

Trade Winds

Taking the pulse of the global ocean

Partnership for Observation of the Global Oceans

For almost 20 years, the Partnership for Observation of the Global Oceans (POGO) has played a key role in supporting the development and expansion of the Global Ocean Observation System (GOOS).

Created in 1999 by directors and leaders of major oceanographic institutions around the world as a forum to promote and coordinate the observation of the global ocean, POGO is a partnership of around 40 institutions, from 20 different countries, involved in oceanographic observations, scientific research, operational services, education, and training. POGO also works closely with other international and regional programs and organizations, including UNESCO's Intergovernmental Oceanographic Commission governed Global Ocean Observing System (IOC-GOOS) and the Group on Earth Observations' Global Earth Observation System of Systems (GEO-GEOSS).

POGO members recognize that, despite its growing importance and pervasive impact, too little is known about the ocean, and this is a fundamental issue that POGO is striving to address. Being more continuously aware of how and why the ocean is changing is needed and, to this end, making continuous ocean measurements with global coverage is now a pressing priority. Under the remit of the GOOS framework for ocean observing, a diverse set of "essential ocean variables" is being established which range from physical quantities such as temperature, salinity and sea level, through to chemical, biogeochemical and ecosystem variables. The ocean is too vast, too interconnected and its impacts too widespread for any one nation, let alone one organization, to embark on this task alone. One simple



Nippon Foundation-POGO student working on a ship.

message is clear: international cooperation is essential. Through joint planning and exchange of information, the ocean observing community can make better use of the limited resources available.

As an organization, rather than set scientific goals, POGO focuses attention on implementation issues such as technical compatibility among observing networks, shared use of infrastructure, and on public outreach and capacity building.

To fulfil some of its objectives, POGO supports member-proposed projects which aim to identify and fill gaps in global ocean observation. One such project, the POGO Industrial Liaison Council (PILC), aims to form a bridge between academic and government POGO member institutions and a range of industry sectors through which contacts can be made, ideas discussed, and joint projects established (e.g., for technological development, environmental

monitoring, risk/safety management, adherence to policy, data sharing, etc.). The group engages with industry representatives from firms developing ocean observation tools.

Another major concern is that of human capacity. For vast stretches of coastal margins lying in the developing world, the ability to make the detailed ocean observations we need is limited by a lack of trained personnel, with a particular imbalance between northern and southern hemispheres. In the São Paulo declaration of 2001, POGO drew attention to this issue, recommending immediate action to enhance such capacity in developing countries. As a result, POGO established a capacity building program, comprising an extensive array of training and education activities targeted primarily at scientists from developing countries and those with economies in transition.

A major part of the training has been supported by the Nippon Foundation, with which POGO established the NF-POGO Centre of Excellence (NF-POGO CoE) in Observational Oceanography. Now hosted by the Alfred Wegener Institute for Polar and Marine Research, NF-POGO CoE is an intensive ten month training course for young professionals at the post-graduate level, with an intake of ten trainees from ten different countries per year. Scholars take courses on core skills and specialized scientific topics such as modelling, remote sensing, and ocean-atmosphere interactions, as well as training in instrumentation, sample collection and analytical protocols. They also conduct an independent research project during the program.

POGO's capacity building activities also include a Visiting Fellowships program (in collaboration with the Scientific Committee on Oceanic Research (SCOR)), Shipboard Training programs, Visiting Professorships, and Regional Training courses. Together, these initiatives are making a solid contribution to building the human capacity for ocean observing.

POGO's vision is to have, by 2030, world-wide cooperation for a sustainable, state-of-the-art global ocean observing system that serves the needs of science and society. Since its inception, POGO has made significant steps towards this goal through successes such as the following:

- One of POGO's first priorities was to throw the collective weight of its members behind the concept and world expansion of Argo. Because the members of POGO are directors with the power to commit resources and influence decision makers, a resolution to support Argo had immediate effect, with distribution of floats around the world ocean improving rapidly.
- POGO member institutions have been driving the establishment of OceanSites (coordinated, deep-ocean, multi-disciplinary time-series reference sites). Through a concerted effort by POGO members, deep temperature and salinity sensors have recently been added, as a contribution to the Deep Ocean Observing System.
- POGO contributed to OceanObs'09 in Venice in 2009, successfully lobbying to open up sustained ocean observations to a broader community, including chemical, biological and biogeochemical observations.
- Since 2005, POGO has lobbied within the intergovernmental Group on Earth Observations (GEO) for more emphasis on ocean observations and their connectivity to society. As a result a new Ocean Task (Oceans and Society: Blue Planet) was added to the 2012-2015 GEO Work Plan. Now a GEO Initiative, Blue Planet has developed into a global network of organizations, programs and projects striving towards delivering end-to-end ocean information services tailored for policy makers, industry and other users.

For more information
www.ocean-partners.org