



Subject: Request for GOA-ON members to submit data to Sustainable Development Goal 14.3.1 Indicator “Average marine acidity (pH) measured at agreed suite of representative sampling stations.”

Dear GOA-ON member,

The Intergovernmental Oceanographic Commission (IOC) of UNESCO invites all GOA-ON members to contribute to the sixth annual global ocean acidification data collection for the Sustainable Development Goal 14.3.1 Indicator: [Average marine acidity \(pH\) measured at agreed suite of representative sampling stations](#). The Indicator highlights ocean acidification as a major stressor on marine ecosystems and the importance of global observations of ocean acidification to the sustainable use of ocean resources ([Sustainable Development Goal 14](#)).

All [IOC Member States](#) have agreed to submit data to this Indicator, where available. By submitting your datasets, you will increase the visibility of your own work both internationally and with your national government. An invitation for data submissions has also been sent to IOC’s International Oceanographic Data and Information Exchange Programme’s ([IODE](#)) National Oceanographic Data Centres ([NODCs](#)).

#### Background:

In 2015, the United Nations adopted the 2030 Agenda and a set of Sustainable Development Goals (SDG), including a goal dedicated to the ocean, [SDG 14](#), which calls to ‘*conserve and sustainably use the oceans, seas and marine resources for sustainable development*’. This constitutes an essential point of reference for IOC’s engagement with its Member States, as well as for its programmes at the global, regional and country levels. IOC was identified as the custodian agency for two SDG-14 targets and related indicators, namely ocean acidification (Target 14.3) and marine scientific research (Target 14.a). As the custodian agency, IOC was tasked with developing the methodology for the SDG 14.3.1 Indicator ‘*Average marine acidity (pH) measured at an agreed suite of representative sampling stations*’. IOC is further responsible to collect relevant data towards the indicator from Member States and to report the results to the United Nations.

#### Methodology:

The [SDG Indicator Methodology 14.3.1](#) provides the necessary guidance on how to conduct ocean acidification observation, using different types of technology and measuring different variables, including pH, carbon dioxide partial pressure [ $p\text{CO}_2$ ], total dissolved inorganic carbon [CT/DIC], and total alkalinity [AT/TA], as well as salinity and temperature. It further provides support on how to and what kind of datasets to submit to IOC, to ensure the production of quality controlled global, and possibly regional, products. The Methodology was developed in collaboration with IOC’s IODE programme, international ocean acidification experts (including data managers), and the Global Ocean Acidification Observing Network ([GOA-ON](#)).

#### Data submission:

Data submitted towards the SDG 14.3.1 Indicator must be validated as “national data submissions from the Member States of IOC”. To ensure this, the data should be submitted through a relevant national agency such as a



National Oceanographic Data Centre ([NODC](#)), a National Statistical Office (NSO), or a similar agency officially designated by the country, which will then submit the data to the IOC as an official national data submission. Due to the novelty of collecting ocean acidification data on a global scale, the pathways and infrastructure required for this data collection may not always be in place. For this reason, data originators are encouraged to enquire about the relevant data centres in their countries. The IODE programme of the IOC has a list of national data centre contacts available on its [website](#)<sup>1</sup>. For those countries not listed, data originators can contact the IODE to receive further guidance or get in contact with their [national IOC focal point](#)<sup>2</sup>. In those cases where countries do not have a NODC, the IODE can assist with the establishment of an Associated Data Unit (ADU), which, once it has been authorized by the country in question, can also submit official national data.

The preference is for data submission to IOC through an NODC if one is available for your country. However, if you do not have access to a suitable NODC, you can submit Indicator data directly to the IOC through the online [SDG 14.3.1 Data Portal](#). IOC developed this [online portal](#) based on the SDG 14.3.1 Indicator Methodology and the associated [data](#) and [metadata files](#), in cooperation with IODE, to facilitate data submission. For additional instructions, we invite you to watch the GOA-ON Webinar on '[Measuring OA to support the 2030 Agenda for Sustainable Development](#)' which includes a step-by-step guide on the data submission process.

The IOC is currently collaborating with data managers and other experts in the field of ocean carbon observations to develop a federated data system for the SDG 14.3.1 Data Portal, linking this data portal to other national and international databases hosting ocean acidification data. When this system is operational, datasets relevant to the SDG 14.3.1 Indicator will be automatically exchanged between databases, thereby eliminating the need for data originators and data managers to submit their data to more than one database. Until this federated system is established, we kindly ask for your patience and for data submissions through the SDG 14.3.1 Data Portal.

**Please submit your contributions by 13 January 2025** via the [SDG 14.3.1 data portal \(https://oa.iode.org/\)](https://oa.iode.org/). Data received by this date will be included in the Sustainable Development Goals Report 2024. All data submissions will be included on the [GOA-ON Data Explorer](#) in the new SDG 14.3.1 App.

Templates for the data and metadata files, as well as the metadata instructions file for the required information can be found on the [SDG 14.3.1 data portal homepage](#). Submissions should follow the naming conventions, with measurement units identified and include data quality flag (e.g., WOCE flags) for core variables.

Please contact the IOC Secretariat, Ms. Kirsten Isensee ([k.isensee@unesco.org](mailto:k.isensee@unesco.org)) and Ms Katherina Schoo ([k.schoo@unesco.org](mailto:k.schoo@unesco.org)) if further information is required.

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<sup>1</sup> The list of national data centre contacts can be found here: <https://iode.org/about/community/>

<sup>2</sup> The list of IOC national focal points is available here <https://oceanexpert.org/document/17716>