The Sustainable Development Goals Extended Report 2022

Note: The Statistics Division of the United Nations Department of Economic and Social Affairs (UNSD) prepares the annual The Sustainable Development Goals Report, also known as the glossy report, based on storyline inputs submitted by UN international agencies in their capacity as mandated custodian agencies for the SDG indicators. However, due to space constraints, not all information received from custodian agencies is able to be included in the final glossy report. Therefore, in order to provide the general public with all information regarding the indicators, this 'Extended Report' has been prepared by UNSD. It includes all storyline contents for each indicator as provided by the custodian agencies and is unedited. For instances where the custodian agency has not submitted a storyline for an indicator, please see the custodian agency focal point information linked for further information.

Contents

Target 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

Indicator 14.1.1: (a) Index of coastal eutrophication; and (b) plastic debris density

Coastal eutrophication shows increasing global trend with potential impacts from wildfire runoff

Coastal eutrophication takes place when coastal waters become enriched by nutrients. This causes excessive growth of plants, phytoplankton and algae, leading to harmful algal blooms, hypoxia, fish kills, sea grass die off, loss of coral reef and nearshore hard bottom habitats and pose health hazards to swimmers and fishers. In coastal zones, excessive nutrient runoff comes from manmade sources, which degrades ecosystem health and/or the sustainable provision of goods and services.

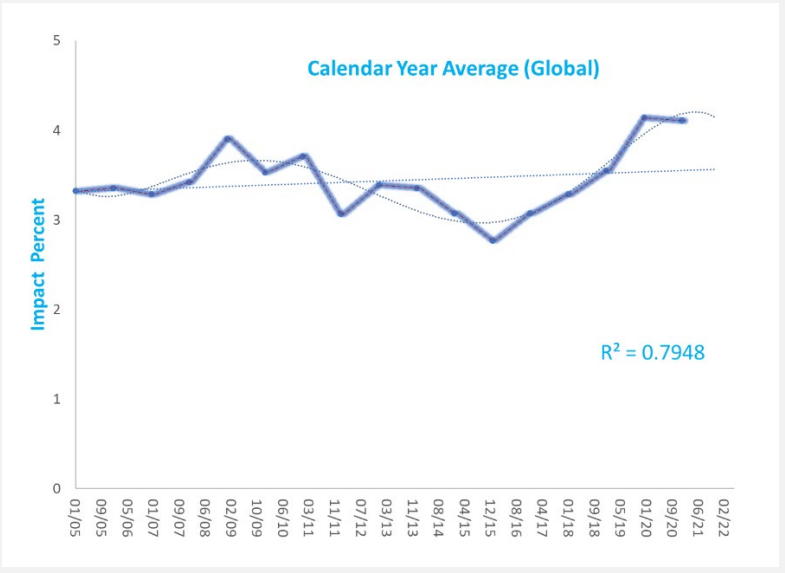
Chlorophyll-a, the main pigment in phytoplankton, absorbs visible sunlight, and through photosynthesis enables phytoplankton to produce energy for growth and reproduction. Because some specific wavelengths of visible light are absorbed by chlorophyll-a in phytoplankton, satellite measurements detect differences in the amount of visible light reflected from the water, known as ocean color. Those differences can indicate areas of high and low chlorophyll-a concentrations, and thus where phytoplankton are abundant versus lacking in the surface ocean.

The Coastal Eutrophication indicator product monitors changes in chlorophyll-a distributions in a country's Exclusive Economic Zone (EEZs) and/or territorial waters, relative to the 2000-2004 baseline. This is reported as an impact percent, (Figures 1 and 2) with larger impact values indicating greater deviation from the baseline and provides an overview of how much of the EEZ had chlorophyll-a concentration that deviated above (in the 90th percentile) relative to their baseline values.

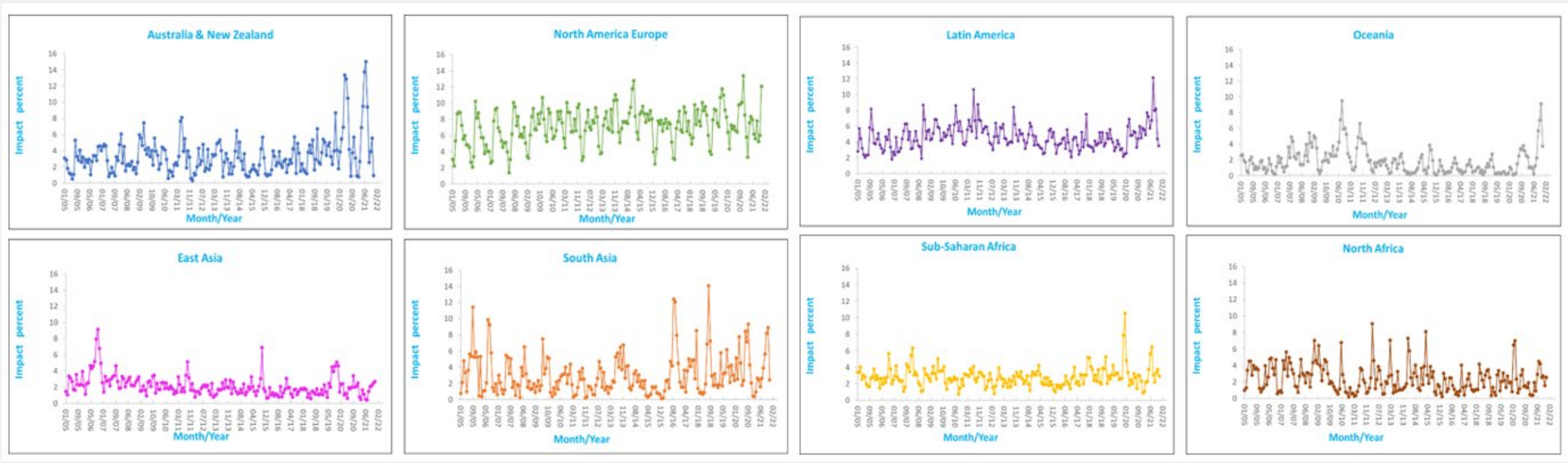
The satellite-derived eutrophication indicator estimated as a global Impact percent, show an increasing trend from 2016 to the present (Figure 1). There is about 23% increase in the peak values for the 2020 and 2021 calendar year average for the Impact Percent in comparison to the mean and median values of all previous years. During the full analysis period (January 2005 – December 2021), North America and Europe were continuously reflected among the highest Impact Percentages, while Oceania and East Asia and Sub-Saharan Africa reflected the lowest (Figure 2). While COVID-19 may have caused some reduced coastal pollution in some areas due to reduced tourism and activity, the pandemic has not led to reduced eutrophication globally.

During the periods May – July 2020 and 2021, the Australia/New Zealand had notably large Impact Percentages (Figure 2). The increased levels observed in the Australia/New Zealand area in May-July of 2020 might be attributed to the Australian wildfires in 2019-2020. Tang et al (2021) suggested that these wildfires facilitated the transport of large amounts of aerosol particles (e.g., iron rich) in smoke and ash to coastal waters along the southeastern coast of Australia. This may have triggered a massive widespread algal bloom in the Southern Ocean, thus elevating chlorophyll-a levels in the Australia/New Zealand region. Large Impact Percentages in the following 2021 period were seen in this region, and may also be related to a surge in nutrient run off mobilized by heavy rainfall over charred, barren lands burned in Australia's wildfires. As shown in Figure 3, areas with high chlorophyll-a impact percentages in 2020 and 2021 are in the vicinity of the location where the wildfires took place.

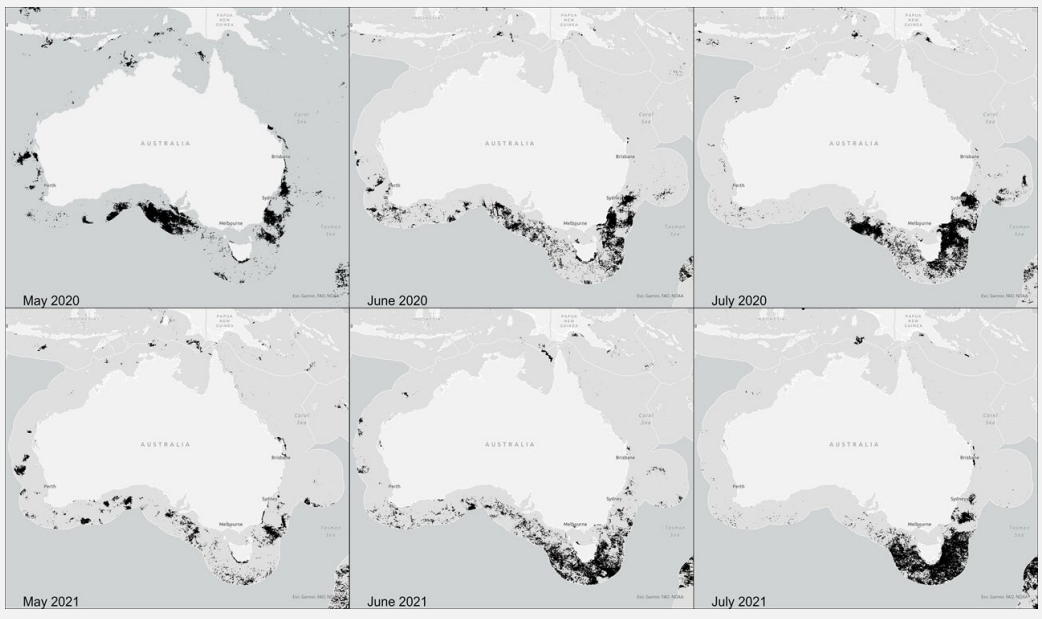
Global EEZ Chlorophyll-a Deviation from Baseline (2005 – 2021)



Regional EEZ Chlorophyll-a Deviation from Baseline (2005 – 2021)



Distribution of Deviating Pixels in the Australian Region for May-July of 2020 and 2021



Additional resources, press releases, etc. with links:

- 14.1.1a Chlorophyll Hub: The Esri Chlorophyll Hub is an open platform that provides information about eutrophication monitoring and data on changes on chlorophyll-a changes over time and chlorophyll-a anomalies. The data and information on this platform will help decision-makers identify potential eutrophication hot spots to inform further monitoring and action to combat coastal eutrophication.

- For additional information about the methodology for this indicator, see "Understanding the State of the Ocean: A Global Manual on Measuring SDG 14.1.1, SDG 14.2.1 and SDG 14.5.1"
- Algal Blooms & Australian wildfires: Tang, W., Llort, J., Weis, J. et al. Widespread phytoplankton blooms triggered by 2019–2020 Australian wildfires. Nature 597, 370–375 (2021). https://doi.org/10.1038/s41586-021-03805-8
- Above average rainfall in Australia in 2021: The Australian Government's Annual Climate Statement 2021 reported above average rainfall in areas impacted by the wildfires.
- COVID Impacts on coastal water quality: Omaza-Gonzalez, W.I., Castro-Rodas, D., and Statham, P.J.
- COVID-19 Impacts on Beaches and Coastal Water Pollution at Selected Sites in Ecuador, and Management Proposals Post-pandemic. Frontiers in Marine Science (2021). https://doi.org/10.3389/fmars.2021.669374

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Custodian agency(ies): UNEP

Target 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

Indicator 14.2.1: Number of countries using ecosystem-based approaches to managing marine areas

Custodian agency(ies): UNEP

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

Ocean acidification – a global issue with local and regional effects and impacts

The ocean absorbs around one quarter of the annual emissions of anthropogenic CO2 to the atmosphere (1), thereby helping to alleviate the impacts of climate change on the planet (2). The costs of this process to the ocean are high, as the CO2 reacts with seawater and changes the acidity of the ocean; this process is referred to as ocean acidification. Ocean acidification threatens organisms and ecosystem services, including food security, by endangering fisheries and aquaculture. It also impacts coastal protection (by weakening coral reefs, which shield the coastline) and tourism. Ocean acidification will continue to increase (IPCC 2021: high confidence) (3) , with consequences for the global climate: As the acidity of the ocean increases, its capacity to absorb CO2 from the atmosphere decreases, impeding the ocean's role in moderating climate change.

There has been a strong increase in the number of stations for which ocean acidification observations were reported in all ocean basins (Figure 1), with the number of stations almost doubling within a year (178 stations in 2021; 308 stations in 2022). The coverage of ocean acidification observations is unequally distributed, however, and gaps in observations and data remain in many areas, especially in coastal Asia and Africa and the open waters of the South Atlantic, Pacific and Indian Ocean as well as the Southern Ocean. The growing number of observations of ocean acidification, in particular the increase in coastal observations being reported towards the SDG 14.3.1 Indicator confirms the importance of continued observations at high spatial and temporal resolutions to enable predictions on the rate and scale of change, to understand variability, and to inform mitigation and adaptation strategies at relevant scales.

Ocean acidification has been observed globally, in all ocean basins and seas. The rate of change, as well as the scale and pattern, however, shows great regional variability. A limited set of long-term observations sites in the open ocean have shown a continuous decline in pH over the last 20 to 30 years. The national datasets submitted towards the SDG 14.3.1 Indicator present a more varied picture for coastal observations of ocean acidification (Figure 2). In addition to absorbing atmospheric CO2, these areas are subject to a great range of stressors affecting the carbonate chemistry of the water, such as freshwater influx, ice-melting, nutrient input from agricultural and industrial activities, temperature change, biological activity, and large ocean oscillations. This local and regionally specific ocean acidification is of great relevance to marine organisms and biological processes which are exposed to the full range of variations during their lifetime. The combination of observations of the chemical and biological impacts of ocean acidification at fine spatial and temporal scales are necessary to determine the vulnerability and adaptation capacity of marine ecosystems and coastal communities towards ocean acidification. Long-term observations in coastal areas are therefore required to discern and map the regional patterns and scale of ocean acidification and to develop strategies supporting locally relevant plans for mitigation and adaptation in a multi-stressor world.

While the COVID pandemic has hampered in-person capacity development and workshops, new avenues for trainings were explored and successfully developed. The IOC Secretariat has hosted online webinars with data managers, National Statistical Office focal points and researchers to increase capacity for observations and data submissions towards the SDG 14.3.1 Indicator. Additionally, an online training course on ocean acidification based on the Ocean Teacher Global Academy platform was developed by the IOC together with its IODE.

Continuous capacity building efforts to increase the capability of nations to measure and report on ocean acidification will be key in supporting development of solutions tailored to the end-users' needs and to achieving the SDG Target 14.3: the reduction of local, regional and global impacts of ocean acidification.

References:

(1) WMO Greenhouse Gas Bulletin (GHG Bulletin) - No.17: The State of Greenhouse Gases in the Atmosphere Based on Global Observations through 2020

(2) Friedlingstein, P., O'Sullivan, M., Jones, M.W., Andrew, R.M., et al. (2020) Global Carbon Budget 2020. Earth System Science Data 12, 3269–3340. https://doi.org/10.5194/essd-12-3269-2020

(3) IPCC, 2021: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press.

Figure 1: Map illustration surface ocean carbonate chemistry measurement locations received for the 14.3.1 ocean acidification reporting. Black dots represent the location of sampling stations from which data was collected. Blue – countries whose data was reported in accordance with the SDG 14.3.1 Indicator Methodology; dark grey – countries reporting ocean acidification observation data not collected in accordance with the SDG 14.3.1 Indicator Methodology.

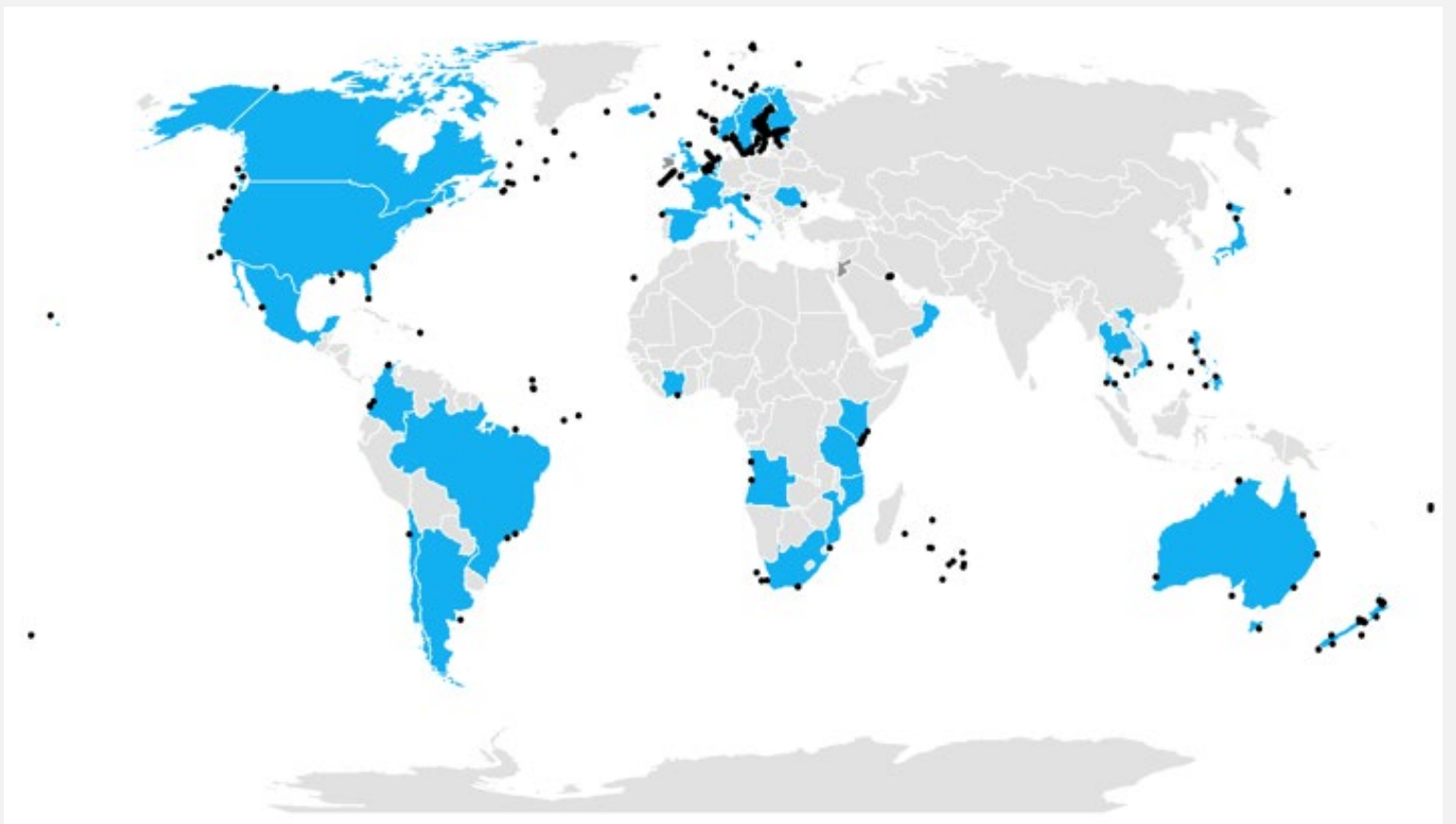
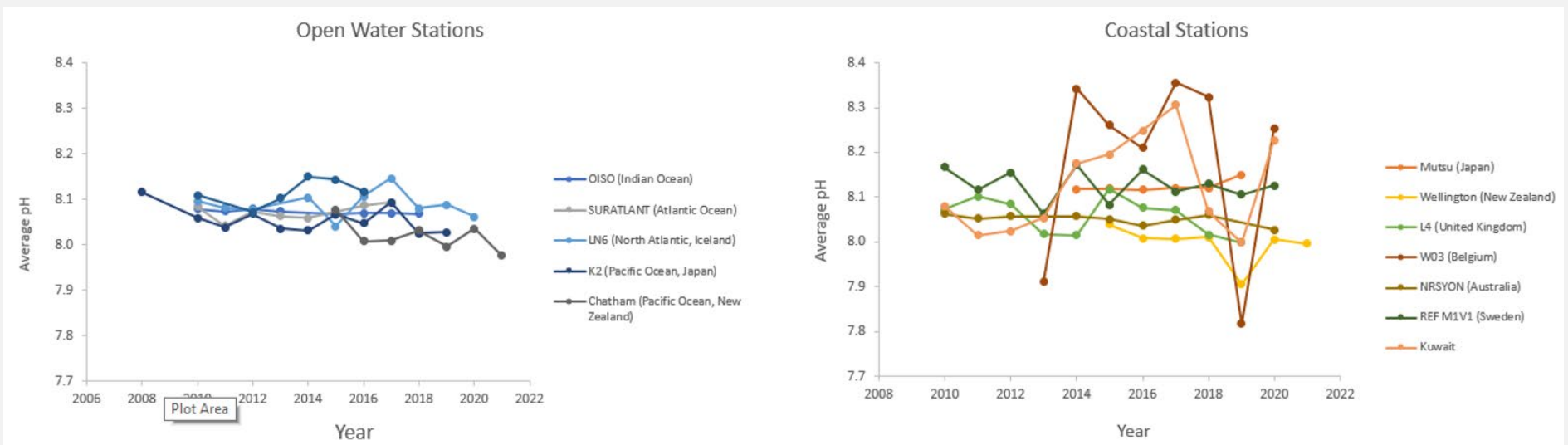


Figure 2: Variations in the annual average pH values from a suite of representative sampling stations in coastal and open waters. Coastal water Stations: Mutsu – Japan, Sekinehama Port (data from 2014-2019); Wellington–New Zealand (data from 2015-2021); L4 –United Kingdom, Western Channel Observatory (data from 2010-2019); W03 –Belgium, Scheldt Estuary (data from 2013-2020); NRSYON Australia, Yongala National Reference Station (data from 2010-2020); REF M1V1 –Sweden, Reference Station (data from 2010-2020); Kuwait – Kuwait Bay (data from 2010-2020). Open water Stations: OISO– France, Indian Ocean (data from 2010-2018); SURLATLANT –France, Atlantic Ocean (data from 2010-2018); LN6 –Iceland, Iceland Sea, North Atlantic Ocean (data from 2010-2020); K2 – Japan, North Pacific Ocean (data from 2010-2018); Chatham Island–New Zealand, South Pacific Ocean (data from 2015-2021); Chá bă – United States, North Pacific Ocean (data from 2010-2016).



Additional resources, press releases, etc. with links:

- http://ioc-unesco.org/index.php?option=com_oe&task=viewDocumentRecord&docID=21938
- http://oa.iode.org
- http://goa-on.org
- http://goa-on.org/oars/overview.php
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Custodian agency(ies): IOC-UNESCO

Target 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

Indicator 14.4.1: Proportion of fish stocks within biologically sustainable levels

The sustainability of global fishery resources continues to decline, although that rate has decelerated in recent years

Global fish stocks are under increasing threat from overfishing and from illegal, unreported and unregulated fishing. More than a third (35.4 per cent) of global stocks were overfished in 2019, an increase of 1.2 percent since 2017. Despite ongoing deterioration monitored since 1974, when the proportion of overfished stocks was at 10 percent, the rate of decline has recently slowed.

The Southeast Pacific has overtaken the Mediterranean Sea and Black as the major fishing area with the highest percentage of fish stocks at biologically unsustainable levels, at 66.7 per cent and 63.3 percent respectively. These are followed by the Northwest Pacific (45 per cent), and Southwest Atlantic as well as Eastern Central Atlantic (40 per cent). In contrast, the Eastern Central Pacific, Southwest Pacific, Northeast Pacific and Western Central Pacific had the lowest proportion (13 to 21 per cent) of stocks at unsustainable levels.

Improved regulations together with effective monitoring and surveillance have proven successful in reverting overfished stocks to biologically sustainable levels. However, the adoption of such measures has generally been slow, particularly in many developing countries. This situation is reflected in the preliminary set of validated national figures collected in 2020, mostly deriving from developed countries and indicating a higher proportion of biologically sustainable stocks than the world average. Further, with only 30 of the 84 countries which reported in 2020 having their national indicator validated, this first national reporting round indicates insufficient national capacities in stock assessment, with cascading effects on the risks of ineffective management.

Additional resources, press releases, etc. with links:

- *The State of World Fisheries and Aquaculture* (SOFIA): https://www.fao.org/publications/sofia/2022/en/

Custodian agency(ies): FAO

Target 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 best available scientific information

Indicator 14.5.1: Coverage of protected areas in relation to marine areas

Global coverage by protected areas or other effective area-based conservation of Key Biodiversity Areas has increased from around a quarter of each site covered by protected areas on average to nearly one half over the last two decades, and encouragingly,

Both biodiversity and human-driven threats to it vary dramatically around the surface of our planet. Sites that contribute significantly to the global persistence of biodiversity – are called "Key Biodiversity Areas", identified through nationally led processes in all the world's countries, and documented in the World Database of Key Biodiversity Areas. Measures for safeguarding the biodiversity of specific sites, such as the establishment and management of protected areas or "other effective area-based conservation measures" have been demonstrated to be effective in reducing the rate of biodiversity loss. As such, the coverage of Key Biodiversity Areas by protected areas or other effective area-based conservation measures is a crucial indicator of progress towards SDG targets 14.5 (for marine), 15.1 (for terrestrial and freshwater), and 15.4 (for mountains).

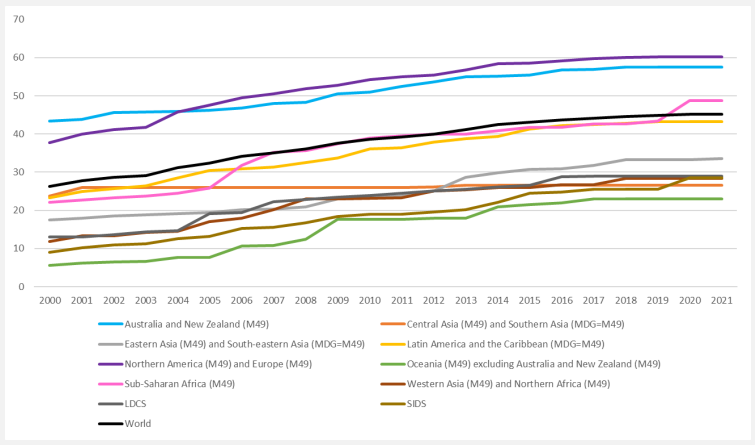
Globally, the indicator reveals substantial progress over the last two decades, with the mean percentage coverage of Key Biodiversity Areas by protected areas or other effective area-based conservation measures increasing from a little over one quarter in 2000, up towards one half in 2021. This is the case across Key Biodiversity Areas in marine, terrestrial, and freshwater ecosystems, as well as in mountains. While this progress is encouraging, there is still a very large room for improvement, with more than half of the extent of each Key Biodiversity Area on average still not safeguarded to retain the biodiversity for which it is globally significant.

There is considerable variation among regional groupings in both the overall mean coverage of Key Biodiversity Areas by protected areas or other effective area-based conservation measures today, and in the rate at which this has increased over the last 20 years. Regions that still have particularly low coverage (less than 35%) across marine, terrestrial, freshwater, and mountain Key Biodiversity Areas comprise Western Asia & Northern Africa, Central Asia & Southern Asia, Eastern Asia & Southeastern Asia, and Oceania. In addition, coverage for freshwater Key Biodiversity Areas is still below 35% in Australia and New Zealand (although it exceeds 50% for marine, terrestrial, and mountain Key Biodiversity Areas in this region). Coverage is also low (again, below 35%) for marine Key Biodiversity Areas in Least Developed Countries, and for marine, terrestrial, and mountain Key Biodiversity Areas in Small Island Developing States.

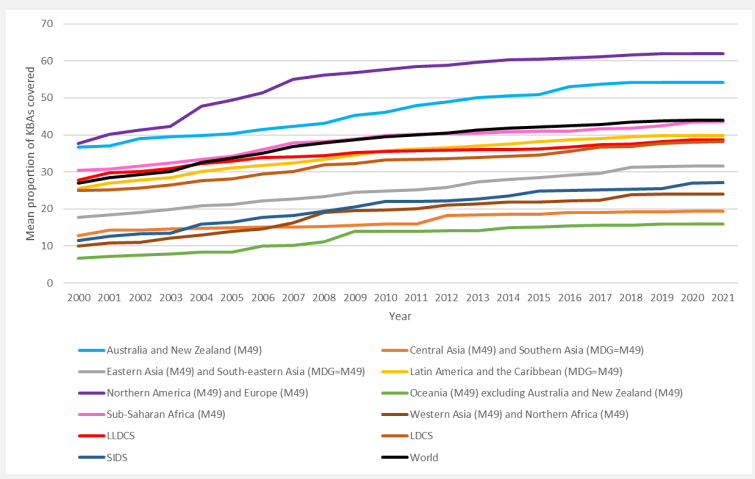
Considering the rate of increase over the last two decades reveals considerable success even in some of the regions where overall coverage is still low. Most notably, mean coverage of Key Biodiversity Areas by protected areas or other effective area-based conservation measures has more than doubled over the last 20 years in Western Asia & Northern Africa, across marine, freshwater, terrestrial, and mountain environments. It has also more than doubled for marine and terrestrial Key Biodiversity Areas in Oceania, and for marine Key Biodiversity Areas in Sub-Saharan Africa. The trend has also been encouraging in Small Island Developing States, where mean coverage of freshwater Key Biodiversity Areas has increased from just one sixth in 2000 to more than three-fifths in 2021.

Mozambique provides an example of a country that has made excellent progress towards SDG targets 14.5.1, 15.1.2, and 15.4.1, more than doubling mean coverage of its Key Biodiversity Areas by protected areas or other effective area-based conservation measures over the last two decades. Over the last three years, the country has also undertaken a comprehensive process to refine the identification of its Key Biodiversity Areas, delineating 25 terrestrial sites as well as four in the marine environment. These data are being used in Mozambique's National Territorial Plan and National Marine Spatial Plan to highlight where harmful development should be avoided and to guide protected area expansion.

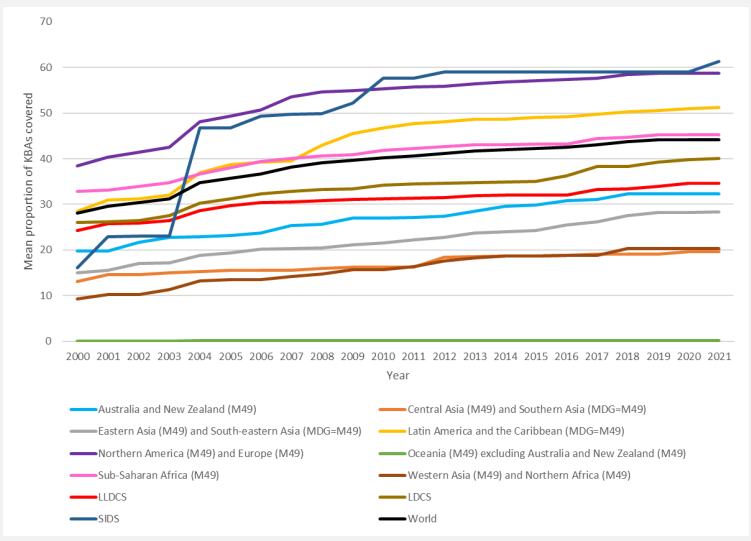
14.5.1 - marine



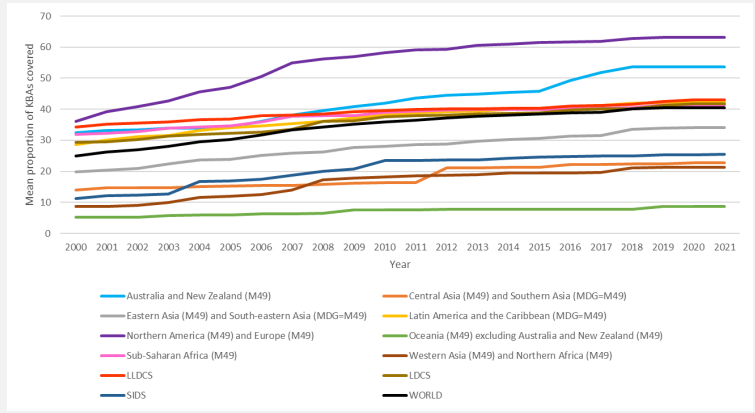
15.1.2 - terrestrial



15.1.2 – freshwater



15.4.1 – mountains



Storyline author(s)/contributor(s): Ed Lewis, UNEP-WCMC; Stu Butchart, BirdLife International; Tom Brooks, IUCN; Ash Simkins, Birdlife International

Custodian agency(ies): UNEP-WCMC,UNEP,IUCN

Target 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[b]

Indicator 14.6.1: Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing

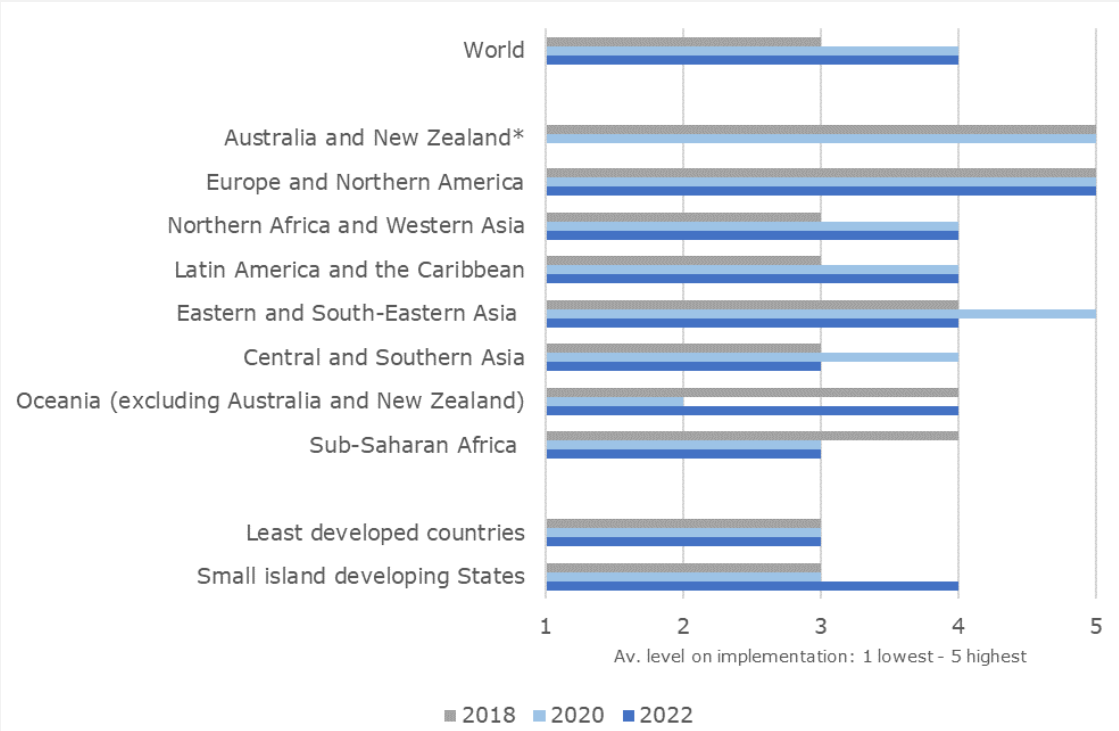
Countries have made progress in combatting illegal, unreported and unregulated fishing, but a more concerted effort is needed.

Illegal, unreported and unregulated (IUU) fishing threatens the social, economic and environmental sustainability of global fisheries, hindering countries' abilities to manage their fisheries effectively. Adopting and implementing relevant international instruments is key to curbing IUU fishing.

Between 2018 and 2022, the average degree of implementation of international instruments to combat IUU fishing as measured by the indicator has improved across the world. In this period, the global aggregated indicator has risen from 3 to 4 (out of a maximum score of 5). Countries have thus made good overall progress with close to 75 percent scoring highly in their degree of implementation of relevant international instruments in 2022 compared to 70 percent in 2018. Small island developing States, faced with specific challenges in fully implementing these instruments due to the large amounts of waters under their jurisdiction, registered an improvement from a medium level of implementation in 2018 and 2020 to a high level in 2022. In the case of least developed countries, which often face challenges to implement these instruments, implementation has remained at a medium level from 2018 through to 2022. In terms of regional groupings, fluctuation can be seen over the years in certain regions and no clear trend can be noted in the aggregate levels of implementation.

The status of the indicator reflects that while improvements are being made, further efforts are still needed to implement these international instruments and hence maximise their potential to effectively combat IUU fishing.

Progress in degree of implementation of instruments to combat IUU instruments 2018 - 2022



Custodian agency(ies): FAO

Target 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

Indicator 14.7.1: Sustainable fisheries as a proportion of GDP in small island developing States, least developed countries and all countries

Sustainable fisheries are essential for equitable development

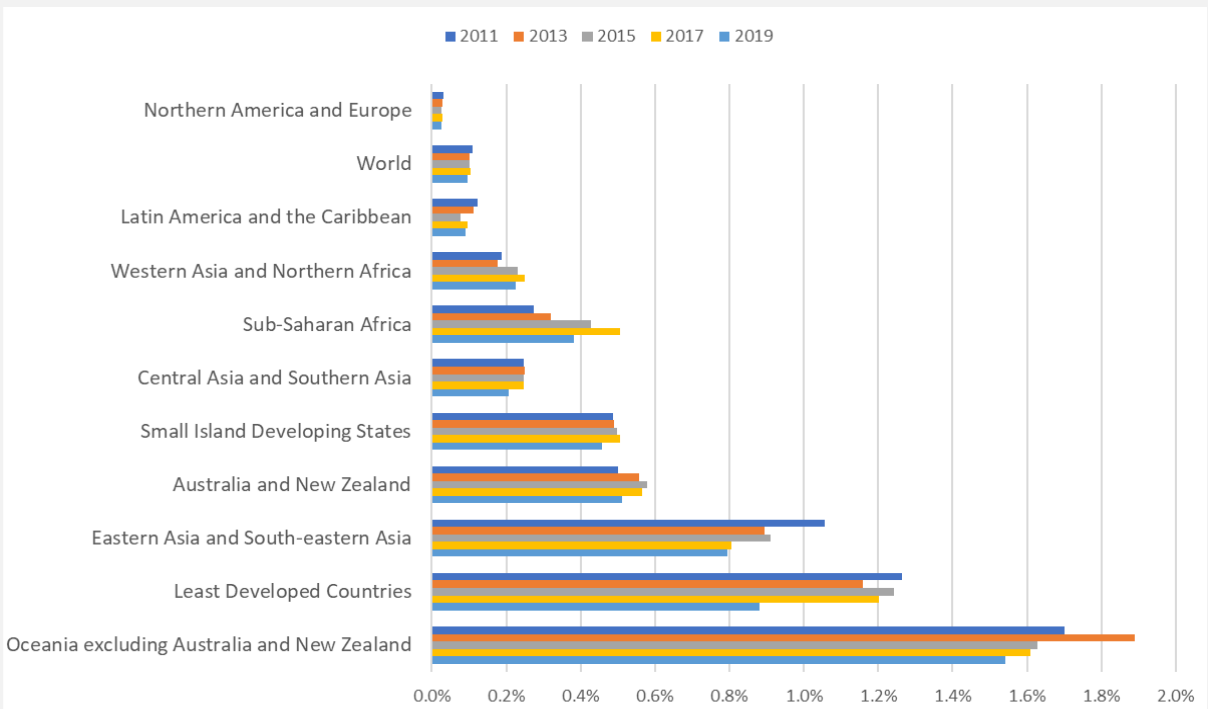
Capture fisheries are the only major human food source that relies on a wild food source. Ensuring that fish stocks are monitored and managed in such a manner as to ensure their sustainable exploitation is key to maintaining the important role of fisheries in local economies and food security that they have held for millennia. Today sustainable fisheries account for approximately 0.1 per cent of global GDP; in certain regions and Least Developed Countries this figure is between 0.5 per cent and 1.5 per cent of GDP, reflecting the greater dependence of the world's poorest on fisheries. The sustainable management of fish stocks remains critical for ensuring that fisheries continue to generate economic growth and support equitable development, meeting the needs of today without compromising the ability of future generations to do the same.

As the global population has grown, so too has demand for fish. Fish is now able to feed more people than ever before, providing livelihoods for millions worldwide while alleviating hunger and malnutrition. As fisheries and aquaculture have expanded, so too have the economic dividends from the sector and its contribution to sustained economic growth. At a global level, the value-added of this sector has increased consistently, by several percentage points year on year. This has led to a positive trend in the contribution of sustainable fisheries in regions such as Western Africa, where it rose as a proportion of GDP from 0.24 per cent in 2011 to 0.34 per cent in 2019.

Wild stocks face a number of human-induced external pressures, such as fishing effort, plastic pollution, habitat loss and climate change. The economic dividends from fisheries can only be sustained through prudent management of fish stocks that avoids overexploitation and depletion. At the global level, the decline in fish stock within biologically sustainable levels continues, albeit at a slower rate, highlighting the need for improved regulations and effective monitoring. The declining sustainability of several stocks in the Pacific Ocean has led to a worsening overall trend for regions such as eastern and south-eastern Asia, where sustainable fisheries fell from 1.06 per cent of GDP in 2011 to 0.80 per cent in 2019.

The COVID-19 pandemic poses further challenges for the industry. Fish assessment surveys may be reduced or postponed, obligatory fisheries observer programmes may be temporarily suspended, and the postponement of science and management meetings will delay implementation of some necessary measures and the monitoring of management measures. On the economic side, demand declined immediately, with a drop in hospitality sales being particularly significant. This, in combination with logistical challenges and disruptions to production, has negatively impacted the profitability of the sector. While many of the long-term impacts COVID-19 remain to be seen, it is essential that fisheries management is empowered to operate effectively, and in combination with effective government policy ensure that fisheries recover in a sustainable manner that maximises benefits.

Sustainable Fisheries as a Percentage of GDP



Custodian agency(ies): FAO,UNEP-WCMC

Target 14.a: Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of 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

Indicator 14.a.1: Proportion of total research budget allocated to research in the field of marine technology

Custodian agency(ies): IOC-UNESCO

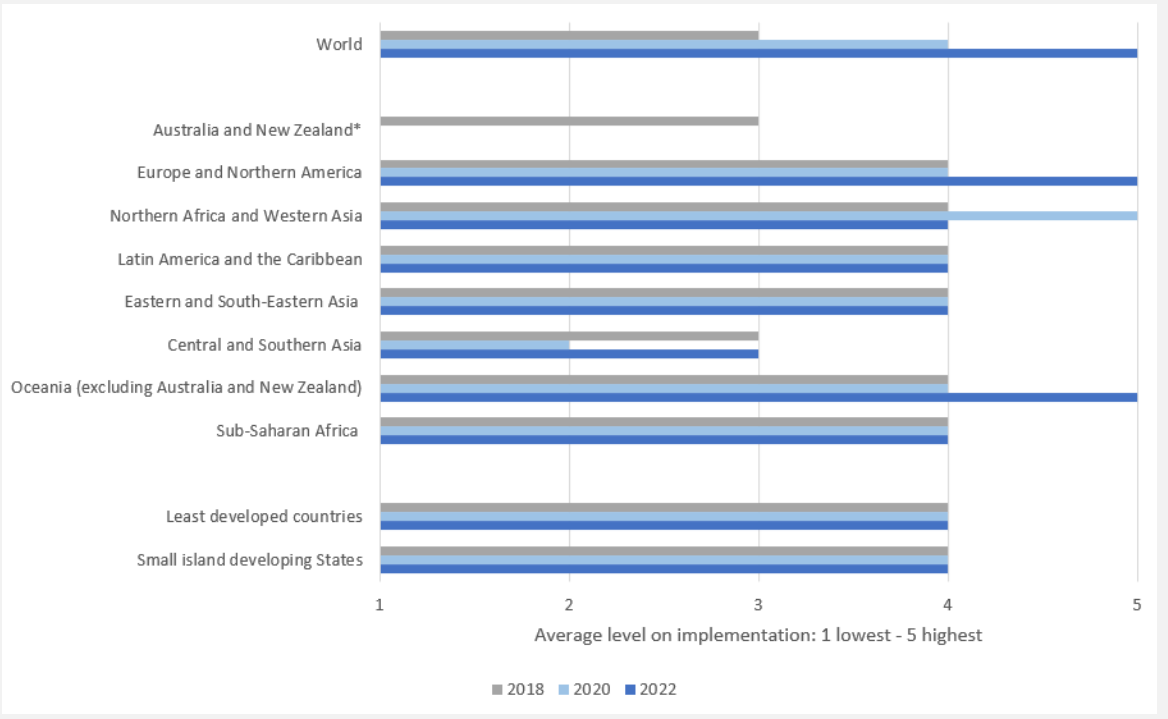
Target 14.b: Provide access for small-scale artisanal fishers to marine resources and markets

Indicator 14.b.1: Degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries

On the International Year of Artisanal Fisheries and Aquaculture 2022, the degree of adoption of regulatory frameworks supporting small-scale fisheries remains high, though reporting rates have declined

Since 2015, most regions have expanded the adoption of regulatory frameworks supporting small-scale fisheries and promoting participatory decision-making processes. The average global score has risen to 5 out of 5 in 2022, up from 4 out of 5 in 2020 and 3 out of 5 in 2018. At regional level, overall scoring has generally remained stable or improved, with most regions earning a score of 4 out of 5. However, Northern Africa and Western Asia scored lower in 2022 compared to 2020, and reporting has been lower in 2022 compared to previous reporting years for all regions except Latin America and the Caribbean, highlighting that efforts need to be redoubled for encouraging countries to report and that there is no room for complacency.

Progress in degree of Indicator 14.b.1 for reporting years 2018, 2020 and 2022



The International Year of Artisanal Fisheries and Aquaculture 2022 has catalyzed efforts toward providing access for small-scale artisanal fishers to marine resources and markets, as called for by SDG target 14.b. Almost half a billion people depend at least partially on small-scale fisheries, which account for 90 percent of worldwide employment in the capture fisheries sector. Accelerating progress in the degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries, as measured through SDG Indicator 14.b.1, is much needed, particularly as COVID-19 has disproportionally affected small-scale fisheries communities who were unable to catch, process or sell fish for long periods due to sanitary restrictions and collapsing markets, in particular those depending on tourism.

SDG Indicator 14.b.1 consists of a composite score that relies on three main features. First, the development and application of enabling frameworks. This mainly requires that legislation is supportive of small-scale fisheries. Some countries, like Cabo Verde, are taking a lead in crafting such legislation, in which is specifically included the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines).

Second, SDG Indicator 14.b.1 aims to assess concrete action in support of small-scale fisheries. Some countries are taking a strategic approach through the participatory development of National Plans of Action to implement the SSF Guidelines, for example in the United Republic of Tanzania, Namibia, Madagascar and Malawi.

Thirdly, SDG Indicator 14.b.1 measures the participation of small-scale fisheries actors in decision-making. Results from the forthcoming Illuminating Hidden Harvests: the contributions of small-scale fisheries to sustainable development (IHH) study by FAO, Duke University and WorldFish show that co-management is globally recognized as being necessary for inclusive governance. In this respect, based on 58 IHH country and territory case studies covering 55% of the global small-scale fisheries catch, it is estimated that for every ten metric tons of small-scale fisheries catch, only four tonnes are formally governed with provisions for co-management.

Title: "We think about the future of our children": Yohanis Ayamiseba, fisherman from Indonesia
Subtitle: Practicing the indigenous Sasi system has restored fish stocks in the village of Menarbu

Yohanis Ayamiseba, 56, is a fisherman from the Roon tribe in Menarbu Village, Wondama Bay, Indonesia. The people of Menarbu depend entirely on the sea for their livelihoods, because in their area it is not possible to grow vegetables for sale outside their village.

On his boat equipped with an outboard motor, Mr Ayamiseba goes out fishing using fishing lines, a snorkel and a kalawai (spear). Part of his catch is for food, and the rest he sells in the village to meet his family's daily needs of soap, sugar, coffee and tea.

A few years ago, Mr Ayamiseba noticed that the condition of the sea and of the fish was deteriorating day by day. He and the people of Menarbu sat together to talk about their future: could the fishermen continue fishing? What about their children and grandchildren?

In 2018, they agreed to introduce Sasi, an indigenous community-based coastal resource management system, in their village. He says fish stocks have thrived and incomes have risen since the community decided to adopt this method, which protects the coastal marine ecosystem through a number of rules, including when different species of fish can be harvested.

"Our area is protected because we think about the future of our children and grandchildren," said Mr Ayamiseba, who serves as Head of the Sasi Management Group (Kadup) of Menarbu.

"Hopefully, our children and grandchildren will not only hear stories and see pictures, but will be able to touch, see and feel the experience (of fishing) for themselves," he added.

Mr Ayamiseba believes the fishing conditions in Menarbu are now very good, and maybe even improving, because they are still following the Sasi rules. The challenge now lies in finding market outlets for their products: the market in Wasior is very far and gasoline is expensive, he said.

Additional resources, press releases, etc. with links:

- SDG 14.b
- International Year of Artisanal Fisheries and Aquaculture 2022
- Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines)

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Custodian agency(ies): FAO

Target 14.c: Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of "The future we want"

Indicator 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

Custodian agency(ies): UN-DOALOS and other UN-Oceans members