

## UN OCEAN CONFERENCE 2022 – POGO STATEMENT

**Submission by:** Dr. Sophie Seeyave, POGO CEO

**Date:** 27 June 2022

### **Ocean observations for SDGs**

Continuous, global ocean monitoring is vital to produce information for governments, industry and other stakeholders to implement sustainable development -e.g. to support fisheries and aquaculture, coastal management/conservation, disaster risk reduction, etc. The Global Ocean Observing System (GOOS) programme of the Intergovernmental Oceanographic Commission (IOC) of UNESCO, co-sponsored by WMO, UNEP and ISC, oversees the coordination of the various national and multi-national observing networks and Regional Alliances that collectively support the GOOS mission. POGO, a non-governmental organisation comprising 55 oceanographic institutions, contributes to identifying and developing Essential Ocean Variables (EOVs) and methods/technologies (particularly low-cost), and developing the capacity for ocean observations to be truly global/inclusive.

### **Strengthening international coordination**

Despite great advances made in the last two decades, the global observing system still falls short of what is required to produce the information required by society, for the achievement of and reporting on SDGs. For example, addressing SDG 14.1 and 14.3 requires sustained, global observations of biogeochemical EOVs (nutrients, oxygen, pH, carbon etc) which are not yet at the same readiness level as their physical counterparts. The Global Climate Observing System program (GCOS) has also identified the need for more biogeochemical EOV observations as a priority in their 2022 Implementation Plan. Regarding 14.1, coordinated monitoring of marine debris is in its infancy, with the emergence of the marine debris EOV. Support is needed to fully develop the “Integrated Marine Debris Observing System” (IMDOS). Achievement of 14.2, 14.4 and 14.5 requires broadscale biological monitoring of the ocean; efforts are just getting underway to coordinate and operationalise biomolecular observations through the UN Decade-endorsed “Ocean Biomolecular Observing Network” (OBON). Anthropogenic sound has demonstrated detrimental effects on marine life, and needs to be monitored routinely on a global scale. The International Quiet Ocean Experiment (IQOE) has developed the Ocean Sound EOV and has been tasked with its implementation. A major international coordination effort will be required to establish a global network of hydrophone operators that produce and submit interoperable data to a global repository.

### **Partnerships in capacity development**

The current global ocean observation system is driven mainly by a few developed nations: most coastal developing states have no major observing systems due to lack of funding and/or expertise.

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For the system to become truly global this imbalance needs to be addressed. Capacity development is essential to provide training, infrastructure and long-term support to help developing countries establish/maintain coastal monitoring systems. This should involve long-term, trust-based and equitable partnerships and collaboration, rather than simply providing training or equipment in a siloed and ad hoc manner without any longer-term vision. Excellent work is being done by various organisations including POGO and its partners the Nippon Foundation, the Scientific Committee on Oceanic Research (SCOR), the International Ocean Data and information Exchange (IODE) of IOC-UNESCO, The Ocean Foundation, the Global Ocean Acidification Observing Network (GOA-ON), the GOOS Regional Alliances network, and others. The development of new low-cost technologies and citizen science are providing new ways to collect ocean information and to engage communities.

### Recommendations

POGO recommends that the highest priority be given by governments worldwide to tackling the following issues currently hampering global ocean observations in support of SDG 14:

1. Use the momentum of the UN Ocean Decade to increase the resilience of the global ocean observing system by operationalising ocean observing so that it is an integrated, sustained, funded effort with societally driven outputs (analogous to meteorological observations) rather than a research project-funded, often fragmented and fragile network of monitoring efforts.
2. Support the development of emerging networks to implement monitoring of EOVs (including ocean sound, marine debris, biomolecular observations) that will complement the currently better-established ones monitoring physical/climate-related variables. Formal recognition of ocean sound as a form of pollution and of the cumulative effects of multiple stressors (e.g. warming, acidification, deoxygenation, and all forms of pollution) would contribute to a more holistic approach to monitoring marine pollution.
3. Increase the coverage of observations, which are still lacking in the Southern Hemisphere and particularly around the coasts of developing countries. This can only be achieved through equitable partnerships, funding, training, and long-term international collaborations.

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