and Assistant Director General of UNESCO

The Ocean Conference is the high-level United Nations Conference supporting the implementation of SDG 14 and was held at the United Nations Headquarters in New York in June 2017. The Conference aimed to be the game-changer in reversing the decline in the health of our ocean for people, the planet and prosperity.

What was the main advance of the Ocean Conference?

The conference reflected a major change in awareness and public engagement to reverse the deterioration of our ocean. It brought together over 4,000 participants from governments, intergovernmental organizations, NGOs, academia, the scientific community and the private sector. More than 1,400 voluntary commitments to support SDG 14 were made by the different stakeholders.

What is the follow-up to the Ocean Conference?

A second conference will be held in Lisbon in May 2020. This will be a first milestone to monitor progress on the four SDG 14 targets 14.2, 14.4, 14.5 and 14.6 that should be attained by 2020. In addition, the Intergovernmental Oceanographic Commission of UNESCO (IOC) will coordinate the preparatory process of the United Nations Decade of Ocean Science for Sustainable Development (2021-2030), which seeks to transform and bolster the SDG 14 commitments.

What was the Ocean University Initiative's contribution to the Ocean Conference?

The participants in the Ocean Conference were invited to make voluntary commitments that aim to contribute to the implementation of SDG 14. Under the #OceanAction21076 engagement, the University of Brest (UBO) committed to propose to the United Nations University the establishment in France of an institute dedicated to the "science and governance of the ocean and coasts" with the support of French oceanographic research organizations, state ministries and local authorities in Brittany. The project will support the voice of the ocean and coasts by joining forces with civil society, with a special focus on capacity building in the Southern ocean. More information is available at:
https://oceanconference.un.org/commitments/?id=21076

The European Institute for Marine Studies (IUEM, UBO) seen from the sea, Plouzané, France (photo by *Paul Tréguer, CNRS*)

What is SDG 14 on the ocean?

The SDG 14 - "Conserve and sustainably use the oceans, seas and marine resources for sustainable development" - can be considered as a tool to address sustainable development processes on the ocean in both developed and developing countries and to facilitate action at all levels and with all actors, including civil society, the private sector and the scientific community to strengthen the capacity of the State to achieve the desired outcomes. The SDG 14 targets cover environmental pressures on marine life due to economic activities. Small Island Developing States (SIDS) and coastal communities are especially impacted by these environmental pressures as well as being dependent on marine resources in socio-economic terms.

Why are indicators necessary for the implementation of SDG 14?

A comprehensive framework of indicators is needed for the implementation of SDG 14 to monitor progress, inform policy and ensure the accountability of each stakeholder. The Inter-Agency and Expert Group on SDG indicators (IAEG-SDGs) proposed a global indicator framework that the United Nations General Assembly adopted in March 2016 to track progress at the global level and for collective action towards achieving the 17 SDGs. Global monitoring should be based, as much as possible, on comparable national data that countries should report to the international statistical system. At the global level, the Food and Agriculture Organization (FAO), is the custodian agency for four (14.4.1, 14.6.1, 14.7.1, 14.b) of the 10 SDG 14 indicators[1]. Member States of the United Nations should also develop more detailed indicators at the regional and national levels to track success at these levels.

1 *Source:* FAO (2017).

Table 1: SDG 14 targets

14 LIFE BELOW WATER

14.1 By 2025, prevent and significantly reduce **marine pollution** of all kinds

14.2 By 2020, sustainably manage and protect marine and coastal **ecosystems** to avoid significant adverse impacts

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

14.5 By 2020, **conserve at least 10 per cent** of coastal and marine areas

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

14.7 By 2030, increase the economic benefits to **small island developing States and least developed countries** from the sustainable use of marine resources

14.a Increase **scientific knowledge**, develop research capacity and transfer marine technology

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

14.c Enhance the conservation and sustainable use of oceans and their resources by implementing **international law**

Source: UN (2015).

Global indicators

The SDG 14 targets were selected for their policy relevance, independently of the availability of indicators. Consequently, most indicators do not yet exist and there is a need to propose and build at least one relevant indicator for each target to enable monitoring. Eight out of 10 global indicators are currently not available for SDG 14 compared to 58% for all SDG global indicators. The United Nations Statistics Division currently provides open access to the two available SDG 14 global indicators, namely, 14.4.1 on the proportion of fish stocks within biologically sustainable levels and 14.5.1 on the coverage of protected areas in relation to marine areas. The dates by when the remaining global indicators for SDG 14 should be available are indicated in Table 2. There is, for instance, no set date for the availability of a global indicator for target 14.7 on sustainable fisheries which concerns, among other countries, SIDS. Indeed, fisheries in SIDS have been threatened by overexploitation, land-based pollution and inadequate fisheries' monitoring, control and surveillance systems. Member States are invited to complement global indicators with national indicators that are relevant for national policies or for national stakeholders.

Table 2: SDG 14 global indicators: sources and availability

Target	SDG14 Global Indicator	Source	Availability
14.1	14.1.1 Index of coastal eutrophication (i) and floating plastic debris density (ii)	UNEP in cooperation with IOC-UNESCO	From 2021
14.2	14.2.1 Proportion of national exclusive economic zones managed using ecosystem-based approaches	UNEP in cooperation with IOC-UNESCO	From 2021
14.3	14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations	IOC-UNESCO in co-operation with UNEP	After 2020
14.4	14.4.1 Proportion of fish stocks within biologically sustainable levels	FAO	1974 - 2013
14.5	14.5.1 Coverage of protected areas in relation to marine areas	UNEP's World Conservation Monitoring Centre, BirdLife Index, UICN	2000 - 2014
14.6	14.6.1 Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing	FAO	After 2017
		OECD	
		• Fisheries Support Estimate	2000 - 2015
		• Policies against illegal, unreported and unregulated fishing	From 2018
14.7	14.7.1 Sustainable fisheries as a proportion of gross domestic product in small island developing states, least developed countries and all countries	FAO	No set date
14.a	14.a.1 Proportion of total research budget allocated to research in the field of marine technology	IOC-UNESCO in cooperation with UNEP	From 2018
14.b	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	FAO	From 2016
14.c	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 Nations Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources	United Nations Division for Ocean Affairs and the Law of the Sea, Office for Legal Affairs	No set date

Source: OECD (2017).

SDG 14 national indicators in France

The French National Statistical Office in March 2017 shared a first database of 110 SDG indicators to complement SDG global indicators given local specificities and needs. The proposed SDG 14 national indicators are 'statistical indicators' (corresponding to global indicators 14.1.1-14.5.1, 14.7.1 and 14.a.1) or qualitative 'public policy assessments' (corresponding to global indicators 14.6.1, 14.b.1 and 14.c.1) (Table 3).

To enable qualitative public policy assessments, evaluation matrices should be completed and the resulting information should be aggregated. Statistical indicators may be further classified as 'available' (corresponding to global indicators 14.4.1 and 14.5.1), 'proxy' (corresponding to global indicators 14.1.1, 14.2.1 and 14.5.1), 'complementary' (14.1.1, 14.2.1), or 'non-available' (corresponding to global indicators 14.1.1, 14.3.1, 14.7.1 and 14.a.1). The available indicators are identical to the SDG 14 global indicators requested by the IAEG-SDGs. The proxy indicators are close to the SDG 14 global indicators, while being better suited to the French context. The complementary indicators are different from the SDG14 indicators but close to the associated objective.

The French SDG 14 indicators in Table 3 are set to evolve over time. For instance, the SDG 14 national indicator corresponding to global indicator 14.4.1 should include proxy data on the maximum sustainable yield.

Table 3: SDG 14 national indicators in France (June 2018)

Global indicator	Type	Name	Source
14.1.1	Statistical indicator		
	Complementary	**Ecological condition of coastal waters**	Water agencies, National Office for Water and Aquatic Environments and French Ministry for the Ecological and Inclusive Transition (MTES)
	Proxy	**Share of dead boreal fulmars with more than 0.1 g of plastic in their stomachs in the English Channel**	French Research Institute for Exploitation of the Sea (Ifremer) and French Ministry for the Ecological and Inclusive Transition (MTES)
	Proxy	**Annual assessment of major nutrient flows from metropolitan watersheds**	Water agencies, Schapi, Hydro bank, French Ministry for the Ecological and Inclusive Transition (MTES)
	Proxy	**Pollution control at sea** Number of reports "POLREP" pollution reports monitored by the authorities	Cedre
14.2.1	Statistical indicator		
	Proxy	**State of progress of the ecosystem approach** Seaboards with strategic seaboard documents (metropolitan France) or strategic documents (overseas territories)	French Ministry for the Ecological and Inclusive Transition (MTES)
	Complementary	**Evolution of the state of coral reefs** Percentage of coral reef monitoring stations in French overseas territories with stable / increasing / decreasing live coral recovery	The French coral reef initiative (IFRECOR) via focal points
14.5.1	Statistical indicator		
	Proxy	**Marine protected areas** Proportion of marine protected areas of more than three years of existence and a validated management document in relation to the total area of marine protected areas	French Biodiversity Agency (AFB)
	Available	**Marine protected areas** Share of French marine waters in marine protected areas	French Biodiversity Agency (AFB)

Source: French National Council for Statistical Information (2018).

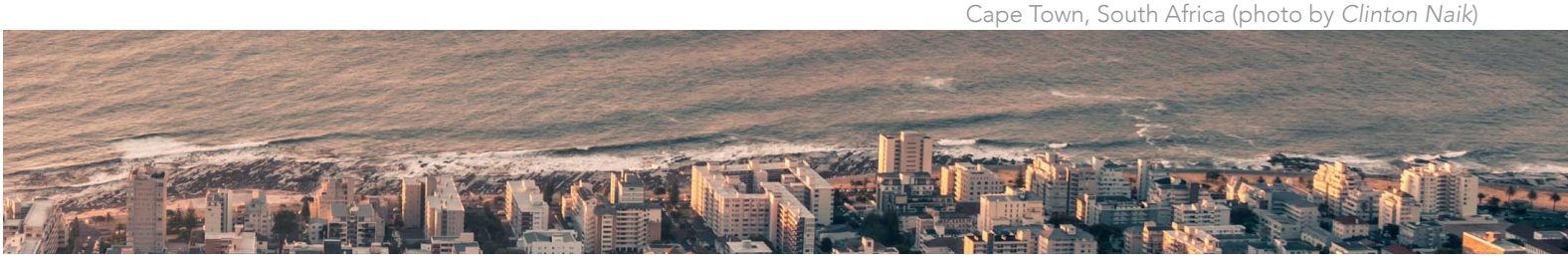
SDG 14 national indicators in South Africa[2]

The objectives of South Africa's National Development Plan (NDP) are consistent with those of the SDGs. Both the NDP and the SDGs seek to raise the living standards of the poor. South Africa faces a triple challenge: poverty, inequality and unemployment. In order to address these threats, the NDP seeks to implement a long-term strategy to raise employment and increase opportunities through education, vocational training and health.

2 Source: South Africa (2017).

Regarding the ocean, the NDP states that "*market and policy failures have resulted in the global economy entering a period of 'ecological deficit', as natural capital (ground water, marine life, terrestrial biodiversity, crop land and grazing) is being degraded, destroyed, or depleted faster than it can be replenished*". In South Africa, most fishery resources are already harvested to their limit or over-exploited. They, however, play a key role from a social standpoint. In South Africa, there are about thirty thousand subsistence fishers on the east and south coasts. There are few industrial fisheries, but these employ an equivalent number of people. It is therefore fundamental to manage this resource sustainably (Tables 4 and 5).

Cape Town, South Africa (photo by *Clinton Naik*)



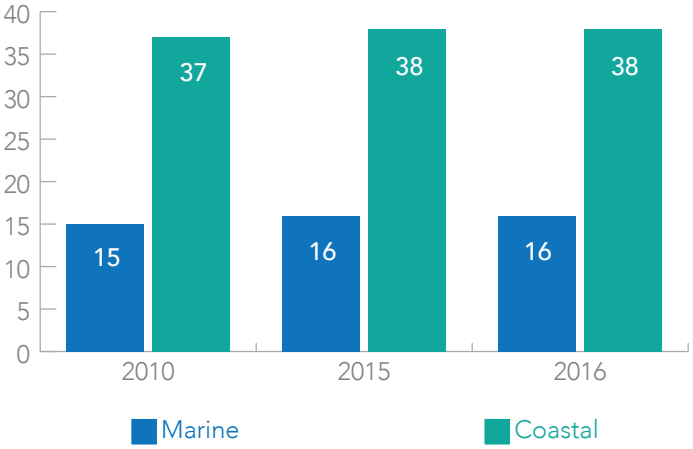
Examples of ODD14 South Africa indicators

Indicator 14.5.1D: Percentage of marine and coastal ecosystem types that are well-represented in protected areas

Definition: Percentage of marine (benthic and pelagic) and coastal (including estuaries) ecosystem types which are well protected (defined as those ecosystem types for which the full biodiversity target falls within a protected area). Targets are set at 20% for marine and coastal ecosystem types.

Table 4: Marine and coastal ecosystems that are well protected (in %)

Baseline indicator values: Coastal: 38%
Marine: 16%



Indicator 14.5.1A: South African marine protected areas as a percentage of the total Exclusive Economic Zone (EEZ)

Definition: Coverage of Marine Protected Areas (MPAs) in relation to marine areas in the Exclusive Economic Zone.

Table 5: Marine protected areas as a percentage of the total Exclusive Economic Zone

Baseline indicator value (2013): 12.02%

Name of Area	Area MPAs (km²)	Area EEZ (km²)	MPA (%)
Prince Edward Islands	180 000	466 880	38.55
Mainland South Africa	4 540	1 068 660	0.42
Combined	184 540	1 535 540	12.02

Approximately 12% of the overall South African Exclusive Economic Zone are Marine Protected Areas, for the most part (11.7%) concentrated around the Prince Edward Islands.

Source: South African Protected Areas Database, Department of Environmental Affairs (South Africa, 2017).

Source: National Biodiversity Assessment and Prince Edward & Marion Islands 2013, Department of Environmental Affairs (South Africa, 2017).

Some coordination challenges for implementing SDG 14 indicators

Interdependencies with other SDG targets

Before developing context-specific regional and national indicators, it is important to understand the nature of interdependencies among the SDG 14 targets and between SDG 14 and other SDGs targets, since some targets may reinforce each other, while others may have offsetting effects.

For instance, in terms of these interdependencies between SDG 14 and other SDG targets, there is potential for trade-offs between healthy oceans (SDG 14), food security (SDG 2) and economic growth and job creation (SDG 8). Economic activities (SDGs 8, 9 and 11) are linked to SDG 14 in the form of pollution, ocean acidification and pressure on marine resources.

One way to integrate context-specific trade-offs and synergies between SDG 14 and other SDGs, is to add the relevant ocean-related data to the other SDG indicators. The Baltic Marine Environment Protection Commission, HELCOM, has reported how its indicators can be used to monitor SDGs 2, 6, 9, 11 and 12. These complex links between SDG 14 and other SDGs reveal that there should be stronger collaboration between the scientific and policy communities to properly identify the most important local trade-offs.

Figure 1: Interdependencies between SDG 14 and other SDG targets

Note: Small island states and non-island states that rely heavily on the maritime economy are particularly affected by SDGs 1, 2, 10, 11, 12, 16 and 17.
Elaboration: French Ministry for the Ecological and Inclusive Transition (MTES).

Synergies with multilateral environmental agreements

There are synergies between the SDG 14 targets and key Multilateral Environmental Agreements such as the Convention on Biological Diversity (CBD) and its 20 Aichi targets as well as the Ramsar Convention on wetlands. Exploiting these synergies can be cost effective.

Table 6: Synergies between some key multilateral environmental agreements and SDG 14 targets

Multilateral environmental agreements	Synergies with SDG 14 target
Convention on Biological diversity	14.1 14.2 14.3 14.4 14.5 14.6 14.7 14.a 14.b 14.c
Convention on Wetlands	14.1 14.2 14.3 14.5 14.7 14.b 14.c
Convention on the Conservation of Migratory Species of Wild Animals	14.2 14.4 14.5
United Nations Framework Convention on Climate Change	14.2
Regional Seas Conventions and Action Plans	14.1 14.2 14.3 14.5 14.7 14.a 14.b 14.c
Chemicals Conventions	14.1
Convention on International Trade in Endangered Species of Wild Flora and Fauna	14.2 14.4

Note: Chemical conventions are: theBasel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Stockholm Convention on Persistent Organic Pollutants and others.
Source: OECD (2017).

The SDG 14 indicators depend on the geographical level of intervention

The spatial levels of intervention for each of the SDG 14 targets determine the most relevant geographical scopes for the development of indicators: subnational, national, transnational, regional or global. Given that few global indicators are currently available, existing regional and national indicators are key for implementing the SDG targets. Moreover, disaggregated indicator data should allow causal inferences, to be made, particularly as regards links within SDG 14 targets, and between SDG 14 targets and other SDG targets.

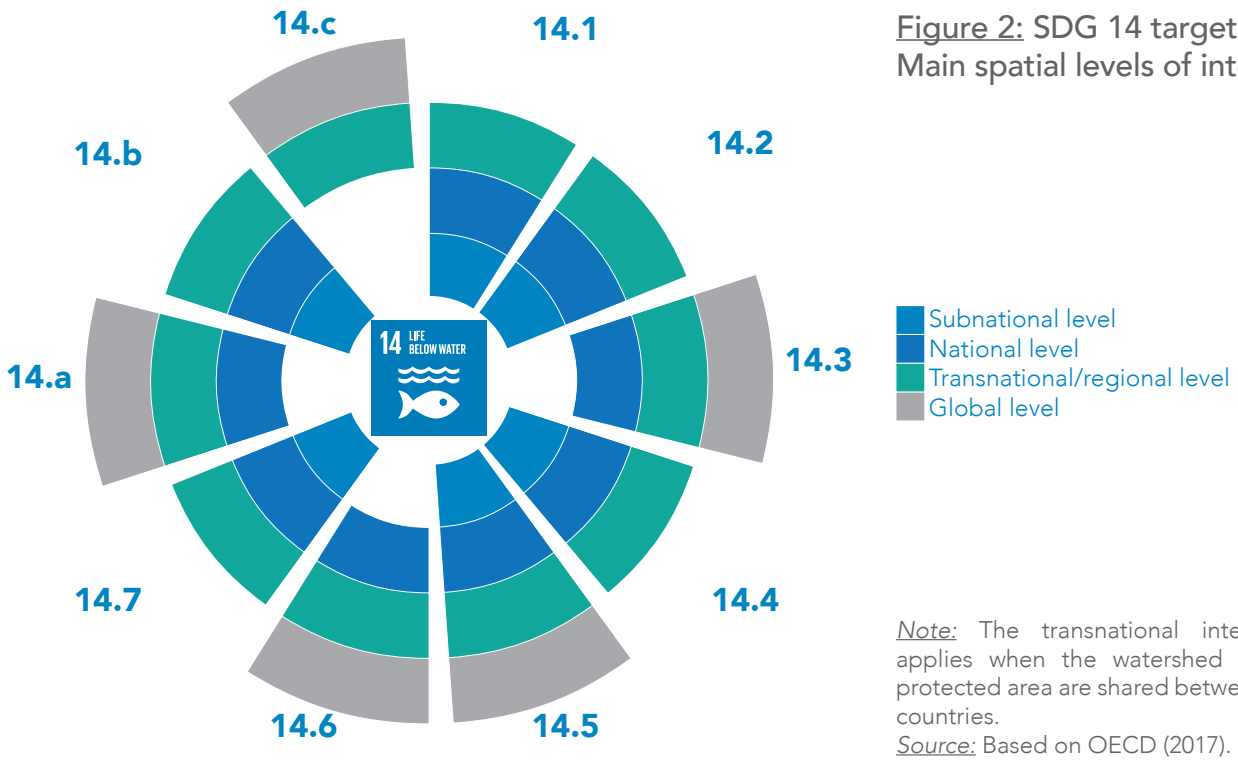


Figure 2: SDG 14 targets: Main spatial levels of intervention

Note: The transnational intervention level applies when the watershed or the marine protected area are shared between two or more countries.
Source: Based on OECD (2017).

Future research areas

Building on the frontiers of ocean science to develop SDG 14 indicators

All of the SDG 14 targets have a strong scientific dimension. The substantial gaps in knowledge and data should not prevent progress in the policy agenda.

Developing innovative approaches for SDG 14 data collection

Numerous developing countries' statistical offices were unable to collect, analyze and disseminate data for reporting on the 48 Millennium Goal indicators (2000 - 2015). Since the number of SDG indicators is much higher, standing at 244, there is a risk of focusing on less critical or easier to achieve targets.

Valuing marine ecosystem services to implement SDG 14 in synergy with other goals

The concept of ecosystem services can support the implementation of SDG 14 in synergy with other goals. It can serve as an organizing principle to consider multi-level and cross-sectoral synergies and trade-offs. The poor appreciation of the benefits provided by marine ecosystems does not encourage investment in their management and conservation by states and coastal communities.

Harmonizing measurement methodologies

A lack of international harmonization of measurement methodologies can have implications both in terms of interpretation and comparability of the data. Marine ecosystem-based indicators in Regional Seas entities are disparate as regards the levels of specificity, the rationales for indicator selection, the degree of sophistication and the use of qualitative information.

Providing incentives for best practice and peer-learning with regards to SDG 14 indicators

It is necessary to define a shared minimum framework involving the responsibility of actors: the United Nations system, governments, the private sector and civil society, but also the different levels of governance within countries and all United Nations agencies.

Identify the specific needs of small island developing states, least developed countries and small-scale fishers

How can we ensure that the benefits of achieving the targets of ODD 14 reach the most vulnerable countries and social groups?

Sources and further reading

Conseil national de l'information statistique, 2018. La déclinaison française des indicateurs de suivi des objectifs de développement durable. Paris: Conseil national de l'information statistique.

FAO, 2017. Working for SDG 14. Healthy oceans for food security, nutrition and resilient communities. Rome: FAO.

HELCOM, 2017. Measuring progress for the same targets in the Baltic Sea. Helsinki: HELCOM.

OECD, 2017. A Preliminary assessment of indicators for SDG 14 on "Oceans" and Annexes. Issue paper, Paris: OECD.

South Africa, 2017. Sustainable Development Goals: Baseline report 2017.

UN, 2015. Transforming our world: the 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly. Seventieth session, agenda items 15 and 116, A/RES/70/1 70/1. New York: UN.

UNEP, 2014. Measuring success: Indicators for the Regional Seas Conventions and Action Plans. Nairobi: UNEP.

UNSC, 2017. Work of the UN Statistical Commission pertaining to the 2030 Agenda for Sustainable Development. Statistical Commission, 48th Session Resolution as of 10 March 2017. New York: UNSC.

Suggested citation: *Recuero Virto, L., Didier, A-F., Kitamori, K., 2018. Monitoring Sustainable Development Goal 14 on the ocean. OCEAN University Initiative Policy Brief, Issue 1. Univ Brest, France.*

OCEAN UNIVERSITY INITIATIVE

The Ocean University Initiative was initiated by the local authorities in Brittany. It is implemented by the University of Brest (UBO) with the aim of creating the conditions for establishing in France an institute of the United Nations University dedicated to the ocean and the coasts with the means to carry out pioneering work in three areas: research, training and communication.

OCEAN University Initiative
UBO - IUEM
Rue Dumont d'Urville
29280 PLOUZANÉ

Coordinator: *Denis Bailly*
contact@ocean-univ.org
ocean-univ.org

An initiative supported by:

CAMPUS MONDIAL DE LA MER · UBO Université de Bretagne Occidentale · AGENCE FRANÇAISE POUR LA BIODIVERSITÉ ÉTABLISSEMENT PUBLIC DE L'ÉTAT Action soutenue par l'AFB · Brest MÉTROPOLE · Région BRETAGNE · Liberté • Égalité • Fraternité RÉPUBLIQUE FRANÇAISE

Design and layout: Gras J (OCEAN-univ)