PARTNERSHIP FOR OBSERVATION OF THE GLOBAL OCEAN

England & Wales · Charity number 1171692

Details

Other names	PARTNERSHIP FOR OBSERVATION OF THE GLOBAL OCEANS, POGO
Status	Registered
Legal form	CIO
Registered	2017-02-20
Register	View on the Charity Commission register

Contact

Address	Plymouth Marine Laboratory Prospect Place Plymouth PL1 3DH
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Activities

Objects: TO ADVANCE THE SCIENCE OF GLOBAL OCEAN OBSERVATION FOR THE PUBLIC BENEFIT IN PARTICULAR (BUT NOT EXCLUSIVELY) BY - ADVANCING EDUCATION IN GLOBAL OCEAN OBSERVATION BY IDENTIFYING AREAS OF FURTHER STUDY FOR DEVELOPING THE SCIENCE OF GLOBAL OCEAN OBSERVATION- THE PROMOTION OF RESEARCH IN GLOBAL OCEAN OBSERVATION FOR THE PUBLIC BENEFIT AND THE PUBLICATION AND DISSEMINATION OF THE USEFUL RESULTS OF SUCH RESEARCH- THE PROVISION OF SCHOLARSHIPS AND RESEARCH FELLOWSHIPS- THE PROMOTION OF INNOVATION AND TECHNOLOGY IN THE SCIENCE OF GLOBAL OCEAN OBSERVATION

Activities: The charity brings together the world's major oceanographic institutes to plan joint actions to advance sustained ocean observations for societal benefit. It provides professional training opportunities for early-career scientists to develop the worldwide capacity for sustained ocean observations, and advocates at public and policy levels for the need for sustained funding for the observing system

Classification

- **How:** Makes Grants To Individuals, Makes Grants To Organisations, Provides Advocacy/advice/information, Sponsors Or Undertakes Research, Acts As An Umbrella Or Resource Body
- **What:** Education/training, Arts/culture/heritage/science, Environment/conservation/heritage
- **Who:** The General Public/mankind

Geography

- Australia
- Bangladesh
- Belgium
- Benin
- Brazil
- Canada
- Cape Verde
- Chile
- China
- Colombia
- Ecuador
- Egypt
- France
- Germany
- Ghana
- India
- Indonesia
- Ireland
- Italy
- Ivory Coast
- Japan
- Kenya
- Lebanon
- Mexico
- Morocco
- Mozambique
- Netherlands
- Nigeria
- Norway
- Pakistan
- Peru
- Philippines
- Portugal
- Scotland

- Senegal
- South Africa
- South Korea
- Spain
- Thailand
- Togo
- Tunisia
- United States
- Throughout England And Wales

Finances

Period end	Income	Expenditure	Assets	Employees
2025-03-31	£780,499	£927,342	£341,079	0
2024-03-31	£675,431	£778,509	£487,921	0
2023-03-31	£834,439	£866,160	£590,999	0
2022-03-31	£834,575	£921,646	£622,720	0
2021-03-31	£983,255	£799,410	£709,791	0

Trustees

Name	Role	Appointed
Capt. Francisco Armando Arias-Isaza	Chair	2021-01-30
Dr Anya Mary Waite		2025-03-20
Dr Carmen Guadalupe Paniagua Chavez		2023-01-27
Dr Olivier Georges Marie Pringault		2024-01-27
Dr Steven Francis DiMarco		2026-02-22
Dr Tamaryn Antonello		2026-02-22
Prof. Fei Chai		2024-01-27

PARTNERSHIP FOR OBSERVATION OF THE GLOBAL OCEAN

England & Wales - Charity number 1171692

Accounts

REGISTERED COMPANY NUMBER: CE010344 (England and Wales)
REGISTERED CHARITY NUMBER: 1171692

Report of the Trustees and

Financial Statements

For The Year Ended 31 March 2025

for

Partnership for Observation of the Global Ocean CIO T/A POGO

tc accounts · tax · legal · financial planning

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Partnership for Observation of the
Global Ocean CIO
T/A POGO

Contents of the Financial Statements
For The Year Ended 31 March 2025

Partnership for Observation of the Global Ocean CIO T/A POGO

Report of the Trustees For The Year Ended 31 March 2025

The trustees present their report with the financial statements of the charity for the year ended 31 March 2025. The trustees have adopted the provisions of Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019).

OBJECTIVES AND ACTIVITIES

Objectives and aims

The charity aims to bring together the world's major oceanographic institutes to plan joint actions to advance sustained ocean observations for societal benefit. POGO institutes are motivated by a common belief that advancing scientific understanding of the ocean is rooted in making systematic, high quality measurements. They believe that this understanding and its wise use are critical to, and will make a real positive difference in, enabling humanity to develop a sustainable relationship with a healthy, productive and biologically diverse ocean. POGO is further motivated by the shared belief that its vision can only be realised by working together across the world, where we can achieve together what none of us could do alone.

The ocean produces half of the world's oxygen, most of its fresh water and much of its food. It regulates climate and weather, is critical to the cycling of heat, water and carbon. It is the source of huge biodiversity. However, far too little is known about the state and functioning of the ocean. Accordingly, scientifically sound study of the ocean and support and advocacy for such study (and for the conclusions drawn from it) is of vital importance to mankind. POGO seeks to expand international support for ocean observing, through innovation of the ocean observing system, capacity development and outreach/advocacy.

In terms of innovation, POGO members are at the forefront of oceanographic methods and technology development, often in partnership with industry. Thus, POGO is in a critical position to identify the emerging methods and technologies that POGO members are developing and using, and highlighting those that can be expanded and deployed on a global scale to achieve global datasets obtained using comparable methods. POGO also focusses on the affordability issues associated with ocean observing, particularly for developing countries, and is therefore engaged in projects to develop low-cost sensors and systems for coastal ocean observing. The societies and economies of many developing countries rely heavily on the ocean, for example through coastal tourism, trade infrastructure, natural resource extraction, and small-scale and industrial fisheries and aquaculture. However, extreme weather events, sea-level rise, tsunamis, harmful algal blooms and water pollution threaten the world's poorest and most vulnerable coastal and island communities. Ocean observations and information services can be used to improve human health and safety and food security, support livelihoods and small-scale economic activities (artisanal fisheries and aquaculture, coastal tourism), and improve climate resilience and disaster risk reduction.

POGO also recognises that the expertise for conducting ocean observations is not evenly distributed between countries, and therefore the ocean is unevenly observed, with a much higher density of observations conducted in the North Atlantic and North Pacific, than in, for example, the South Atlantic, South Pacific and Indian Oceans. POGO therefore provides professional training opportunities for early-career scientists, mainly from coastal developing countries, to expand the worldwide capacity for conducting sustained ocean observations, data collection, analysis and management, and interpreting the scientific results for the benefit of society.

Many actors, working together internationally, are needed to bring about sustainable management of the oceans that is informed by sound science, underpinned by a comprehensive global ocean measurement system. These include national governments, non-governmental organisations, the wider scientific community, funders of research and monitoring programmes, and individual citizens working individually and collectively. POGO highlights the societal need for ocean observations, as well as the key issues facing global ocean observing, and the obstacles hampering the completion of a global ocean observing system, and brings these issues to the relevant stakeholder groups outlined above.

The objects of the CIO are to advance the science of global ocean observation for the public benefit, in particular (but not exclusively) by:
i. Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation;

ii. The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research;
iii. The provision of scholarships and research fellowships;
iv. The promotion of innovation and technology in the science of global ocean observation.

In the short term, POGO aims to provide training for early-career scientists, to develop the next generation of scientists and ocean observers, as well as to raise the levels of awareness and education about the importance of the ocean and ocean observing for society. Measures of success include numbers of trainees, numbers of countries having received training, numbers of website visits and downloads of outreach materials, mentions on social media and other statistics.

The longer-term vision is to develop the capacity of research institutions in developing countries to conduct ocean observations, by (1) integrating the trained scientists and their institutions into the POGO network and having them actively participate in POGO projects, (2) sharing best practices among POGO member institutions, and (3) contributing to the development and dissemination of low-cost instrumentation for coastal ocean observing. Measures of success include numbers of POGO members and numbers of new (developing) countries being added to the network, establishment of new ocean observing systems in those countries, and demonstrated long-term impacts of the training programmes (e.g. >5 years after the training, on institutional capacity and continued knowledge-transfer).

OBJECTIVES AND ACTIVITIES

Significant activities

The CIO has been working towards the stated aims and charitable objects in the following ways:

i. **Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation**: this has been achieved by supporting Working Groups on specific topics related to ocean observation, such as the Biological Observations WG, which led a proposal to the UN Decade of Ocean Science for Sustainable Development for an "Ocean Biomolecular Observing Network" (OBON).

ii. **The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research**: this has been achieved through POGO's outreach and advocacy initiatives, through printed, on-line and social media, and participation in major UN Convention Meetings (COP29 Climate Conference and COP16 Biodiversity Conference).

iii. **The provision of scholarships and research fellowships**: scholarships and fellowships have been provided to **50** early-career scientists for training/education periods of between 3 weeks and 10 months during this financial year;

iv. **The promotion of innovation and technology in the science of global ocean observation**: this has been conducted mainly through two innovation projects focussing on developing low-cost instrumentation for ocean observing aimed at developing countries and citizen science.

More detailed information on these activities can be found below, under the heading "Achievement and Performance".

Public benefit

The trustees have complied with their duty, as set out in the Charities Act 2011, with regard to the public benefit guidance published by the Charity Commission.

The CIO has been working towards achieving its charitable objectives, delivering benefit to the wider public through its work to advance sustained ocean observations.

Grantmaking

POGO allocates some of its funds (received from charitable foundations and/or membership dues) to help support ocean observation activities (e.g. through Working Groups) and to provide training for early-career scientists (generally in developing countries). POGO has a set of policies and procedures for allocating such grants, which are summarised below.

POGO issues a call to its members, generally once per year, for proposals for Working Groups, workshops, travel grants, training initiatives and other activities that are directly relevant to POGO's core mission, i.e. sustained, long-term ocean observing systems and shared use of infrastructure, data and information. This includes a template for applicants to complete and submit to the POGO Secretariat. Proposals must be submitted by members of POGO, although participants can be from other institutes if necessary. If a Working Group or other initiative wishes to be funded for a second year, a request for extension must be submitted, using the template provided, by the same deadline as the new proposals. A sub-committee of POGO members (who do not have conflicts of interest) reviews the proposals, according to a number of criteria, e.g. relevance to POGO's Strategy and priority areas; timeliness of proposal; adequacy of proposed deliverables and milestones; adequacy of WG/project membership (including geographic and gender balance). For training initiatives, the expected impact of the training and proposed methods for evaluating success are also taken into account. The Committee then makes recommendations to the Board of Trustees on the proposal(s) to take forward, depending on the available budget. The availability of other funding sources is not a determining factor in the selection process.

POGO and the Nippon Foundation have set up the NF-POGO Alumni Network for the Ocean (NANO) to maximise the benefits to the alumni from the training received and facilitate active contacts among the alumni. Through POGO, the Nippon Foundation funds modest regional and global research projects and public outreach projects. Proposals are received in response to an open call, and funding is renewed for successive years based on performance. The projects are selected according to the following criteria:

(1) Projects should have an observational/applied focus (not "blue skies" research)
(2) They should have a societal benefit focus
(3) They should add value to and build upon existing programmes/projects
(4) Funding should be used mainly for coordination (but also consumables, field work, modest equipment).
(5) Projects should be coordinated by NANO alumni but participants can be a mixture of alumni and external scientists. They should be supported by senior mentors and endorsed by the participating institutes' senior management.
(6) They should include a minimum of two different countries, preferably more.

OBJECTIVES AND ACTIVITIES
Grantmaking (continued)

POGO also offers scholarships/fellowships to individuals, both through the Nippon Foundation grant and using its own funds as well as a grant from the Scientific Committee on Oceanic Research (SCOR). These fellowships all operate following similar procedures, i.e. an announcement and call for applications is made, which is open to anyone who fulfils the country and scientific background/career stage requirements (e.g. Official Development Assistance recipient countries, early-career scientists, but not just those affiliated with POGO member institutions). An impartial committee composed of one or two members of the POGO Secretariat, representatives of any partner organisations and/or other experts from the scientific community (often involved in teaching/supervising students) is assembled to review the applications, based on a set of criteria such as quality of the applicant (education/experience/potential), quality of the training proposal or motivation letter, quality of the host institute (if applicable), relevance to POGO and to the priority areas identified in the call for proposals, and potential for sustained capacity building in the host institute/country. The scores are then totalled, and a number of top-ranked applicants are selected according to the budget available, with consideration given to gender and geographical balance, as well as occasionally other factors such as whether the candidate has received POGO funding previously.

STRATEGIC REPORT

Achievement and performance

Charitable activities

POGO Communication Strategy:

POGO has continued to increase its visibility through its web presence, social media and representation at international meetings (both virtual and in-person). Specifically, POGO was represented by Secretariat staff, trustees or members, at:

- 3rd UN Ocean Decade Conference – Barcelona, Spain (Apr 2024)
- Portuguese Oceanography Society's meeting – Peniche, Portugal (May 2024)
- POGO Appreciation day at NIOMR – on-line (Aug 2024)
- SCOR Annual Meeting - on-line (Oct 2024)
- Convention on Biological Diversity (CBD) COP16 – Cali, Colombia (Oct 2024)
- Cabo Verde Ocean Week – on-line (Oct 2024)
- UNFCCC Climate Conference COP29 – Baku, Azerbaijan (Nov-Dec 2024)
- World Congress of Marine Stations – Shizuoka, Japan (Nov 2024)
- CommOCEAN – Malaga, Spain (Nov 2024)
- @SeaNetwork Annual Meeting – on-line (Mar 2025)
- Various planning meetings and webinars for the UN Decade of Ocean Science for Sustainable Development -virtual.

POGO representatives also contributed to various planning and oversight committees:

- International Quiet Ocean Experiment (IQOE) Leadership Group and Science Committee
- Ocean Info Hub Steering Group
- Ocean Biomolecular Observing Network (OBON) Scientific Advisory Committee and Executive Committee
- Executive Committee for the "Frontiers in Ocean Observing" Oceanography Magazine Supplement
- World Association of Marine Stations Steering Committee
- UN Ocean Decade Vision 2030 Challenge 2 Working Group (until Aug 2024)
- UN Decade of Ocean Science for Sustainable Development Strategic Communications Group (until Jan 2025)
- All-Atlantic Floating University Network (@SeaNetwork) Advisory Committee
- Trevor Platt Fund (UK) Committee
- Trevor Platt Science Foundation (IN) Secretariat
- NF-POGO Centre of Excellence at OFI Executive Management Committee
- Ocean Biodiversity Observing and Capacity Development curriculum WG

Presentations were given on POGO at several of the above events. POGO information packs have also been sent to a number of prospective members.

POGO had two papers published in a Special Issue of Oceanography Magazine Vol 38 on 'A Vision for Capacity Sharing in the Ocean Sciences'. Two other papers published in the same issue involved POGO trainings, activities and working groups. POGO's CEO was also a named author on two UN Ocean Decade-related papers published in ICES Journal of Marine Science (Vol 82, Issue 1, Jan 2025).

The timing of the interactive POGO Annual Report is being shifted, to align better with the trustees' annual report; the next version will cover the period April 2024 to March 2025.

The POGO website has continued to be developed and updated with more information on how our members contribute to GOOS, and new additions to the interactive timeline of POGO's history. POGO maintains an active social media presence on Twitter (@POGO_Ocean), Facebook (/POGO.Ocean/), Instagram (/pogo_ocean) and LinkedIn (/pogo_ocean), as well as a minor presence on YouTube. In addition, this year, POGO created a profile on 'BlueSky', a fairly new social media platform which is being embraced by the science community. Social media continues to be an excellent means to share news and information with an interested and interactive audience. In addition, the secretariat runs or shares responsibility for the following Social Media accounts on various platforms: Ocean Training Partnership, NANO Network, and OBON.

Object 1: Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation:

Progress has been achieved by providing grants for Working Groups (WGs), through the Ocean Biomolecular Observing Network (OBON), endorsed by the UN Decade of Ocean Science for Sustainable Development, the POGO and SCOR-sponsored International Quiet Ocean Experiment (IQOE), and Nippon Foundation-POGO Alumni Network for the Ocean (NANO) Global Projects.

STRATEGIC REPORT
Achievement and performance
Charitable activities (Continued)

Ocean Biomolecular Observing Network:

POGO is the lead organisation for OBON, a UN Ocean Decade programme endorsed in 2021. OBON's Vision is to accelerate informed decision-making to restore the health of our ocean using the universal signatures of life on Earth: biomolecules. OBON's core pillars are to Innovate technology and methodologies, delivering frameworks to advance biomolecular observations from the coastal to the open ocean, thus enabling broad-scale interpretations and scientific discovery; to Develop resources, networks and strengthen capacity globally, to advance observations and analyses while ensuring equitable access; and to Enhance the use and interpretation of these observations through agreed data practices and model integration, and the creation of ocean knowledge. Together, this work Informs ocean users and managers, ensuring sustainable interactions in support of a healthy ocean.

This year POGO has continued to support the development of OBON, through Secretariat support, as well as financial support for communications products and the annual meeting of the OBON Scientific Advisory Committee (SAC) and OBON projects in Nov 2024 (mostly funded by a grant from Scripps Institution of Oceanography). The Scripps funding was also used to cover some staff costs, enabling OBON to have a part-time Programme Manager, seconded by Plymouth Marine Laboratory, from July 2024.

Highlights:

- Further development of the SAC, with new members appointed via an open call for nominations; the SAC has now reached its maximum capacity of 22 members, and new countries represented include Bangladesh, Canada, China, Colombia, France, and Mexico.
- Endorsement of another 7 UN Decade Projects (see https://www.oceandecade.org/actions/ocean-biomolecular-observing- network-obon/)
- Webinar series to introduce new projects and provide updates on existing ones (Sept-Oct 24)
- Project meeting held in hybrid mode in Plymouth, UK (Nov 24).
- Satellite event at the UN Ocean Decade Conference (Apr 24) in collaboration with the Marine Life 2030 programme
- Launch of OBON Strategy and new website; regular schedule of newsletters established, with issues in May, Aug, Nov and Feb.

International Quiet Ocean Experiment (IQOE)

POGO and SCOR have been co-sponsoring the International Quiet Ocean Experiment (IQOE) since 2011, with seed funding from the Sloan Foundation and subsequent support for activities provided by the Richard Lounsbery Foundation. IQOE is an international scientific programme to promote research, observations, and modelling to improve understanding of ocean soundscapes and effects of sound on marine organisms. IQOE is nearing the end of its 10-year life span and the IQOE Science Committee (SC) has been focussing this year on IQOE's final outputs, and on planning the project's legacy and possible follow-up activities.

Highlights:

- The IQOE SC meeting was held in hybrid mode on 20–22 Nov 2024 in Reykjavik, Iceland. Meeting participants reviewed ongoing IQOE activities, evaluated the progress of IQOE, and planned for the project sunset and legacy. Major outcome of the meeting was a decision to develop a project to follow IQOE that will focus on implementation of the Ocean Sound Essential Ocean Variable (EOV). The EOV specification sheet and Implementation Plan were developed by a POGO-IQOE Working Group and supported by POGO funding, respectively.
- Discussions have begun with the Global Ocean Observing System (GOOS) of UNESCO's Intergovernmental Oceanographic Commission (IOC) to apply for Emerging Network status for a global ocean sound observing system.
- The Working Group on Low-Cost Hydrophones for Research, Education and Citizen Science, chaired by Lucille Chapuis (University of Bristol, UK), has received a grant from POGO to design and produce prototypes of the low-cost hydrophones (see later section).
- Global Library of Underwater Biological Sounds (GLUBS): The GLUBS mission is to develop and merge novel technologies with existing bioacoustics resources to make the exploration of biological sounds more accessible to researchers, managers, educators, and enthusiasts. GLUBS has 5 Working Groups: (1) cyberinfrastructure, (2) artificial intelligence, (3) known sounds, (4) unknown sounds, and (5) public engagement. GLUBS has recently been endorsed by the UN Ocean Decade, and submitted information to the World Register of Marine Species (WoRMS). The GLUBS-inspired Research Focus in Frontiers in Remote Sensing has now accepted ten manuscripts.
- Open Portal to Underwater Soundscapes (OPUS, https://opus.aq, led by the Alfred Wegener Institute) now features 58 long-term acoustic datasets; further passive acoustic datasets are currently being prepared for display through collaborations with the Flanders Marine Institute (VLIZ) and Zurich University of Arts.

STRATEGIC REPORT
Achievement and performance
Charitable activities (Continued)

WG on Building Capacity in Ocean AcidificaTion MoniToring in the Gulf of GuineA (BIOTTA)

Grant (10K EUR) awarded to the University of Ghana to lead the WG and support capacity building workshop; funding has leveraged 100K USD from the Ocean Foundation to purchase equipment to set up the monitoring stations.

The BIOTTA working group was set up to equip graduate students, early career ocean scientists and other marine science professionals in the GoG region with skills on sustainable OA data acquisition to expand our understanding of the threats, risks and impacts to marine ecosystems and chart pathways for sustainable management of marine resources at risk to ocean acidification (OA) in the GoG region. This working group hopes to also bridge national, regional and international data gaps in ocean acidification.

BIOTTA aims to complement global efforts such as the Global Ocean Acidification Observing Network (GOA-ON) and the International Ocean Carbon Coordination Project (IOCCP) by convening a series of virtual regional workshops and webinars to train young and professional scientists in setting up and maintaining OA observation systems in the GoG and other African coastal waters.

The BIOTTA working group objectives are to:
- Develop a coordinated network for observing OA in the GoG
- Develop capabilities to undertake analysis of seawater OA parameters using low-cost, readily available and easy-to-use equipment.
- Map OA hotspots in BIOTTA member countries for long-term OA monitoring.
- Initiate OA monitoring activities in BIOTTA member countries after successful mapping of hotspots in these countries, making use of OA observation kits developed by GOA-ON and the International Atomic Energy Agency (IAEA).
- Integrate into global OA observing networks, such as GOA-ON, with the goal to share and make data available to the global ocean observing community.

Highlights:
- 100K USD obtained from The Ocean Foundation (TOF) to purchase equipment to set up the monitoring stations. Orders for equipment and consumables have been placed, and one kit has been sent to the University of Ghana.
- The Ocean Foundation has continued to fund a Coordinator at the University of Ghana to support BIOTTA.
- The BIOTTA PI has been appointed Co-Chair of the new GOA-ON Sub-Hub for West Africa, with a colleague in Liberia.
- The University of Ghana, in partnership with POGO and The Ocean Foundation (TOF), delivered the BIOTTA GOA-ON in a Box Training Workshop from July 15th to 19th, 2024. The workshop brought together various experts and trainees including scientists and students from Ghana, Côte d'Ivoire, Cameroon, Nigeria, Benin, and the USA, demonstrating a strong regional commitment to addressing this pressing environmental issue. The training workshop provided the West African attendees with a better understanding of ocean acidification, through a comprehensive curriculum covering both theoretical and practical aspects of ocean acidification.
- On of the training workshop participants (from Cameroon) participated as an instructor in the OceanX-OceanQuest-POGO Around Africa shipboard training expedition, supporting trainees to collect and analyse samples on a voyage from Namibia to Cabo Verde.

WG on Capacity building for biochemical observation of anthropogenic pollution in tropical, transitional waters (BEACON)

Grant (10K EUR) awarded to the University of Ghana to lead the WG, support a capacity building workshop and procure field equipment.

There is a need to build capacity to monitor human activities (e.g., pollution) on benthic communities and chemical tracers within the biota and sediment in the coastal waters of the Gulf of Guinea. The capacity building will increase access to state-of-the-art sampling methodologies, laboratory processes, and instrumentations useful for expanding the knowledge of benthic biodiversity and chemical tracers in biota coupled with the sediment in West Africa, a field poorly documented. Mercury is a toxic element occurring in low concentrations, but its by-product, methylmercury, is highly toxic, and can accumulate in the sediment and biota (e.g., bivalves and fish).

STRATEGIC REPORT
Achievement and performance
Charitable activities (Continued)

Benthic organisms are good bioindicators for investigating anthropogenic environmental disturbances such as pollution, as species composition can reflect the ecological conditions of an aquatic environment. Transitional waters (e.g., estuaries) are complex systems that are regional in scale. There is limited information on transitional tropical waters and their biota in the regional inventory of benthic fauna from West Africa. Increasing human population coupled with growing demand for a resource and generation of wastes put coastal lagoons and estuaries at risk of collapse. Continuous monitoring of these systems is necessary for understanding changes in their ecosystem structure and functioning. Yet, there is inadequate information on well-documented biological data and biota as chemical tracers of contaminants from the tropical West African coast. Information on species occurrence, habitat, and spatio-temporal distribution will allow local and regional distribution of indicator species to understand pollution and environmental change.

It is important to build the capacity of interdisciplinary scientists to help monitor and measure human impacts on transitional and coastal waters. The BEACON working group aims to contribute spatial knowledge on benthos and Hg contamination in biota and sediment from coastal waters in the Gulf of Guinea. The preliminary findings can support decision-making, policy development for biodiversity conservation, future coastal benthic research, and understanding of pollution in tropical transitional coastal waters.

Highlights:

- The BEACON working group established cooperation among interdisciplinary scientists in the Sub-Saharan Africa region (Ghana, Côte d'Ivoire, Nigeria, Togo and Benin) and working with international partners (UK, Germany and USA) through the creation of the Biochemical Observation Network (BON).
- The WG engaged in a series of seminars and meetings online for scientific knowledge exchanges and discussions among members on methods for adoption for biological sampling (e.g., benthos and plankton) and dead remains of biological organisms (microfossils) analysis, chemical pollutants and mercury analysis via Direct Mercury Analyzer (DMA).
- The WG fostered working together by interdisciplinary scientists to sample soft substrate using bottom sampling gears (e.g., Eckman grab), plankton net for sampling plankton, Multi-Parameter Probe to measure physical and chemical properties of transitional water such as Volta Estuary, Ghana and use of Mercury Analyzer to measure chemical pollutant such as Mercury (Hg) in sediment at the University of Ghana.
- The WG participated in field and laboratory work for benthos, plankton, microfossil and mercury analysis at the University of Ghana.

Coastal Observing Lab in a Box (COLaB)

Grant (10K EUR) awarded to the University of Ghana to host a training camp

Many countries worldwide face a significant hurdle in obtaining the necessary resources and knowledge to effectively monitor the coastal ocean. There is a common misconception that high end, expensive equipment is needed to monitor and study the coastal oceans. COLaB breaks this belief by using cost effective oceanographic instruments and methods backed by ocean best practices to collect a wide range of precise and accurate data. COLaB's modularity allows the user to tailor the package to fulfil their needs and to assist answering their questions. Instruments will consist of essential hydrographic instruments (current meter, CTD) as well as equipment for collecting water samples and analysing crucial biogeochemical parameters (such as nutrients, chlorophyll, alkalinity, dissolved oxygen). It will also include plankton nets and other tools for conducting biological observations. In addition COLaB offers data handling and access solutions and downstream applications in the form of regional coastal modelling.

Using various combinations of these packages, these observations have played a crucial role in monitoring eutrophication and harmful algal blooms, supporting fisheries management, establishing marine protected areas, and providing valuable validation and verification for models and remote sensing data. Whenever feasible, these packages will incorporate open-source or homemade sampling gear and instruments, both in the field and for analysis purposes. COLaB comes with training suitable for the needs of the user.

Highlights:

- The grant from POGO supplemented funds obtained through an Experiment.com crowd funding bid and enabled a first COLaB "proof-of-concept" field exercise in Ghana in July 2024. Scientists from the COLaB team, from the UK and South Africa, joined a team from the University of Ghana in a study of the Pra River-estuary system. The Pra River, and other Ghanaian rivers, have been heavily affected in recent years by illegal gold mining being carried out upstream, which has resulted in massive sediment loads and mercury contamination that are heavily impacting downstream ecosystems and the welfare and health of fishing communities.
- The objectives of the field exercise were to use a subset of COLaB instruments and methods to demonstrate and provide training in the assessment of river discharge and circulation (within the river and offshore), as well as sediment transport and physical and biogeochemical processes occurring across the estuarine salinity gradient.

STRATEGIC REPORT
Achievement and performance
Charitable activities (Continued)

- Over 8 days, river discharge was determined by conducting a flow and bathymetry river transect using simple hand-held flow meters and depth finders. Current measurements were made with drifters and acoustic current meters (fixed-depth and profiling) and water structure and mixing were assessed through CTD profiling across the estuarine salinity gradient. Several chemical analyses (nutrients, pigments, and dissolved organic matter) were conducted on water samples collected across the same gradient. Finally, suspended sediment samples were collected to determine mercury concentrations.
- Notably, the field and lab work also allowed the WG to test newly developed affordable instruments (CTD, colorimeter, and fluorimeter) against commercial counterparts.
- Most analyses have been completed, and the WG is now in the process of working up the CTD, discharge, and current data. These, alongside sediment load and mercury results, will be modelled to provide a first assessment of the fate of sediment and mercury discharged from the Pra. This should be completed by July 2025.

An EOV and Impact-Based Boundary Currents Ocean Observing System

Grant (10K EUR) awarded to South African Environmental Observation Network (SAEON) to support a workshop and publication of workshop report

The Ocean plays a unique role in the complex system of the ocean, influencing the weather, climate, ocean circulation, global carbon cycle, and extreme weather patterns. Pressing societal needs for information and services require a re-assessment of the current system and a co-designed plan to mature the observing system to meet user needs. Boundary currents directly influence the understanding of regional weather systems, significantly impact marine heatwaves and tropical cyclones and impact the local fisheries and aquaculture.

The purpose of this workshop was to create an overview of observations and modelling efforts already ongoing within the Agulhas Current, develop priority gap areas and thus observational requirements and a resulting start to the development of a backbone design of an ocean observing system to better understand key features in the Agulhas Current region. The workshop also aimed to determine potential overlaps and opportunities for other key features to be considered in the design for monitoring and assessment purposes including (but not limited to) tropical cyclones, fisheries and marine heatwaves, all of which impact or are impacted by the Agulhas Current under a changing climate.

Highlights:

- Stakeholder mapping: The workshop allowed for a number of key participants to discuss challenges in understanding the Agulhas Current and adjacent regions in terms of their knowledge base (researchers and modellers) and industry (fisheries, search and rescue). Outputs from the workshop will assist in developing continued stakeholder engagements through 2025.
- Execution of the workshop: The workshop was successfully held from 9-12 September 2024 in Cape Town, South Africa, attended by 72 participants, including 20 Early Career Ocean Professionals and 10 online participants. The funds from POGO were critical in enabling the Boundary Currents Exemplar team of the Ocean Observing Co-Design Programme and AtlantOS to bring together various stakeholders to inform the development of a requirements report, co-designed [across the stakeholder community] targeted priorities and gaps.
- This workshop was the first of its kind and the cross-collaboration across observations, modelling and forecasting centres resulted in fruitful conversation and clarity on needs. Some end users were able to attend, including the fishing community and local search and rescue operational teams, which were able to raise critical needs of the community that are now being considered in the draft design.

CEODOS Chile: A consortium for surveying the coastal ocean in the easter South Pacific

Grant (10K EUR) awarded to COPAS, University of Concepcion, Chile, to lead the WG and host 2 workshops

The CEODOS program (co-coordinated by the COPAS Centre) is a new Chilean initiative that will follow the present and future status of the biological pump along the entire coast of Chile every 5 years. The first expedition, in the frame of TARA MICROBIOME (a 2-year campaign covering South America and Africa) was held in 2021. Genomics and biogeochemical samples will be analysed and results integrated into AI algorithms in order to get a better understanding and prediction capacity of the future of carbon sequestration in the eastern south Pacific.

STRATEGIC REPORT
Achievement and performance
Charitable activities (Continued)

Highlights:

- First workshop at Universidad de Concepción: This meeting was held at the COPAS center and was in hybrid mode. The CEODOS Consortium met in order to establish a plan for future actions and sample analysis. A common declaration was signed and published after the workshop.
- Second Workshop in Universidad de Concepción (between UdeC and Scripps Oceanographic Institution): The workshop assessed the future observation programmes in the eastern south Pacific ocean, to coordinate further actions for integrated experimental observation as well as programs for human capital training.
- Cruises for carbon fixation monitoring: Based on the engagement of the Chilean community to map and observe the Chilean coastal ocean in its entirety every 5 years.
- Metadata opening task force meetings: This smaller group has been meeting weekly for the last 4 months to work on the genomic and oceanographic data of the TARA MICROBIOME expedition. This data will be open upon the publication of a paper currently under preparation.
- Summer schools: Austral Summer Institute ASI at Universidad de Concepcion in January 2024; GOOD OARS CLAP COPAS Summer School at Universidad Catolica del Norte Coquimbo in November 2023.

Coastal Marine Heatwaves Interdisciplinary Research group (CMHIR)

Grant (10K EUR) awarded to the Institute of Marine and Antarctic Studies (IMAS) to organise a workshop at the University of Concepcion, Chile and produce a peer-reviewed publication

Marine heatwaves (MHWs) have become an urgent issue regarding climate risks due to their proliferation in frequency, duration, magnitude, and spatial extent. These phenomena have a strong impact at the global, regional, but also local levels. MHWs have become an increasingly serious threat not just from the perspective of pelagic and benthic ecology on the continental shelf but also for coastal aquaculture and fisheries, as demonstrated by many reports of fisheries closures from around the world caused by MHWs. Estuaries, in particular, represent environments with high productivity and biodiversity that sustain important economic activities like aquaculture and fisheries.

While our understanding about the causes, impacts, duration and extension of MHWs has increased significantly during the last 10 years, this information has mainly come from large scale studies of the global or regional oceans. This large-scale perspective is informed by climate models and remote sensing as the main data sources, which are unable to spatially resolve smaller coastal systems such as estuaries and bays. To gain insight into the coastal response to MHWs, this group proposes a different approach, combining in-situ observations, remote sensing and high-resolution modelling in the coastal zone. The geographic intercomparison will contribute to a better understanding about the impact of MHWs on the global coastal areas and the potential implications under climate change scenarios.

The WG aims to develop an active collaboration and coordination to highlight the importance and necessity of studying the implications and consequences of MHWs in coastal areas. So far, the impact of MHWs in coastal areas has been evaluated in few recent papers; however, our WG is multidisciplinary, including coastal ecologists, coastal modellers and climate scientists. Hence, the distinctive feature of this group is its special focus on the shallow continental shelf, its interdisciplinarity, and its interesting geographic diversity (Canada, North America's east and west coasts, South America's west coast, Australia's southeast coast, Mediterranean Sea, Antarctica's glacial embayment's).

Highlights:

- The Coastal Marine Heatwave Interdisciplinary Research group (CMHIR, https://coastalmhw.org/) successfully organized the Workshop: Marine heatwaves dynamics and impacts on coastal and estuarine ecosystems at the University of Concepción (Chile), from 9-11 April 2024. This activity gathered 42 attendees in person and 76 on-line, from 14 countries (Australia, Belgium, Brazil, Canada, Chile, Colombia, Cuba, France, Germany, Italy, Peru, South Africa, Spain, and UK).
- The workshop generated an active discussion on the impact of marine heatwaves on ecosystems, communities, and organisms, sharing with academics, students, and the community the different aspects of marine heatwaves, covering topics like global and regional events, drivers, and local impacts. Experts presented studies focused on the consequences of these marine extreme events on seaweeds (kelps), phytoplankton, zooplankton, and benthic organisms.
- The event included an internal POGO WG meeting.
- The WG organised a webinar on the impacts of MHW on aquaculture (22 Aug 2024), in collaboration with the Chilean Salmon Farmers' Association (Salmon Chile).
- The WG has been working on a joint manuscript, which they plan to publish in 2025.
- The WG leader attended the POGO Annual Meeting in Penang, Malaysia, where he gave a presentation on the WG activities, as part of a session on MHW.

STRATEGIC REPORT
Achievement and performance
Charitable activities (Continued)

NANO Global Project "A global study of productivity, deoxygenation and ocean acidification at selected coastal sites" (NANO-DOAP):

Research grants awarded to 22 participating institutions in the following countries: Argentina, Bangladesh, Brazil, Colombia, Ghana, India, Indonesia, Kenya, Lebanon, Mexico, Nigeria, Senegal, Thailand, Togo and Tunisia. Additionally, the project has 9 other stations located in Ecuador, Pakistan and Peru that participate without receiving support for field work.

The NANO global project has three major components:

- Promote in situ and remotely sensed observations of the ocean at selected coastal sites in order to contribute to the global effort of monitoring the levels of ocean acidification and deoxygenation;
- Provide opportunities to the project participants for: i) capacity building to strengthen their efforts to monitor levels of acidification and oxygenation; ii) join larger observation networks of ocean acidification and deoxygenation;
- Organize workshops and webinars dedicated to share experiences in i) monitoring levels of productivity, acidification and oxygenation; ii) training on marine data management; iii) compare results from fieldwork and produce a biogeographic distribution of the stations.

Field work was conducted in 2024-25 in all countries, for a set of 5 EOVs (temperature, chlorophyll-a, salinity, pH, dissolved oxygen) and additional variables (e.g., pigments, bio-optical variables, conductivity, nutrients, total alkalinity, , phytoplankton) varying from station to station. The budget was allocated depending on the local sampling costs, so as to enable each country to sample on a monthly to bimonthly basis (up to a maximum of 3K EUR per station). In addition, several participants conduct outreach activities in their location, reaching to different audiences, from school children to general public (see later section).

NANO Project Fishing Vessel Sensor Network:

The collaborative project Fishing Vessel Sensor Network, launched in Ghana in 2023 in partnership with the Ocean Data Network (ODN), enabled the installation of temperature sensors on fishing nets used by artisanal boats and semi-industrial trawlers. This provided near real-time temperature profiles from active fishing operations. Building on the success of the Ghana pilot, two new deployment sites were established. In September 2024, the ODN team installed a sensor device on a fishing vessel in Tanzania, in collaboration with Ms Hellen Kizenga (NANO member and researcher at the Institute of Marine Sciences, University of Dar es Salaam), ZAFIRI, and WIOMSA. Two additional devices were also provided for installation by the local team. Plans are also underway for deployments in Bangladesh, where arrangements have been made to install sensors on local fishing vessels. This extension is made possible through collaboration with Dr Subrata Sarker (coordinator of NANO-DOAP and SAGITTA) and the Oceanography Department at Shahjalal University of Science and Technology (SUST).

Object 2: The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research:

POGO outreach and advocacy:

Public outreach is normally conducted through participation in international exhibitions. During this year, POGO participated in various events both in-person and virtually (see section on Communication Strategy).

All of POGO's brochures, leaflets and other written products are available as digital versions online. POGO has now moved away from printed (paper) materials, with the exception of small quantities of postcards to distribute, otherwise favouring the display of laminated 'hard copies' of leaflets on our booths, and of QR codes on our promotional banners to give mobile device users quick and easy access to digital copies. We are also limiting the production and handing out of branded USB Flash Drives.

In 2023, POGO established an Advocacy WG, composed of 8 POGO member institution representatives from around the world. The WG has continued to meet on-line and drafted or contributed to statements for two major international events: the COP29 Climate Conference and the COP16 Biodiversity Conference. Both statements were circulated to the POGO membership for signature and shared with other organisations for their endorsement. In addition, POGO produced an Open Letter on Ocean Drilling, advocating for the importance of scientific ocean drilling for ocean – and in particular climate- research and education.

South East Asia project for General Regional Awareness of Seagrass by Society (SEAGRASS)

Grant awarded to the Centre for Marine and Coastal Studies (CEMACS) of Universiti Sains Malaysia (USM) to cover field trip expenses, production of videos and pamphlets, and expenses for international speakers.

STRATEGIC REPORT
Achievement and performance
Charitable activities (Continued)

The Straits of Malacca is the second busiest ocean maritime trade route in the world with a passage of over a thousand ships a day transiting its waterways. Naturally, this brings with it a lot of environmental pressure and risks to existing natural habitats. However, there are still very special pockets of marine habitats that possess high diversities of marine life such as shallow seas, intertidal mudflats, uninhabited islands and seagrass beds. The Middle Bank (northern Straits of Malacca) - an area of rich seagrass community – was chosen to study its changing evolution in an evolving climatic and anthropogenic influence. The Middle Bank seagrass meadow serves as nursery ground for many commercially important fish and mollusc species, supporting small-scale fisheries using artisanal fishing gears by local coastal communities. CEMACS has been working closely with Penang State Government to gazette this area as ecologically important, serving as a carbon sink (complementing adjacent mangrove area) to mitigate climate change and offset the state's carbon emission.

The proximity of the Middle Bank to a World Heritage Site can help drive awareness and education on the value of these marine habitats to the general public. The objective is to encourage the local government and agencies to set up a marine protected area for research, monitoring and education.

Highlights:

- CEMACS conducted the Marine Field Course: Biodiversity & Conservation for a group of college students from Kolej Yayasan UEM, Selangor (23 – 26 Feb 2024). 35 students were introduced to ecological techniques, microscopy skills, aquaculture basics and introduced to the seagrass ecosystem. The group was exposed to the seagrass ecosystem and learnt how transect lines are used along with quadrats to measure and monitor the life forms in this habitat. Students learnt about the various species inhabiting the seagrass bed, the intricate web of ecological relationships, and the critical role seagrasses play in maintaining a healthy marine environment. This experiential learning opportunity broadened students' understanding of marine ecosystems and fostered an appreciation for the need to preserve and protect these habitats. Moreover, the visit provided a chance for students to actively participate in local conservation efforts, contributing to the sustainable management of Pulau Gazumbo's marine resources.

- A book, "Tides of Change: The Middle Bank Marine Sanctuary and the Quest for a Resilient Penang" was published, underscoring the collaborative efforts of scientific, governmental, and community stakeholders in the environmental restoration and protection of the Middle Bank. The book aims to inform, inspire, and call for action to preserve Penang's treasured natural sanctuary.

- A stakeholder engagement workshop was held in two phases: the first with fishermen and operators, and the second with government agencies and other stakeholders. The workshop addressed activities allowed and prohibited within the sanctuary, adhering to IUCN guidelines for protected area management categories, ensuring comprehensive understanding and agreement on the sanctuary's management. Additionally, a field visit to the Middle Bank was organized for Executive Council (EXCO) for Environment for Penang State, YB Sundarajoo and the state government team to familiarize them with the upcoming establishment of the marine sanctuary. This visit, which included the northern shore of the Middle Bank, Pulau Gazumbo Kecil, and Pulau Gazumbo Besar, fostered a positive response towards the sanctuary's establishment, reinforcing the commitment to environmental conservation.

- A beach cleanup activity is planned at the Middle Bank area, aiming to engage the community and stakeholders in preserving the sanctuary's natural beauty and ecological health. Complementing these efforts, a brochure detailing the Middle Bank seagrass and its associated biodiversity is in its final draft, serving as an educational resource to raise awareness and promote the importance of seagrass ecosystems and their conservation.

Collaborations with other organisations

- UN Ocean Decade:
  o As a Decade Implementing Partner (DIP), POGO has participated in on-line meetings between DIPs focussed on ocean observation
  o As the lead organisation for OBON, POGO partnered with Marine Life 2030, the Marine Biodiversity Observation Network (MBON), and POGO members INVEMAR, MBARI, and PML, to host an exhibition stand at COP16 in Colombia
  o POGO also organised a side-event at COP16, with the same partners, as well as the Global Ocean Observing System (GOOS), Ocean Biodiversity Information System (OBIS), and Fugro
  o ECOP Programme: POGO has initiated a collaboration with the UN Decade Early Career Ocean Professionals Programme; in addition to webinars agreed, opportunities provided by POGO are now also shared by the ECOP network.

- POGO has started collaborating with a UAE-based social enterprise, Goumbook, to implement the COLLECT protocols (from our previously-funded beach litter monitoring citizen science project) in the UAE; Goumbook have translated the materials into Arabic, adding to the multilingual collection of resources in English, French, Portuguese, and Spanish.

STRATEGIC REPORT
Achievement and performance
Charitable activities (Continued)

- POGO has received funds from, and worked with, new philanthropic foundations OceanQuest (shipboard training), OceanX (shipboard training and OBON), and the Minderoo Foundation (OBON). The missions of these foundations are very much aligned with POGO's objective to educate and inform the general public about the importance of the ocean and of ocean science, and to ensure that the results of scientific research are used for public benefit and wise decision-making.

Object 3: The provision of scholarships and research fellowships:

Scholarships and fellowships have been provided to **50 early-career scientists** for training/education periods of between 3 weeks and 10 months during this financial year. These consisted of:

- **Scholarships for 10 scholars from 10 countries to attend the Nippon Foundation-POGO Centre of Excellence in Observational Oceanography** hosted by the Ocean Frontier Institute in Canada, in partnership with Dalhousie University, Memorial University, and the Hakai Institute. The first year of Phase IV in Canada started in Oct 2024 and will run until July 2025. Phase IV continues to train ten oceanographers for periods of 10 months each year. The programme on ocean observation includes an orientation, oceanography courses, field training, data management, modelling and coding, English efficiency experience, Canadian Indigenous experiences, ocean governance, and science communication. Scholars pursue an independent learning project related to a topic of priority interest. Scholars are based at the Fisheries and Marine Institute at Memorial University (Marine Institute) in St. John's, Newfoundland, and Dalhousie University in Halifax, Nova Scotia (NS), with an excursion to the Hakai Institute in British Columbia (BC). The three institutions have complementary strengths that each provides students with distinct hands-on opportunities to learn. The partners have developed a concept for an excellent student experience, capacity development and international networking. This year's scholars were from Bangladesh, Brazil, Egypt, Ghana, India, Indonesia, Kenya, Mexico, the Philippines, and Senegal

- **5 Visiting Fellowships awarded to early-career scientists from developing countries to spend up to 3 months at another research institute** receiving individual training and supervision on a research topic of their choice. All 5 fellows selected in 2024 were able to complete or initiate their fellowships during this financial year. The fellows were from Argentina, Indonesia, Malaysia, Mexico, and Nigeria, and visited research institutes in France, Ghana, Italy. Taiwan, and USA.

- **35 Shipboard Training fellowships on-board research ships** to receive hands-on training in sampling and analysis techniques, and in some cases a short stay at the host research institute prior to the cruise. These were conducted as part of the Nippon Foundation-POGO programme (19), and also as part of a new collaboration with OceanX (USA) and OceanQuest (Saudi Arabia) foundations (16). Fellows were from Argentina, Brazil, Cameroon, Colombia, Ecuador, India, Mozambique, South Africa, Sri Lanka, Tanzania, and Uruguay. The host institutes were in Brazil, France, South Africa, UK, and USA. This included 3 training cruises (one in an estuary in Brazil, one off the coast of South Africa, and one between Walvis Bay, Namibia, and Mindelo, Cabo Verde), while the rest consisted of placing fellows on-board research cruises for one-to-one training and supervision.

The feedback on these programmes was overwhelmingly positive, not only from the scholars and fellows, but also from the host supervisors and parent supervisors, who commented on the networking and collaborations as well as the cultural exchanges facilitated by the programmes, and the enhanced skills and knowledge the fellows bring back to their home institutes and pass on to their peers.

This year, grants were awarded to 2 member institutions to support the following training programmes:

Training course on "Hands-on MinION: Generating reference DNA barcodes for West African marine fishes" (Sept 2024)

Grant (7,600 EUR) awarded to Institut de Recherche pour le Developpement (IRD)

The rate of species extinction is currently 100 times higher than the background rate through geological history. Environmental DNA (eDNA) allows efficient biodiversity screening of marine ecosystems, but monitoring relies on regional DNA barcode reference databases, which are sparse in tropical countries. Furthermore, DNA sequencing facilities are far less available there than in developed countries, which calls for alternative solutions. On the other hand, the sequencing error rate and costs of small benchtop DNA sequencers have constantly decreased over the last years, now allowing direct on-site data acquisition.

A hands-on training module for third generation sequencing was held at the summer school of the West African Marine Fish DNA Barcoding Network (WAMBA.net). This training was jointly organized by the Institut de Recherche pour le Développement (IRD), France, the MOMBASA project of the Leibniz Centre for Tropical Marine Research (ZMT), Germany and the Université Nangui Abrogoua, Abidjan, Côte d'Ivoire, where it was hosted in September 2024.

STRATEGIC REPORT
Achievement and performance
Charitable activities (Continued)

Marine fishes are an excellent focus point for marine molecular biodiversity assessment as standardized methods for reference documentation are available and fisheries have a huge importance for human nutrition. This is particularly true in West Africa, where small-scale artisanal fisheries contribute significantly to livelihoods, and poverty reduction. The objective of the training was to deliver practical lab and bioinformatics skills on a small and inexpensive DNA sequencing device, the MinION flongle from Oxford Nanopore Technologies, to generate reference DNA barcodes. The delivered knowledge will empower researchers and multiplicators from various West African countries to monitor their marine biodiversity on their own, without the need for international cooperation. Although this training was focused on the generation of a reference DNA barcode database, the same protocol can be used to then monitor biodiversity with eDNA.

Participants participated in parallel activities involving wet lab work and theory. Each participant was involved in DNA extraction, MinION budget calculations for proposal writing, indexed primer and demultiplexing workflows, as well as a series of introductory discussions in English and French. The sequencing from related lab activities produced nearly 171 COI barcodes from marine fish. After the successful conclusion of the training, participants underscored the practical value of hands-on sequencing training and the WAMBA-Net. Some participants expressed their wish for more in-depth bioinformatics training which the organizers currently plan to pick-up in a webinar. Overall highlights were activities such as library preparation, hands on experience loading a flow cell, and live sequencing, but also the room provided for social activities and networking.

Training course on "Statistical Analysis of Oceanographic Data"

Grant (10K EUR) awarded to Shahjalal University of Science and Technology (SUST), Bangladesh

The Department of Oceanography at Shahjalal University of Science and Technology (SUST) organised this international training program in-collaboration with Nigerian Institute for Oceanography and Marine Research (NIOMR); Marine Research, Center for Policy Research at Universiti Sains Malaysia; and Indian National Centre for Ocean Information Services (INCOIS).

The training program was conducted over 10 days, with five days of online sessions (6 to 20 Dec 2024), followed by five days of in-person sessions (5-9 Jan 2025) at SUST. A total of 21 participants (11 females and 10 males) attended, from Bangladesh (16), India (2), Malaysia (1), Sri Lanka (1), and Indonesia (1).

The training aimed to enhance participants' data analysis skills using tools like Ocean Data View (ODV), R, and QGIS, as well as provide participants with guidelines for scientific writing. The course aimed to provide basic concepts of fundamental statistics and advanced oceanographic data analysis using R, along with oceanographic data visualization with ODV and other GIS software.

The online sessions consisted of both lectures and hands-on sessions. There were four lectures on oceanographic data and six hands-on sessions on oceanographic data analysis. The online sessions began with a lecture on Essential Ocean Variables: Insights for Oceanography, focusing on the importance of Essential Ocean Variables (EoVs) in understanding ocean processes, supporting targeted research, and driving advancements in oceanography. The second lecture focused on the Importance of Data Sharing and Management in Marine Policy, discussing the importance of data sharing, sharing platforms, and the application of different techniques in oceanographic data management. The third lecture, on Data Governance and its Role in Marine Policy, highlighted the need for comprehensive data to develop effective policies, the role of data governance in ensuring data usability and security, and the development and implementation of policies related to data management for Marine Spatial Planning (MSP). The fourth lecture focused on Open Source Oceanographic Data, which highlighted the collection and application of oceanographic data from different open-access sources.

The in-person sessions of the training included 10 sessions. Two sessions focused on data visualization with ODV, five sessions on oceanographic data analysis using R, two sessions on scientific writing, and one session for group presentations by participants.

From the feedback surveys conducted, it was apparent that key useful elements of the training included hands-on activities, statistical analysis with R, oceanographic data analysis, and scientific writing. Participants valued the friendly and expert guidance of instructors, effective individual attention, and logistical arrangements like proper breaks. Real-life examples, peer interactions, and the practical application of tools such as visualization techniques were also seen as valuable, enriching the learning experience. Overall, the emphasis was on interactive, well-structured, and practical sessions linked to their academic and research needs.

Object 4: The promotion of innovation and technology in the science of global ocean observation:

This has been conducted mainly through projects focussing on developing low-cost instrumentation for ocean observing aimed at developing countries and citizen science. These both address the issue that, despite a high-level political endorsement, there are few international initiatives to make more observations possible in coastal areas with little resources. In particular, the ability to access user-friendly, low-cost instrumentation is still a limiting factor in coastal ocean observing, since most marine observation equipment is difficult to deploy, costly to operate and requires specific technical skills. On the other hand, recent technological advancements have allowed novel improvements in sensors, platforms and communication that will enable a step change in coastal ocean observing philosophy.

STRATEGIC REPORT
Achievement and performance
Charitable activities (Continued)

Social AGITation for Temperature Analysis" (SAGITTA)

The project aims to implement a citizen science approach for consistent and regular temperature profile data collection in the coastal ocean. This requires distribution of cheap and simple temperature-depth (TD) probes among the general public. Though suitable equipment is present on the market, it is very expensive (5,000-9,000 USD per probe) and relatively complex for users without specialised training. Therefore the project aims to create a low-cost TD probe, simple smartphone application and web portal to make this idea possible. The probe should be inexpensive (about 100 USD), yet scientifically reliable. The smartphone app will be used for probe control, instant data visualization and data transmission to the web. The web portal is necessary for data storage, access and dissemination; it will also be useful for training and outreach.

A field test of the water temperature profiler was conducted in August 2024 in Haifa Bay, Israel. The instrument was deployed using a 60-metre rope and a heavy anchor (approximately 3 kg). The vessel departed from Kishon Marina, and the profiler was deployed at depths of 50 metres and 30 metres at different locations. Temperature readings were recorded at intervals of 220 milliseconds. Overall, the profiler successfully captured temperature profiles at varying depths. However, no thermocline was detected, contrary to initial expectations. For future deployments, it will be important to address the noise generated by the pressure sensor and improve its calibration. Enhancing sensor calibration and reducing associated noise will contribute to greater measurement accuracy and provide more reliable data for future sea trials.

During the first semester of 2024 it was agreed that the project leadership should be transferred to Dr. Subrata Sarker, NANO-DOAP coordinator, bringing NANO-DOAP and SAGITTA projects together. Head of the Oceanography Department at the Shahjalal University Science and Technology (SUST), Bangladesh, Dr Sarker has access to technical/IT staff with the expertise to move the project along. He and his team will work with SAGITTA's programmer (Alexander Rakhman, based in Israel), and with other people supporting the project (e.g., ODN and ENC Data). To facilitate the transfer, the former project coordinator (Kirill Kivva) plans to visit SUST in April 2025, to hand over materials and provide details on the achievements of the project so far and what remains to be done. The meeting will include activities with students of Oceanography and Engineering from SUST and invited fishermen, and a day of field testing of SAGITTA. The visit was originally planned for August 2024, but had to be postponed due to the political situation in Bangladesh. By rescheduling to April , the visit is timed to coincide with the visit of Ocean Data Network (ODN) to establish the new pilot site of the Fishing Vessel Sensor Network project, facilitating discussions between ODN and Dr. Sarker regarding SAGITTA.

Development of a low-cost hydrophone for research, education and community science: GlowSounds

Grant (10K EUR) awarded to Istituto Nazionale di Oceanografia e di Geofisica Sperimentale (OGS)

The integration of affordable hydrophone technology plays a pivotal role in advancing marine bioacoustics, a field essential for understanding and protecting marine biodiversity. Sound is a critical component of marine environments, influencing the behaviour, communication, and survival of numerous aquatic species. By deploying low-cost, open-source hydrophones, we enable continuous, widespread monitoring of underwater soundscapes. This democratisation of technology not only supports scientific research but also empowers community scientists and educators in underserved regions, enhancing global participation in ocean monitoring and conservation.

This project aims to:

- Design an affordable and open-source hydrophone autonomous system, without compromising quality and performance, catering to research, education, and community science needs
- Develop software to manage and program device settings
- Develop a global digital platform to promote and facilitate the use of the device, complete with educational resources.

This funding will be used to develop and build the first 25 prototypes to be distributed to selected numbers of beta testers. Further funding will then be sought to implement corrections/improvements, and develop a distribution and training platform. From a policy perspective, the availability of affordable, reliable acoustic data supports evidence-based decision-making. It enables policymakers to implement more effective marine management strategies, comply with environmental protection regulations, and meet international conservation goals. Additionally, our project aligns with the objectives of the Global Ocean Observing System by contributing to the Essential Ocean Variables, specifically Ocean Sound.

Highlights:

- The WG has been meeting regularly on-line.
- A poster was presented at the OCEANS 2024 Meeting in Halifax, Canada
- The group issued a survey to the community to gather input on user needs, which gathered 138 responses. 90% of respondents believe that such a low-cost autonomous device is needed, including a significant promotion of respondents who were senior researchers; the temperature and depth specifications matched well with the current design of the device

STRATEGIC REPORT

Achievement and performance

Charitable activities (Continued)

Highlights:

- The team is making good progress towards having a design ready for beta testing by mid-2025 by up to 50 beta testers around the world (POGO funding has been matched by SCOR to support the production of more prototypes)
- The initiative has been endorsed as a UN Ocean Decade Project
- An oral presentation has been accepted at the One Ocean Science Congress in Nice, France (June 2025)

Financial review

Financial position

The charity, with the aid of sound financial management and the support of both its management and trustees, generated a positive financial outcome for the period ending 31 March 2025. While the charity has made a loss for the year of £146,843, the majority of this has been due to utilising restricted reserves brought forward. Total reserves are £341,079 and taking into account restricted reserves of £49,707, this leaves £291,372 unrestricted reserves.

Principal funding sources

The principal sources of funding are:
- Membership dues: these are used to cover all operational costs of the charity as well as some grants and fellowships
- Grants from charitable foundations and other organisations, notably the Nippon Foundation, which supports POGO's capacity development programme, the Minderoo Foundation, which has supported an OBON workshop on biomolecular methods for fisheries management, and the Scientific Committee on Oceanic Research (SCOR), which co-funds the POGO-SCOR visiting fellowship programme. An Agreement was also signed during this fiscal year with OceanQuest, a Saudia Arabia-based philanthropic foundation.

Reserves policy

POGO's reserves policy was adopted in Jan 2020. The target minimum Operating Reserve Fund is 12 months of average operating costs. The calculation of average monthly operating costs includes all recurring, predictable expenses such as salaries and benefits, insurance, office, travel, communications, projects, Working Groups and capacity development programmes. Depreciation, in-kind, and other non-cash expenses are not included in the calculation. The calculation of average monthly expenses also excludes one-time or unusual, capital purchases. The Operating Reserve is intended to provide an internal source of funds for situations such as a sudden increase in expenses, one-time unbudgeted expenses, unanticipated loss in funding, or uninsured losses.

Operating Reserves are not intended to replace a permanent loss of funds or eliminate an ongoing budget gap. It is the intention of POGO for Operating Reserves to be used and replenished within a reasonably short period of time. The Operating Reserve Fund is defined as a fund set aside by action of the Board of Trustees. The minimum amount to be set aside as Operating Reserve will be established in an amount sufficient to maintain ongoing operations and programmes for a set period of time, measured in months. The Operating Reserve serves a dynamic role and will be reviewed and adjusted in response to both internal and external changes.

The amount of the Operating Reserve Fund target minimum will be calculated each year after approval of the annual budget, reported to the Finance Committee/Board of Trustees, and included in the regular financial reports. The Operating Reserve will be funded with surplus unrestricted operating funds. The Board of Trustees may from time to time direct that a specific source of revenue be set aside for Operating Reserve.

The main contingencies allowed for by the Reserves Policy, are:
- POGO having to relocate the office, in case the agreement in place with the current Secretariat host(s) is terminated by either party. The provision in the contract is for 6 months' notice, which would mean any costs incurred would have to be met at relatively short notice. Costs could include redundancy and other compensation that POGO may be required by law to pay the staff (e.g. related to the Transfer of Undertakings (Protection of Employment) -TUPE; legal costs; potential increased salary costs related to employment by a different host, etc. If POGO were to start employing the Secretariat staff itself there would be additional costs related to HR/IT and other services, office rental etc.
- Other emergencies including legal costs, insurance excess, or uninsured losses.
- Loss of income: This is a potential threat caused by fluctuations in membership, or by some members being unable to pay their dues in a given year. In addition, the Nippon Foundation grant is only renewed from one year to the next, so if it is not renewed we would potentially receive very little notice of this (in this case the project would not go ahead, but additional funds from POGO could potentially be needed to cover staff costs, to which NF contributes £50,000 per annum).

The amount of reserves currently held is projected to be very slightly above the amount stated in the reserves policy, taking into account commitments that have been made to fund Working Groups and projects, but which have not yet taken place.
The balance held as unrestricted funds at 31 March 2025 was £291,372 of which £291,372 are considered 'free' reserves. This level of reserves is broadly consistent with our policy of holding one years' operating costs (Circa £250,000), excluding Nippon related projects.

STRATEGIC REPORT (continued)

Financial and risk management objectives and policies

The trustees have a duty to identify and review the risks to which the charity is exposed and to ensure appropriate controls are in place to provide reasonable assurance against fraud and error. The trustees recognise that risks can arise not only from the charity's activities but also from failure to act or exploit opportunities. The trustees do not consider that all risks should be avoided. They are not averse to taking reasonable risks as part of their strategy to achieve the charity's objectives. However, they wish to be made aware of the major risks the charity faces so that they can plan how to manage those risks and mitigate their effects. The trustees have therefore appointed the Chair and CEO to review major risks and make recommendations to the trustees as to how to manage them. The trustees expect all members, staff and volunteers when engaging in any activity to consider the risks it poses and to act in accordance with any recommendations made for risk management. The trustees expect that staff and volunteers will not engage in significant types of activity which are not similar to activities the trustees are already aware of, without first having made to the trustees a proper proposal for the charity engaging in such activity, including an analysis of the risks such activity might pose to the charity. The trustees have the same expectation in relation to significant increases in activities already pursued by the charity or significant changes in the way those activities are pursued.
Risk management will be conducted according to the following steps: (1) identify the risks, (2) assess the risks, (3) evaluate what action needs to be taken, (4) monitoring and assessment.

The trustees have developed and approved a risk management policy and a risk register to identify and assess the potential risks and develop strategies to manage them. The risk register is reviewed monthly by the Chair and CEO, and twice per year by the Board as a whole. Given the charity is relatively young, it has not had a great deal of time to develop a mature 'risk appetite' approach. It is the intention of the charity for Trustees to engage in 'risk appetite' training with a view to developing a measured approach to risk.

Future plans

During the coming period the organisation will work towards its aims in respect of education for developing the science of global ocean observation, developing the science as well as publishing and disseminating the results of research undertaken. The CIO will continue to provide scholarships and research fellowships in accordance with its objects, using funds from membership dues as well as grants from the Nippon Foundation, the Minderoo Foundation, OceanQuest, and SCOR. Specifically, POGO will:

- Expand its global footprint and benefit from in-kind support from member institutions by establishing Regional and Thematic Secretariat Nodes in other parts of the world, funded entirely by the host institutions; continue to develop activities with the existing Western Pacific Regional Node in China;
- Initiate and support new activities as a UN Decade Implementing Partner and continue to support OBON;
- Complete current Working Groups (BIOTTA, BEACON, CMHIR, Agulhas Current, COLaB, GlowSounds, eDNA Monitoring Network for Latin America and the Caribbean, Consumer-grade drones for tropical marine and coastal research) and fund new ones through a call for proposals in 2025;
- Continue global research projects for NF-POGO alumni;
- Continue Phase IV of the NF-POGO Centre of Excellence hosted by the Ocean Frontier Institute and other partners in Canada; and provide Visiting Fellowships and Shipboard Training Fellowships for early-career researchers;
- Hold exhibition stands and give presentations at major international conferences (UNFCCC COP30); continue the POGO Advocacy Working Group to craft POGO's messaging for specific policy meetings;
- Increase its visibility and outreach impact, through the development of new outreach materials, case studies on the societal benefits of ocean observation.

STRUCTURE, GOVERNANCE AND MANAGEMENT

Governing document

The Charitable Incorporated Organisation ("the CIO") is governed by it's constitution in accordance with the Charities Act 2011. The CIO is based on the association model.

Recruitment and appointment of new trustees

Trustees are selected from the member organisations and are appointed by the decision of the members of the CIO at the annual general meeting (with the exception of two trustees elected by the trustees themselves to improve regional and/or gender balance and/or to fill gaps in expertise). Each appointment is for a term of two years (renewable once), ending at the close of the meeting of the board of trustees immediately after an AGM.

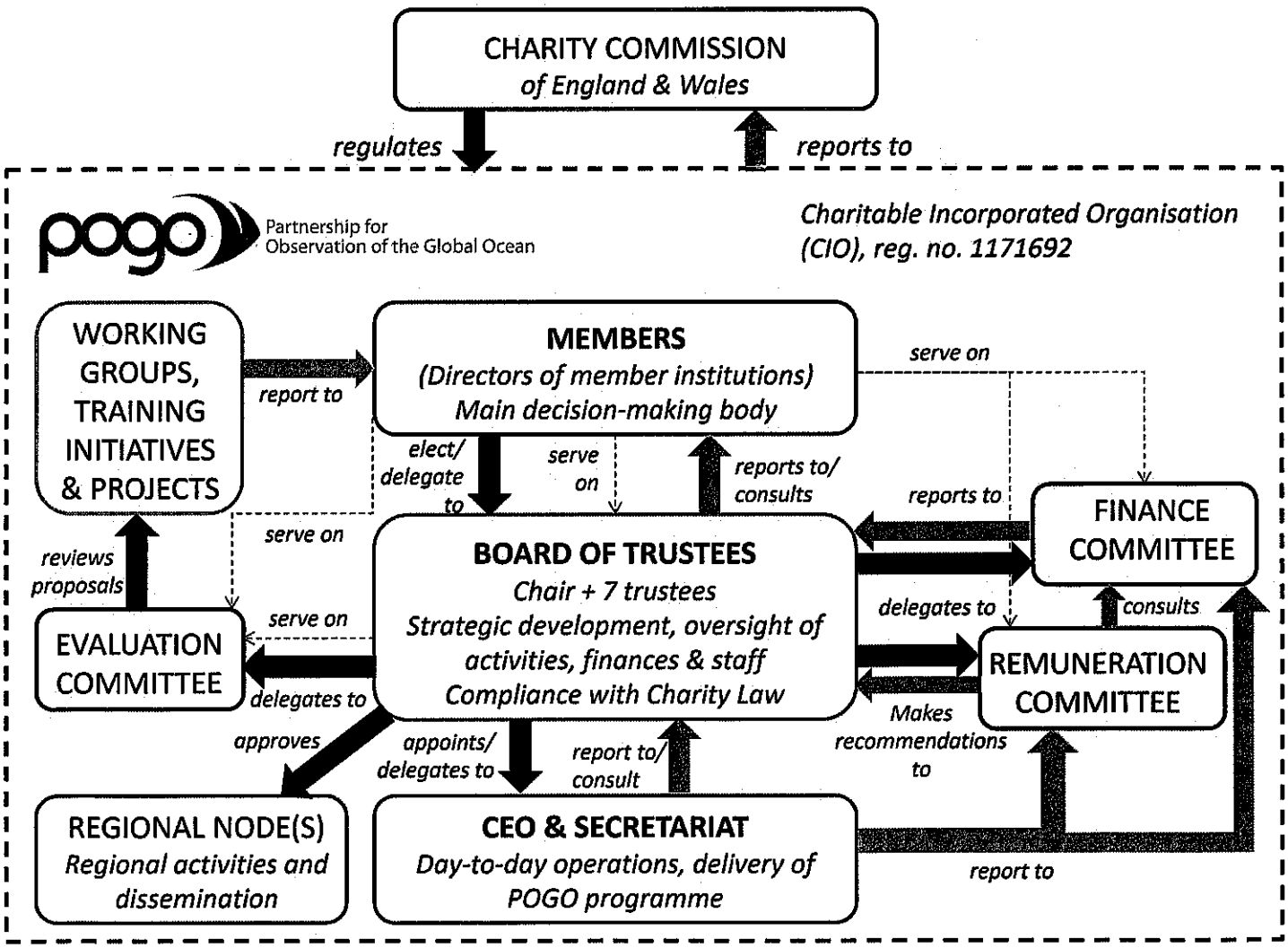
STRUCTURE, GOVERNANCE AND MANAGEMENT (continued)

Organisational structure

Membership of the CIO is open to any oceanographic research institution, educational department or organisation from any part of the world that is interested in furthering the purposes of the CIO. The affairs of the CIO are managed by a Board of Trustees, elected by the members. The day to day operations of the CIO are delegated by the trustees to the CEO and Secretariat. Financial matters are delegated to a Financial Committee, which reports to the Board of Trustees. Oversight of staff performance and salaries is delegated to a Remuneration Committee, which makes recommendations regarding salaries to the Board of Trustees, following consultation with the Finance Committee. At least one trustee serves on these Committees.

In 2024, a new Regional Node was officially launched for the Western Pacific, hosted by the Institute of Oceanology, Chinese Academy of Sciences (IOCAS), which also co-hosts the new POGO Western Pacific Regional Node, together with the First Institute of Oceanography, and the Ocean Decade International Cooperation Centre (ODCC) China. The ODCC will provide support for the operation and maintenance of the Node. The Director and Deputy Director of the regional node rotate between FIO and IOCAS every two years. The Western Pacific Regional Node's duties include identifying and filling data and knowledge gaps of the ocean-climate relationship in the Western Pacific region, coordinating relevant stakeholders nationally and globally to enhance cooperative exchanges in the domains of marine observation, forecasting, disaster prevention and mitigation, and response to global climate change. It will initiate and implement large-scale scientific plans and projects for the Ocean Decade to jointly boost the sustainable development of the ocean under the guidance of POGO.

The governance structure is summarised in the following diagram.



STRUCTURE, GOVERNANCE AND MANAGEMENT (continued)

External review

The first External Review of POGO was conducted in 2024. An External Review Panel, consisting of 6 experts, was appointed by the Board of Trustees. The Panel members were selected to represent a range of POGO stakeholders, including the marine science community (POGO members and non-members), representatives of other international or regional organisations, and other stakeholders. The Panel met several times on-line, as well as during a hybrid meeting in Plymouth, UK, where they also had the opportunity to interact with the POGO Secretariat and former Chair. One member of the Panel also attended the POGO Annual Meeting to interact with the POGO community (members, trustees, alumni, partners...).

Members of the Panel received travel support to attend the POGO-25 Annual Meeting (1), or the Panel Meeting in Plymouth (4), and four of them received a modest honorarium as compensation for their work (the other two were not allowed by their employer to receive any payment).

The POGO Board of Trustees was presented the External Review Panel's report by the Panel Chair, Wendy Watson-Wright, on 20th June 2024. The report and its recommendations were discussed by the Board during the subsequent meeting, and some proposals were put to the membership on 29th August 2024, during an on-line meeting attended by over 30 members. Wendy Watson-Wright also presented the report at that meeting and answered questions from the members.

The Panel's recommendations focused on the following areas:
- Governance/leadership – e.g., strengthening member engagement, particularly at the Director level
- Funding – e.g., reviewing POGO's funding model and elaborating a long-term funding strategy
- Pillars/focus areas – e.g., strengthening Pillar 1 (Innovation in ocean observing) and particularly the focus on ocean technology
- Collaboration – e.g., working more closely with GOOS to define respective roles and enhancing complementarity/collaboration
- Diversity, Equity, and Inclusion – e.g., producing materials in more languages and seeking collaboration with indigenous and coastal communities.

The Board of Trustees and members agreed that the review had produced some valuable insights and recommendations, almost all of which will be (and are already being) actively addressed. In particular, a new format for the POGO Annual Meetings was implemented in Feb 2025. POGO's response to the review has been shared with the Panel and with POGO members.

Induction and training of new trustees

The charity trustees make available to each new trustee a copy of the CIO's constitution and any amendments made to it, as well as a copy of the CIO's latest trustees' annual report and statement of accounts, and the Charity Commission's guidance documents on the role of the trustee. All trustees have previous knowledge of the activities of POGO and are given guidance on their responsibilities as a trustee. Trustees are also invited to training courses on governance, which the charity pays for. These have been attended virtually since 2020, and the trustees found the virtual training mode to be very effective.

REFERENCE AND ADMINISTRATIVE DETAILS

Registered Company number
CE010344 (England and Wales)

Registered Charity number
1171692

Registered office
Plymouth Marine Laboratory
Prospect Place
The Hoe
Plymouth
Devon
PL1 3DH

Trustees
Prof N Owens (Chair) (resigned 24.3.25)
Professor T S Hwai
Captain F A Arias-Isaza
Dr F P Chavez
Dr C G P Chavez
Prof. F Chai
Dr O Pringault
Dr Y Rodrigues (resigned 17.1.25)
Dr A M Waite (appointed 7.3.25)

REFERENCE AND ADMINISTRATIVE DETAILS (continued)

Auditors
TC Group
Statutory Auditors
Harscombe House
1 Darklake View
Plymouth
Devon
PL6 7TL

COMMENCEMENT OF ACTIVITIES

The CIO was formed in February 2017 to take on the activities of a Canadian Society with the same name. The process for transferring operations to the CIO took longer than initially anticipated and operations began in the CIO in July 2018.

GOVERNANCE STATEMENT

The Board of Trustees have had due regard to the principals of recommended practices as set out by the "Charity Governance Code" and have applied these wherever practical and in decision making.

STATEMENT OF TRUSTEES' RESPONSIBILITIES

The trustees are responsible for preparing the Report of the Trustees and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Charity law requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the Charity and of the incoming resources and application of resources, including the income and expenditure, of the Charity for that period. In preparing those financial statements, the trustees are required to

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charity SORP;
- make judgements and estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Charity will continue i business.

STATEMENT OF TRUSTEES' RESPONSIBILITIES

The trustees are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the Charity and to enable them to ensure that the financial statements comply with the charities SORP 2025. They are also responsible for safeguarding the assets of the Charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

In so far as the trustees are aware:

- there is no relevant audit information of which the Charity's auditors are unaware; and
- the trustees have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and t establish that the auditors are aware of that information.

AUDITORS

The auditors, TC Group, will be proposed for re-appointment at the forthcoming Annual General Meeting.

Report of the trustees, incorporating a strategic report, approved by order of the board of trustees, on 27/11/2025 and signed on the board's behalf by:

Captain Francisco A. Arias Isaza - Trustee

Report of the Independent Auditors to the Trustees of Partnership for Observation of the Global Ocean CIO

Opinion

We have audited the financial statements of Partnership for Observation of the Global Ocean CIO (the 'Charity') for the year ended 31 March 2025 which comprise the Statement of Financial Activities, the Statement of Financial Position, the Statement of Cash Flows and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the Charity's affairs as at 31 March 2025 and of its incoming resources and application o resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We are independent of the Charity in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Charity's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the trustees with respect to going concern are described in the relevant sections of this report.

Other information

The trustees are responsible for the other information. The other information comprises the information included in the Annual Report, other than the financial statements and our Report of the Independent Auditors thereon.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Charities (Accounts and Reports) Regulations 2008 requires us to report to you if, in our opinion:

- the information given in the Report of the Trustees is inconsistent in any material respect with the financial statements; or
- the Charity has not kept adequate accounting records; or
- the financial statements are not in agreement with the accounting records and returns; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of trustees

As explained more fully in the Statement of Trustees' Responsibilities, the trustees (who are also the directors of the Charity for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the Charity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the Charity or to cease operations, or have no realistic alternative but to do so.

Report of the Independent Auditors to the Trustees of Partnership for Observation of the Global Ocean CIO

Our responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a Report of the Independent Auditors that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. Irregularities, including fraud, are instances of non-compliance with laws and regulations. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

The objectives of our audit, in respect to fraud, are: to identify and assess the risks of material misstatement of the financial statements due to fraud; to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud, through designing and implementing appropriate responses; and to respond appropriately to fraud or suspected fraud identified during the audit. However, the primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the entity and its management.

Our approach was as follows:
-We identified areas of laws and regulations that could reasonably be expected to have a material effect on the financial statements from our general commercial and sector experience, and through discussion with the directors and other management (as required by auditing standards), and discussed with the directors and other management the policies and procedures regarding compliance with laws and regulations;
-We identified the following areas as those most likely to have such an effect: health and safety; General Data Protection Regulation (GDPR); fraud; bribery and corruption and employment law. Auditing standards limit the required audit procedures to identify non-compliance with these laws and regulations to enquiry of the trustees and other management and inspection of regulatory and legal correspondence, if any.
-We considered the legal and regulatory frameworks directly applicable to the financial statements reporting framework (FRS 102 and the Companies Act 2006 and the Charities Act 2011) and the relevant tax compliance regulations in the UK;
-We considered the nature of the group's operations, the control environment and business performance, including the key drivers for management's remuneration;
-We communicated identified laws and regulations throughout our team and remained alert to any indications of non-compliance throughout the audit;
-We considered the procedures and controls that the group has established to address risks identified, or that otherwise prevent, deter and detect fraud; and how senior management monitors those programmes and controls.

Based on this understanding we designed our audit procedures to identify non-compliance with such laws and regulations. Where the risk was considered to be higher, we performed audit procedures to address each identified fraud risk. These procedures included: testing manual journals; reviewing the financial statement disclosures and testing to supporting documentation; performing analytical procedures; and enquiring of management, and were designed to provide reasonable assurance that the financial statements were free from fraud or error.

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations (irregularities) is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it. The risk is also greater regarding irregularities occurring due to fraud rather than error, as fraud involves intentional concealment, forgery, collusion, omission or misrepresentation. We are not responsible for preventing non-compliance and cannot be expected to detect non-compliance with all laws and regulations.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at www.frc.org.uk/auditorsresponsibilities. This description forms part of our Report of the Independent Auditors.

Use of our report

This report is made solely to the Charity's trustees, as a body, in accordance with Part 4 of the Charities (Accounts and Reports) Regulations 2008. Our audit work has been undertaken so that we might state to the Charity's trustees those matters we are required to state to them in an auditors' report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Charity and the Charity's trustees as a body, for our audit work, for this report, or for the opinions we have formed.

TC Group
Statutory Auditors
Eligible to act as an auditor in terms of Section 1212 of the Companies Act 2006
Harscombe House
1 Darklake View
Plymouth
Devon
PL6 7TL

Date: 28-11-25

Partnership for Observation of the Global Ocean CIO T/A POGO

Statement of Financial Activities For The Year Ended 31 March 2025

	Notes	Unrestricted fund £	Restricted funds £	31.3.25 Total funds £	31.3.24 Total funds £
INCOME AND ENDOWMENTS FROM					
Donations and legacies	2	**17,036**	-	**17,036**	-
Charitable activities	4				
Centre of Excellence		-	**420,875**	**420,875**	441,568
Shipboard Training		-	**104,250**	**104,250**	-
Subscriptions		**218,954**	-	**218,954**	230,776
Fellowship programme		-	**9,775**	**9,775**	-
Investment income	3	**9,609**	-	**9,609**	3,089
Total		**245,599**	**534,900**	**780,499**	675,433
EXPENDITURE ON					
Charitable activities	5				
Centre of Excellence		-	**444,423**	**444,423**	343,493
NANO activities		-	**55,400**	**55,400**	113,894
Shipboard training		-	**134,632**	**134,632**	26,828
POGO activities		**270,470**	**5,123**	**275,593**	261,799
Fellowship programme		**7,519**	**9,775**	**17,294**	20,174
Citizen Observation of Local Litter in Coastal ECosysTems		-	-	-	12,322
Total		**277,989**	**649,353**	**927,342**	778,510
NET INCOME/(EXPENDITURE)		**(32,390)**	**(114,453)**	**(146,843)**	(103,077)
RECONCILIATION OF FUNDS					
Total funds brought forward		**323,762**	**164,160**	**487,922**	590,999
TOTAL FUNDS CARRIED FORWARD		**291,372**	**49,707**	**341,079**	487,922

The notes form part of these financial statements

Partnership for Observation of the Global Ocean CIO T/A POGO

Statement of Financial Position 31 March 2025

	Notes	Unrestricted fund £	Restricted funds £	31.3.25 Total funds £	31.3.24 Total funds £
CURRENT ASSETS					
Debtors	10	**112,038**	**2,677**	**114,715**	9,454
Cash at bank		**274,609**	**310,957**	**585,566**	885,185
		386,647	**313,634**	**700,281**	894,639
CREDITORS					
Amounts falling due within one year	11	**(95,275)**	**(263,927)**	**(359,202)**	(406,717)
NET CURRENT ASSETS		**291,372**	**49,707**	**341,079**	487,922
TOTAL ASSETS LESS CURRENT LIABILITIES		**291,372**	**49,707**	**341,079**	487,922
NET ASSETS		**291,372**	**49,707**	**341,079**	487,922
FUNDS					
Unrestricted funds				**291,372**	323,762
Restricted funds				**49,707**	164,160
TOTAL FUNDS				**341,079**	487,922

The financial statements were approved by the Board of Trustees and authorised for issue on 27/11/2025 and were signed on its behalf by:

Captain Francisco A. Arias Isaza - Trustee

The notes form part of these financial statements

Partnership for Observation of the Global Ocean CIO T/A POGO

Statement of Cash Flows For The Year Ended 31 March 2025

	Notes	31.3.25 £	31.3.24 £
Cash flows from operating activities			
Cash generated from operations	1	(309,228)	(419,018)
Net cash used in operating activities		(309,228)	(419,018)
Cash flows from investing activities			
Interest received		9,609	3,087
Net cash provided by investing activities		9,609	3,087
Change in cash and cash equivalents in the reporting period		(299,619)	(415,931)
Cash and cash equivalents at the beginning of the reporting period		885,185	1,301,116
Cash and cash equivalents at the end of the reporting period		585,566	885,185

The notes form part of these financial statements

Notes to the Statement of Cash Flows
For The Year Ended 31 March 2025

1. RECONCILIATION OF NET EXPENDITURE TO NET CASH FLOW FROM OPERATING ACTIVITIES

	31.3.25 £	31.3.24 £
Net expenditure for the reporting period (as per the Statement of Financial Activities)	**(146,843)**	(103,077)
Adjustments for:		
Interest received	**(9,609)**	(3,087)
Increase in debtors	**(105,261)**	(2,118)
Decrease in creditors	**(47,515)**	(310,736)
Net cash used in operations	**(309,228)**	(419,018)

2. ANALYSIS OF CHANGES IN NET FUNDS

	At 1.4.24 £	Cash flow £	**At 31.3.25 £**
Net cash			
Cash at bank	**885,185**	**(299,619)**	**585,566**
	885,185	**(299,619)**	**585,566**
Total	**885,185**	**(299,619)**	**585,566**

The notes form part of these financial statements

1. ACCOUNTING POLICIES

Basis of preparing the financial statements

The financial statements of the Charity, which is a public benefit entity under FRS 102, have been prepared in accordance with the Charities SORP (FRS 102) 'Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019)', Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland'. The financial statements have been prepared under the historical cost convention. The charity constitutes a public benefit entity as defined by FRS 102.

The trustees consider there are no material uncertainties about the charity's ability to continue as a going concern. These financial statements are prepared on a going concern basis. The financial statements are prepared in sterling which is the functional currency of the charity and rounded to the nearest £1.

The significant accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all years presented unless stated otherwise.

Income

The charity receives annual subscriptions from its members in alignment with the financial year. Any subscriptions billed in advance are deferred and recognised in the following financial period.

Grant income is recognised in the Statement of Financial Activities once the charity has entitlement to the funds, it is probable that the income will be received and the amount can be measured reliably.

All other income is recognised once the charity has entitlement to the funds, it is probable that the income will be received and the amount can be measured reliably.

Expenditure

Liabilities are recognised as expenditure as soon as there is a legal or constructive obligation committing the charity to that expenditure, it is probable that a transfer of economic benefits will be required in settlement and the amount of the obligation can be measured reliably. Expenditure is accounted for on an accruals basis and has been classified under headings that aggregate all cost related to the category. Where costs cannot be directly attributed to particular headings they have been allocated to activities on a basis consistent with the use of resources.

Grants offered subject to conditions which have not been met at the year end date are noted as a commitment and accrued as an expense.

Allocation and apportionment of costs

All costs that can be directly associated with a charitable activity have been attributed to the activity.

Support costs are those that assist the work of the charity but do not directly undertake charitable activities. Governance costs involving the public accountability of the charity and its compliance with regulation and good practice include costs relating to statutory examinations and legal fees.

Finance costs include all expenses incurred for operation of the charity's bank accounts as well and the total foreign exchange gain or loss the charity has achieved or suffered in the financial period.

Taxation

The charity is exempt from corporation tax on its charitable activities.

Fund accounting

Unrestricted funds can be used in accordance with the charitable objectives at the discretion of the trustees.

Restricted funds can only be used for particular restricted purposes within the objects of the charity. Restrictions arise when specified by the donor or when funds are raised for particular restricted purposes.

Further explanation of the nature and purpose of each fund is included in the notes to the financial statements.

Foreign currencies

Assets and liabilities in foreign currencies are translated into sterling at the rates of exchange ruling at the statement of financial position date.

Transactions in foreign currencies are translated into sterling at the average rate of exchange ruling for the year. Resulting exchange differences are taken into account in arriving at the operating result.

continued...

1. ACCOUNTING POLICIES - continued

Donated goods
Donated goods are provided in the form of office space with Plymouth Marine Laboratory. The relationship remains healthy and the trustees feel this service will be provided for the foreseeable future.

2. DONATIONS AND LEGACIES

	31.3.25	31.3.24
	£	£
Donations	17,036	-

3. INVESTMENT INCOME

	31.3.25	31.3.24
	£	£
Deposit account interest	9,609	3,089

4. INCOME FROM CHARITABLE ACTIVITIES

	Activity	31.3.25	31.3.24
		£	£
Grants	Centre of Excellence	420,875	441,568
Grants	Shipboard Training	104,250	-
Grants	Fellowships	9,775	-
Subscriptions	Subscriptions	218,954	230,776
		753,854	672,344

Grants received, included in the above, are as follows:

	31.3.25	31.3.24
	£	£
Scientific Committee on Oceanic Research	9,775	-
Nippon Foundation	420,875	441,568
OceanQuest	104,250	-

5. CHARITABLE ACTIVITIES COSTS

	Direct Costs	Grant funding of activities (see note 6)	Support costs (see note 7)	Totals
	£	£	£	£
Centre of Excellence	80,402	364,021	-	444,423
NANO activities	3,510	51,890	-	55,400
Shipboard training	2,425	132,207	-	134,632
POGO activities	29,302	49,029	197,262	275,593
Fellowship programme	-	17,294	-	17,294
	115,639	614,441	197,262	927,342

continued...

6. GRANTS PAYABLE

The total amount awarded to institutions was £412,851 (2024: £60,599), those institutions are listed below:

Alfred-Wegener Institute
Institute of Oceanology, Chinese Academy of Sciences
Hangzhou shallow-sea technology Co. LTD
Istituto Nazionale di Oceanografia e di Geofisica Sperimentale
University of Tasmania
Plymouth Marine Laboratory
Indian National Centre for Ocean Information Services
Ensenada Center for Scientific Research and Higher Education
University of Kara
Dalhousie Univeristy
Universidad De Concepcion
Instituto de Investigaciones Marinas y Costeras
Institut de Recherche pour le développement
University of Ghana College of Basic and Applied Sciences
Isituto Nazionale di Oceanografia e di Geofisica
South African Environmental Observation Network
Shahjalal University of Science and Technology

Grants paid to the Alfred-Wegener Institute are for the provision of the Centre of Excellence, which provides scholarship training to improve the global knowledge regarding ocean observation.

Grants paid to Institute of Oceanology, Chinese Academy of Sciences was for the subsurface mooring training course.

Grants paid to Hangzhou shallow-sea technology Co. Ltd are for training workshops on principles and applications of BGC-ARGO.

Grants paid to the Isituto Nazionale di Oceanograpfia e di Geofisica Sperimentale are for the provision of Open Access Marine Observation Devices (OpenMODS), which helps provide access to important ocean data to less developed countries.

Grants paid to the University of Tasmania are for the coastal marine heatwave interdisciplinary research group.

Grants paid to the Indian National Centre for Ocean Information Services are to conduct the training programme on 'Ocean Observations to Societal Applications'

Grants paid to the Plymouth Marine Laboratory are for participants travel and subsistence costs for Action for Sustainable Ocean Acidification Research (ASOAR) and project costs in relation to Citizen Observation of Local Litter in Coastal ECosysTems.

Grants paid to the Ensenada Center for Scientific Research and Higher Education are for the Gulf of Mexico Oceanographic and Meteorological Observation Group (GMOMOG).

Grants paid to the University of Kara are for the reimbursement of travel and accommodation costs for trainees and instructors, including catering and field trips.

Grants paid to the Dalhousie University are for the provision of start up costs for the Centre

Grants paid to the Universidad de Concepcion are to form a consortium for surveying the coastal ocean in the eastern South Pacific.

Grants paid to Instituto de Investigaciones Marinas y Costeras are towards identifying environmental laboratories as well as practitioners within the Latin America and the Caribbean region, which has not been involved in the use of high technology in their conservation and decision-making strategies, with the purpose of providing technical and scientific capacities that would allow them to access to more reliable tools such as the eDNA biomonitoring.

Grants paid to Institut de Recherche pour le développement are for generating reference DNA barcodes for West African marine fishes.

Grants paid to University of Ghana College of Basic and Applied Sciences are towards a coastal observing Lab.

continued...

6. GRANTS PAYABLE - continued

Grants paid to Isituto Nazionale di Oceanografia e di Geofisica are for development of a low-cost hydrophone for research, education and community science.

Grants paid to the South African Environmental Observation Network are towards funding for an EOV and impact based Boundary Currents Ocean Observing System.

Grants paid to Shahjalal University of Science and Technology are to pay the expenses for the activities related to training regarding statistical analysis of oceanographic data.

Grants paid to individuals are for the reimbursement of travel expenses, workshops and equipment to allow less developed countries access to the best training courses and events to improve global knowledge of ocean.

The total amount awarded to individuals was £201,590 (2024: £145,526) and the number of individual beneficiaries was 73 (2024: 62).

7. SUPPORT COSTS

	Management	Finance	Governance costs	Totals
	£	£	£	£
POGO activities	**186,483**	**765**	**10,014**	**197,262**

8. NET INCOME/(EXPENDITURE)

Net income/(expenditure) is stated after charging/(crediting):

	31.3.25	31.3.24
	£	£
Auditors' remuneration	**6,008**	5,720
Auditors' remuneration for non audit work	**4,006**	3,808
Foreign Exchange (gain)/loss	**13,152**	33,168

9. TRUSTEES' REMUNERATION AND BENEFITS

There were no trustees' remuneration or other benefits for the year ended 31 March 2025 nor for the year ended 31 March 2024.

Trustees' expenses

During the year there were expenses of £10,199 paid to trustees. (2024 - £875)
This related to 4 trustees travel expenses to attend meetings held throughout the year.

10. DEBTORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	31.3.25	31.3.24
	£	£
Trade debtors	**8,348**	8,656
Accrued income	**104,250**	-
Prepayments	**2,117**	798
	114,715	9,454

continued...

11. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	31.3.25	31.3.24
	£	£
Trade creditors	84,635	322,344
Other creditors	796	1,050
Accruals and deferred income	263,757	-
Accrued expenses	10,014	83,323
	359,202	406,717

12. MOVEMENT IN FUNDS

	At 1.4.24	Net movement in funds	At 31.3.25
	£	£	£
Unrestricted funds			
General fund	323,762	(32,390)	291,372
Restricted funds			
Nippon Foundation Grant	164,160	(117,130)	47,030
OceanQuest	-	2,677	2,677
TOTAL FUNDS	487,922	(146,843)	341,079

Net movement in funds, included in the above are as follows:

	Incoming resources	Resources expended	Movement in funds
	£	£	£
Unrestricted funds			
General fund	245,599	(277,989)	(32,390)
Restricted funds			
Nippon Foundation Grant	420,875	(538,005)	(117,130)
SCOR fellowship	9,775	(9,775)	-
OceanQuest	104,250	(101,573)	2,677
	534,900	(649,353)	(114,451)
TOTAL FUNDS	776,559	(927,342)	(146,843)

Comparatives for movement in funds

	At 1.4.23	Net movement in funds	At 31.3.24
	£	£	£
Unrestricted funds			
General fund	367,480	(43,718)	323,762
Restricted funds			
Nippon Foundation Grant	211,197	(47,037)	164,160
Richard Lounsbery Foundation	12,322	(12,322)	-
	223,519	(59,359)	164,160
TOTAL FUNDS	590,999	(103,077)	487,922

continued...

12. MOVEMENT IN FUNDS - continued

Comparative net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	233,864	(277,582)	(43,718)
Restricted funds			
Nippon Foundation Grant	441,569	(488,606)	(47,037)
Richard Lounsbery Foundation	-	(12,322)	(12,322)
	441,569	(500,928)	(59,359)
TOTAL FUNDS	675,433	(778,510)	(103,077)

A current year 12 months and prior year 12 months combined position is as follows:

	At 1.4.23 £	Net movement in funds £	At 31.3.25 £
Unrestricted funds			
General fund	367,480	(76,108)	291,372
Restricted funds			
Nippon Foundation Grant	211,197	(164,167)	47,030
Richard Lounsbery Foundation	12,322	(12,322)	-
OceanQuest	-	2,677	2,677
	223,519	(173,810)	49,709
TOTAL FUNDS	590,999	(249,920)	341,079

A current year 12 months and prior year 12 months combined net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	479,463	(555,571)	(76,108)
Restricted funds			
Nippon Foundation Grant	862,444	(1,026,611)	(164,167)
Richard Lounsbery Foundation	-	(12,322)	(12,322)
SCOR fellowship	9,775	(9,775)	-
OceanQuest	104,250	(101,573)	2,677
	976,469	(1,150,281)	(173,810)
TOTAL FUNDS	1,451,992	(1,701,912)	(249,920)

continued...

12. MOVEMENT IN FUNDS - continued

NIPPON Foundation Fund - Activities related to the delivery of the Centre of Excellence, the Global NANO project and Shipboard Training and outreach programme. During the period, residual funds from prior years were agreed to be repaid to the grant provider and are therefore included in the funds movement for the period.

Richard Lounsbery Foundation Fund - Activities related to the delivery of the Citizen Observation of Local Litter in Coastal EcosysTems programme.

Scientific Committee on Oceanic Research - Activities related to the promotion of training and capacity building leading towards a global observation scheme for the oceans.

Minderoo Foundation Trust Fund - Activities for the purpose of supporting a dedicated workshop on Environmental DNA technology for fisheries Management. The activity is scheduled to talk place later in 2025 and therefore the income has been deferred in full.

OceanQuest - Activities related to the shipboard training for early career ocean professionals on board the OceanX research vessel OceanXplorer.

13. RELATED PARTY DISCLOSURES

There were no related party transactions for the year ended 31 March 2025.

14. OTHER DISCLOSURES

During the period Plymouth Marine Laboratories gave POGO free use of office space in lieu of membership fees. This has been reflected in the accounts at a value of £3,940 (2024: £4,750), being the membership fees that would have been paid without the agreement.

Partnership for Observation of the Global Ocean CIO T/A POGO

Detailed Statement of Financial Activities For The Year Ended 31 March 2025

	31.3.25 £	31.3.24 £
INCOME AND ENDOWMENTS		
Donations and legacies		
Donations	**17,036**	-
Investment income		
Deposit account interest	**9,609**	3,089
Charitable activities		
Subscriptions	**218,954**	230,776
Grants	**534,900**	441,568
	753,854	672,344
Total incoming resources	**780,499**	675,433
EXPENDITURE		
Charitable activities		
Insurance	**467**	448
Events and associated travel	**28,395**	22,836
Outreach materials	**773**	2,557
Website development	**2,124**	5,104
Project administration	**70,728**	75,691
Foreign exchange (gain)/loss	**13,152**	33,168
Residual grant returns	**-**	256,666
Grants to institutions	**412,851**	60,599
Grants to individuals	**201,590**	145,526
	730,080	602,595
Support costs		
Management		
Trustees' expenses	**10,199**	875
Office rent	**3,940**	4,750
Annual Meetings	**9,761**	6,569
Postage and stationery	**13**	95
Travel	**6,674**	5,722
Staff training	**49**	1,094
Subscriptions	**2,409**	1,956
Contribution to key management personnel	**153,438**	144,432
	186,483	165,493
Finance		
Bank charges	**765**	894
Governance costs		
Auditors' remuneration	**6,008**	5,720
Auditors' remuneration for non audit work	**4,006**	3,808
	10,014	9,528

Partnership for Observation of the Global Ocean CIO T/A POGO

Detailed Statement of Financial Activities For The Year Ended 31 March 2025

	31.3.25 £	31.3.24 £
Total resources expended	**927,342**	778,510
Net expenditure	**(146,843)**	(103,077)

PARTNERSHIP FOR OBSERVATION OF THE GLOBAL OCEAN

England & Wales - Charity number 1171692

Accounts

REGISTERED COMPANY NUMBER: CE010344 (England and Wales)
REGISTERED CHARITY NUMBER: 1171692

Report of the Trustees and

Financial Statements

For The Year Ended 31 March 2024

for

Partnership for Observation of the Global Ocean CIO T/A POGO

tc accounts · tax · legal · financial planning

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Northarbour Road
Cosham
Portsmouth
Hampshire
United Kingdom
PO6 3TH

Partnership for Observation of the Global Ocean CIO T/A POGO

Contents of the Financial Statements For The Year Ended 31 March 2024

Partnership for Observation of the Global Ocean CIO T/A POGO

Report of the Trustees For The Year Ended 31 March 2024

The trustees present their report with the financial statements of the charity for the year ended 31 March 2024. The trustees have adopted the provisions of Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019).

OBJECTIVES AND ACTIVITIES

Objectives and aims

The charity aims to bring together the world's major oceanographic institutes to plan joint actions to advance sustained ocean observations for societal benefit. POGO institutes are motivated by a common belief that advancing scientific understanding of the ocean is rooted in making systematic, high quality measurements. They believe that this understanding and its wise use are critical to, and will make a real positive difference in, enabling humanity to develop a sustainable relationship with a healthy, productive and biologically diverse ocean. POGO is further motivated by the shared belief that its vision can only be realised by working together across the world, where we can achieve together what none of us could do alone.

The ocean produces half of the world's oxygen, most of its fresh water and much of its food. It regulates climate and weather, is critical to the cycling of heat, water and carbon. It is the source of huge biodiversity. However, far too little is known about the state and functioning of the ocean. Accordingly, scientifically sound study of the ocean and support and advocacy for such study (and for the conclusions drawn from it) is of vital importance to mankind. POGO seeks to expand international support for ocean observing, through innovation of the ocean observing system, capacity development and outreach/advocacy.

In terms of innovation, POGO members are at the forefront of oceanographic methods and technology development, often in partnership with industry. Thus, POGO is in a critical position to identify the emerging methods and technologies that POGO members are developing and using, and highlighting those that can be expanded and deployed on a global scale to achieve global datasets obtained using comparable methods. POGO also focusses on the affordability issues associated with ocean observing, particularly for developing countries, and is therefore engaged in projects to develop low-cost sensors and systems for coastal ocean observing. The societies and economies of many developing countries rely heavily on the ocean, for example through coastal tourism, trade infrastructure, natural resource extraction, and small-scale and industrial fisheries and aquaculture. However, extreme weather events, sea-level rise, tsunamis, harmful algal blooms and water pollution threaten the world's poorest and most vulnerable coastal and island communities. Ocean observations and information services can be used to improve human health and safety and food security, support livelihoods and small-scale economic activities (artisanal fisheries and aquaculture, coastal tourism), and improve climate resilience and disaster risk reduction.

POGO also recognises that the expertise for conducting ocean observations is not evenly distributed between countries, and therefore the ocean is unevenly observed, with a much higher density of observations conducted in the North Atlantic and North Pacific, than in, for example, the South Atlantic, South Pacific and Indian Oceans. POGO therefore provides professional training opportunities for early-career scientists, mainly from coastal developing countries, to expand the worldwide capacity for conducting sustained ocean observations, data collection, analysis and management, and interpreting the scientific results for the benefit of society.

Many actors, working together internationally, are needed to bring about sustainable management of the oceans that is informed by sound science, underpinned by a comprehensive global ocean measurement system. These include national governments, non-governmental organisations, the wider scientific community, funders of research and monitoring programmes, and individual citizens working individually and collectively. POGO highlights the societal need for ocean observations, as well as the key issues facing global ocean observing, and the obstacles hampering the completion of a global ocean observing system, and brings these issues to the relevant stakeholder groups outlined above.

The objects of the CIO are to advance the science of global ocean observation for the public benefit, in particular (but not exclusively) by:

i. Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation;

ii. The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research;

iii. The provision of scholarships and research fellowships;

iv. The promotion of innovation and technology in the science of global ocean observation.

In the short term, POGO aims to provide training for early-career scientists, to develop the next generation of scientists and ocean observers, as well as to raise the levels of awareness and education about the importance of the ocean and ocean observing for society. Measures of success include numbers of trainees, numbers of countries having received training, numbers of website visits and downloads of outreach materials, mentions on social media and other statistics.

The longer-term vision is to develop the capacity of research institutions in developing countries to conduct ocean observations, by (1) integrating the trained scientists and their institutions into the POGO network and having them actively participate in POGO projects, (2) sharing best practices among POGO member institutions, and (3) contributing to the development and dissemination of low-cost instrumentation for coastal ocean observing. Measures of success include numbers of POGO members and numbers of new (developing) countries being added to the network, establishment of new ocean observing systems in those countries, and demonstrated long-term impacts of the training programmes (e.g. >5 years after the training, on institutional capacity and continued knowledge-transfer).

Significant activities
The CIO has been working towards the stated aims and charitable objects in the following ways:

i. **Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation**: this has been achieved by supporting Working Groups on specific topics related to ocean observation, such as the Biological Observations WG, which led a proposal to the UN Decade of Ocean Science for Sustainable Development for an "Ocean Biomolecular Observing Network" (OBON).

ii. **The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such researc**h: this has been achieved through POGO's outreach and advocacy initiatives, through printed, on-line and social media and in particular the creation of ocean observing case studies. POGO completed a citizen science project on coastal litter with field work and outreach activities in 6 African countries and Malaysia. POGO also participated in the COP28 Climate Conference, with an exhibition booth and side events in Dubai in Nov-Dec 2023.

iii. **The provision of scholarships and research fellowships**: scholarships and fellowships have been provided to 25 early-career scientists for training/education periods of between 1 and 10 months during this financial year;

iv. **The promotion of innovation and technology in the science of global ocean observation**: this has been conducted mainly through two innovation projects focussing on developing low-cost instrumentation for ocean observing aimed at developing countries and citizen science.

More detailed information on these activities can be found below, under the heading "Achievement and Performance".

Public benefit
The trustees have complied with their duty, as set out in the Charities Act 2011, with regard to the public benefit guidance published by the Charity Commission.

The CIO has been working towards achieving its charitable objectives, delivering benefit to the wider public through its work to advance sustained ocean observations.

OBJECTIVES AND ACTIVITIES

Grantmaking

POGO allocates some of its funds (received from charitable foundations and/or membership dues) to help support ocean observation activities (e.g. through Working Groups) and to provide training for early-career scientists (generally in developing countries). POGO has a set of policies and procedures for allocating such grants, which are summarised below.

POGO issues a call to its members, generally once per year, for proposals for Working Groups, workshops, travel grants, training initiatives and other activities that are directly relevant to POGO's core mission, i.e. sustained, long-term ocean observing systems and shared use of infrastructure, data and information. This includes a template for applicants to complete and submit to the POGO Secretariat. Proposals must be submitted by members of POGO, although participants can be from other institutes if necessary. If a Working Group or other initiative wishes to be funded for a second year, a request for extension must be submitted, using the template provided, by the same deadline as the new proposals. A sub-committee of POGO members (who do not have conflicts of interest) reviews the proposals, according to a number of criteria, e.g. relevance to POGO's Strategy and priority areas; timeliness of proposal; adequacy of proposed deliverables and milestones; adequacy of WG/project membership (including geographic and gender balance). For training initiatives, the expected impact of the training and proposed methods for evaluating success are also taken into account. The Committee then makes recommendations to the Board of Trustees on the proposal(s) to take forward, depending on the available budget. The availability of other funding sources is not a determining factor in the selection process.

POGO and the Nippon Foundation have set up the NF-POGO Alumni Network for the Ocean (NANO) to maximise the benefits to the alumni from the training received and facilitate active contacts among the alumni. Through POGO, the Nippon Foundation funds modest regional and global research projects and public outreach projects. Proposals are received in response to an open call, and funding is renewed for successive years based on performance. The projects are selected according to the following criteria:

(1) Projects should have an observational/applied focus (not "blue skies" research)
(2) They should have a societal benefit focus
(3) They should add value to and build upon existing programmes/projects
(4) Funding should be used mainly for coordination (but also consumables, field work, modest equipment).
(5) Projects should be coordinated by NANO alumni but participants can be a mixture of alumni and external scientists. They should be supported by senior mentors and endorsed by the participating institutes' senior management.
(6) They should include a minimum of two different countries, preferably more.

POGO also offers scholarships/fellowships to individuals, both through the Nippon Foundation grant and using its own funds as well as a grant from the Scientific Committee on Oceanic Research (SCOR). These fellowships all operate following similar procedures, i.e. an announcement and call for applications is made, which is open to anyone who fulfils the country and scientific background/career stage requirements (e.g. Official Development Assistance recipient countries, early-career scientists, but not just those affiliated with POGO member institutions). An impartial committee composed of one or two members of the POGO Secretariat, representatives of any partner organisations and/or other experts from the scientific community (often involved in teaching/supervising students) is assembled to review the applications, based on a set of criteria such as quality of the applicant (education/experience/potential), quality of the training proposal or motivation letter, quality of the host institute (if applicable), relevance to POGO and to the priority areas identified in the call for proposals, and potential for sustained capacity building in the host institute/country. The scores are then totalled, and a number of top-ranked applicants are selected according to the budget available, with consideration given to gender and geographical balance, as well as occasionally other factors such as whether the candidate has received POGO funding previously.

STRATEGIC REPORT

Achievement and performance

Charitable activities

POGO Communication Strategy:

POGO has continued to increase its visibility through its web presence, social media and representation at international meetings (both virtual and in-person). Specifically, POGO was represented by Secretariat staff, trustees or members, at:

- Eurofleets + Alumni Forum Workshop - on-line (May 2023)
- Deep Ocean Observing Strategy (DOOS) Annual Virtual Meeting (May 2023)
- OCEANS 2023 - in-person (Limerick, Ireland, June 2023)
- AtlantOS-GOOS Workshop on low-cost ocean observing technologies - on-line (June 2023)
- Trends, Reflections, Evolution, and Visions in Ocean Research (TREVOR) Symposium -in person (Plymouth, UK, Aug 2023)
- West Africa Marine Science Symposium (WAMSS) - in person (Accra, Ghana, Aug 2023)
- SCOR Annual Meeting - on-line (Oct 2023)
- UNFCCC Climate Conference COP28 - in person (Nov-Dec 2023)
- IAEA Workshop on capacity building methodology for ocean acidification - on-line (March 2024)
- Various planning meetings and webinars for the UN Decade of Ocean Science for Sustainable Development -virtual.

POGO representatives also contributed to various planning and oversight committees:

- International Quiet Ocean Experiment (IQOE) Leadership Group and Science Committee
- Ocean Info Hub Steering Group
- Ocean Biomolecular Observing Network (OBON) Scientific Advisory Committee and Executive Committee
- Executive Committee for the "Frontiers in Ocean Observing" Oceanography Magazine Supplement
- World Association of Marine Stations Steering Committee
- UN Ocean Decade Vision 2030 Challenge 2 Working Group
- UN Decade of Ocean Science for Sustainable Development Strategic Communications Group
- University Arts London UNESCO x Climate Academy Judging Panel
- West Africa Marine Science Symposium Organising Committee
- All-Atlantic Floating University Network (@SeaNetwork) Advisory Committee
- Trevor Platt Fund (UK) Committee
- TREVOR Symposium Organising Committee
- NF-POGO Centre of Excellence at OFI Executive Management Committee

Presentations were given on POGO at several of the above events. POGO information packs have also been sent to a number of prospective members.

The second interactive POGO Annual Report has been published, covering the period Sept 2022 to August 2023. This was released in December 2023 and printed copies distributed at the POGO Annual Meeting in January 2024.

The POGO website has continued to be developed and updated with more information on how our members contribute to GOOS, new additions to the interactive timeline of POGO's history, and additions to the ocean observing case studies page. POGO maintains an active social media presence on Twitter (@POGO_Ocean), Facebook (/POGO.Ocean/), Instagram (/pogo_ocean) and LinkedIn (/pogo_ocean), as well as a minor presence on YouTube. Social media continues to be an excellent means to share news and information with an interested and interactive audience. In addition, the secretariat runs or shares responsibility for the following Twitter accounts: Ocean Training Partnership, NANO Network, and OBON.

Object 1: Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation:

Progress has been achieved by providing grants for Working Groups (WGs), through the Ocean Biomolecular Observing Network (OBON), endorsed by the UN Decade of Ocean Science for Sustainable Development, the POGO and SCOR-sponsored International Quiet Ocean Experiment (IQOE), and the continuation of a Nippon Foundation-POGO Alumni Network for the Ocean (NANO) Global Project.

Ocean Biomolecular Observing Network:

POGO is the lead organisation for OBON, a UN Ocean Decade programme endorsed in June 2021, which aims to utilise biomolecular technologies to monitor, research and understand life in the sea at every trophic level and scale, how life varies in response to climate and anthropogenic impacts, including fisheries, and how these changes impact society. This high-level objective is broken down into the following four more detailed objectives:

" To build a coastal-to-open ocean multi-omics biodiversity observing system over the Ocean Decade.
" To develop and transfer capacity so as to initiate additional marine biomolecular observation activities through training programs combined with funded equipment programs supported by development/aid agencies and philanthropy.
" To enhance marine ecosystem models (including new modelling based on machine learning) by adding biomolecular components so the models can utilize data collected from the coordinated molecular observations and generate 4D multi-omic biodiversity seascapes.
" To address pressing scientific, management, and policy questions linked to the state and dynamics of life in the ocean, including exploited resources and those affected by other pressures.

This year POGO has continued to support the development of OBON, through Secretariat support, as well as the provision of salary for a part-time Programme Assistant (July-Nov 2023) and financial support for a hybrid meeting of the OBON Science Advisory Council (SAC) and OBON projects in Sept 2023 (mostly funded by a grant from the Richard Lounsbery Foundation).

Highlights:
" Further development of SAC, with new members appointed from USA and Japan.
" Establishment of a smaller Executive Committee in July 2023, which has been meeting every two weeks.
" Endorsement of another 4 UN Decade Projects (see https://www.oceandecade.org/actions/ocean-biomolecular-observing-network-obon/)
" Project meetings held in virtual mode in April 2023 and in hybrid mode in Plymouth, UK (Sept 23).
" Satellite event accepted for the UN Ocean Decade Conference in collaboration with the Marine Life 2030 programme
" OBON Strategy finalised in March 2023.
" New website under development and newsletters issued in Aug and Nov 2023.

International Quiet Ocean Experiment (IQOE)

Funding (10K GBP) allocated by POGO in 2020 to support the development of the Ocean Sound Essential Ocean Variable Implementation Plan

POGO and SCOR have been co-sponsoring the International Quiet Ocean Experiment (IQOE) since 2011, with seed funding from the Sloan Foundation and subsequent support for activities provided by the Richard Lounsbery Foundation. IQOE is an international scientific programme to promote research, observations, and modelling to improve understanding of ocean soundscapes and effects of sound on marine organisms. IQOE is nearing the end of its 10-year life span and the IQOE Science Committee (SC) has been focussing this year on assessing IQOE's progress against the original objectives, as well as discussing what IQOE should aim to achieve in its last 2-3 years, and what the project's legacy should be.

Highlights:

o The IQOE SC met on 26-27 April 2023, at WHOI, USA, chaired by Peter Tyack. All 10 SC members participated either in person or remotely. Meeting participants reviewed ongoing IQOE activities, evaluated the progress of IQOE after 8 years, and planned for the coming year. The meeting concluded with a discussion of future activities of IQOE. Participants agreed that IQOE has provided a unique framework for developing international cooperation on ocean acoustics and bioacoustics, and has built a foundation that will be important for the next several years of IQOE implementation (see IQOE self-appraisal).
o Following the development of the Ocean Sound Essential Ocean Variable (EOV) Specification Sheet by a POGO-IQOE Working Group and its acceptance by the Global Ocean Observing System (GOOS), IQOE was given the responsibility for the implementation of this EOV. A committee was formed in 2020 to write an Implementation Plan for the Ocean Sound EOV, with support from POGO and SCOR. During 2022-23, the Implementation Plan was made publicly available for community review and underwent several rounds of editing and internal review, before approval by POGO and SCOR. The Plan was published in November 2023.
o Following the Virtual IQOE Workshop on Low?Cost, Self?contained Underwater Acoustic Recording Systems in Dec 2021, a Working Group has been established on Low-Cost Hydrophones for Research, Education and Citizen Science, chaired by Lucille Chapuis (University of Bristol, UK). The WG has met several times on-line and has been exploring possible sources of funding for the low-cost hydrophone development. They also put out a call for tender to companies interested in producing such a hydrophone commercially.

o Global Library of Underwater Biological Sounds (GLUBS): GLUBS is a project of the IQOE WG on Acoustic Measurement of Ocean Biodiversity Hotspots, led by Miles Parsons (AIMS, Australia). The GLUBS mission is to develop and merge novel technologies with existing bioacoustics resources to make the exploration of biological sounds more accessible to researchers, managers, educators, and enthusiasts. A two-day workshop, funded by the Lounsbery Foundation, was held at WHOI in April 2023 to discuss plans to develop an integrated platform to facilitate building reference dictionaries and machine learning training databases for as many identified and unidentified underwater sounds as possible. A news release about GLUBS was issued in April 2023, which was picked up and reported on by media worldwide. A GLUBS-inspired Research Focus has been opened in Frontiers in Remote Sensing, with a manuscript submission deadline of 24 November 2023.

WG on Building Capacity in Ocean AcidificaTion MoniToring in the Gulf of GuineA (BIOTTA)

Grant (10K EUR) awarded to the University of Ghana to lead the WG and support capacity building workshop; funding has leveraged 100K USD from the Ocean Foundation to purchase equipment to set up the monitoring stations.

The BIOTTA working group was set up to equip graduate students, early career ocean scientists and other marine science professionals in the GoG region with skills on sustainable OA data acquisition to expand our understanding of the threats, risks and impacts to marine ecosystems and chart pathways for sustainable management of marine resources at risk to ocean acidification (OA) in the GoG region. This working group hopes to also bridge national, regional and international data gaps in ocean acidification.

BIOTTA aims to complement global efforts such as the Global Ocean Acidification Observing Network (GOA-ON) and the International Ocean Carbon Coordination Project (IOCCP) by convening a series of virtual regional workshops and webinars to train young and professional scientists in setting up and maintaining OA observation systems in the GoG and other African coastal waters.
The BIOTTA working group objectives are to:
o Develop a coordinated network for observing OA in the GoG
o Develop capabilities to undertake analysis of seawater OA parameters using low-cost, readily available and easy-to-use equipment.
o Map OA hotspots in BIOTTA member countries for long-term OA monitoring.
o Initiate OA monitoring activities in BIOTTA member countries after successful mapping of hotspots in these countries, making use of OA observation kits developed by GOA-ON and the International Atomic Energy Agency (IAEA).
o Integrate into global OA observing networks, such as GOA-ON, with the goal to share and make data available to the global ocean observing community.

Highlights:
" 100K USD obtained from The Ocean Foundation (TOF) to purchase equipment to set up the monitoring stations. Surveys have been completed by the OA kit beneficiaries (in Benin, Cameroon and Nigeria) and orders for equipment and consumables have been placed.
" The Ocean Foundation has continued to fund a Coordinator at the University of Ghana to support BIOTTA.
" Regular on-line meetings have been held between representatives of GOA-ON, TOF, IOC-UNESCO, and IAEA, to discuss and coordinate ongoing and planned OA activities in the GoG/West Africa region, in particular coordinating the BIOTTA training events with others planned in the region.
" The BIOTTA PI has been working with a colleague in Liberia on the establishment of a GOA-ON Sub-Hub for West Africa.

Action for Sustainable Ocean Acidification Research (ASOAR)

Grant (9.936 K EUR) awarded to Plymouth Marine Laboratory to lead the WG and host a hybrid workshop.

Ocean acidification (OA) is a global issue, with the driver being global emissions of carbon dioxide. However, regional and local seawater conditions affect the rate of acidification, making it more difficult to predict local impacts and consequences of OA. Coordinated monitoring efforts are required to gather informative and scale-able data on the progress of OA and to support positive action for protecting the marine environment. Over recent years the Global Ocean Acidification Observing Network (GOA-ON), a network set up to establish universal principles for monitoring OA, bring together data access, and to share and exchange knowledge, has formed regional 'hubs' to allow specific regions to coordinate activities, data and projects.

The UN Decade of Ocean Science for Sustainable Development has endorsed a 10-year programme of coordinated OA research proposed by GOA-ON. The Ocean Acidification Research for Sustainability (OARS) programme sets out 7 outcomes that need to be delivered by the global OA community (see http://www.goa-on.org/oars/overview.php.) A large part of this delivery will be through activities and engagements planned and executed through the GOA-ON regional hubs. The Action for Sustainable Ocean Acidification Research (ASOAR) POGO working group will consider how the North-East Atlantic hub will deliver on the outcomes of OARS. The working group also includes participation from other regional hubs to ensure the benefits of the group discussions are disseminated beyond the NE Atlantic region and facilitate cross-hub collaborations and interactions.

Highlights:

- A hybrid meeting was held in March 2023 at PML, UK, to review and build on the draft implementation plans (Outcome White Papers) produced by the OARS outcome champions, to identify the activities and engagements that can be delivered for the Atlantic region and more broadly.
- Over two days, the Workshop participants discussed the OARS implementation plans (Outcome White Papers) to assess the needs and align these with the known OA activities both in the Atlantic and more globally, and made recommendations for delivering action for the Atlantic region, and more broadly.
- The Workshop outputs were (1) Documented action plan for participants to take back to their hubs as ways to move the OARS outcomes forward, and (2) Documented action plan for cross-hub activities with suggested funding routes and recommendations on how these activities can be delivered.

Gulf of Mexico Oceanographic and Meteorological Observation Group

Grant (10K EUR) awarded to CICESE, Mexico, to lead the WG and host a workshop.

Monitoring is key to numerical modelling efforts for predicting hurricanes and frontal systems, assessing and sustaining ecosystem health and function, managing marine resources, optimising restoration efforts and assessing anthropogenic impacts from climate change, eutrophication, loss of biodiversity, deoxygenation, acidification, overfishing and sea level rise. However, when in situ monitoring efforts are examined at a basin or ocean level, they can vary widely, particularly when multiple surrounding countries are involved. This is due to differences in the extent of sustained government funding, the presence/absence of agencies tasked with data collection, curation, storage and distribution, and dissimilarities in human and infrastructure capacities.

The Gulf of Mexico (GoM) covers about 1.6 million km2 and is surrounded by Mexico, the United States, and Cuba. Historically, most of the continuous in situ monitoring efforts have been limited to coastal areas and US waters, with the notable exception of moorings within the deep water region of the Mexican EEZ and Yucatan Channel as well as government-mandated environmental monitoring of oil exploration and exploitation leases in the southern Gulf (which is not currently public). Recently, the capacity to monitor Mexican waters was expanded through the execution of the CIGOM (Gulf of Mexico Research Consortium) project, which was funded by the National Council for Science and Technology (CONACYT) and the Ministry of Energy (SENER) Hydrocarbon Fund so to build scientific capacity toward oil spill preparedness.

The goals of the Gulf of Mexico Oceanographic and Meteorological Observation Group funded by POGO are to (1) survey existing monitoring efforts and gage their permanence through time, (2) evaluate the spatial and temporal scales over which they operate, (3) detect key data gaps and compare current measurements with the Global Ocean Observing System (GOOS) essential ocean variables and essential climate variables, (4) prioritise monitoring data needs and identify agencies or sectors that would benefit, and (5) outline a plan for engagement entities responsible for monitoring efforts, stakeholders and users of information. The scope of the survey will focus on the continental shelves and deep water region of the Gulf of Mexico, and the work group will include participants from the US, Mexico and Cuba.

An up-to-date assessment of the ocean monitoring efforts currently in place throughout the GoM will provide the basis for advising government agencies regarding their availability and conditions of use, prioritising the most pressing data needs, and working toward a basin-wide integrated ocean observing system that could be linked to global efforts.

Highlights:
" The GMOMOG met in Ensenada, Mexico, from 26 - 27 April 2023 to survey existing monitoring efforts and gauge their permanence through time, evaluate the spatial and temporal scales over which they operate, detect critical data gaps, and categorize present-day measurements to GOOS Essential Ocean Variables and Essential Climate Variables.
" The workgroup defined monitoring as recurrent and structured observations of oceanographic or meteorological variables focused on ongoing in situ measurements. It also decided to focus the survey and gap analysis on the shelves and deep-water region and current, meteorological, and sea-level stations near or on the coast.
" Twenty-seven in-person and four remote participants affiliated to Mexican (CICESE, UABC, UNAM, IMN-UNAM, Cuban (INSMET), and USA (GCOOS, TAMU, UM, USF) institutions presented summaries of ongoing ocean observations in the Gulf of Mexico.

" A detailed survey of fixed stations (including moorings) that provide public data was compiled and variables were classified as GOOS Essential Variables. The operation of these stations was confirmed between February and April. A total of 284 stations were identified Gulf-wide, with the majority operating in US waters. Most of the measurements made at these stations were meteorological, hydrographic, sea levels, and currents, and that analysis indicates ocean physics makes up most of the ongoing observational efforts.
" The GMOMOG is preparing a detailed report of their survey and the recommendations for expanding fixed stations to the central and southern Gulf of Mexico, as well as identifying agencies or sectors that would benefit.

CEODOS Chile: A consortium for surveying the coastal ocean in the easter South Pacific

Grant (10K EUR) awarded to COPAS, University of Concepcion, Chile, to lead the WG and host 2 workshops.

The CEODOS program (co-coordinated by the COPAS center) is a new Chilean initiative that will follow the present and future status of the biological pump along the entire coast of Chile every 5 years.

The first expedition, in the frame of TARA MICROBIOME (a 2-year campaign covering South America and Africa) was held in 2021. Genomics and biogeochemical samples will be analysed and results integrated into AI algorithms in order to get a better understanding and prediction capacity of the future of carbon sequestration in the eastern south Pacific.

POGO is funding two bilateral workshops for data analysis in Concepcion (Chile) and Banyuls sur Mer (France) that will allow integrating data of several biomes generated by this expedition.

Main milestones of the CEODOS Chile / ATLANTECO working group include but are not restricted to:
- Integration of data bases of the Pacific leg TARA MCIROBIOME expedition: deliverable to be a joint publication
- Development of indicators of carbon productivity along the Chilean coast (to be achieved by the end of 2023)
- Long term data acquisition coordination for ocean observatory policies at key points of the Chilean coast (2024)
- Report on Ocean monitoring and governance for Chilean government (2023)
- TARA Microbiome special issue (2024)
- Indicators for key planktonic areas: first prototype to be achieved in Magallanes area South of Chile (2023)
- Organization of CEODOS II expedition along the Chilean coast (to be carried out in 2026).

Coastal Marine Heatwaves Interdisciplinary Research group (CMHIR)

Grant (10K EUR) awarded to the Institute of Marine and Antarctic Studies (IMAS) to organise a workshop at the University of Concepcion, Chile and produce a peer-reviewed publication

Marine heatwaves (MHWs) have become an urgent issue regarding climate risks due to their proliferation in frequency, duration, magnitude, and spatial extent. These phenomena have a strong impact not only at the global and regional level (e.g., substantial events in the Northeast Pacific (2013-15), Mediterranean Sea (2003) and Tasman Sea (2015/16 and 2017/18)), but also at the local level. In this sense, MHWs have become an increasingly serious threat not just from the perspective of pelagic and benthic ecology on the continental shelf but also for coastal aquaculture and fisheries, as demonstrated by many reports of fisheries closures from around the world caused by MHWs. It is noteworthy that estuaries, in particular, represent environments with high productivity and biodiversity that sustain important economic activities like aquaculture and fisheries.

While our understanding about the causes, impacts, duration and extension of MHWs has increased significantly during the last 10 years, this information has largely come from large scale studies of the global or regional oceans. This is large-scale perspective is informed by climate models and remote sensing as the main data sources, which are unable to spatially resolve smaller coastal systems such as estuaries and bays. To gain insight into the coastal response to MHWs, this group proposes a different approach, combining in-situ observations, remote sensing and high-resolution modelling in the coastal zone. The geographic intercomparison will contribute to a better understanding about the impact of MHWs on the global coastal areas and the potential implications under climate change scenarios.

The WG aims to develop an active collaboration and coordination to establish a communication that allows us to highlight the importance and necessity of studying the implications and consequences of MHWs in coastal areas. So far, the impact of MHWs in coastal areas has been evaluated in few recent papers; however, our WG is multidisciplinary, including coastal ecologists, coastal modellers and climate scientists. Hence, the distinctive feature of this group is its special focus on the shallow continental shelf and its interdisciplinarity. We plan to keep an active communication and coordinate our respective research efforts so that we can generate intercomparison, taking advantage of the interesting geographic diversity (Canada, North America's east and west coasts, South America's west coast, Australia's southeast coast, Mediterranean Sea, Antarctica's glacial embayments).

Highlights:

The Coastal Marine Heatwave Interdisciplinary Research group (CMHIR, https://coastalmhw.org/) successfully organized the Workshop: Marine heatwaves dynamics and impacts on coastal and estuarine ecosystems. This event was held at the University of Concepción (Chile) and lasted for 3 days (9-11 April 2024). This activity gathered 42 attendees in person and 76 on-line, from 14 countries (Australia, Belgium, Brazil, Canada, Chile, Colombia, Cuba, France, Germany, Italy, Peru, South Africa, Spain, and UK). The workshop generated an active discussion on the impact of marine heatwaves on ecosystems, communities, and organisms. By combining online and in-person talks, this workshop shared with academics, students, and the community the different aspects of marine heatwaves, covering topics like global and regional events, drivers, and local impacts. Moreover, the experts presented studies focused on the consequences of these marine extreme events on seaweeds (kelps), phytoplankton, zooplankton, and benthic organisms. The event included an internal POGO WG meeting.

SOOS Symposium

Grant (8.2K EUR) awarded to the Institute of Marine and Antarctic Studies (IMAS) to support early-career scientists from developing countries to attend the inaugural Southern Ocean Observing System (SOOS) Symposium

The Southern Ocean Observing System (SOOS) hosted its inaugural SOOS Symposium, "Southern Ocean in a Changing World", from the 14th to 18th of August 2023 in Hobart, Australia. The Symposium was attended by 300 scientists from 25 nations for a week of plenary presentations, parallel sessions and workshops covering a wide spectrum of Southern Ocean research. In light of the escalating climate crisis, a community statement calling for an urgent expansion of Southern Ocean observations was released. Funding support from POGO and the Scientific Committee on Oceanic Research (SCOR) allowed SOOS to provide travel scholarships to eight early career researchers from developing countries to assist with their travel to attend the SOOS Symposium.

NANO Global Project "A global study of productivity, deoxygenation and ocean acidification at selected coastal sites":

Research grants awarded to 18 participating institutions in the following countries: Argentina, Bangladesh, Brazil, Colombia, Ghana, India, Indonesia, Kenya, Lebanon, Mexico, Nigeria, Senegal, Thailand, Togo and Tunisia.

The NANO global project has three major components:
- Promote in situ and remotely sensed observations of the ocean at selected coastal sites in order to contribute to the global effort of monitoring the levels of ocean acidification and deoxygenation;

- Provide opportunities to the project participants for: i) capacity building to strengthen their efforts to monitor levels of acidification and oxygenation; ii) join larger observation networks of ocean acidification and deoxygenation;

- Organize workshops and webinars dedicated to share experiences in i) monitoring levels of productivity, acidification and oxygenation; ii) training on marine data management; iii) compare results from fieldwork and produce a biogeographic distribution of the stations.

Field work was conducted in 2023-24 in all countries, for a set of variables (e.g., temperature, chlorophyll-a, pigments, bio-optical variables, conductivity, nutrients, total alkalinity, pH, dissolved oxygen, phytoplankton) varying from station to station. The budget was allocated depending on the local sampling costs, so as to enable each country to sample on a bimonthly basis (up to a maximum of 3K EUR per station).

In addition, a NANO-DOAP workshop was held at Plymouth Marine Laboratory (PML), UK from 7 August 2023 to 8 August 2023, back-to-back with the TREVOR Symposium, which most of the NANO participants also attended. The main objective of the workshop was to bring together the participants of the project to work on a manuscript that will present the results of the first interstation analysis. In addition, it was an important opportunity to discuss the progress and future directions of the project.

In a new collaboration with the Ocean Data Network (US-based company involved in the SAGITTA development), POGO and NANO-DOAP are supporting a pilot initiative in Ghana of attaching temperature sensors to fishing nets providing temperature profiles in near-real time. Sensors were installed in two artisanal fishing boats and nets in August 2023 and a portal has been developed for data visualisation. Two extra sensors were brought to Ghana and ODN & the University of Ghana team are planning to install them on semi-industrial trawlers.

Object 2: The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research:

POGO outreach and advocacy:

Public outreach is normally conducted through participation in international exhibitions, and 2023/24 saw a full return to face-to-face exhibitions, meetings and conferences. During this year, POGO participated in various events both in-person and virtually (see section on Communication Strategy).

All of POGO's brochures, leaflets and other written products are available as digital versions online. POGO has now moved away from printed (paper) materials, with the exception of small quantities of postcards to distribute, otherwise favouring the display of laminated 'hard copies' of leaflets on our booths, and of QR codes on our promotional banners to give mobile device users quick and easy access to digital copies. We are also limiting the production and handing out of branded USB Flash Drives. For the second time, this year an interactive annual report has been produced (https://pogo-ocean.org/pogo-annual-report/).

The Secretariat has continued to add to the POGO Case Studies illustrating the socio-economic benefits of ocean observing. A freelance science writer was contracted to work on the project and to interact directly with researchers at POGO institutions. From the call for story ideas previously issued to all POGO members, the third phase of the project focussed on Geohazards, with case studies from India and France. The case studies are designed for use in a variety of settings - website, social media, print, etc - to help those outside the ocean observing community to understand the value of such observations in the wider societal context, and the critical need for GOOS. An Interactive Map on the POGO website (https://pogo-ocean.org/pogo-member-case-studies/) links to each example, and to printable PDFs.

This year, POGO has established an Advocacy WG, composed of 8 POGO member institution representatives from around the world. The WG met several times on-line and drafted or contributed to statements for two major international events: the COP28 Climate Conference and the UN Ocean Decade Conference. Both statements were circulated to the POGO membership for signature and shared with other organisations for their endorsement.

NANO Outreach

In addition to conducting time-series coastal ocean observations, the NANO-DOAP project often includes outreach and citizen science activities conducted by the project participants. This year, various outreach activities were organised and delivered by project participants in Argentina, Bangladesh, India, Mexico, and Nigeria.

In a previous year, NANO launched two calls for NANO-DOAP participants and NANO members to submit proposals for outreach activities with the objective of reaching out to the local community, especially school children, to increase their understanding of the importance of the ocean, marine life, resources, and ocean observations. The selected proposals would receive large classroom kits containing 100 foldscopes each, paper microscopes with 140x magnification lenses. NANO-DOAP participants would also receive one portable HD digital microscope to be used at their activities.

In total, 11 proposals were accepted, five of them within the NANO-DOAP call and seven from the call to NANO members. 17 large classroom kits of foldscopes were acquired by NANO and shipped to the participants. Activities took place during 2023 and reached an estimated number of nearly 2000 individuals, mostly secondary and high school students in 10 countries in Africa, Asia and Latin America.

Citizen Observations of Local Litter in Coastal ECosysTems (COLLECT) -citizen science project

Project funded by the Richard Lounsbery Foundation, led by Dr. Ana Catarino from the Flanders Marine Institute (Belgium) and Dr. Edem Mahu from the University of Ghana, 100K USD, Jan 2021 - July 2023. Funds provided to the University of Ghana, NIOMR, University of Calabar, CURAT, IRHOB, IMAR and INRH.

The COLLECT project aimed at empowering students to become citizen scientists, by acquiring data on plastic litter distribution on sandy beaches, in West/North-African countries and in one South-East Asian country. In this project, students and school teachers collaborated closely with local experts in Benin, Cabo Verde, Co?te d'Ivoire, Ghana, Morocco, Nigeria and Malaysia. The COLLECT project consisted of training local students (15 - 18 years old) from ten high schools on sampling and analysing macro-, meso- and microplastics in beach sediments, using a quantitative assessment protocol. The project further aimed to measure the impact of the citizen science intervention in ocean literacy, pro environmental behaviour, and wellbeing of the participating students.

All documents and materials resulting from this project are (/will be) open access and available according to the FAIR Principles (Findable, Accessible, Interoperable, and Reusable). The results and outcomes from COLLECT contribute to expanding knowledge and establishing baseline information on coastal plastic pollution, with citizen science being an enabler of open science, allowing data to be freely available to the public, academics and policymakers. Expected results from the use of the COLLECT protocol globally will further contribute to the identification of hotspots of coastal plastic litter, and bring awareness to local communities on the potential consequences of plastic pollution. The COLLECT project contributes with data suitable to survey plastic litter to the United Nations' Sustainable Development Goals (UN SDGs), in particular to SDG 14, on the sustainable use of the ocean.

COLLECT has reached over 400 students from ten different schools, of which nearly 240 participants answered a social sciences questionnaire. Students attended two sampling seasons (November/December 2021, March/April 2022), and collected relevant data on litter distribution which will be submitted to The European Marine Observation and Data Network (EMODnet) central beach litter database, operated by EMODnet Chemistry (www.emodnet-chemistry.eu). The initiative impact assessment, led by Marine Severin (PhD student), demonstrated that, in general, the students had a very high baseline for knowledge of the "plastic litter" issue and its impact, and that after participating in the project, their well-being was positively impacted. Students demonstrated also increased pro-environmental behaviours, and the project had a positive impact on their ocean literacy.

The project has currently led to two peer-reviewed papers so far, a methodology paper (Catarino et al 2023, Frontiers in Marine Science), and a paper analysing the impact of the project on the well-being and pro-environmental behaviours of the participants (Severin et al 2023, Frontiers in Psychology). A third scientific manuscript is currently under preparation, where the data on marine litter distribution and abundance acquired during the project will be analysed. The Data management Plan (DMP) of the project, as well as all sampling procedures are available (open access) and findable using a digital object identifier (DOI, see list below).

All developed educational materials were made available in the project working languages: English, French, Portuguese and Spanish. This included simplified and illustrated sampling procedures and video animations. Letters, information and consent forms are also available in all project working languages. COLLECT was featured in the media of participating countries and a complete list of TV reports, newspaper mentions, blog posts etc is available in the publication Catarino et al 2023, Frontiers in Marine Science. The complete list of presentations in scientific conferences (nine posters or oral presentations) and meetings is also available in the same publication.

The final phase of the project consisted of an inter-comparison study of microplastics analysis between participating laboratories in Belgium, UK and Malaysia; production of a short video and poster for distribution to the schools and for POGO to promote and share the results of the project; and a presentation on COLLECT at the West African Marine Science Symposium.

The full list of publications from the project can be found at https://pogo-ocean.org/innovation-in-ocean-observing/activities/collect-citizen-observation-of-local-litter-in-coastal-ecosy stems/.

South East Asia project for General Regional Awareness of Seagrass by Society (SEAGRASS)

Grant awarded to the Centre for Marine and Coastal Studies (CEMACS) of Universiti Sains Malaysia (USM) to cover field trip expenses, production of videos and pamphlets, and expenses for international speakers.

The Straits of Malacca is the second busiest ocean maritime trade route in the world with a passage of over a thousand ships a day transiting its waterways. Naturally, this brings with it a lot of environmental pressure and risks to existing natural habitats. However, there are still very special pockets of marine habitats that possess high diversities of marine life such as shallow seas, intertidal mudflats, uninhabited islands and seagrass beds. We have chosen the Middle Bank (northern Straits of Malacca) - an area of rich seagrass community to study its changing evolution in an evolving climatic and anthropogenic influence. As the only extensive and established seagrass area in the northern Straits of Malacca, Middle Bank seagrass meadow serves as nursery ground for many commercially important fish and mollusc species. Small-scale fisheries using artisanal fishing gears are also done by local coastal communities at the seagrass meadow as their livelihood. Apart from physical uses for societal and economic importance, CEMACS has been working closely with Penang State Government to gazette this area as ecologically important, serving as a carbon sink (complementing adjacent mangrove area) to mitigate climate change and offset the state's carbon emission.

The proximity of the Middle Bank to a World Heritage Site can be exploited to drive awareness and education on the value of these marine habitats to the general public. We hope this will encourage the local government and agencies to set up a marine protected area for research, monitoring and education. Awareness and education programmes will be deliberated by the cooperative partners in the project where this may later be promoted to other relevant areas of the region and our global partners.

In this year's engagement activities, CEMACS conducted the Marine Field Course: Biodiversity & Conservation for a group of college students from Kolej Yayasan UEM, Selangor (23 - 26 Feb 2024). The students were introduced to ecological techniques, microscopy skills, aquaculture basics and introduced to the seagrass ecosystem. The group of 35 students was exposed to the seagrass ecosystem and learnt how transect lines are used along with quadrats to measure and monitor the life forms in this habitat.

Exploring the island's seagrass meadows becomes an educational adventure, where students can witness firsthand the significance of these ecosystems in supporting marine life. Students learnt about the various species inhabiting the seagrass bed, the intricate web of ecological relationships, and the critical role seagrasses play in maintaining a healthy marine environment. This experiential learning opportunity not only broadens students' understanding of marine ecosystems but also fosters an appreciation for the need to preserve and protect these habitats. Moreover, the visit provides a chance for students to actively participate in local conservation efforts, contributing to the sustainable management of Pulau Gazumbo's marine resources.

Collaborations with other organisations:

West Africa Marine Science Symposium (WAMSS)

The Symposium took place in Ghana from 18 to 20 August 2023, with 163 participants from 18 countries - both within the region and overseas. It was an Ocean Decade endorsed activity that brought together marine and coastal experts, storytellers, youth, government bodies, non-governmental organisations, funders, and National Geographic Society Explorers from and working in West Africa in order to: Foster critical knowledge exchange and cross-pollinate perspectives on the challenges and opportunities in the region; share successes and lessons learned with practitioners across sectors as well as the broader public; and engage early-career professionals and youth to inspire and equip the next generation of marine and coastal scientists, managers, and conservationists with key knowledge and skills. WAMSS highlighted career paths and funding opportunities, offered grant writing workshops, and forged critical connections, identifying successful marine research and conservation models.

The symposium was chaired by POGO trustee Dr. Edem Mahu, organised by University of Ghana and supported by National Geographic Society, POGO, NEWF and COESSING. The POGO Secretariat was represented in-person by Scientific Coordinator, Dr Lilian Krug, who delivered a talk on opportunities for capacity development in ocean observations. The audience for her presentation also included participants of the Coastal Ocean Environment Summer School In Nigeria and Ghana (COESSING) training, which overlapped with the Symposium.

Trends, Reflections, Evolution, and Visions in Ocean Research (TREVOR) Symposium

This international symposium was hosted by the Plymouth Marine Laboratory and attended by some 140 participants from around the globe. The symposium was organised as a celebration of the scientific life of Prof. Trevor Platt, former Executive Director of POGO. Prof. Nick Owens, Chair of POGO, delivered the keynote lecture on "The Ocean as a Common Weal". The oral sessions were organised around a series of themes - physical and biological interactions; marine optics and ocean colour; physiological ecology of marine phytoplankton; water quality and human health; and size and ecosystem structure of aquatic communities - reflecting the broad scientific interests of Prof. Platt. There were also three networking session that dealt with capacity building and sustaining it; the United Nations Sustainable Development Goals relevant for water; and the concluding session that examined lessons learned and the way forward. The symposium also included two poster sessions.
The symposium was organised with capacity building very much at the heart of it, and was designed as a continuation of the preceding online and in-person training course on Satellite-Based Tools for Investigating Aquatic Ecosystems. Students and Early Career Researchers were prominent in the agenda as speakers, session co-chairs and poster presenters. Support from POGO, and the juxtaposition of a NANO meeting at PML just prior to the symposium were instrumental in significantly enhancing developing-country participation in the event.
The organising committee included Sophie Seeyave and Lilian Krug from the POGO Secretariat, and Dr Shubha Sathyendranath, former POGO Executive Director, along with many TPSF members from around the world.
The success of the symposium is a testament to what can be achieved when many like-minded organisations come together and work jointly towards a common goal, with many volunteers working tirelessly to achieve that goal. The feedback from the participants was uniformly positive, and by popular demand, the organisers are considering the possibility of organising a similar event three years from now.

Object 3: The provision of scholarships and research fellowships:

Scholarships and fellowships have been provided to 25 early-career scientists for training/education periods of between 3 and 10 months during this financial year. These consisted of:

- **Scholarships for 10 scholars from 10 countries to attend the Nippon Foundation-POGO Centre of Excellence in Observational Oceanography** hosted by the Alfred Wegener Institute (a POGO member institute) in Germany. The delayed 2022-23 programme was conducted between June 2023 and April 2024, with a graduation and closing ceremony held in Berlin on 25 April 2024 to mark the end of the 10-year programme hosted by the AWI, ahead of its relocation to Canada. The postgraduate-level training consisted of 1- to 2-week modules on all aspects of observational oceanography (e.g. physical, chemical, biological, remote sensing, modelling) as well as key skills (scientific writing, presentation skills, scientific communication, research ethics) and a 3-month individual research project. The scholars were from Argentina, Brazil, India, Lebanon, Madagascar, the Philippines, Portugal, Somalia, Sri Lanka, and Tanzania. Associated with the 2022-23 grant was an additional Regional Training Programme in Togo (hosted by former NF-POGO CofE scholar Essowe Panassa) in Nov 2023, which provided training to 20 early-career scientists from Togo, Ghana, Kenya, Nigeria, Benin, Senegal, and Liberia. The 12-day training included lectures, hands on exercises and a field trip to Port of Lomé focusing on Marine pollution, Numerical modelling of pollutants/microplastics transport, Statistics for marine pollution and biogeochemical data analyses, and Monitoring of EOVs and microplastics at the sea surface and on a sandy beach. Fieldwork took place at Port of Lomé, with an entire day of activities which covered measurement of EOVs from a boat and micro and macroplastics sampling on the beach.

- **5 Visiting Fellowships awarded to early-career scientists from developing countries to spend up to 3 months at another research institute** receiving individual training and supervision on a research topic of their choice. All 5 fellows selected in 2023 were able to complete or initiate their fellowships during this financial year. The fellows were from Algeria, Brazil, Colombia, and India, and visited research institutes in Australia, France, Germany, and Japan.

- **10 Shipboard Training fellowships on-board research ships** to receive hands-on training in sampling and analysis techniques, and in some cases an additional one-month stay at the host research institute prior to the cruise and a further month after the cruise to analyse the data and interpret the results. Fellows were from Argentina, Benin, Brazil, Cabo Verde, India, and Morocco, and the host institutes were in Australia, Belgium, Denmark, Germany, and Spain.

The feedback on these programmes was overwhelmingly positive, not only from the scholars and fellows, but also from the host supervisors and parent supervisors, who commented on the networking and collaborations as well as the cultural exchanges facilitated by the programmes, and the enhanced skills and knowledge the fellows bring back to their home institutes and pass on to their peers.

This year, one grant was awarded to 1 member institution to support the following training programme:

Training course on "Ocean Observations for Coastal Applications" (Feb 2024)

Grant (8,865 EUR) awarded to Indian National Centre for Ocean Information Services (INCOIS)

The ITCOocean (a UNESCO Category-II Centre) at INCOIS, Hyderabad, India hosted a POGO-funded international training program 'Ocean Observations for Coastal Applications' during 29 Jan-7 Feb, 2024. The gender-balanced pool of 30 participants belonged to 11 countries. This was the first professional training ever for at least two young researchers from outside the host country.

The training was coordinated by POGO-alumni Dr. Nimit Kumar with the support of regional POGO partners including Dr. Subrata Sarker (SUST, Bangladesh) who is also a POGO-CofE alumni and Coordinator of the NANO-DOAP project, and POGO member Prof. Aileen Tan (CEMACS, Malaysia). The training featured invited talk by Dr. Eric Raes who leads OceanOmics project of Minderoo Foundation, which is part of the POGO-led endorsed Ocean Decade action OBON.

With the support extended by INCOIS, the trainees participated in the first ever in-person regional ocean decade conference IO-Con 2024, organized by DCC-IOR during 1-3 Feb 2024. The participation of the trainees was not limited to attendance but was also in the form of invited speakers and panellists. This provided a unique opportunity to introduce them to the UN Ocean Decade as well as ECOP's vital inputs to the Vision 2030 process, which leads to the global conference at Barcelona, Spain in April 2024. The trainees also participated in a side-event dedicated to ECOPs.

Followed by the theory and conference, the trainees were taken to eastern port city of Visakhapatnam, along with another batch of international trainees which provided not only a hands-on field campaign experience but also wider international networking opportunities beyond the pool of this training.

In addition, grants were awarded to two institutes in 2020 and 2021, respectively, for training courses which were delayed due to Covid-19 restrictions in China, and finally conducted in 2023:

Training course on "Subsurface Mooring Design, Recovery and Deployment"

Grant (7K EUR) awarded to Institute of Oceanology, Chinese Academy of Sciences (IOCAS) (payment of 75% made in 2020, balance paid in 2023)

POGO member, the Institute of Oceanology of the Chinese Academy of Sciences (IOCAS), successfully hosted a Training Course on Subsurface Mooring Observation in Qingdao from July 16 to July 22. 60 trainees from 22 countries/regions around the world, as well as renowned experts and early career scientists, participated in the training.

During the training, a series of highly professional lectures relating to ocean observations and research were presented. Scientists from IOCAS provided trainees with detailed instructions on the design, deployment, and recovery process of subsurface mooring observations, and also the data processing, analysis methods, and scientific interpretations of both subsurface mooring data and other in-situ observations in ocean circulation, internal waves, and climate research. IOCAS also organised field training for all trainees on the deployment and recovery of subsurface mooring, which was conducted on a scientific research vessel in the surrounding waters of Qingdao.

It was noted that this is the beginning of concerted efforts by IOCAS, in collaboration with scientists from all over the world, to support long-term subsurface ocean observations in open oceans, which is the key for ocean and climate community to understand the climate variability better and to gain sustainable development of the ocean. IOCAS will continue to host such training courses in the future to promote global ocean observing research, and warmly welcomes cooperation and support from research institutions or universities worldwide.

Training course on "Principles and Applications of BGC-Argo"

Grant (8K EUR) awarded to Second Institute of Oceanography (both payments made in 2023)

The International Training Course on "Principles and Applications of BGC-Argo", hosted by POGO member, Second Institute of Oceanography, Ministry of Natural Resources (SIO/MNR), and funded by the State Key Laboratory of Satellite Ocean Environment Dynamics (SOED) and POGO, was successfully held in Hangzhou, China, from 15th to 20th November, 2023.

The training course lasted for 6 days, with a total of 19 trainees. Among them, 9 international trainees came from seven countries in Asia and Africa, including Bangladesh, Egypt, India, Malaysia, Morocco, Philippines, and Saudi Arabia. The remaining 10 domestic trainees were from Chinese universities and research institutions, such as Ocean University of China, East China Normal University, Xiamen University, and the National Marine Technology Center.

The lectures were delivered by six instructors, covering various aspects of the emerging ocean biogeochemical observation platform, BGC-Argo, including an introduction to the Argo program, BGC-Argo float principles, BGC-Argo data quality control, and applications in marine ecosystem dynamics, biogeochemistry, remote sensing, and numerical ocean modelling. Besides, lectures also included hands-on exercises on BGC-Argo data downloading, visualization, processing, and analysis.

On the final day, trainees showcased their research plans for utilizing BGC-Argo data in future. The instructors not only provided specific guidance and suggestions for their research plans, but also committed to assisting them in ongoing BGC-Argo-related studies after the training. The successful organization of this training course has contributed to the development of observational and research capabilities in BGC-Argo for developing countries in Asia and Africa. Furthermore, it fostered collaboration and communication among four POGO members: MBARI, NOAA, Xiamen University, and SIO. This achievement establishes a foundation for future in-depth scientific cooperation and mutual advancement in global ocean observation research.

SOLAS Summer School

Grant (7K EUR) awarded to GEOMAR, 1.5K EUR left over from virtual summer school in 2022 used to support one trainee to attend in-person summer school

The 9th Surface Ocean Lower Atmosphere Study (SOLAS) summer school brought 66 young researchers and 30 lecturers, practical demonstrators, and organisers to the Ocean Science Center Mindelo (OSCM) on the island of São Vicente, Cabo Verde. The summer school is a well-established activity of SOLAS, which gives participants the opportunity to expand their knowledge in the fundamentals of ocean and atmosphere sciences and trains practical methods of experimentation, remote sensing, modelling and science communication. The participants - master and doctoral students as well as recent postdocs - came from 25 countries and various fields of oceanography and atmospheric science. The lecturers were experts on SOLAS science from around the world.

Object 4: The promotion of innovation and technology in the science of global ocean observation:

This has been conducted mainly through two innovation projects focussing on developing low-cost instrumentation for ocean observing aimed at developing countries and citizen science. These both address the issue that, despite a high-level political endorsement, there are few international initiatives to make more observations possible in coastal areas with little resources. In particular, the ability to access user-friendly, low-cost instrumentation is still a limiting factor in coastal ocean observing, since most marine observation equipment is difficult to deploy, costly to operate and requires specific technical skills. On the other hand, recent technological advancements have allowed novel improvements in sensors, platforms and communication that will enable a step change in coastal ocean observing philosophy.

Open Access Marine Observation Devices" (OpenMODs):

Grant awarded to National Institute of Oceanography and Applied Geophysics (OGS) and Alfred Wegener Institute (AWI); in 2023/24 payment made only to OGS.

Supported by POGO since 2018-19, this project has the overarching goal "to devise ocean sensors and monitoring devices, globally available to all and not just to a privileged few". The main objective was to realize a prototype of a versatile low-cost ocean observing platform ready to be tested and equipped with a variety of sensors, to consolidate and enlarge the potential user community and to narrow the data and knowledge gaps between "advanced" and "developing" countries. Its potential is not limited to developing countries, but it can be advantageous in all those applications that require a high temporal and spatial coverage of observations. The implementation of the prototype has followed three main lines: the platform, the sensors and the communication systems.

During the first phase of the project, the participants agreed that the platform would:
- operate with minimum modifications as moored system, drifting buoy or manually deployed equipment;
- include essential sensors and operate in dual mode as a self-recording system or real-time autonomous system;
- include a low-cost low-power embedded system to acquire, control, process, store and (in case) transmit data;
- employ low-cost materials (e.g. plastic pipes for domestic use for the instrument housing);
- be assembled on-site by trained non-professional operators or for educational purposes.

Furthermore, the communication system would:
- use the most popular low-cost/no transmission cost communication systems;
- enable the timely communication of the relevant data and control flags and its delivery on the web;
- be ready to exploit the present and future opportunities and facilities offered by the Internet of Things technologies.

It was agreed that the resulting platform would then be tested and used as educational equipment in a conceptual framework of science, technology and practice transfer and dissemination to local user communities.

The OpenMODs 3.0 project has been successfully concluded. A number of workshops have been held to define user requirements and needs, to expand engagement and exploitation of the platform, to ensure timely dissemination of news and views produced by the OpenMODs community, and to overcome technical problems related to the platform. Five platforms were realized and equipped with localization/data transmission and CTD. They were used within two NF-POGO CofE training modules at the AWI (Helgoland) in 2022 and 2023.

Several products (video, instructions, handbook and file useful for the creation of some platform parts) were generated and made available to the community (https://www.awi.de/en/about-us/sites/helgoland/translate-to-english-openmod.html).

Social AGITation for Temperature Analysis" (SAGITTA):

The project aims to implement a citizen science approach for consistent and regular temperature profile data collection in the coastal ocean. This requires distribution of cheap and simple temperature-depth (TD) probes among the general public. Though suitable equipment is present on the market, it is very expensive (5,000-9,000 USD per probe) and relatively complex for users without specialised training. Therefore the project aims to create a low-cost TD probe, simple smartphone application and web portal to make this idea possible. The probe should be inexpensive (about 100 USD), yet scientifically reliable. The smartphone app will be used for probe control, instant data visualization and data transmission to the web. The web portal is necessary for data storage, access and dissemination; it will also be useful for training and outreach.

Since 2022, the project has been significantly disrupted by the war in Ukraine and the associated sanctions imposed on Russia and difficulty in collaborating with Russian scientists. The POGO Secretariat has discussed with the team leader solutions to continue the project, including transferring the project leadership to another alumnus.

US-based Ocean Data Network (ODN) have been contracted to develop a database that will receive data via the smartphone app, which has already been developed. Communications have resumed with the hardware/software programmer, who is now located in Israel, and trials at sea are being planned so that test data can be sent to ODN for further developing the database.

Financial review

Principal funding sources

The principal sources of funding are:

- membership dues: these are used to cover all operational costs of the charity as well as some grants and fellowships

- grants from charitable foundations and other organisations, notably the Nippon Foundation, which supports POGO's capacity development programme, the Lounsbery Foundation, which has supported POGO's "COLLECT" citizen science project, and the Scientific Committee on Oceanic Research (SCOR), which co-funds the POGO-SCOR visiting fellowship programme.

Reserves policy

POGO's reserves policy was adopted in Jan 2020. The target minimum Operating Reserve Fund is 12 months of average operating costs. The calculation of average monthly operating costs includes all recurring, predictable expenses such as salaries and benefits, insurance, office, travel, communications, projects, Working Groups and capacity development programmes. Depreciation, in-kind, and other non-cash expenses are not included in the calculation. The calculation of average monthly expenses also excludes one-time or unusual, capital purchases.

The Operating Reserve is intended to provide an internal source of funds for situations such as a sudden increase in expenses, one-time unbudgeted expenses, unanticipated loss in funding, or uninsured losses.

Operating Reserves are not intended to replace a permanent loss of funds or eliminate an ongoing budget gap. It is the intention of POGO for Operating Reserves to be used and replenished within a reasonably short period of time. The Operating Reserve Fund is defined as a fund set aside by action of the Board of Trustees. The minimum amount to be set aside as Operating Reserve will be established in an amount sufficient to maintain ongoing operations and programmes for a set period of time, measured in months. The Operating Reserve serves a dynamic role and will be reviewed and adjusted in response to both internal and external changes.

The amount of the Operating Reserve Fund target minimum will be calculated each year after approval of the annual budget, reported to the Finance Committee/Board of Trustees, and included in the regular financial reports. The Operating Reserve will be funded with surplus unrestricted operating funds. The Board of Trustees may from time to time direct that a specific source of revenue be set aside for Operating Reserve.

The main contingencies allowed for by the Reserves Policy, are:

- POGO having to relocate the office, in case the agreement in place with the current Secretariat host(s) is terminated by either party. The provision in the contract is for 6 months' notice, which would mean any costs incurred would have to be met at relatively short notice. Costs could include redundancy and other compensation that POGO may be required by law to pay the staff (e.g. related to the Transfer of Undertakings (Protection of Employment) -TUPE; legal costs; potential increased salary costs related to employment by a different host, etc. If POGO were to start employing the Secretariat staff itself there would be additional costs related to HR/IT and other services, office rental etc.

- Other emergencies including legal costs, insurance excess, or uninsured losses.

- Loss of income: This is a potential threat caused by fluctuations in membership, or by some members being unable to pay their dues in a given year. In addition, the Nippon Foundation grant is only renewed from one year to the next, so if it is not renewed we would potentially receive very little notice of this (in this case the project would not go ahead, but additional funds from POGO could potentially be needed to cover staff costs, to which NF contributes £40,000 per annum).

The amount of reserves currently held is projected to be very slightly lower than the amount stated in the reserves policy, taking into account commitments that have been made to fund Working Groups and projects, but which have not yet taken place.

The balance held as unrestricted funds at 31 March 2024 was £323,761 of which £323,761 are considered ‘free’ reserves. This level of reserves is broadly consistent with our policy of holding one years’ operating costs, excluding Nippon related projects.

STRATEGIC REPORT

Financial and risk management objectives and policies

The trustees have a duty to identify and review the risks to which the charity is exposed and to ensure appropriate controls are in place to provide reasonable assurance against fraud and error. The trustees recognise that risks can arise not only from the charity's activities but also from failure to act or exploit opportunities. The trustees do not consider that all risks should be avoided. They are not averse to taking reasonable risks as part of their strategy to achieve the charity's objectives. However, they wish to be made aware of the major risks the charity faces so that they can plan how to manage those risks and mitigate their effects. The trustees have therefore appointed the Chair and CEO to review major risks and make recommendations to the trustees as to how to manage them. The trustees expect all members, staff and volunteers when engaging in any activity to consider the risks it poses and to act in accordance with any recommendations made for risk management. The trustees expect that staff and volunteers will not engage in significant types of activity which are not similar to activities the trustees are already aware of, without first having made to the trustees a proper proposal for the charity engaging in such activity, including an analysis of the risks such activity might pose to the charity. The trustees have the same expectation in relation to significant increases in activities already pursued by the charity or significant changes in the way those activities are pursued.
Risk management will be conducted according to the following steps: (1) identify the risks, (2) assess the risks, (3) evaluate what action needs to be taken, (4) monitoring and assessment.

The trustees have developed and approved a risk management policy and a risk register to identify and assess the potential risks and develop strategies to manage them. The risk register is reviewed monthly by the Chair and CEO, and twice per year by the Board as a whole. Given the charity is relatively young, it has not had a great deal of time to develop a mature 'risk appetite' approach. It is the intention of the charity for Trustees to engage in 'risk appetite' training with a view to developing a measured approach to risk.

Future plans

During the coming period the organisation will work towards its aims in respect of education for developing the science of global ocean observation, developing the science as well as publishing and disseminating the results of research undertaken. The CIO will continue to provide scholarships and research fellowships in accordance with its objects, using funds from membership dues as well as grants from the Nippon Foundation, the Lounsbery Foundation and SCOR. Specifically, POGO will:

- Expand its global footprint and benefit from in-kind support from member institutions by establishing Regional and Thematic Secretariat Nodes in other parts of the world, funded entirely by the host institutions (in China to begin with);
- Initiate and support new activities as a UN Decade Implementing Partner and continue to support OBON;
- Continue to fund Working Groups such as the BIOTTA, BEACON, CEODOS-Chile, CMHIR and projects such AtlantOS and COLaB ;
- Continue global research projects for NF-POGO alumni;
- Initiate Phase IV of the NF-POGO Centre of Excellence hosted by the Ocean Frontier Institute and other partners in Canada; and provide Visiting Fellowships and Shipboard Training Fellowships for early-career researchers;
- Hold exhibition stands and give presentations at major international conferences (UNFCCC COP29, CBD COP16); continue the POGO Advocacy Working Group to craft POGO's messaging for specific policy meetings;
- Increase its visibility and outreach impact, through the development of new outreach materials, case studies on the societal benefits of ocean observation.
- Conduct an External Review of POGO and plan a response/follow-up to the recommendations received.

STRUCTURE, GOVERNANCE AND MANAGEMENT

Governing document

The Charitable Incorporated Organisation ("the CIO") is governed by it's constitution in accordance with the Charities Act 2011. The CIO is based on the association model.

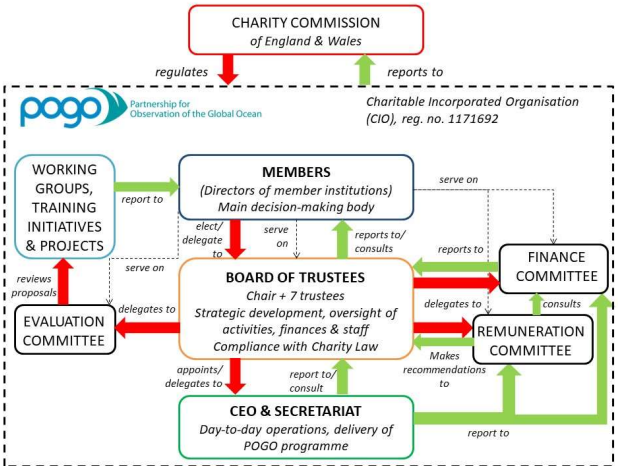
Recruitment and appointment of new trustees

Trustees are selected from the membership organisations and are appointed by the decision of the members of the CIO at the annual general meeting (with the exception of two trustees elected by the trustees themselves to improve regional and/or gender balance and/or to fill gaps in expertise). Each appointment is for a term of two years (renewable once), ending at the close of the meeting of the board of trustees immediately after an AGM.

STRUCTURE, GOVERNANCE AND MANAGEMENT

Organisational structure

Membership of the CIO is open to any oceanographic research institution, educational department or organisation from any part of the world that is interested in furthering the purposes of the CIO. The affairs of the CIO are managed by a Board of Trustees, elected by the members. The day to day operations of the CIO are delegated by the trustees to the CEO and Secretariat. Financial matters are delegated to a Financial Committee, which reports to the Board of Trustees. Oversight of staff performance and salaries is delegated to a Remuneration Committee, which makes recommendations regarding salaries to the Board of Trustees, following consultation with the Finance Committee. At least one trustee serves on these Committees. The governance structure is summarised in the following diagram.



Induction and training of new trustees

The charity trustees make available to each new trustee a copy of the CIO's constitution and any amendments made to it, as well as a copy of the CIO's latest trustees' annual report and statement of accounts, and the Charity Commission's guidance documents on the role of the trustee. All trustees have previous knowledge of the activities of POGO and are given guidance on their responsibilities as a trustee. Trustees are also invited to training courses on governance, which the charity pays for. These have been attended virtually since 2020, and the trustees found the virtual training mode to be very effective.

Induction and training of new trustees

The charity trustees make available to each new trustee a copy of the CIO's constitution and any amendments made to it, as well as a copy of the CIO's latest trustees' annual report and statement of accounts, and the Charity Commission's guidance documents on the role of the trustee. All trustees have previous knowledge of the activities of POGO and are given guidance on their responsibilities as a trustee. Trustees are also invited to training courses on governance, which the charity pays for. These have been attended virtually in 2020, 2021 and 2022, and the trustees found the virtual training mode to be very effective.

REFERENCE AND ADMINISTRATIVE DETAILS

Registered Company number

CE010344 (England and Wales)

Registered Charity number

1171692

Registered office

Plymouth Marine Laboratory
Prospect Place
The Hoe
Plymouth
Devon
PL1 3DH

Partnership for Observation of the Global Ocean CIO T/A POGO

Report of the Trustees For The Year Ended 31 March 2024

Trustees
Captain F A Arias-Isaza (Chair from 25.01.24)
Prof. Fei Chai (appointed 28.01.2024)
Dr F P Chavez (reappointed 26.01.2024)
Professor T S Hwai
Dr. Edem Mahu (resigned 27.01.2024)
Dr J Mees (resigned 27.01.2024)
Prof N Owens (Chair to 24.01.24)
Dr C G Paniagua Chavez
Dr. Olivier Pringault (appointed 28.01.2024)
Dr. Yara Rodrigues (appointed 28.01.2024)

Auditors
TC Group
Statutory Auditors
Harscombe House
1 Darklake View
Plymouth
Devon
PL6 7TL

COMMENCEMENT OF ACTIVITIES
The CIO was formed in February 2017 to take on the activities of a Canadian Society with the same name. The process for transferring operations to the CIO took longer than initially anticipated and operations began in the CIO in July 2018.

GOVERNANCE STATEMENT
The Board of Trustees have had due regard to the principals of recommended practices as set out by the "Charity Governance Code" and have applied these wherever practical and in decision making.

STATEMENT OF TRUSTEES' RESPONSIBILITIES
The trustees are responsible for preparing the Report of the Trustees and the financial statements in accordance with applicable law, Charities Act 2011 and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Charity law requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charity and of the incoming resources and application of resources, including the income and expenditure, of the charity for that period. In preparing those financial statements, the trustees are required to

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charity SORP;
- make judgements and estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue.

The trustees are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the charity and to enable them to ensure that the financial statements comply with the Charities Act 2011. They are also responsible for safeguarding the assets of the charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

In so far as the trustees are aware:

- there is no relevant audit information of which the charity's auditors are unaware; and
- the trustees have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditors are aware of that information.

AUDITORS
The auditors, TC Group, will be proposed for re-appointment at the forthcoming Annual General Meeting.

Report of the trustees, incorporating a strategic report, approved by order of the board of trustees, on 7 January 2025 and signed on the board's behalf by:

Captain F A Arias-Isaza - Trustee

Report of the Independent Auditors to the Trustees of Partnership for Observation of the Global Ocean CIO

Opinion
We have audited the financial statements of Partnership for Observation of the Global Ocean CIO (the 'charity') for the year ended 31 March 2024 which comprise the Statement of Financial Activities, the Statement of Financial Position, the Statement of Cash Flows and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:
- give a true and fair view of the state of the charity's affairs as at 31 March 2024 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended; and
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice

Basis for opinion
We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We are independent of the charitable company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern
In auditing the financial statements, we have concluded that the trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the charitable company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the trustees with respect to going concern are described in the relevant sections of this report.

Other information
The trustees are responsible for the other information. The other information comprises the information included in the Annual Report, other than the financial statements and our Report of the Independent Auditors thereon.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Matters on which we are required to report by exception
We have nothing to report in respect of the following matters where the Charities (Accounts and Reports) Regulations 2008 requires us to report to you if, in our opinion:
- adequate accounting records have not been kept or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit; or
- the trustees were not entitled to take advantage of the small companies exemption from the requirement to prepare a Strategic Report or in preparing the Report of the Trustees.

Responsibilities of trustees
As explained more fully in the Statement of Trustees' Responsibilities, the trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the charity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the charity or to cease operations, or have no realistic alternative but to do so.

Our responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a Report of the Independent Auditors that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. Irregularities, including fraud, are instances of non-compliance with laws and regulations. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

The objectives of our audit, in respect to fraud, are: to identify and assess the risks of material misstatement of the financial statements due to fraud; to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud, through designing and implementing appropriate responses; and to respond appropriately to fraud or suspected fraud identified during the audit. However, the primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the entity and its management.

Our approach was as follows:

-We identified areas of laws and regulations that could reasonably be expected to have a material effect on the financial statements from our general commercial and sector experience, and through discussion with the directors and other management (as required by auditing standards), and discussed with the directors and other management the policies and procedures regarding compliance with laws and regulations;

-We identified the following areas as those most likely to have such an effect: health and safety; General Data Protection Regulation (GDPR); fraud; bribery and corruption and employment law. Auditing standards limit the required audit procedures to identify non-compliance with these laws and regulations to enquiry of the trustees and other management and inspection of regulatory and legal correspondence, if any.

-We considered the legal and regulatory frameworks directly applicable to the financial statements reporting framework (FRS 102 and the Companies Act 2006 and the Charities Act 2011) and the relevant tax compliance regulations in the UK;
-We considered the nature of the group's operations, the control environment and business performance, including the key drivers for management's remuneration;
-We communicated identified laws and regulations throughout our team and remained alert to any indications of non-compliance throughout the audit;
-We considered the procedures and controls that the group has established to address risks identified, or that otherwise prevent, deter and detect fraud; and how senior management monitors those programmes and controls.

Based on this understanding we designed our audit procedures to identify non-compliance with such laws and regulations. Where the risk was considered to be higher, we performed audit procedures to address each identified fraud risk. These procedures included: testing manual journals; reviewing the financial statement disclosures and testing to supporting documentation; performing analytical procedures; and enquiring of management, and were designed to provide reasonable assurance that the financial statements were free from fraud or error.

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations (irregularities) is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it. The risk is also greater regarding irregularities occurring due to fraud rather than error, as fraud involves intentional concealment, forgery, collusion, omission or misrepresentation. We are not responsible for preventing non-compliance and cannot be expected to detect non-compliance with all laws and regulations.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at www.frc.org.uk/auditorsresponsibilities. This description forms part of our Report of the Independent Auditors.

Report of the Independent Auditors to the Trustees of Partnership for Observation of the Global Ocean CIO

Use of our report

This report is made solely to the charity's trustees, as a body, in accordance with Part 4 of the Charities (Accounts and Reports) Regulations 2008. Our audit work has been undertaken so that we might state to the charity's trustees those matters we are required to state to them in an auditors' report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charity and the charity's trustees as a body, for our audit work, for this report, or for the opinions we have formed.

Neil Stevens ACA FCCA (Senior Statutory Auditor)
for and on behalf of TC Group
Statutory Auditors

Office: Plymouth

Date: 16 January 2025

Partnership for Observation of the Global Ocean CIO T/A POGO

Statement of Financial Activities For The Year Ended 31 March 2024

	Notes	Unrestricted fund £	Restricted funds £	**31.3.24 Total funds £**	31.3.23 Total funds £
INCOME AND ENDOWMENTS FROM					
Charitable activities	3				
Centre of Excellence		**-**	**441,568**	**441,568**	581,239
Subscriptions		**230,776**	**-**	**230,776**	231,465
Fellowship programme		**-**	**-**	**-**	21,365
Investment income	2	**3,087**	**-**	**3,087**	370
Total		**233,863**	**441,568**	**675,431**	834,439
EXPENDITURE ON					
Charitable activities	4				
Centre of Excellence		**-**	**343,492**	**343,492**	436,643
NANO activities		**-**	**113,894**	**113,894**	66,264
Shipboard training		**-**	**26,828**	**26,828**	64,777
POGO activities		**257,408**	**4,391**	**261,799**	263,529
Fellowship programme		**20,174**	**-**	**20,174**	21,365
Citizen Observation of Local Litter in Coastal ECosysTems		**-**	**12,322**	**12,322**	13,582
Total		**277,582**	**500,927**	**778,509**	866,160
NET INCOME/(EXPENDITURE)		**(43,719)**	**(59,359)**	**(103,078)**	(31,721)
RECONCILIATION OF FUNDS					
Total funds brought forward		**367,480**	**223,519**	**590,999**	622,720
TOTAL FUNDS CARRIED FORWARD		**323,761**	**164,160**	**487,921**	590,999

The notes form part of these financial statements

Partnership for Observation of the Global Ocean CIO T/A POGO

Statement of Financial Position
31 March 2024

	Notes	Unrestricted fund £	Restricted funds £	**31.3.24 Total funds £**	31.3.23 Total funds £
CURRENT ASSETS					
Debtors	9	**9,454**	**-**	**9,454**	7,336
Cash at bank		**386,269**	**498,916**	**885,184**	1,301,116
		395,723	**498,916**	**894,638**	1,308,452
CREDITORS					
Amounts falling due within one year	10	**(71,961)**	**(334,756)**	**(406,717)**	(717,453)
NET CURRENT ASSETS		**323,762**	**164,160**	**487,921**	590,999
TOTAL ASSETS LESS CURRENT LIABILITIES		**323,762**	**164,160**	**487,921**	590,999
NET ASSETS		**323,762**	**164,160**	**487,921**	590,999
FUNDS	11				
Unrestricted funds				**323,761**	367,480
Restricted funds				**164,160**	223,519
TOTAL FUNDS				**487,921**	590,999

The financial statements were approved by the Board of Trustees and authorised for issue on ..... and were signed on its behalf by:

.....
Captain F A Arias-Isaza - Trustee

The notes form part of these financial statements

Partnership for Observation of the Global Ocean CIO T/A POGO

Statement of Cash Flows For The Year Ended 31 March 2024

	Notes	31.3.24 £	31.3.23 £
Cash flows from operating activities			
Cash generated from operations	1	**(419,019)**	(167,986)
Net cash used in operating activities		**(419,019)**	(167,986)
Cash flows from investing activities			
Interest received		**3,087**	370
Net cash provided by investing activities		**3,087**	370
Change in cash and cash equivalents in the reporting period		**(415,932)**	(167,616)
Cash and cash equivalents at the beginning of the reporting period		**1,301,116**	1,468,732
Cash and cash equivalents at the end of the reporting period		**885,184**	1,301,116

The notes form part of these financial statements

Notes to the Statement of Cash Flows For The Year Ended 31 March 2024

1. RECONCILIATION OF NET EXPENDITURE TO NET CASH FLOW FROM OPERATING ACTIVITIES

	31.3.24	31.3.23
	£	£
Net expenditure for the reporting period (as per the Statement of Financial Activities)	**(103,078)**	(31,721)
Adjustments for:		
Interest received	**(3,087)**	(370)
(Increase)/decrease in debtors	**(2,118)**	3,920
Decrease in creditors	**(310,736)**	(139,815)
Net cash used in operations	**(419,019)**	(167,986)

2. ANALYSIS OF CHANGES IN NET FUNDS

	At 1.4.23	Cash flow	**At 31.3.24**
	£	£	**£**
Net cash			
Cash at bank	**1,301,116**	**(415,932)**	**885,184**
	1,301,116	**(415,932)**	**885,184**
Total	**1,301,116**	**(415,932)**	**885,184**

The notes form part of these financial statements

1. ACCOUNTING POLICIES

Basis of preparing the financial statements
The financial statements of the charity, which is a public benefit entity under FRS 102, have been prepared in accordance with the Charities SORP (FRS 102) 'Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019)', Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland'. The financial statements have been prepared under the historical cost convention.

The charity constitutes a public benefit entity as defined by FRS 102.

The trustees consider there are no material uncertainties about the charity's ability to continue as a going concern. These financial statements are prepared on a going concern basis. The financial statements are prepared in sterling which is the functional currency of the charity and rounded to the nearest £1.

The significant accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all years presented unless stated otherwise.

Income
The charity receives annual subscriptions from its members in alignment with the financial year. Any subscriptions billed in advance are deferred and recognised in the following financial period.

All other income is recognised in the Statement of Financial Activities once the charity has entitlement to the funds, it is probable that the income will be received and the amount can be measured reliably.

Expenditure
Liabilities are recognised as expenditure as soon as there is a legal or constructive obligation committing the charity to that expenditure, it is probable that a transfer of economic benefits will be required in settlement and the amount of the obligation can be measured reliably. Expenditure is accounted for on an accruals basis and has been classified under headings that aggregate all cost related to the category. Where costs cannot be directly attributed to particular headings they have been allocated to activities on a basis consistent with the use of resources.

Grants offered subject to conditions which have not been met at the year end date are noted as a commitment and accrued as an expense.

Allocation and apportionment of costs
All costs that can be directly associated with a charitable activity have been attributed to the activity.

Support costs are those that assist the work of the charity but do not directly undertake charitable activities. Governance costs involving the public accountability of the charity and its compliance with regulation and good practice include costs relating to statutory examinations and legal fees.

Finance costs include all expenses incurred for operation of the charity's bank accounts as well and the total foreign exchange gain or loss the charity has achieved or suffered in the financial period.

Taxation
The charity is exempt from corporation tax on its charitable activities.

Fund accounting
Unrestricted funds can be used in accordance with the charitable objectives at the discretion of the trustees.

Restricted funds can only be used for particular restricted purposes within the objects of the charity. Restrictions arise when specified by the donor or when funds are raised for particular restricted purposes.

Further explanation of the nature and purpose of each fund is included in the notes to the financial statements.

Foreign currencies
Assets and liabilities in foreign currencies are translated into sterling at the rates of exchange ruling at the statement of financial position date.

1. ACCOUNTING POLICIES - continued

Foreign currencies
Transactions in foreign currencies are translated into sterling at the average rate of exchange ruling for the year. Resulting exchange differences are taken into account in arriving at the operating result.

Donated goods
Donated goods are provided in the form of office space with Plymouth Marine Laboratory. The relationship remains healthy and the trustees feel this service will be provided for the foreseeable future.

2. INVESTMENT INCOME

	31.3.24	31.3.23
	£	£
Deposit account interest	**3,087**	370

3. INCOME FROM CHARITABLE ACTIVITIES

	Activity	**31.3.24**	31.3.23
		£	£
Grants	Centre of Excellence	**441,568**	581,239
Subscriptions	Subscriptions	**230,776**	231,465
SCOR income	Fellowship programme	**-**	21,365
		672,344	834,069

Grants received, included in the above, are as follows:

	31.3.24	31.3.23
	£	£
Nippon Foundation	**441,568**	581,209

4. CHARITABLE ACTIVITIES COSTS

	Direct Costs	Grant funding of activities (see note 5)	Support costs (see note 6)	Totals
	£	£	£	£
Centre of Excellence	**335,413**	**8,079**	**-**	**343,492**
NANO activities	**25,258**	**88,636**	**-**	**113,894**
Shipboard training	**4,839**	**21,989**	**-**	**26,828**
POGO activities	**30,959**	**54,925**	**175,915**	**261,799**
Fellowship programme	**-**	**20,174**	**-**	**20,174**
Citizen Observation of Local Litter in Coastal ECosysTems	**-**	**12,322**		**12,322**
	396,469	**206,125**	**175,915**	**778,509**

continued...

5. GRANTS PAYABLE

The total amount awarded to institutions was £60,598 (2023: £440,854), those institutions are listed below:

Alfred-Wegener Institute
Institute of Oceanology, Chinese Academy of Sciences
Hangzhou shallow-sea technology Co. LTD
Istituto Nazionale di Oceanografia e di Geofisica Sperimentale
University of Tasmania
Plymouth Marine Laboratory
Instituto Nacional de Investigação Pesqueira
Indian National Centre for Ocean Information Services
Ensenada Center for Scientific Research and Higher Education
University of Kara
Dalhousie Univeristy
Vlaams Instituut voor de Zee
Centre for Marine and Coastal Studies
Shahjalal University of Science & Techology

Grants paid to the Alfred-Wegener Institute are for the provision of the Centre of Excellence, which provides scholarship training to improve the global knowledge regarding ocean observation. Additionally, small grant was paifor the provision of Open Access Marine Observation Devices (OpenMODS), which helps provide access to important ocean data to less developed countries.

Grants paid to the Isituto Nazionale di Oceanograpfia e di Geofisica Sperimentale are for the provision of Open Access Marine Observation Devices (OpenMODS), which helps provide access to important ocean data to less developed countries.

Grants paid to the Instituto Nacional de Investigação Pesqueira are for regional training workshops on observing the coastal and marginal seas in the western Indian Ocean.

Grants paid to the Indian National Centre for Ocean Information Services are to conduct the training programme on 'Ocean Observations to Societal Applications'

Grants paid to the Plymouth Marine Laboratory are for participants travel and subsistence costs for Action for Sustainable Ocean Acidification Research (ASOAR) and project costs in relation to Citizen Observation of Local Litter in Coastal ECosysTems.

Grants paid to the Ensenada Center for Scientific Research and Higher Education are for the Gulf of Mexico Oceanographic and Meteorological Observation Group (GMOMOG).

Grants paid to the Shahjalal University of Science & Techology are for the regional training program in Bangladesh.

Grants paid to the Vlaams Instituut voor de Zee are for project costs in relation to Citizen Observation of Local Litter in Coastal ECosysTems.

Grants paid to the Centre for Marine and Coastal Studies are for project costs in relation to Citizen Observation of Local Litter in Coastal ECosysTems.

Grants paid to the University of Kara are for the reimbursement of travel and accommodation costs for trainees and instructors, including catering and field trips.

Grants paid to the Dalhousie University are for the provision of start up costs for the Centre

Grants paid to individuals are for the reimbursement of travel expenses, workshops and equipment to allow less developed countries access to the best training courses and events to improve global knowledge of ocean.

The total amount awarded to individuals was £145,525 (2023: £165,281) and the number of individual beneficiaries was 62 (2023: 51).

continued...

6. SUPPORT COSTS

	Management	Finance	Governance costs	Totals
	£	£	£	£
POGO activities	**165,493**	**894**	**9,528**	**175,915**

7. NET INCOME/(EXPENDITURE)

Net income/(expenditure) is stated after charging/(crediting):

	31.3.24	31.3.23
	£	£
Auditors' remuneration	**5,720**	5,408
Auditors' remuneration for non audit work	**3,808**	3,347
Foreign Exchange (gain)/loss	**33,168**	(40,875)

8. TRUSTEES' REMUNERATION AND BENEFITS

There were no trustees' remuneration or other benefits for the year ended 31 March 2024 nor for the year ended 31 March 2023.

Trustees' expenses

During the year there were expenses of £875 paid to trustees. (2023 - £6,468)
This related to 6 trustees travel expenses to attend meetings held throughout the year.

9. DEBTORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	31.3.24	31.3.23
	£	£
Trade debtors	**8,656**	6,334
Prepayments	**798**	1,002
	9,454	7,336

continued...

10. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	31.3.24	31.3.23
	£	£
Trade creditors	**322,344**	1,789
Other creditors	**1,050**	2,850
Accruals and deferred income	**-**	441,569
Accrued expenses	**83,323**	271,245
	406,717	717,453

11. MOVEMENT IN FUNDS

	At 1.4.23 £	Net movement in funds £	At 31.3.24 £
Unrestricted funds			
General fund	**367,480**	**(43,719)**	**323,761**
Restricted funds			
Nippon Foundation Grant	**211,197**	**(47,037)**	**164,160**
Richard Lounsbery Foundation	**12,322**	**(12,322)**	**-**
	223,519	**(59,359)**	**164,160**
TOTAL FUNDS	**590,999**	**(103,078)**	**487,921**

Net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	**233,863**	**(277,582)**	**(43,719)**
Restricted funds			
Nippon Foundation Grant	**441,568**	**(488,605)**	**(47,037)**
Richard Lounsbery Foundation	**-**	**(12,322)**	**(12,322)**
	441,568	**(500,927)**	**(59,359)**
TOTAL FUNDS	**675,431**	**(778,509)**	**(103,078)**

Comparatives for movement in funds

	At 1.4.22 £	Net movement in funds £	At 31.3.23 £
Unrestricted funds			
General fund	397,038	(29,558)	367,480
Restricted funds			
Nippon Foundation Grant	199,840	11,357	211,197
Richard Lounsbery Foundation	25,842	(13,520)	12,322
	225,682	(2,163)	223,519
TOTAL FUNDS	622,720	(31,721)	590,999

continued...

11. MOVEMENT IN FUNDS - continued

Comparative net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	231,835	(261,393)	(29,558)
Restricted funds			
Nippon Foundation Grant	581,239	(569,882)	11,357
Richard Lounsbery Foundation	-	(13,520)	(13,520)
SCOR fellowship	21,365	(21,365)	-
	602,604	(604,767)	(2,163)
TOTAL FUNDS	834,439	(866,160)	(31,721)

A current year 12 months and prior year 12 months combined position is as follows:

	At 1.4.22 £	Net movement in funds £	At 31.3.24 £
Unrestricted funds			
General fund	397,038	(72,277)	323,761
Restricted funds			
Nippon Foundation Grant	199,840	(35,680)	164,160
Richard Lounsbery Foundation	25,842	(25,842)	-
	225,682	(61,522)	164,160
TOTAL FUNDS	622,720	(134,799)	487,921

A current year 12 months and prior year 12 months combined net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	465,698	(538,975)	(72,277)
Restricted funds			
Nippon Foundation Grant	1,022,807	(1,058,487)	(35,680)
Richard Lounsbery Foundation	-	(25,842)	(25,842)
SCOR fellowship	21,365	(21,365)	-
	1,044,172	(1,105,694)	(61,522)
TOTAL FUNDS	1,509,870	(1,644,669)	(134,799)

continued...

11. MOVEMENT IN FUNDS - continued

NIPPON Foundation Fund - Activities related to the delivery of the Centre of Excellence, the Global NANO project and Shipboard Training and outreach programme. During the period, residual funds from prior years were agreed to be repaid to the grant provider and are therefore included in the funds movement for the period.

Richard Lounsbery Foundation Fund - Activities related to the delivery of the Citizen Observation of Local Litter in Coastal EcosysTems programme.

Scientific Committee on Oceanic Research - Activities related to the promotion of training and capacity building leading towards a global observation scheme for the oceans.

12. RELATED PARTY DISCLOSURES

There were no related party transactions for the year ended 31 March 2024.

13. OTHER DISCLOSURES

During the period Plymouth Marine Laboratories gave POGO free use of office space in lieu of membership fees. This has been reflected in the accounts at a value of £4,750 (2023: £3,943), being the membership fees that would have been paid without the agreement.

Partnership for Observation of the Global Ocean CIO
T/A POGO

Detailed Statement of Financial Activities
For The Year Ended 31 March 2024

	31.3.24 £	31.3.23 £
INCOME AND ENDOWMENTS		
Investment income		
Deposit account interest	**3,087**	370
Charitable activities		
Subscriptions	**230,776**	231,465
SCOR income	**-**	21,365
Grants	**441,568**	581,239
	672,344	834,069
Total incoming resources	**675,431**	834,439
EXPENDITURE		
Charitable activities		
Insurance	**448**	934
Events and associated travel	**22,836**	35,181
Outreach materials	**2,557**	12,671
Website development	**5,104**	2,125
Project administration	**75,691**	66,592
Foreign exchange (gain)/loss	**33,167**	(40,875)
Residual grant returns	**256,666**	-
Grants to institutions	**60,599**	440,854
Grants to individuals	**145,526**	165,281
	602,594	682,763
Support costs		
Management		
Trustees' expenses	**875**	6,468
Office rent	**4,750**	3,943
Annual Meetings	**6,569**	3,991
Postage and stationery	**95**	272
Travel	**5,722**	11,157
Staff training	**1,094**	458
Subscriptions	**1,956**	3,134
Contribution to key management personnel	**144,432**	144,209
	165,493	173,632
Finance		
Bank charges	**894**	1,010
Governance costs		
Auditors' remuneration	**5,720**	5,408
Auditors' remuneration for non audit work	**3,808**	3,347
	9,528	8,755
Total resources expended	**778,509**	866,160
Net expenditure	**(103,078)**	(31,721)

This page does not form part of the statutory financial statements

PARTNERSHIP FOR OBSERVATION OF THE GLOBAL OCEAN

England & Wales - Charity number 1171692

Accounts

REGISTERED COMPANY NUMBER: CE010344 (England and Wales)
REGISTERED CHARITY NUMBER: 1171692

Report of the Trustees and

Financial Statements

For The Year Ended 31 March 2023

for

Partnership for Observation of the Global Ocean CIO T/A POGO

Bromhead
Chartered Accountants
Statutory Auditors
Harscombe House
1 Darklake View
Plymouth
Devon
PL6 7TL

Partnership for Observation of the
Global Ocean CIO
T/A POGO

Contents of the Financial Statements
For The Year Ended 31 March 2023

Partnership for Observation of the Global Ocean CIO T/A POGO

Report of the Trustees For The Year Ended 31 March 2023

The trustees who are also directors of the charity for the purposes of the Companies Act 2006, present their report with the financial statements of the charity for the year ended 31 March 2023. The trustees have adopted the provisions of Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019).

OBJECTIVES AND ACTIVITIES

Objectives and aims

The charity aims to bring together the world's major oceanographic institutes to plan joint actions to advance sustained ocean observations for societal benefit. POGO institutes are motivated by a common belief that advancing scientific understanding of the ocean is rooted in making systematic, high quality measurements. They believe that this understanding and its wise use are critical to, and will make a real positive difference in, enabling humanity to develop a sustainable relationship with a healthy, productive and biologically diverse ocean. POGO is further motivated by the shared belief that its vision can only be realised by working together across the world, where we can achieve together what none of us could do alone.

The ocean produces half of the world's oxygen, most of its fresh water and much of its food. It regulates climate and weather, is critical to the cycling of heat, water and carbon. It is the source of huge biodiversity. However, far too little is known about the state and functioning of the ocean. Accordingly, scientifically sound study of the ocean and support and advocacy for such study (and for the conclusions drawn from it) is of vital importance to mankind. POGO seeks to expand international support for ocean observing, through innovation of the ocean observing system, capacity development and outreach/advocacy.

In terms of innovation, POGO members are at the forefront of oceanographic methods and technology development, often in partnership with industry, as they are the future "users" of such new technologies. Thus, POGO is in a critical position to identify the emerging methods and technologies that POGO members are developing and using, and highlighting those that can be expanded and deployed on a global scale in order to achieve global datasets of specific parameters measured using the same or comparable methods. POGO also focusses on the affordability issues associated with ocean observing, particularly for developing countries, and is therefore engaged in projects to develop low-cost sensors and systems for coastal ocean observing. The societies and economies of many developing countries rely heavily on the ocean, for example through coastal tourism, trade infrastructure, natural resource extraction, and small-scale and industrial fisheries and aquaculture. However, extreme weather events, sea-level rise, tsunamis, harmful algal blooms and water pollution threaten the world's poorest and most vulnerable coastal and island communities. Ocean observations and information services can be used to improve human health and safety and food security, support livelihoods and small-scale economic activities (artisanal fisheries and aquaculture, coastal tourism), and improve climate resilience and disaster risk reduction.

POGO also recognises that the expertise for conducting ocean observations is not evenly distributed between countries, and therefore the ocean is unevenly observed, with a much higher density of observations conducted in the North Atlantic and North Pacific, than in, for example, the South Atlantic, South Pacific and Indian Oceans. POGO therefore provides professional training opportunities for early-career scientists, mainly from coastal developing countries, to expand the worldwide capacity for conducting sustained ocean observations, data collection, analysis and management, and interpreting the scientific results for the benefit of society.

Many actors, working together internationally, are needed to bring about sustainable management of the oceans that is informed by sound science, underpinned by a comprehensive global ocean measurement system. These include national governments, non-governmental organisations, the wider scientific community, funders of research and monitoring programmes, and individual citizens working individually and collectively. POGO highlights the societal need for ocean observations, as well as the key issues facing global ocean observing, and the obstacles hampering the completion of a global ocean observing system, and brings these issues to the relevant stakeholder groups outlined above.

The objects of the CIO are to advance the science of global ocean observation for the public benefit, in particular (but not exclusively) by:

i. Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation;

ii. The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research;

iii. The provision of scholarships and research fellowships;

iv. The promotion of innovation and technology in the science of global ocean observation.

In the short term, POGO aims to provide training for early-career scientists, to develop the next generation of scientists and ocean observers, as well as to raise the levels of awareness and education about the importance of the ocean and ocean observing for society. Measures of success include numbers of trainees, numbers of countries having received training, numbers of website visits and downloads of outreach materials, mentions on social media and other statistics.

The longer-term vision is to develop the capacity of research institutions in developing countries to conduct ocean observations, by (1) integrating the trained scientists and their institutions into the POGO network and having them actively participate in POGO projects, (2) sharing best practices among POGO member institutions, and (3) contributing to the development and dissemination of low-cost instrumentation for coastal ocean observing. Measures of success include numbers of POGO members and numbers of new (developing) countries being added to the network, establishment of new ocean observing systems in those countries, and demonstrated long-term impacts of the training programmes (e.g. >5 years after the training, on institutional capacity and continued knowledge-transfer).

Significant activities
The CIO has been working towards the stated aims and charitable objects in the following ways:

i. **Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation:** this has been achieved by supporting Working Groups on specific topics related to ocean observation, such as the Biological Observations WG, which led a proposal to the UN Decade of Ocean Science for Sustainable Development for an "Ocean Biomolecular Observing Network" (OBON).

ii. **The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research:** this has been achieved through POGO's outreach and advocacy initiatives, through printed, on-line and social media and in particular the creation of ocean observing case studies. POGO has been conducting a citizen science project on coastal litter with field work and outreach activities in 6 African countries and Malaysia. POGO also participated in the COP27 Climate Conference, with an exhibition booth, side events, and sponsorship of the first ever Ocean Pavilion in Sharm el-Sheikh in Nov 2022.

iii. **The provision of scholarships and research fellowships:** scholarships and fellowships have been provided to 29 early-career scientists for training/education periods of between 1 and 10 months during this financial year.

iv. **The promotion of innovation and technology in the science of global ocean observation:** this has been conducted mainly through two innovation projects focussing on developing low-cost instrumentation for ocean observing aimed at developing countries and citizen science.

More detailed information on these activities can be found below, under the heading "Achievement and Performance".

Public benefit
The trustees have complied with their duty, as set out in the Charities Act 2011, with regard to the public benefit guidance published by the Charity Commission.

The CIO has been working towards achieving its charitable objectives, delivering benefit to the wider public through its work to advance sustained ocean observations.

OBJECTIVES AND ACTIVITIES

Grantmaking

POGO allocates some of its funds (received from charitable foundations and/or membership dues) to help support ocean observation activities (e.g. through Working Groups) and to provide training for early-career scientists (generally in developing countries). POGO has a set of policies and procedures for allocating such grants, which are summarised below.

POGO issues a call to its members, generally once per year, for proposals for Working Groups, workshops, travel grants, training initiatives and other activities that are directly relevant to POGO's core mission, i.e. sustained, long-term ocean observing systems and shared use of infrastructure, data and information. This includes a template for applicants to complete and submit to the POGO Secretariat. Proposals must be submitted by members of POGO, although participants can be from other institutes if necessary. If a Working Group or other initiative wishes to be funded for a second year, a request for extension must be submitted, using the template provided, by the same deadline as the new proposals. A sub-committee of POGO members (who do not have conflicts of interest) reviews the proposals, according to a number of criteria, e.g. relevance to POGO's Strategy and priority areas; timeliness of proposal; adequacy of proposed deliverables and milestones; adequacy of WG/project membership (including geographic and gender balance). For training initiatives, the expected impact of the training and proposed methods for evaluating success are also taken into account. The Committee then makes recommendations to the Board of Trustees on the proposal(s) to take forward, depending on the available budget. The availability of other funding sources is not a determining factor in the selection process.

POGO and the Nippon Foundation have set up the NF-POGO Alumni Network for the Ocean (NANO) to maximise the benefits to the alumni from the training received and facilitate active contacts among the alumni. Through POGO, the Nippon Foundation funds modest regional and global research projects and public outreach projects. Proposals are received in response to an open call, and funding is renewed for successive years based on performance. The projects are selected according to the following criteria:

(1) Projects should have an observational/applied focus (not "blue skies" research)
(2) They should have a societal benefit focus
(3) They should add value to and build upon existing programmes/projects
(4) Funding should be used mainly for coordination (but also consumables, field work, modest equipment).
(5) Projects should be coordinated by NANO alumni but participants can be a mixture of alumni and external scientists. They should be supported by senior mentors and endorsed by the participating institutes' senior management.
(6) They should include a minimum of two different countries, preferably more.

POGO also offers scholarships/fellowships to individuals, both through the Nippon Foundation grant and using its own funds as well as a grant from the Scientific Committee on Oceanic Research (SCOR). These fellowships all operate following similar procedures, i.e. an announcement and call for applications is made, which is open to anyone who fulfils the country and scientific background/career stage requirements (e.g. Official Development Assistance recipient countries, early-career scientists, but not just those affiliated with POGO member institutions). An impartial committee composed of one or two members of the POGO Secretariat, representatives of any partner organisations and/or other experts from the scientific community (often involved in teaching/supervising students) is assembled to review the applications, based on a set of criteria such as quality of the applicant (education/experience/potential), quality of the training proposal or motivation letter, quality of the host institute (if applicable), relevance to POGO and to the priority areas identified in the call for proposals, and potential for sustained capacity building in the host institute/country. The scores are then totalled, and a number of top-ranked applicants are selected according to the budget available, with consideration given to gender and geographical balance, as well as occasionally other factors such as whether the candidate has received POGO funding previously.

STRATEGIC REPORT
Achievement and performance
Charitable activities
POGO Communication Strategy:

Overall, POGO has increased its visibility through its web presence, social media and representation at international meetings (both virtual and in-person). Specifically, POGO was represented by Secretariat staff, trustees or members, at:

- European Maritime Day - in-person and virtual (Ravenna, Italy, May 2022)
- 2nd UN Ocean Conference - in-person and virtual (Lisbon, Portugal, June 2022)
- CLIVAR Workshop "From Global to Coastal: Cultivating New Solutions and Partnerships for an Enhanced Ocean Observing System in a Decade of Accelerating Change" (Trieste, Italy, August 2022)
- SCOR Annual Meeting (Oct 2022) -virtual
- UNFCCC Climate Conference COP27 (Nov 2022) -in person
- Fifth International Conference on Marine Science Communication (CommOCEAN 2022 -in person (Sete, France, Nov/Dec 2022)
- Various planning meetings and webinars for the UN Decade of Ocean Science for Sustainable Development -virtual.

POGO representatives also contributed to planning and oversight committees for:

- Group on Earth Observations (GEO) Blue Planet Initiative
- International Quiet Ocean Experiment (IQOE)
- Ocean Info Hub
- UN Decade of Ocean Science for Sustainable Development Communications Advisory Group.

Presentations were given on POGO at several of these events. POGO information packs have also been sent to a number of prospective members.

An interactive POGO Annual Report has been published for the first time, covering the period Sept 2021 to August 2022. This was released in December 2022 and printed copies distributed at the POGO Annual Meeting in January 2023. The report was then translated into French in March 2023.

The POGO website has continued to be developed and updated with more information on how our members contribute to GOOS, new additions to the interactive timeline of POGO's history, the launch of our ocean observing case studies page, and of our new interactive Strategy. POGO maintains an active social media presence on Twitter (@POGO_Ocean), Facebook (/POGO.Ocean/), Instagram (/pogo_ocean) and LinkedIn (/pogo_ocean), as well as a minor presence on YouTube. Social media continues to be an excellent means to share news and information with an interested and interactive audience. In addition, the secretariat runs or shares responsibility for the following Twitter accounts: Ocean Training Partnership, NANO Network, and Blue Planet.

Object 1: Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation:

Progress has been achieved by providing grants for Working Groups (WGs), through the launch of the Ocean Biomolecular Observing Network (OBON) as a programme of the UN Decade of Ocean Science for Sustainable Development, and the continuation of a Nippon Foundation-POGO Alumni Network for the Ocean (NANO) Global Project.

Biological Observations WG/ Ocean Biomolecular Observing Network:

The efforts of the POGO Biological Observations WG to foster and expand biological ocean observations culminated in 2021 in the creation of a global programme, the Ocean Biomolecular Observing Network (OBON), that will use techniques to analyse biomolecules such as DNA, RNA, and proteins (e.g., eDNA analysis, metabarcoding, omics) to enhance coastal and open ocean biodiversity observations. The proposal was endorsed by the UN Ocean Decade in June 2021.

The objectives of OBON are:

O1) To build a coastal-to-open ocean multi-omics biodiversity observing system over the Ocean Decade.

O2) To develop and transfer capacity so as to initiate additional marine biomolecular observation activities through training programs combined with funded equipment programs supported by development/aid agencies and philanthropy.

O3) To enhance marine ecosystem models (including new modelling based on machine learning) by adding biomolecular components so the models can utilize data collected from the coordinated molecular observations described in O1 and generate 4D multi-omic biodiversity seascapes.

O4) To address pressing scientific, management, and policy questions linked to the state and dynamics of life in the ocean, including exploited resources and those affected by other pressures.

OBON has made excellent progress this year in establishing its governance structure, developing its brand, establishing communications channels, developing (meta)data interoperability channels, and securing funding for start-up activities, as well as participating in the UNDOS endorsement process. OBON coordination has been supported through financial and in-kind support from POGO. A part-time Programme Officer was hired from January to December 2022, and we are in the process of appointing a new one.

OBON has established a Scientific Advisory Committee, which has met virtually on a monthly basis, and in-person in Sept 2022, with funding from the Lounsbery Foundation for the meeting. The SAC has worked on establishing an Executive Committee, to be in place by end June 23. OBON participated in the 3rd, 4th and 5th calls for proposals, and so far has 14 projects endorsed under its umbrella. The projects were invited to an in-person meeting in Plymouth, UK (Sept 22) and a virtual meeting in April 2023.

A logo was developed and a preliminary website created, and a full website is being developed to include information on all endorsed projects, sampling stations, governance, etc (launch planned for July/Aug 23). Twitter and Instagram accounts have been set up and a newsletter created. OBON presentations were given at UNFCCC COP27 (Nov 2022), CBD COP15 (Dec 2022) and the POGO annual meeting (Jan 2023), to name a few. OBON was the topic of a publication in the Journal of Marine Technology and a podcast on the "Ocean Decade Show".

WG on Building Capacity in Ocean AcidificaTion MoniToring in the Gulf of GuineA (BIOTTA)

Grant (10K EUR) awarded to the University of Ghana to lead the WG and support capacity building workshop; funding has leveraged 100K USD from the Ocean Foundation to purchase equipment to set up the monitoring stations.

Changing ocean pH coupled with other climate and non-climate stressors such as pollution and overfishing present huge threats to the future of the fishery and other marine resources in the Gulf of Guinea (GoG). A lack of skills in the measurement of ocean acidification (OA) hinders ocean observation, which puts the fishery and other marine biological resources in the GoG at greater risk.

In this context, the BIOTTA working group was set up to equip graduate students, early career ocean scientists and other marine science professionals in the GoG region with skills on sustainable OA data acquisition to expand our understanding of the threats, risks and impacts to marine ecosystems and chart pathways for sustainable management of marine resources at risk to OA in the GoG region.

The BIOTTA working group objectives are to:

1. Develop a coordinated network for observing OA in the GoG: the network has been formed, with partners from new countries (Benin, Cote d'Ivoire and Cameroon) added to the original group of country representatives from Ghana and Nigeria.

2. Develop capabilities to undertake analysis of seawater OA parameters using low-cost, readily available and easy-to-use equipment: this is underway, with an on-line training course having been prepared by the Ocean Foundation and IOC-UNESCO, and trialled in the Pacific Islands. The on-line training is due to be implemented in the BIOTTA countries in 2022/23, in conjunction with an in-person training course.

3. Map OA hotspots in BIOTTA member countries for long-term OA monitoring: planned for after the training.

4. Initiate OA monitoring activities in BIOTTA member countries after successful mapping of hotspots in these countries, making use of OA observation kits developed by GOA-ON and the International Atomic Energy Agency (IAEA): planned for after the training. This year, the WG has continued to liaise with international partners, The Ocean Foundation, GOA-ON, IOC-UNESCO and IAEA to ensure alignment of efforts in the region. The WG leader and POGO Secretariat participated in several calls with representatives of these organisations, to discuss ongoing activities in the region. Part of the funding obtained from The Ocean Foundation has been used to hire a Coordinator for the implementation of the ocean acidification kits. Information has been gathered from the WG participants regarding their existing capabilities and resources and their requirements.

5. Integrate into global OA observing networks, such as GOA-ON, with the goal to share and make data available to the global ocean observing community: planned for once monitoring activities established.

WG on Acquisition of Oceanographic Data for Sustainable Resources Management in the Gulf of Guinea:

Grant (10K EUR) awarded to the Nigerian Institute for Oceanography and Marine Research (NIOMR) to lead the WG, support travel costs and ship operations.

The WG aims to obtain data on seawater characteristics up to the 500m isobath within the Gulf of Guinea, to provide salient information for physical, chemical, biological and geological description of the water column and sediment characteristics within this region. The main objectives were to collect oceanographic data to complement the completed and ongoing international programs within the Gulf of Guinea region, establish and maintain a long-term network of measurements within the Gulf of Guinea, and also incorporate training and local capacity building.

To fulfil one of the goals of POGO in building a community of ocean scientists, this WG brought together marine scientists from five African countries within the Gulf of Guinea region (Nigeria, Benin, Togo, Ghana and Côte d'Ivoire), in partnership with oceanographers from GEOMAR, Germany. The main goals were:

- To establish a regional oceanographic databank needed for studies on the analysis and monitoring of ocean and climate conditions within the Gulf of Guinea, their influence on the regional climate, and sustainable management of living and non-living resources (e.g. identification of potential fishing zones): a comprehensive dataset was collected during the first leg of the cruise (January 2021) and the WG analysed and discussed the data during a workshop on 21-22 Sept 2022. The workshop and the WG activities received significant media coverage in both the local media and the Financial Times.

- To promote regional capacity building through academic/research institutions and shipboard trainings: this was achieved through the provision of shipboard training fellowships to 6 early-career scientists from the region (Benin, Cote d'Ivoire, Ghana and Nigeria) who spent 1 month receiving training at NIOMR prior to the cruise and one month processing samples and data after the cruise.

- To develop and maintain a long-term ocean monitoring network within the Gulf of Guinea region: this was discussed during the workshop and resources will be sought to support a longer-term network.

- To assist governments through research and development in implementing sustainable economic policies on living and non-living resources, which are geared towards sustainable societal livelihood: this is a longer-term goal that will require sustained monitoring and communication efforts.

WG on Capacity building for biochemical observation of anthropogenic pollution in tropical, transitional waters (BEACON)

Grant (10K EUR) awarded to the University of Ghana to lead the WG and support capacity building workshop and procure field equipment.

There is a need to build capacity to monitor human activities (e.g., pollution) on benthic communities and chemical tracers within the biota and sediment in the coastal waters of the Gulf of Guinea. The capacity building will increase access to state-of-the-art sampling methodologies, laboratory processes, and instrumentations useful for expanding the knowledge of Benthic Biodiversity and Chemical tracers in biota coupled with the sediment in West Africa, a field poorly documented. Mercury is a toxic element occurring in low concentrations, but its by-product, methylmercury, is highly toxic, and can accumulate in the sediment and biota (e.g., bivalves and fish). This can lead to human health concerns, such as increased risk of circulatory system disorders and cancers, through consumption of contaminated food.

Benthic organisms are good bioindicators for investigating anthropogenic environmental disturbances such as pollution, as species composition can reflect the ecological conditions of an aquatic environment. Transitional waters (e.g., estuaries) are complex systems that are regional in scale. There is limited information on transitional tropical waters and their biota in the particular spatial regional inventory of benthic fauna from West Africa. Increasing human population coupled with growing demand for a resource and generation of wastes put coastal lagoons and estuaries at risk of collapse. Continuous monitoring of these systems is necessary for understanding changes in their ecosystem structure and functioning. Yet, there is inadequate information on well-documented biological data and biota as chemical tracers of contaminants from the tropical West Africa coast. Information on species occurrence, habitat, and spatial-temporal distribution will allow local and regional distribution of indicator species to understand pollution and environmental change.

It is important to build the capacity of interdisciplinary scientists to help monitor and measure human impacts on transitional and coastal waters. The BEACON working group will organise a workshop for interdisciplinary scientists on benthos sampling with bottom grab and Multi-Parameter Probe to observe the conditions of the coastal waters and use of a Direct Mercury Analyzer to measure chemical tracers such as analysis of total Hg in sediment and biota.

The BEACON working group will contribute spatial knowledge on benthos and contaminant of Hg in biota and sediment from coastal waters in the Gulf of Guinea. The preliminary findings can support decision-making, policy development for biodiversity conservation, future coastal benthic research, and understanding of pollution in tropical transitional coastal waters.

BEACON has established membership among participating countries (Ghana, Côte d'Ivoire, Nigeria, Togo and Benin) through the Biochemical Observation Network (BON) for field training for graduate students in pollution studies.

The BEACON Hybrid Workshop, held in Ghana in March 2023, contributed to scientific knowledge sharing (both in-person and online), and delivered field and practical hands-on experience on biological sampling and mercury analysis in sediment via Direct Mercury Analyser (DMA).

The preliminary results show contamination of coastal waters in West Africa through unavailable living biological organisms but the presence of empty shells and Hg in sediment.

The group proposed "BEACON West Africa Research Clusters" for further scientific collaboration.

Action for Sustainable Ocean Acidification Research (ASOAR)

Grant (9.936 K EUR) awarded to Plymouth Marine Laboratory to lead the WG and host a hybrid workshop.

Ocean acidification (OA) is a global issue, with the driver being global emissions of carbon dioxide. However regional and local seawater conditions affect the rate of acidification, making it more difficult to predict local impacts and consequences of OA. Coordinated monitoring efforts are required to gather informative and scale-able data on the progress of OA and to support positive action for protecting the marine environment. Over recent years the Global Ocean Acidification Observing Network (GOA-ON), a network set up to establish universal principles for monitoring OA, bring together data access, and to share and exchange knowledge, has formed regional 'hubs' to allow specific regions to coordinate activities, data and projects. These include Latin America, Africa, Western Pacific (Asia), North America, the North East Atlantic, the Mediterranean, South Asia, the Arctic and the Pacific Islands and Territories. Under the umbrella of GOA-ON these regional hubs are able to conduct relevant activities that deliver on the needs of their local stakeholders, while still maintaining a global coordinated effort on OA research.

The UN Decade of Ocean Science for Sustainable Development has endorsed a 10-year programme of coordinated OA research proposed by GOA-ON. The Ocean Acidification Research for Sustainability (OARS) programme sets out 7 outcomes that need to be delivered by the global OA community (see http://www.goa-on.org/oars/overview.php.) A large part of this delivery will be through activities and engagements planned and executed through the GOA-ON regional hubs. The Action for Sustainable Ocean Acidification Research (ASOAR) POGO working group will consider how the North-East Atlantic hub will deliver on the outcomes of OARS. The working group also includes participation from other regional hubs to ensure the benefits of the group discussions are disseminated beyond the NE Atlantic region and facilitate cross-hub collaborations and interactions.

The first working group meeting took place online on 28th September to define the aims and objectives of the group as well as start to make an assessment of known activities and how they relate to the objectives of OARS. A hybrid meeting was held in March 2023 and look forward to further developments.

Gulf of Mexico Oceanographic and Meteorological Observation Group

Grant (10K EUR) awarded to CICESE, Mexico, to lead the WG and host a workshop.

Monitoring is key to numerical modelling efforts for predicting hurricanes and frontal systems, assessing and sustaining ecosystem health and function, managing marine resources, optimising restoration efforts and assessing anthropogenic impacts from climate change, eutrophication, loss of biodiversity, deoxygenation, acidification, overfishing and sea level rise. However, when in situ monitoring efforts are examined at a basin or ocean level, they can vary widely, particularly when multiple surrounding countries are involved. This is due to differences in the extent of sustained government funding, the presence/absence of agencies tasked with data collection, curation, storage and distribution, and dissimilarities in human and infrastructure capacities.

The Gulf of Mexico (GoM) covers about 1.6 million km2 and is surrounded by Mexico, the United States, and Cuba. Historically, most of the continuous in situ monitoring efforts have been limited to coastal areas and US waters, with the notable exception of moorings within the deep water region of the Mexican EEZ and Yucatan Channel as well as government-mandated environmental monitoring of oil exploration and exploitation leases in the southern Gulf (which is not currently public). Recently, the capacity to monitor Mexican waters was expanded through the execution of the CIGOM (Gulf of Mexico Research Consortium) project, which was funded by the National Council for Science and Technology (CONACYT) and the Ministry of Energy (SENER) Hydrocarbon Fund so to build scientific capacity toward oil spill preparedness.

The goals of the Gulf of Mexico Oceanographic and Meteorological Observation Group funded by POGO are to (1) survey existing monitoring efforts and gage their permanence through time, (2) evaluate the spatial and temporal scales over which they operate, (3) detect key data gaps and compare current measurements with the Global Ocean Observing System (GOOS) essential ocean variables and essential climate variables, (4) prioritise monitoring data needs and identify agencies or sectors that would benefit, and (5) outline a plan for engagement entities responsible for monitoring efforts, stakeholders and users of information. The scope of the survey will focus on the continental shelves and deep water region of the Gulf of Mexico, and the work group will include participants from the US, Mexico and Cuba.

An up-to-date assessment of the ocean monitoring efforts currently in place throughout the GoM will provide the basis for advising government agencies regarding their availability and conditions of use, prioritising the most pressing data needs, and working toward a basin-wide integrated ocean observing system that could be linked to global efforts.

CEODOS Chile: A consortium for surveying the coastal ocean in the easter South Pacific

Grant (10K EUR) awarded to COPAS, University of Concepcion, Chile, to lead the WG and host 2 workshops.

The CEODOS program (co-coordinated by the COPAS center) is a new Chilean initiative that will follow the present and future status of the biological pump along the entire coast of Chile every 5 years.

The first expedition, in the frame of TARA MICROBIOME (a 2-year campaign covering South America and Africa) was held in 2021. Genomics and biogeochemical samples will be analysed and results integrated into AI algorithms in order to get a better understanding and prediction capacity of the future of carbon sequestration in the eastern south Pacific.

POGO is funding two bilateral workshops for data analysis in Concepcion (Chile) and Banyuls sur Mer (France) that will allow integrating data of several biomes generated by this expedition.

Main milestones of the CEODOS Chile / ATLANTECO working group include but are not restricted to:
- Integration of data bases of the Pacific leg TARA MCIROBIOME expedition: deliverable to be a joint publication
- Development of indicators of carbon productivity along the Chilean coast (to be achieved by the end of 2023)
- Long term data acquisition coordination for ocean observatory policies at key points of the Chilean coast (2024)
- Report on Ocean monitoring and governance for Chilean government (2023)
- TARA Microbiome special issue (2024)
- Indicators for key planktonic areas: first prototype to be achieved in Magallanes area South of Chile (2023)
- Organization of CEODOS II expedition along the Chilean coast (to be carried out in 2026).

NANO Global Project "A global study of productivity, deoxygenation and ocean acidification at selected coastal sites":

Research grants awarded to 17 participating institutions in the following countries: Argentina, Bangladesh, Brazil, Colombia, Ghana, India, Indonesia, Kenya, Lebanon, Mexico, Nigeria, Senegal, Thailand, Togo and Tunisia.

The NANO global project has three major components:
- Promote in situ and remotely sensed observations of the ocean at selected coastal sites in order to contribute to the global effort of monitoring the levels of ocean acidification and deoxygenation;

- Provide opportunities to the project participants for: i) capacity building to strengthen their efforts to monitor levels of acidification and oxygenation; ii) join larger observation networks of ocean acidification and deoxygenation;

- Organize workshops and webinars dedicated to share experiences in i) monitoring levels of productivity, acidification and oxygenation; ii) training on marine data management; iii) compare results from fieldwork and produce a biogeographic distribution of the stations.

Field work was conducted in 2022-23 in all countries, for a set of variables (e.g., temperature, chlorophyll-a, pigments, bio-optical variables, conductivity, nutrients, total alkalinity, pH, dissolved oxygen, phytoplankton) varying from station to station. The budget was allocated depending on the local sampling costs, so as to enable each country to sample on a bimonthly basis (up to a maximum of 3K EUR per station).

Object 2: The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research:

POGO outreach and advocacy:

Public outreach is normally conducted through participation in international exhibitions, and 2022/23 saw a gradual return to face-to-face exhibitions, meetings and conferences. During this year, POGO participated in various events both in-person and virtually (see section on Communication Strategy).

All of POGO's brochures, leaflets and other written products are available as digital versions online. POGO has now moved away from printed (paper) materials, with the exception of small quantities of postcards to distribute, otherwise favouring the display of laminated 'hard copies' of leaflets on our booths, and of QR codes on our promotional banners to give mobile device users quick and easy access to digital copies. We are also limiting the production and handing out of branded USB Flash Drives.

For the first time, this year an interactive annual report has been produced (https://pogo-ocean.org/pogo-annual-report/) and translated into French.

The Secretariat has continued to add to the POGO Case Studies illustrating the socio-economic benefits of ocean observing. A freelance science writer was contracted to work on the project and to interact directly with researchers at POGO institutions. From the call for story ideas issued to all POGO members in May, the second phase of the project has focussed on the theme of Climate-critical observing, with case studies from China, Japan and UK. The third phase, focussing on Geohazards, is underway. The case studies are designed for use in a variety of settings - website, social media, print, etc - to help those outside the ocean observing community to understand the value of such observations in the wider societal context, and the critical need for GOOS. We have created an Interactive Map on the POGO website (https://pogo-ocean.org/pogo-member-case-studies/), with links to each example, and printable PDFs.

Citizen Observations of Local Litter in Coastal ECosysTems (COLLECT) -citizen science project

Project funded by the Richard Lounsbery Foundation, led by Dr. Ana Catarino from the Flanders Marine Institute (Belgium) and Dr. Edem Mahu from the University of Ghana, 100K USD, Jan 2021 - Sept 2022 (extended to July 2023). Funds provided to the University of Ghana, NIOMR, University of Calabar, CURAT, IRHOB, IMAR and INRH.

COLLECT aims to acquire data on marine plastic debris distribution and abundance on the coasts of six African countries, through training citizen scientists (secondary school students) and promoting knowledge transfer between local communities, researchers, and POGO members.

This project targeted ten secondary schools from six African countries (Ghana, Nigeria, Benin, Ivory Coast, Cape Verde and Morocco) and an external collaboration with Malaysia. Each POGO collaborator (except for Malaysia) received funds for materials, media engagement, and field trip costs. The collaborator in Malaysia shared the protocols but conducted the field work at their own cost.

The main scientific tasks focused on developing a sampling protocol for macro, meso and microplastics in sandy beaches, for the citizen scientists (school students), using systematic sampling techniques along a 50 m transect. The protocol included a technical extended version for partners and teachers, and an illustrated (2-pager/video) simplified version for students. Protocols included datasheets based on the OSPAR classification of macroplastic and on the vocabularies used by EMODnet Chemistry. All materials were produced in the three working languages (English, French and Portuguese). The project includes a data management plan (DMP), submitted to the VLIZ Data Centre and stored at the DMPonline platform (dmponline.be). The first sampling season took place in October 2021, and the data analysis began in January 2022. The second sampling season took place in March 2022.

Over the last financial year, the team has been working on data analysis, publications, and preparing a calibration exercise for plastics identification between 4 research institutions in 4 countries (Belgium, Ghana, Malaysia, UK). The project had its first peer reviewed publication released in January 2023 in Frontiers in Marine Science. This is available on the Integrated Marine Information System (IMIS, www.vliz.be/en/imis), together with five other digital assets, including procedures, illustrated protocols and the first available dataset. A second publication, on the social science component of the project, has been submitted.

Reference: Catarino, A.I.; Mahu, E.; Severin, M.I.; Akpetou, K.L.; Annasawmy, P.A.; Asuquo, F.E.; Beckman, F.; Benomar, M.; Jaya-Ram, A.; Malouli, M.; Mees, J.; Monteiro, I.; Dwiga, J.; Silva, P.N.; Nubi, O.A.; Martin-Cabrera, P.; Sim, Y.K.; Sohou, Z.; Pinn, W.S.; Zizah, S.; Everaert, G.; Hwai, T.S.; Krug, L.A.; Seeyave, S. (2023). Addressing data gaps in marine litter distribution: Citizen science observations of plastic pollution in coastal ecosystems by high-school students. Front. Mar. Sci. 10: 1126895. https://doi.org/10.3389/fmars.2023.1126895

South East Asia project for General Regional Awareness of Seagrass by Society (SEAGRASS)

Grant awarded to the Centre for Marine and Coastal Studies (CEMACS) of Universiti Sains Malaysia (USM) to cover field trip expenses, production of videos and pamphlets, and expenses for international speakers.

The Straits of Malacca is the second busiest ocean maritime trade route in the world with a passage of over a thousand ships a day transiting its waterways. Naturally, this brings with it a lot of environmental pressure and risks to existing natural habitats. However, there are still very special pockets of marine habitats that possess high diversities of marine life such as shallow seas, intertidal mudflats, uninhabited islands and seagrass beds. We have chosen the Middle Bank (northern Straits of Malacca) - an area of rich seagrass community to study its changing evolution in an evolving climatic and anthropogenic influence. As the only extensive and established seagrass area in the northern Straits of Malacca, Middle Bank seagrass meadow serves as nursery ground for many commercially important fish and mollusc species. Small-scale fisheries using artisanal fishing gears are also done by local coastal communities at the seagrass meadow as their livelihood. Apart from physical uses for societal and economic importance, CEMACS has been working closely with Penang State Government to gazette this area as ecologically important, serving as a carbon sink (complementing adjacent mangrove area) to mitigate climate change and offset the state's carbon emission.

The proximity of the Middle Bank to a World Heritage Site can be exploited to drive awareness and education on the value of these marine habitats to the general public. We hope this will encourage the local government and agencies to set up a marine protected area for research, monitoring and education. Awareness and education programmes will be deliberated by the cooperative partners in the project where this may later be promoted to other relevant areas of the region and our global partners.

Through this project, the Centre for Marine and Coastal Studies (CEMACS) has started creating environmental awareness of the Middle Bank seagrass bed (Penang, Malaysia) as an important cultural and natural heritage to the various stakeholders. Among the first and earliest activities were the field trips to the seagrass bed for the collection of materials of photographic and video materials for teaching and production of learning materials for biodiversity conservation at the Middle Bank. Simultaneously, scientific training and capacity development programmes for university students were also successfully conducted.

As part of the awareness, outreach, and advocacy programme, several stakeholder engagement activities with the local government agencies, community representatives, and the public were conducted to promote the protection of the Middle Bank seagrass bed in the Straits of Malacca. We have also engaged with international schools on the idea of a marine protected area as a natural and cultural heritage - providing early sensitisation to seagrass beds' benefits and importance and marine conservation through a virtual tour.

Along with that, CEMACS, with the collaboration of Ocean Best Practices Systems (OBPS), held a successful workshop on 'Best Practices of Seagrass Monitoring' during OBPS Workshop IV on 7th October 2022. This workshop aspired to introduce protocols for seagrass monitoring that have been adopted in seagrass areas across different countries. The team also had the opportunity to share their findings during the 6th International Congress of Fisheries and Aquatic Research (ICFAR) which was held virtually.

Milestones and Deliverables:

Field programme
- Seagrass field trip programmes for schools at CEMACS 1 -in progress
- Seagrass afield trip programme for schools at CEMACS 2 -in progress

Awareness, outreach and advocacy programme
- Preparation of video material -completed
- Virtual video creation of the Middle Bank -in progress
- Engagement with local/international schools and virtual tour of Middle Bank environment -in progress

Publication programme
- Preparation of photographic material -completed
- Pamphlet 1: The natural heritage of the Middle Bank -in progress
- Pamphlet 2: The animals and plants of the Middle Bank -in progress
- Opportunistic Publications -completed

Scientific training and capacity development
- Stake holder training on the ecology of the Middle Bank (national and international) -completed
- Stake holder training on seagrass mapping and ecology (national and international) -completed

Collaborations with other organisations:

The POGO Communications Officer has continued to serve on the UN Ocean Decade Communications Advisory Group, recently renamed the Strategic Communications Group. The Decade, led by the Intergovernmental Oceanographic Commission (IOC) of UNESCO, is bringing together diverse stakeholders, including civil society, private industry, and science, to tackle the major challenges facing the ocean, and by association, facing our society.

POGO partnered once again with the US National Oceanic and Atmospheric Administration (NOAA) and Ocean Networks Canada to sponsor a second supplement of Oceanography magazine on "Frontiers in Ocean Observing". The purpose of the supplement was to widely disseminate information about the many different ways in which scientists observe the ocean to improve our understanding and support the sustainable management of the ocean and its resources. One of the aims of the supplement is to help explain the scientific and societal importance of ocean observing to funders, policymakers, and the general public.

The POGO Secretariat was represented on the Executive Committee, and contributed to defining the scope and themes of the supplement, issuing the call for contributions, and selection of invited articles. For this issue, specific themes were selected under each of the overarching themes that had been chosen for the first issue: (1) Observations for Marine Carbon Dioxide Removal (mCDR); (2) Patterns and Trends in Ocean Biodiversity Under Climate Change; (3) The Economic Consequences of Ocean Acidification on Marine Food and Tourism; (4) Assessing the Damage Caused by Marine Plastic Pollution; Ocean Observations for Coastal Hazard Warning; and (6) Environmental DNA Technology. The supplement, entitled "Emerging Technologies for Understanding and Managing a Changing Ocean" was published in March 2023 and is available as an open-access publication at https://tos.org/oceanography/issue/volume-36-supplement-1.

Object 3: The provision of scholarships and research fellowships:

Scholarships and fellowships have been provided to 29 early-career scientists for training/education periods of between 3 and 10 months during this financial year. These consisted of:

- **Scholarships for 10 scholars from 10 countries to attend the Nippon Foundation-POGO Centre of Excellence in Observational Oceanography** hosted by the Alfred Wegener Institute (a POGO member institute) in Germany. The 2021-22 programme was completed in Nov 2022 and the next intake of scholars was selected in Feb-March 2023. The postgraduate-level training consists of 1- to 2-week modules on all aspects of observational oceanography (e.g. physical, chemical, biological, remote sensing, modelling) as well as key skills (scientific writing, presentation skills, scientific communication, research ethics) and a 3-month individual research project. Unlike the previous year, all scholars were able to travel to Germany and the course was conducted in-person. The scholars were from Argentina, Bangladesh, Benin, Colombia, Egypt, India, Mexico, Nigeria, Peru, and the Philippines, Associated with the 2021-22 grant was an additional Regional Training Programme in Bangladesh (hosted by POGO member Shahjalal University of Science and Technology), which provided training to 22 early-career scientists from Bangladesh, India, Malaysia and the Philippines.

- **Scholarships for the 10 NF-POGO CofE scholars and 3 additional selected early-career scientists (from Germany, South Africa and Spain) to receive training on the North-South Atlantic Training Transect** on-board the research vessel Polarstern in Sept 2022.

- **9 Visiting Fellowships awarded to early-career scientists from developing countries to spend up to 3 months at another research institute** receiving individual training and supervision on a research topic of their choice. One of these had been selected in 2020 but her travel had to be postponed due to restrictions on both travel and institutions being able to welcome visiting scientists due to Covid health and safety protocols. Another 2 had been selected in 2021. All 5 selected in 2022 were able to complete or initiate their fellowships during this financial year, therefore there are no more fellowships outstanding from previous years. The fellows were from Argentina, Brazil, India, and Indonesia, and visited research institutes in Italy, Norway, Spain, UK and USA.

- **7 Shipboard Training fellowships on-board research ships** to receive hands-on training in sampling and analysis techniques, and in some cases an additional one-month stay at the host research institute prior to the cruise and a further month after the cruise to analyse the data and interpret the results. Fellows were from Argentina, Benin, Brazil, Lebanon, Mexico, Nigeria, and Tanzania, and the host institutes were in Denmark, Portugal, Spain and UK.

The feedback on these programmes was overwhelmingly positive, not only from the scholars and fellows, but also from the host supervisors and parent supervisors, who commented on the networking and collaborations as well as the cultural exchanges facilitated by the programmes, and the enhanced skills and knowledge the fellows bring back to their home institutes and pass on to their peers.

This year, one grant was awarded to 1 member institution to support the following training programme:

- Indian National Centre for Ocean Information Services (INCOIS) to support a training course on "Ocean Observations to Societal Applications" (October-November 2022). The workshop was hosted by the International Training Centre for Operational Oceanography (ICTOOcean) in collaboration with Andhra University, India. The training covered both theory and practical aspects related to ocean observations, data analysis, data utilization, modelling, and services for the public good. 6 international participants were selected under POGO Sponsorship and 2 trainees as self-sponsored, from Bangladesh, Indonesia, Maldives, Mozambique, South Korea, Sri Lanka and Tanzania. They were joined by 15 trainees from across India. The training was held in hybrid mode. All the students joined the training physically with faculty members in hybrid mode. A field trip was arranged by the training partner Centre for Studies on Bay of Bengal (CSBOB) of Andhra University at Visakhapatnam. The field trip comprised of two components: onboard training and sample analysis in the laboratory. The field trip and laboratory analysis were planned in such a way that the trainees could get hands-on experience on use of hyperspectral radiometer, CTD profiler, analysis of Chlorophyll-a (Chl-a), turbidity, Dissolved Oxygen (DO), and inorganic macronutrients.

Grants awarded to two institutes is 2020 and 2021, respectively, are still pending due to the continuing restrictions in China throughout 2022. Both training workshops are due to take place in 2023, now that the restrictions have been lifted.
- Institute of Oceanology, Chinese Academy of Sciences (IOCAS) training course on "Subsurface Mooring Design, Recovery and Deployment" (payment of 75% made in 2020);
- Second Institute of Oceanography training course on "Principles and Applications of BGC-Argo" (no payment made to date).

Object 4: The promotion of innovation and technology in the science of global ocean observation:

This has been conducted mainly through two innovation projects focussing on developing low-cost instrumentation for ocean observing aimed at developing countries and citizen science. These both address the issue that, despite a high-level political endorsement, there are few international initiatives to make more observations possible in coastal areas with little resources. In particular, the ability to access user-friendly, low-cost instrumentation is still a limiting factor in coastal ocean observing, since most marine observation equipment is difficult to deploy, costly to operate and requires specific technical skills. On the other hand, recent technological advancements have allowed novel improvements in sensors, platforms and communication that will enable a step change in coastal ocean observing philosophy.

Open Access Marine Observation Devices" (OpenMODs):

Grant awarded to National Institute of Oceanography and Applied Geophysics (OGS), Alfred Wegener Institute (AWI) and Instituto do Mar (IMar); in 2021/22 payments made only to OGS and AWI as the instrument testing in Cabo Verde has been postponed to June 2022.

Supported by POGO since 2018-19, this project has the overarching goal "to devise ocean sensors and monitoring devices, globally available to all and not just to a privileged few". The overarching objective of the current phase was to realize a prototype of a versatile low-cost ocean observing platform ready to be tested and equipped with a variety of sensors, to consolidate and enlarge the potential user community and to narrow the data and knowledge gaps between "advanced" and "developing" countries. Its potential is not limited to developing countries, but it can be advantageous in all those applications that require a high temporal and spatial coverage of observations. The implementation of the prototype has followed three main lines: the platform, the sensors and the communication systems.

During the first phase of the project, the participants agreed that the platform would:
- operate with minimum modifications as moored system, drifting buoy or manually deployed equipment;
- include essential sensors and operate in dual mode as a self-recording system or real-time autonomous system;
- include a low-cost low-power embedded system to acquire, control, process, store and (in case) transmit data;
- employ low-cost materials (e.g. plastic pipes for domestic use for the instrument housing);
- be assembled on-site by trained non-professional operators or for educational purposes.

Furthermore, the communication system would:
- use the most popular low-cost/no transmission cost communication systems;
- enable the timely communication of the relevant data and control flags and its delivery on the web;
- be ready to exploit the present and future opportunities and facilities offered by the Internet of Things technologies.

It was agreed that the resulting platform would then be tested and used as educational equipment in a conceptual framework of science, technology and practice transfer and dissemination to local user communities.

The two platforms equipped with LoRa data transmission and temperature depth (TD) probe for temperature and pressure (depth) measurement and a gateway for data reception that had been used by the AWI in March 2022 for training the NF-POGO Centre of Excellence scholars in the assembly, deployment and use of the instrument, were unfortunately damaged during the testing. One of these was subsequently sent to the project partner in Cabo Verde for further testing of the platform deployment from two different sized vessels (without the working sensors). Meanwhile, the second platform was sent back to OGS for reparation. A third phase of the project was initiated in January. Given the strong interest shown during the NF-POGO Centre of Excellence (CofE) training, the next phase will continue working on the platform (drifter mode) with the goal of having a system to deploy during next year's training. The project will also create, for demonstration purposes, a completely disassembled drifter platform and a 1:10 scale drifter to be used in an aquarium to demonstrate the effectiveness of the instrument in following the currents. Finally, the project will take advantage of 3D printing technology to create a three-dimensional file of the more complex elements of the system that are currently made on a lathe by specialized personnel so that end users can produce them independently. The next OpenMODs training module will be conducted in 2023 to instruct the scholars on the use of the platform and give them all the tools and elements to produce their own system. Within the training module the concept of the cost efficient / low cost sensors and drifter instruments will be addressed, the testing of the second-version-system will be prepared and conducted in the laboratory and in open water conditions off Helgoland.

Social AGITation for Temperature Analysis" (SAGITTA):

The project aims to implement a citizen science approach for consistent and regular temperature profile data collection in the coastal ocean. This requires distribution of cheap and simple temperature-depth (TD) probes among the general public. Though suitable equipment is present on the market, it is quite expensive (5,000-9,000 USD per probe) and relatively complex for users without specialised training. Therefore the project aims to create a cheap TD probe, simple smartphone application and web portal to make this idea possible. The probe should be cheap (about 100 USD) yet scientifically reliable. The smartphone app will be used for probe control, instant data visualization and data transmission to the web. The web portal is necessary for data storage, access and dissemination; it will also be useful for training and outreach. The main achievements this year have been (1) finalising and production of the probe prototype, (2) development of the smartphone application, and (3) testing the prototype in the field.

This financial year, the project has mostly been on hold due to the situation in Russia (the project PI and other participants are based in Russia). We have not been able to send any funds to either the project participants or any Russian-based companies due to the current sanctions related to the war in Ukraine. Luckily, the smartphone app was being developed by a US company, so some further work on the app has been possible. In particular, an issue that was detected during the testing at sea, which was causing the sensor to lose connection with the app when immersed in water, has been resolved by the app developer. Discussions are underway with a NANO alumnus in Bangladesh to have the project transferred to his team, since the project is unlikely to resume in Russia any time soon.

Financial review
Principal funding sources
The principal sources of funding are:

- membership dues: these are used to cover all operational costs of the charity as well as some grants and fellowships

- grants from charitable foundations and other organisations, notably the Nippon Foundation, which supports POGO's capacity development programme, the Lounsbery Foundation, which has supported POGO's "COLLECT" citizen science project, and the Scientific Committee on Oceanic Research (SCOR), which co-funds the POGO-SCOR visiting fellowship programme.

STRATEGIC REPORT

Financial review

Reserves policy

POGO's reserves policy was adopted in Jan 2020. The target minimum Operating Reserve Fund is 12 months of average operating costs. The calculation of average monthly operating costs includes all recurring, predictable expenses such as salaries and benefits, insurance, office, travel, communications, projects, Working Groups and capacity development programmes. Depreciation, in-kind, and other non-cash expenses are not included in the calculation. The calculation of average monthly expenses also excludes one-time or unusual, capital purchases.

The Operating Reserve is intended to provide an internal source of funds for situations such as a sudden increase in expenses, one-time unbudgeted expenses, unanticipated loss in funding, or uninsured losses.

Operating Reserves are not intended to replace a permanent loss of funds or eliminate an ongoing budget gap. It is the intention of POGO for Operating Reserves to be used and replenished within a reasonably short period of time. The Operating Reserve Fund is defined as a fund set aside by action of the Board of Trustees. The minimum amount to be set aside as Operating Reserve will be established in an amount sufficient to maintain ongoing operations and programmes for a set period of time, measured in months. The Operating Reserve serves a dynamic role and will be reviewed and adjusted in response to both internal and external changes.

The amount of the Operating Reserve Fund target minimum will be calculated each year after approval of the annual budget, reported to the Finance Committee/Board of Trustees, and included in the regular financial reports. The Operating Reserve will be funded with surplus unrestricted operating funds. The Board of Trustees may from time to time direct that a specific source of revenue be set aside for Operating Reserve.

The main contingencies allowed for by the Reserves Policy, are:

- POGO having to relocate the office, in case the agreement in place with the current Secretariat host(s) is terminated by either party. The provision in the contract is for 6 months' notice, which would mean any costs incurred would have to be met at relatively short notice. Costs could include redundancy and other compensation that POGO may be required by law to pay the staff (e.g. related to the Transfer of Undertakings (Protection of Employment) -TUPE; legal costs; potential increased salary costs related to employment by a different host, etc. If POGO were to start employing the Secretariat staff itself there would be additional costs related to HR/IT and other services, office rental etc.

- Other emergencies including legal costs, insurance excess, or uninsured losses.

- Loss of income: This is a potential threat caused by fluctuations in membership, or by some members being unable to pay their dues in a given year. In addition, the Nippon Foundation grant is only renewed from one year to the next, so if it is not renewed we would potentially receive very little notice of this (in this case the project would not go ahead, but additional funds from POGO could potentially be needed to cover staff costs, to which NF contributes £40,000 per annum).

The amount of reserves currently held is slightly higher than the amount stated in the reserves policy, but the excess is allocated each year to fund new activities (in 2022-23 this included £11K GBP for UN Decade project development (OBON), £10K to contribute to the Ocean Pavilion at COP27, £10K towards the Oceanography Supplement "Frontiers in Ocean Observing" and £10K to support early-career scientists to attend the Trevor Platt Science Foundation Symposium).

STRATEGIC REPORT

Financial and risk management objectives and policies

The trustees have a duty to identify and review the risks to which the charity is exposed and to ensure appropriate controls are in place to provide reasonable assurance against fraud and error. The trustees recognise that risks can arise not only from the charity's activities but also from failure to act or exploit opportunities. The trustees do not consider that all risks should be avoided. They are not averse to taking reasonable risks as part of their strategy to achieve the charity's objectives. However, they wish to be made aware of the major risks the charity faces so that they can plan how to manage those risks and mitigate their effects. The trustees have therefore appointed the Chair and CEO to review major risks and make recommendations to the trustees as to how to manage them. The trustees expect all members, staff and volunteers when engaging in any activity to consider the risks it poses and to act in accordance with any recommendations made for risk management. The trustees expect that staff and volunteers will not engage in significant types of activity which are not similar to activities the trustees are already aware of, without first having made to the trustees a proper proposal for the charity engaging in such activity, including an analysis of the risks such activity might pose to the charity. The trustees have the same expectation in relation to significant increases in activities already pursued by the charity or significant changes in the way those activities are pursued.
Risk management will be conducted according to the following steps: (1) identify the risks, (2) assess the risks, (3) evaluate what action needs to be taken, (4) monitoring and assessment.

The trustees have developed and approved a risk management policy and a risk register to identify and assess the potential risks and develop strategies to manage them. The risk register is reviewed monthly by the Chair and CEO, and twice per year by the Board as a whole. Given the charity is relatively young, it has not had a great deal of time to develop a mature 'risk appetite' approach. It is the intention of the charity for Trustees to engage in 'risk appetite' training with a view to developing a measured approach to risk.

Future plans

During the coming period the organisation will work towards its aims in respect of education for developing the science of global ocean observation, developing the science as well as publishing and disseminating the results of research undertaken. The CIO will continue to provide scholarships and research fellowships in accordance with its objects, using funds from membership dues as well as grants from the Nippon Foundation, the Lounsbery Foundation and SCOR. Specifically, POGO will:

- Expand its global footprint and benefit from in-kind support from member institutions by establishing Regional and Thematic Secretariat Nodes in other parts of the world, funded entirely by the host institutions (in China to begin with);
- Initiate new activities as a UN Decade Implementing Partner;
- Continue to fund Working Groups such as the BIOTTA, BEACON, ASOAR, GMOMOG, and CEODOS-Chile;
- Conclude the project on marine litter COLLECT funded by the Richard Lounsbery Foundation (due to finish July 2023);
- Continue to fund the OpenMODs project on low-cost technology development, focussing particularly on the educational aspects and dissemination to developing countries;
- Continue global research projects for NF-POGO alumni;
- Finish Phase III of the NF-POGO Centre of Excellence at AWI and initiate a new Phase hosted by another POGO member institution; and provide Visiting Fellowships and Shipboard Training Fellowships for early-career researchers;
- Hold exhibition stands and give presentations at major international conferences (UN Oceans Conference, COP28); establish a POGO Advocacy Working Group to craft POGO's messaging for specific policy meetings;
- Increase its visibility and outreach impact, through the development of new outreach materials, case studies on the societal benefits of ocean observation.

STRUCTURE, GOVERNANCE AND MANAGEMENT

Governing document

The Charitable Incorporated Organisation ("the CIO") is governed by it's constitution in accordance with the Charities Act 2011. The CIO is based on the association model.

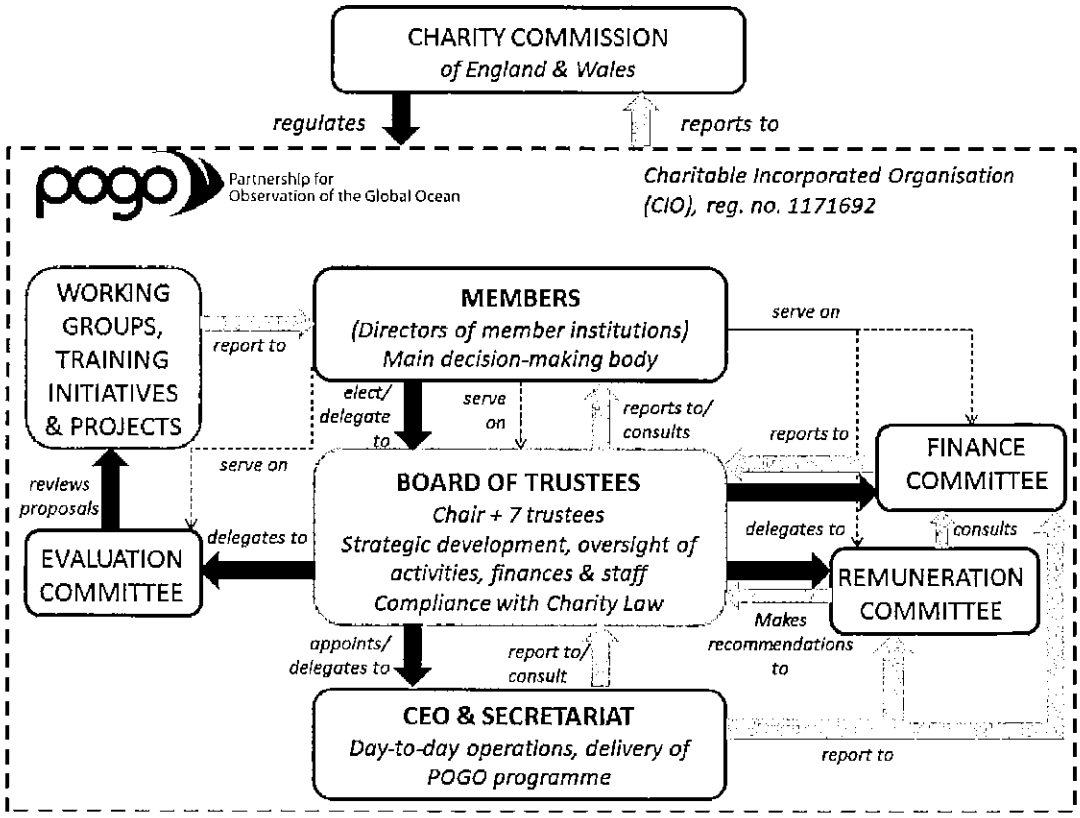
Recruitment and appointment of new trustees

Trustees are selected from the membership organisations and are appointed by the decision of the members of the CIO at the annual general meeting (with the exception of two trustees elected by the trustees themselves to improve regional and/or gender balance and/or to fill gaps in expertise). Each appointment is for a term of two years (renewable once), ending at the close of the meeting of the board of trustees immediately after an AGM.

STRUCTURE, GOVERNANCE AND MANAGEMENT

Organisational structure

Membership of the CIO is open to any oceanographic research institution, educational department or organisation from any part of the world that is interested in furthering the purposes of the CIO. The affairs of the CIO are managed by a Board of Trustees, elected by the members. The day to day operations of the CIO are delegated by the trustees to the CEO. Financial matters are delegated to a Financial Committee, which reports to the Board of Trustees. Oversight of staff performance and salaries is delegated to a Remuneration Committee, which makes recommendations regarding salaries to the Board of Trustees, following consultation with the Finance Committee. At least one trustee serves on these Committees. The governance structure is summarised in the following diagram.



Induction and training of new trustees

The charity trustees make available to each new trustee a copy of the CIO's constitution and any amendments made to it, as well as a copy of the CIO's latest trustees' annual report and statement of accounts, and the Charity Commission's guidance documents on the role of the trustee. All trustees have previous knowledge of the activities of POGO and are given guidance on their responsibilities as a trustee. Trustees are also invited to training courses on governance, which the charity pays for. These have been attended virtually in 2020, 2021 and 2022, and the trustees found the virtual training mode to be very effective.

REFERENCE AND ADMINISTRATIVE DETAILS

Registered Company number

CE010344 (England and Wales)

Registered Charity number

1171692

Registered office
Plymouth Marine Laboratory
Prospect Place
The Hoe
Plymouth
Devon
PL1 3DH

Trustees
Prof N Owens (Chair)
Dr G Lericolais (resigned 26.01.23)
Dr E Mahu
Dr S Juniper (resigned 16.06.23)
Professor T S Hwai
Captain F A Arias-Isaza
Dr F P Chavez
Dr J Mees
Dr C G P Chavez (appointed 27.1.23)

Company Secretary

Auditors
Bromhead
Chartered Accountants
Statutory Auditors
Harscombe House
1 Darklake View
Plymouth
Devon
PL6 7TL

COMMENCEMENT OF ACTIVITIES
The CIO was formed in February 2017 to take on the activities of a Canadian Society with the same name. The process for transferring operations to the CIO took longer than initially anticipated and operations began in the CIO in July 2018.

GOVERNANCE STATEMENT
The Board of Trustees have had due regard to the principals of recommended practices as set out by the "Charity Governance Code" and have applied these wherever practical and in decision making.

Report of the Trustees
For The Year Ended 31 March 2023

STATEMENT OF TRUSTEES' RESPONSIBILITIES

The trustees (who are also the directors of Partnership for Observation of the Global Ocean CIO for the purposes of company law) are responsible for preparing the Report of the Trustees and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Company law requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charitable company and of the incoming resources and application of resources, including the income and expenditure, of the charitable company for that period. In preparing those financial statements, the trustees are required to

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charity SORP;
- make judgements and estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charitable company will continue in business.

The trustees are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the charitable company and to enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the charitable company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

In so far as the trustees are aware:

- there is no relevant audit information of which the charitable company's auditors are unaware; and
- the trustees have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditors are aware of that information.

AUDITORS

The auditors, Bromhead, will be proposed for re-appointment at the forthcoming Annual General Meeting.

Report of the trustees, incorporating a strategic report, approved by order of the board of trustees, as the company directors, on 7 November 2023 and signed on the board's behalf by:

Prof N Owens - Trustee

Report of the Independent Auditors to the Trustees of Partnership for Observation of the Global Ocean CIO

Opinion

We have audited the financial statements of Partnership for Observation of the Global Ocean CIO (the 'charitable company') for the year ended 31 March 2023 which comprise the Statement of Financial Activities, the Statement of Financial Position, the Statement of Cash Flows and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 31 March 2023 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We are independent of the charitable company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the charitable company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the trustees with respect to going concern are described in the relevant sections of this report.

Other information

The trustees are responsible for the other information. The other information comprises the information included in the Annual Report, other than the financial statements and our Report of the Independent Auditors thereon.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Charities (Accounts and Reports) Regulations 2008 requires us to report to you if, in our opinion:

- the information given in the Report of the Trustees is inconsistent in any material respect with the financial statements; or
- the charitable company has not kept adequate accounting records; or
- the financial statements are not in agreement with the accounting records and returns; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of trustees

As explained more fully in the Statement of Trustees' Responsibilities, the trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the charitable company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the charitable company or to cease operations, or have no realistic alternative but to do so.

Our responsibilities for the audit of the financial statements
We have been appointed as auditors under Section 144 of the Charities Act 2011 and report in accordance with the Act and relevant regulations made or having effect thereunder.

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a Report of the Independent Auditors that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below:

The engagement partner ensured that the engagement team collectively had the appropriate competence, capabilities and skills to identify or recognise non-compliance with applicable laws and regulations.

We identified the laws and regulations applicable to the company through discussions with directors and other management and from our commercial knowledge.

We focused on specific laws and regulations which we considered may have a direct material effect on the financial statements or the operations of the company including, Companies Act 2006, Health & Safety at Work Act, Employment Law and data protection.

We assessed the extent of compliance with the laws and regulations identified above through making enquiries of management and inspecting legal correspondence.

We assessed the susceptibility of the company's financial statements to material misstatement, including obtaining an understanding of how fraud might occur by, making enquiries of management as to where they considered there was susceptibility to fraud, their knowledge of actual, suspected and alleged fraud. Also, considering the internal controls in place to mitigate risks of fraud and non-compliance with laws and regulations.

To address the risk of fraud through management bias and override of controls we tested journal entries to identify any unusual transaction and assessed whether judgement and estimates were indicative of potential bias.

In response to the risk of irregularities and non-compliance with laws and regulations, we designed procedures which included, but were not limited to agreeing financial statement disclosures to underlying supporting documents, reading the minutes of meeting of those charged with governance and enquiring of management as to actual and potential litigation claims.

There are inherent limitations in our audit procedures described above. The more removed that laws and regulations are from financial transactions, the less likely it is that we would become aware of non-compliance. Auditing standards also limit the audit procedures required to identify non-compliance with laws and regulations to enquiry of the directors and other management and the inspection of regulatory and legal correspondence, if any.

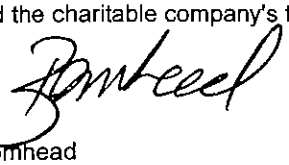
Material misstatements that arise due to fraud can be harder to detect that those that arise from error as they may involve deliberate concealment or collusion.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at www.frc.org.uk/auditorsresponsibilities. This description forms part of our Report of the Independent Auditors.

Report of the Independent Auditors to the Trustees of Partnership for Observation of the Global Ocean CIO

Use of our report

This report is made solely to the charitable company's trustees, as a body, in accordance with Part 4 of the Charities (Accounts and Reports) Regulations 2008. Our audit work has been undertaken so that we might state to the charitable company's trustees those matters we are required to state to them in an auditors' report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charitable company and the charitable company's trustees as a body, for our audit work, for this report, or for the opinions we have formed.



Bromhead
Chartered Accountants
Statutory Auditors
Eligible to act as an auditor in terms of Section 1212 of the Companies Act 2006
Harscombe House
1 Darklake View
Plymouth
Devon
PL6 7TL

Date: 08.11.23

Partnership for Observation of the Global Ocean CIO
T/A POGO

Statement of Financial Activities
For The Year Ended 31 March 2023

	Notes	Unrestricted fund £	Restricted funds £	**31.3.23 Total funds £**	31.3.22 Total funds £
INCOME AND ENDOWMENTS FROM					
Charitable activities	3				
Centre of Excellence		-	**581,239**	**581,239**	587,635
Subscriptions		**231,465**	-	**231,465**	235,933
Fellowship programme		-	**21,365**	**21,365**	10,968
Investment income	2	**370**	-	**370**	39
Total		**231,835**	**602,604**	**834,439**	834,575
EXPENDITURE ON					
Charitable activities	4				
Centre of Excellence		-	**436,643**	**436,643**	369,884
NANO activities		-	**66,264**	**66,264**	112,176
Shipboard training		-	**64,777**	**64,777**	31,157
POGO activities		**261,393**	**2,136**	**263,529**	213,451
Fellowship programme		-	**21,365**	**21,365**	16,691
Citizen Observation of Local Litter in Coastal ECosysTems		-	**13,582**	**13,582**	43,509
Return of residual grants		-	-	-	134,778
Total		**261,393**	**604,767**	**866,160**	921,646
NET INCOME/(EXPENDITURE)		**(29,558)**	**(2,163)**	**(31,721)**	(87,071)
RECONCILIATION OF FUNDS					
Total funds brought forward		**397,038**	**225,682**	**622,720**	709,791
TOTAL FUNDS CARRIED FORWARD		**367,480**	**223,519**	**590,999**	622,720

The notes form part of these financial statements

Partnership for Observation of the Global Ocean CIO T/A POGO

Statement of Financial Position
31 March 2023

	Notes	Unrestricted fund £	Restricted funds £	31.3.23 Total funds £	31.3.22 Total funds £
CURRENT ASSETS					
Debtors	9	**7,336**	**-**	**7,336**	11,256
Cash at bank		**373,292**	**927,824**	**1,301,116**	1,468,732
		380,628	**927,824**	**1,308,452**	1,479,988
CREDITORS					
Amounts falling due within one year	10	**(13,148)**	**(704,305)**	**(717,453)**	(857,268)
NET CURRENT ASSETS		**367,480**	**223,519**	**590,999**	622,720
TOTAL ASSETS LESS CURRENT LIABILITIES		**367,480**	**223,519**	**590,999**	622,720
NET ASSETS		**367,480**	**223,519**	**590,999**	622,720
FUNDS	11				
Unrestricted funds				**367,480**	397,038
Restricted funds				**223,519**	225,682
TOTAL FUNDS				**590,999**	622,720

The charitable company is entitled to exemption from audit under Section 477 of the Companies Act 2006 for the year ended 31 March 2023.

The members have not deposited notice, pursuant to Section 476 of the Companies Act 2006 requiring an audit of these financial statements.

The trustees acknowledge their responsibilities for
(a) ensuring that the charitable company keeps accounting records that comply with Sections 386 and 387 of the Companies Act 2006 and
(b) preparing financial statements which give a true and fair view of the state of affairs of the charitable company as at the end of each financial year and of its surplus or deficit for each financial year in accordance with the requirements of Sections 394 and 395 and which otherwise comply with the requirements of the Companies Act 2006 relating to financial statements, so far as applicable to the charitable company.

These financial statements have been audited under the requirements of Section 145 of the Charities Act 2011.

The financial statements were approved by the Board of Trustees and authorised for issue on 7 November 2023 and were signed on its behalf by:

N Owens - Trustee

The notes form part of these financial statements

Partnership for Observation of the Global Ocean CIO T/A POGO

Statement of Cash Flows For The Year Ended 31 March 2023

	Notes	31.3.23 £	31.3.22 £
Cash flows from operating activities			
Cash generated from operations	1	(167,986)	17,456
Net cash (used in)/provided by operating activities		(167,986)	17,456
Cash flows from investing activities			
Interest received		370	39
Net cash provided by investing activities		370	39
Change in cash and cash equivalents in the reporting period		(167,616)	17,495
Cash and cash equivalents at the beginning of the reporting period		1,468,732	1,451,237
Cash and cash equivalents at the end of the reporting period		1,301,116	1,468,732

The notes form part of these financial statements

Notes to the Statement of Cash Flows
For The Year Ended 31 March 2023

1. RECONCILIATION OF NET EXPENDITURE TO NET CASH FLOW FROM OPERATING ACTIVITIES

	31.3.23	31.3.22
	£	£
Net expenditure for the reporting period (as per the Statement of Financial Activities)	**(31,721)**	(87,071)
Adjustments for:		
Interest received	**(370)**	(39)
Decrease in debtors	**3,920**	19,084
(Decrease)/increase in creditors	**(139,815)**	85,482
Net cash (used in)/provided by operations	**(167,986)**	17,456

2. ANALYSIS OF CHANGES IN NET FUNDS

	At 1.4.22	Cash flow	At 31.3.23
	£	£	£
Net cash			
Cash at bank	**1,468,732**	**(167,616)**	**1,301,116**
	1,468,732	**(167,616)**	**1,301,116**
Total	**1,468,732**	**(167,616)**	**1,301,116**

The notes form part of these financial statements

1. ACCOUNTING POLICIES

Basis of preparing the financial statements
The financial statements of the charitable company, which is a public benefit entity under FRS 102, have been prepared in accordance with the Charities SORP (FRS 102) 'Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019)', Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' and the Companies Act 2006. The financial statements have been prepared under the historical cost convention.

The charity constitutes a public benefit entity as defined by FRS 102.

The trustees consider there are no material uncertainties about the charity's ability to continue as a going concern. These financial statements are prepared on a going concern basis. The financial statements are prepared in sterling which is the functional currency of the charity and rounded to the nearest £1.

The significant accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all years presented unless stated otherwise.

The charity adopted SORP (FRS 102) in the current year and an explanation of how transition to SORP (FRS 102) has affected the reporting financial position is given in note 16.

Income
The charity receives annual subscriptions from its members in alignment with the financial year. Any subscriptions billed in advance are deferred and recongised in the following financial period.

All other income is recognised in the Statement of Financial Activities once the charity has entitlement to the funds, it is probable that the income will be received and the amount can be measured reliably.

Expenditure
Liabilities are recognised as expenditure as soon as there is a legal or constructive obligation committing the charity to that expenditure, it is probable that a transfer of economic benefits will be required in settlement and the amount of the obligation can be measured reliably. Expenditure is accounted for on an accruals basis and has been classified under headings that aggregate all cost related to the category. Where costs cannot be directly attributed to particular headings they have been allocated to activities on a basis consistent with the use of resources.

Grants offered subject to conditions which have not been met at the year end date are noted as a commitment and accrued as an expense.

Allocation and apportionment of costs
All costs that can be directly associated with a charitable activity have been attributed to the activity.

Support costs are those that assist the work of the charity but do not directly undertake charitable activities. Governance costs involving the public accountability of the charity and its compliance with regulation and good practice include costs relating to statutory examinations and legal fees.

Finance costs include all expenses incurred for operation of the charity's bank accounts as well and the total foreign exchange gain or loss the charity has achieved or suffered in the financial period.

Taxation
The charity is exempt from corporation tax on its charitable activities.

Fund accounting
Unrestricted funds can be used in accordance with the charitable objectives at the discretion of the trustees.

Restricted funds can only be used for particular restricted purposes within the objects of the charity. Restrictions arise when specified by the donor or when funds are raised for particular restricted purposes.

Further explanation of the nature and purpose of each fund is included in the notes to the financial statements.

Foreign currencies
Assets and liabilities in foreign currencies are translated into sterling at the rates of exchange ruling at the statement of financial position date.

continued...

1. ACCOUNTING POLICIES - continued

Foreign currencies

Transactions in foreign currencies are translated into sterling at the average rate of exchange ruling for the year. Resulting exchange differences are taken into account in arriving at the operating result.

Donated goods
Donated goods are provided in the form of office space with Plymouth Marine Laboratory. The relationship remains healthy and the trustees feel this service will be provided for the foreseeable future.

2. INVESTMENT INCOME

	31.3.23	31.3.22
	£	£
Deposit account interest	370	39

3. INCOME FROM CHARITABLE ACTIVITIES

	Activity	31.3.23	31.3.22
		£	£
Grants	Centre of Excellence	581,239	587,635
Subscriptions	Subscriptions	231,465	235,933
SCOR income	Fellowship programme	21,365	10,968
		834,069	834,536

Grants received, included in the above, are as follows:

	31.3.23	31.3.22
	£	£
Nippon Foundation	581,209	587,635

4. CHARITABLE ACTIVITIES COSTS

	Direct Costs	Grant funding of activities (see note 5)	Support costs (see note 6)	Totals
	£	£	£	£
Centre of Excellence	24,439	412,204	-	412,204
NANO activities	17,175	49,089	-	66,264
Shipboard training	4,029	60,748	-	64,777
POGO activities	30,985	62,729	183,397	277,111
Fellowship programme	-	21,365	-	21,365
	76,628	606,135	183,397	866,160

continued...

5. GRANTS PAYABLE

The total amount awarded to institutions was £440,854 (2022: £329,032), those institutions are listed below:

Alfred-Wegener Institute
University Sains Malaysia
Isituto Nazionale di Oceanograpfia e di Geofisica
Instituto Nacional de Investigação Pesqueira
Indian National Centre for Ocean Information Services
Plymouth Marine Laboratory
Ensenada Center for Scientific Research and Higher Education
Shahjalal Univeristy of Science & Techology

Grants paid to the Alfred-Wegener Institute are for the provision of the Centre of Excellence, which provides scholarship training to improve the global knowledge regarding ocean observation. Additionally, small grant was paifor the provision of Open Access Marine Observation Devices (OpenMODS), which helps provide access to important ocean data to less developed countries.

Grants paid to the University Sains Malaysia are for the provision of research cruise support and project participants' support costs.

Grants paid to the Isituto Nazionale di Oceanograpfia e di Geofisica are for the provision of Open Access Marine Observation Devices (OpenMODS), which helps provide access to important ocean data to less developed countries.

Grants paid to the Instituto Nacional de Investigação Pesqueira are for regional training workshops on observing the coastal and marginal seas in the western Indian Ocean.

Grants paid to the Indian National Centre for Ocean Information Services are to conduct the training programme on 'Ocean Observations to Societal Applications'.

Grants paid to the Plymouth Marine Laboratory are for participants travel and subsistence costs for Action for Sustainable Ocean Acidification Research (ASOAR).

Grants paid to the Ensenada Center for Scientific Research and Higher Education are for the Gulf of Mexico Oceanographic and Meteorological Observation Group (GMOMOG).

Grants paid to the Shahjalal University of Science & Techology are for the regional training program in Bangladesh.

The total amount awarded to individuals was £165,281 (2022: £194,297) and the number of individual beneficiaries was 51 (2022: 55).

Grants paid to individuals are for the reimbursement of travel expenses, workshops and equipment to allow less developed countries access to the best training courses and events to improve global knowledge of ocean.

continued...

6. SUPPORT COSTS

	Management	Finance	Governance costs	Totals
	£	£	£	£
POGO activities	173,632	1,010	8,755	183,397

7. NET INCOME/(EXPENDITURE)

Net income/(expenditure) is stated after charging/(crediting):

	31.3.23	31.3.22
	£	£
Auditors' remuneration	5,408	5,091
Auditors' remuneration for non audit work	3,347	3,078
Foreign Exchange (gain)/loss	(40,875)	9,192

8. TRUSTEES' REMUNERATION AND BENEFITS

There were no trustees' remuneration or other benefits for the year ended 31 March 2023 nor for the year ended 31 March 2022.

Trustees' expenses

During the year there were expenses of £6,468 paid to trustees. (2022 - nil)
This related to 4 trustees travel expenses to attend meeting held throughout the year.

9. DEBTORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	31.3.23	31.3.22
	£	£
Trade debtors	6,334	10,193
Prepayments	1,002	1,063
	7,336	11,256

10. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	31.3.23	31.3.22
	£	£
Trade creditors	1,789	20,281
Other creditors	2,850	1,805
Accruals and deferred income	441,569	591,465
Accrued expenses	271,245	243,717
	717,453	857,268

continued...

11. MOVEMENT IN FUNDS

	At 1.4.22 £	Net movement in funds £	At 31.3.23 £
Unrestricted funds			
General fund	**397,038**	**(29,558)**	**367,480**
Restricted funds			
Nippon Foundation Grant	**199,840**	**11,357**	**211,197**
Richard Lounsbery Foundation	**25,842**	**(13,520)**	**12,322**
	225,682	**(2,163)**	**223,519**
TOTAL FUNDS	**622,720**	**(31,721)**	**590,999**

Net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	**231,835**	**(261,393)**	**(29,558)**
Restricted funds			
Nippon Foundation Grant	**581,239**	**(569,882)**	**11,357**
Richard Lounsbery Foundation	**-**	**(13,520)**	**(13,520)**
SCOR fellowship			
	21,365	**(21,365)**	**-**
	602,604	**(604,767)**	**(2,163)**
TOTAL FUNDS	**834,439**	**(866,160)**	**(31,721)**

Comparatives for movement in funds

	At 1.4.21 £	Net movement in funds £	At 31.3.22 £
Unrestricted funds			
General fund	367,198	29,840	397,038
Restricted funds			
Nippon Foundation Grant	273,242	(73,402)	199,840
Richard Lounsbery Foundation	69,351	(43,509)	25,842
	342,593	(116,911)	225,682
TOTAL FUNDS	709,791	(87,071)	622,720

continued...

11. MOVEMENT IN FUNDS - continued

Comparative net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	235,972	(206,132)	29,840
Restricted funds			
Nippon Foundation Grant	587,635	(661,037)	(73,402)
Richard Lounsbery Foundation	-	(43,509)	(43,509)
SCOR fellowship	10,968	(10,968)	-
	598,603	(715,514)	(116,911)
TOTAL FUNDS	834,575	(921,646)	(87,071)

A current year 12 months and prior year 12 months combined position is as follows:

	At 1.4.21 £	Net movement in funds £	At 31.3.23 £
Unrestricted funds			
General fund	367,198	282	367,480
Restricted funds			
Nippon Foundation Grant	273,242	(62,045)	211,197
Richard Lounsbery Foundation	69,351	(57,029)	12,322
	342,593	(119,074)	223,519
TOTAL FUNDS	709,791	(118,792)	590,999

A current year 12 months and prior year 12 months combined net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	467,807	(467,525)	282
Restricted funds			
Nippon Foundation Grant	1,168,874	(1,230,919)	(62,045)
Richard Lounsbery Foundation	-	(57,029)	(57,029)
SCOR fellowship			
	32,333	(32,333)	-
	1,201,207	(1,320,281)	(119,074)
TOTAL FUNDS	1,669,014	(1,787,806)	(118,792)

continued...

11. MOVEMENT IN FUNDS - continued

NIPPON Foundation Fund - Activities related to the delivery of the Centre of Excellence, the Global NANO project and Shipboard Training and outreach programme. During the period, residual funds from prior years were agreed to be repaid to the grant provider and are therefore included in the funds movement for the period.

Richard Lounsbery Foundation Fund - Activities related to the delivery of the Citizen Observation of Local Litter in Coastal EcosysTems programme.

Scientific Committee on Oceanic Research - Activities related to the promotion of training and capacity building leading towards a global observation scheme for the oceans.

12. RELATED PARTY DISCLOSURES

There were no related party transactions for the year ended 31 March 2023.

13. OTHER DISCLOSURES

During the period Plymouth Marine Laboratories gave POGO free use of office space in lieu of membership fees. This has been reflected in the accounts at a value of £3,943 (2022: £3,918), being the membership fees that would have been paid without the agreement.

Partnership for Observation of the
Global Ocean CIO
T/A POGO

Detailed Statement of Financial Activities
For The Year Ended 31 March 2023

	31.3.23 £	31.3.22 £
INCOME AND ENDOWMENTS		
Investment income		
Deposit account interest	**370**	39
Charitable activities		
Subscriptions	**231,465**	235,933
SCOR income	**21,365**	10,968
Grants	**581,239**	587,635
	834,069	834,536
Total incoming resources	**834,439**	834,575
EXPENDITURE		
Charitable activities		
Insurance	**934**	934
Events and associated travel	**35,181**	45,348
Outreach materials	**12,671**	13,185
Website development	**2,125**	2,421
Project administration	**66,592**	50,754
Foreign exchange (gain)/loss	**(40,875)**	9,193
Residual grant returns	**-**	134,778
Grants to institutions	**440,854**	329,032
Grants to individuals	**165,281**	194,296
	682,763	779,941
Support costs		
Management		
Trustees' expenses	**6,468**	-
Office rent	**3,943**	3,918
Annual Meetings	**3,991**	588
Postage and stationery	**272**	127
Advertising	**-**	42
Travel	**11,157**	454
Staff training	**458**	202
Subscriptions	**3,134**	2,454
Contribution to key management personnel	**144,209**	124,991
	173,632	132,776
Finance		
Bank charges	**1,010**	760
Governance costs		
Auditors' remuneration	**5,408**	5,091
Auditors' remuneration for non audit work	**3,347**	3,078
	8,755	8,169
Total resources expended	**866,160**	921,646
Net expenditure	**(31,721)**	(87,071)

PARTNERSHIP FOR OBSERVATION OF THE GLOBAL OCEAN

England & Wales - Charity number 1171692

Accounts

REGISTERED COMPANY NUMBER: CE010344 (England and Wales)
REGISTERED CHARITY NUMBER: 1171692

Report of the Trustees and

Financial Statements

For The Year Ended 31 March 2022

for

Partnership for Observation of the Global Ocean CIO T/A POGO

Bromhead
Chartered Accountants
Statutory Auditors
Harscombe House
1 Darklake View
Plymouth
Devon
PL6 7TL

Partnership for Observation of the
Global Ocean CIO
T/A POGO

Contents of the Financial Statements
For The Year Ended 31 March 2022

Partnership for Observation of the Global Ocean CIO T/A POGO

Report of the Trustees For The Year Ended 31 March 2022

The trustees who are also directors of the charity for the purposes of the Companies Act 2006, present their report with the financial statements of the charity for the year ended 31 March 2022. The trustees have adopted the provisions of Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019).

OBJECTIVES AND ACTIVITIES

Objectives and aims

The charity aims to bring together the world's major oceanographic institutes to plan joint actions to advance sustained ocean observations for societal benefit. POGO institutes are motivated by a common belief that advancing scientific understanding of the ocean is rooted in making systematic, high quality measurements. They believe that this understanding and its wise use are critical to, and will make a real positive difference in, enabling humanity to develop a sustainable relationship with a healthy, productive and biologically diverse ocean. POGO is further motivated by the shared belief that its vision can only be realised by working together across the world, where we can achieve together what none of us could do alone.

The ocean produces half of the world's oxygen, most of its fresh water and much of its food. It regulates climate and weather, is critical to the cycling of heat, water and carbon. It is the source of huge biodiversity. However, far too little is known about the state and functioning of the ocean. Accordingly, scientifically sound study of the ocean and support and advocacy for such study (and for the conclusions drawn from it) is of vital importance to mankind. POGO seeks to expand international support for ocean observing, through innovation of the ocean observing system, capacity development and outreach/advocacy.

In terms of innovation, POGO members are at the forefront of oceanographic methods and technology development, often in partnership with industry, as they are the future "users" of such new technologies. Thus, POGO is in a critical position to identify the emerging methods and technologies that POGO members are developing and using, and highlighting those that can be expanded and deployed on a global scale in order to achieve global datasets of specific parameters measured using the same or comparable methods. POGO also focusses on the affordability issues associated with ocean observing, particularly for developing countries, and is therefore engaged in projects to develop low-cost sensors and systems for coastal ocean observing. The societies and economies of many developing countries rely heavily on the ocean, for example through coastal tourism, trade infrastructure, natural resource extraction, and small-scale and industrial fisheries and aquaculture. However, extreme weather events, sea-level rise, tsunamis, harmful algal blooms and water pollution threaten the world's poorest and most vulnerable coastal and island communities. Ocean observations and information services can be used to improve human health and safety and food security, support livelihoods and small-scale economic activities (artisanal fisheries and aquaculture, coastal tourism), and improve climate resilience and disaster risk reduction.

POGO also recognises that the expertise for conducting ocean observations is not evenly distributed between countries, and therefore the ocean is unevenly observed, with a much higher density of observations conducted in the North Atlantic and North Pacific, than in, for example, the South Atlantic, South Pacific and Indian Oceans. POGO therefore provides professional training opportunities for early-career scientists, mainly from coastal developing countries, to expand the worldwide capacity for conducting sustained ocean observations, data collection, analysis and management, and interpreting the scientific results for the benefit of society.

Many actors, working together internationally, are needed to bring about sustainable management of the oceans that is informed by sound science, underpinned by a comprehensive global ocean measurement system.

These include:

1) National governments working individually and through intergovernmental structures and bodies - who are agents for political action and international consensus and support the governance framework for international cooperation.

2) Non-governmental organisations aimed at coordinating science, influencing policy and/or raising public awareness at regional and global scales.

3) The wider scientific community, working nationally and internationally - who undertake research, share and synthesise ideas and findings and identify key scientific challenges and develop internationally agreed research agendas.

4) Funders of research and monitoring programmes whether they be governments, businesses or not for profit foundations - who provide the resources needed.

5) Individual citizens working individually and collectively whose support and desire for a better life and world provides continuing motivation and inspiration for all involved.

POGO highlights the societal need for ocean observations, as well as the key issues facing global ocean observing, and the obstacles hampering the completion of a global ocean observing system, and brings these issues to relevant public and policy fora.

The objects of the CIO are to advance the science of global ocean observation for the public benefit, in particular (but not exclusively) by:

i. Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation;

ii. The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research;

iii. The provision of scholarships and research fellowships;

iv. The promotion of innovation and technology in the science of global ocean observation.

In the short term, POGO aims to provide training for early-career scientists, to develop the next generation of scientists and ocean observers, as well as to raise the levels of awareness and education about the importance of the ocean and ocean observing for society. Measures of success include numbers of trainees, numbers of countries having received training, numbers of website visits and downloads of outreach materials, mentions on social media and other statistics.

The longer-term vision is to develop the capacity of research institutions in developing countries to conduct ocean observations, by (1) integrating the trained scientists and their institutions into the POGO network and having them actively participate in POGO projects, (2) sharing best practices among POGO member institutions, and (3) contributing to the development and dissemination of low-cost instrumentation for coastal ocean observing. Measures of success include numbers of POGO members and numbers of new (developing) countries being added to the network, establishment of new ocean observing systems in those countries, and demonstrated long-term impacts of the training programmes (e.g. >5 years after the training, on institutional capacity and continued knowledge-transfer).

Significant activities
The CIO has been working towards the stated aims and charitable objects in the following ways:

i. **Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation:** this has been achieved by supporting Working Groups on specific topics related to ocean observation, such as the Biological Observations WG, which led a proposal to the UN Decade of Ocean Science for Sustainable Development for an "Ocean Biomolecular Observing Network" (OBON).

ii. **The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research:** this has been achieved through POGO's outreach and advocacy initiatives, through printed, on-line and social media and in particular the creation of ocean observing case studies. POGO has been conducting a citizen science project on coastal litter with field work and outreach activities in 6 African countries and Malaysia. POGO also participated in the COP26 Climate Conference, with a virtual exhibition booth and in-person side event in Glasgow in Nov 2021.

iii. **The provision of scholarships and research fellowships:** scholarships and fellowships have been provided to 19 early-career scientists for training/education periods of between 1 and 10 months during this financial year (the number is similar to last year and somewhat lower than pre-Covid due to various training programmes being postponed/affected by the pandemic);

iv. **The promotion of innovation and technology in the science of global ocean observation:** this has been conducted mainly through two innovation projects focussing on developing low-cost instrumentation for ocean observing aimed at developing countries and citizen science.

More detailed information on these activities can be found below, under the heading "Achievement and Performance".

Public benefit
The trustees have complied with their duty, as set out in the Charities Act 2011, with regard to the public benefit guidance published by the Charity Commission.

The CIO has been working towards achieving its charitable objectives, delivering benefit to the wider public through its work to advance sustained ocean observations.

OBJECTIVES AND ACTIVITIES

Grantmaking

POGO allocates some of its funds (received from charitable foundations and/or membership dues) to help support ocean observation activities (e.g. through Working Groups) and to provide training for early-career scientists (generally in developing countries). POGO has a set of policies and procedures for allocating such grants, which are summarised below.

POGO issues a call to its members once or twice per year for proposals for Working Groups, workshops, travel grants, training initiatives and other activities that are directly relevant to POGO's core mission, i.e. sustained, long-term ocean observing systems and shared use of infrastructure, data and information. This includes a template for applicants to complete and submit to the POGO Secretariat. Proposals must be submitted by members of POGO, although participants can be from other institutes if necessary. If a Working Group or other initiative wishes to be funded for a second year, a request for extension must be submitted, using the template provided, by the same deadline as the new proposals. A sub-committee of POGO members (who do not have conflicts of interest) reviews the proposals, according to a number of criteria, e.g. relevance to POGO's Strategy and priority areas; timeliness of proposal; adequacy of proposed deliverables and milestones; adequacy of WG/project membership (including geographic and gender balance). For training initiatives, the expected impact of the training and proposed methods for evaluating success are also taken into account. The Committee then makes recommendations to the Board of Trustees on the proposal(s) to take forward, depending on the available budget. The availability of other funding sources is not a determining factor in the selection process.

POGO and the Nippon Foundation have set up the NF-POGO Alumni Network for Oceans (NANO) to maximise the benefits to the alumni from the training received and facilitate active contacts among the alumni. Through POGO, the Nippon Foundation funds modest regional and global research projects and public outreach projects. Proposals are received in response to an open call, and funding is renewed for successive years based on performance. The projects are selected according to the following criteria:

(1) Projects should have an observational/applied focus (not "blue skies" research)
(2) They should have a societal benefit focus
(3) They should add value to and build upon existing programmes/projects
(4) Funding should be used mainly for coordination (but also consumables, field work, modest equipment).
(5) Projects should be coordinated by NANO alumni but participants can be a mixture of alumni and external scientists. They should be supported by senior mentors and endorsed by the participating institutes' senior management.
(6) They should include a minimum of two different countries, preferably more.

POGO also offers scholarships/fellowships to individuals, both through the Nippon Foundation grant and using its own funds as well as a grant from the Scientific Committee on Oceanic Research (SCOR). These fellowships all operate following similar procedures, i.e. an announcement and call for applications is made, which is open to anyone who fulfils the country and scientific background/career stage requirements (e.g. Official Development Assistance recipient countries, early-career scientists, but not just those affiliated with POGO member institutions). An impartial committee composed of one or two members of the POGO Secretariat, representatives of any partner organisations and/or other experts from the scientific community (often involved in teaching/supervising students) is assembled to review the applications, based on a set of criteria such as quality of the applicant (education/experience/potential), quality of the training proposal or motivation letter, quality of the host institute (if applicable), relevance to POGO and to the priority areas identified in the call for proposals, and potential for sustained capacity building in the host institute/country. The scores are then totalled, and a number of top-ranked applicants are selected according to the budget available, with consideration given to gender and geographical balance, as well as occasionally other factors such as whether the candidate has received POGO funding previously.

STRATEGIC REPORT
Achievement and performance
Charitable activities
POGO Communication Strategy:

Overall, POGO has increased its visibility through its web presence, social media and representation at international meetings (mainly virtual this year). Specifically, POGO was represented by Secretariat staff, trustees or members, at:

- 2nd Operational Satellite Oceanography Symposium (May 2021) -virtual
- Ocean Best Practices 5th Annual Workshop (Sept 2021) -virtual
- African 'Tropical Atlantic Climate and Coastal Variability' (TACCOVAR) Conference -virtual
- SCOR Annual Meeting (Oct 2021) -virtual
- UNFCCC Climate Conference COP26 (Nov 2021) -in person
- World Congress of Marine Stations (Nov 2021) -virtual
- First International Seminar on Earth Sciences and Technology, Indonesia (Dec 2021) -virtual
- Various planning meetings and webinars for the UN Decade of Ocean Science for Sustainable Development -virtual.

POGO representatives also contributed to planning and oversight committees for:

- Group on Earth Observations (GEO) Blue Planet Initiative
- International Quiet Ocean Experiment (IQOE)
- Ocean Info Hub
- UN Decade on Ocean Science for Sustainable Development Communications Advisory Group
- World Association of Marine Stations.

Presentations were given on POGO at several of these events. POGO information packs have also been sent to a number of prospective members.

The POGO Strategy has been revised and refreshed to take into account the changing ocean observing landscape and international context (e.g. new and emerging technologies, the launch of the UN Decade of Ocean Science for Sustainable Development). In our Strategy, we look forward to our priorities for the next 5 years. It reaffirms our commitment to work collectively as a global community to promote and deliver the development of the truly global ocean observation system needed to advance understanding of the ocean and its wise use for the benefit of all humankind. The Strategy has been translated into 4 other languages to appeal to a truly international audience, and was designed mainly for on-line reading, with many embedded videos and links for a more interactive experience.

The POGO website has continued to be developed and updated with more information on how our members contribute to GOOS, new additions to the interactive timeline of POGO's history, the launch of our ocean observing case studies page, and of our new interactive Strategy. POGO maintains an active social media presence on Twitter (@POGO_Ocean), Facebook (/POGO.Ocean/), Instagram (/pogo_ocean) and LinkedIn (/pogo_ocean), as well as a minor presence on YouTube. Social media continues to be an excellent means to share news and information with an interested and interactive audience. In addition, the secretariat runs or shares responsibility for the following Twitter accounts: Ocean Training Partnership, NANO Network, and Blue Planet.

Object 1: Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation:

Progress has been achieved by providing grants for Working Groups (WGs), through the launch of the Ocean Biomolecular Observing Network (OBON) as a programme of the UN Decade of Ocean Science for Sustainable Development, and the continuation of a Nippon Foundation-POGO Alumni Network for the Ocean (NANO) Global Project.

Biological Observations WG/ Ocean Biomolecular Observing Network:

Last financial year POGO used the remaining grant from the Lounsbery Foundation to fund an International Virtual Conference on eDNA: Opportunities and Challenges (led by POGO Biological Observations WG). This meeting provided an opportunity to envision what a sustainable global 'omics/eDNA monitoring system could look like, to promote global coordination among the organisations that are fostering eDNA and 'omics for marine environments, and to coordinate efforts to develop a programme proposal in response to the call for action from the UN Ocean Decade.

Following on from the conference, a proposal was developed for a global programme, the Ocean Biomolecular Observing Network (OBON), that will use techniques to analyse biomolecules such as DNA, RNA, and proteins (e.g., eDNA analysis, metabarcoding, omics) to enhance coastal and open ocean biodiversity observations. The proposal was submitted in January 2021 and endorsed by the UN Ocean Decade in June 2021.

OBON will exploit the fact that every lifeform in the ocean, from viruses to the largest marine mammals, contains or leaves behind a biomolecular trace (e.g., nucleic acids) that can be analysed directly from a tissue, seawater or sediment sample. The programme will utilise biomolecular technologies to monitor, research and understand life in the sea at every trophic level and scale, how life varies in response to climate and anthropogenic impacts, including fisheries, and how these changes impact society. This high-level objective is broken down into the following four more detailed objectives:

O1) To build a coastal-to-open ocean multi-omics biodiversity observing system over the Ocean Decade.

O2) To develop and transfer capacity so as to initiate additional marine biomolecular observation activities through training programs combined with funded equipment programs supported by development/aid agencies and philanthropy.

O3) To enhance marine ecosystem models (including new modelling based on machine learning) by adding biomolecular components so the models can utilize data collected from the coordinated molecular observations described in O1 and generate 4D multi-omic biodiversity seascapes.

O4) To address pressing scientific, management, and policy questions linked to the state and dynamics of life in the ocean, including exploited resources and those affected by other pressures.

This financial year POGO has supported the initial development of OBON, through the provision of staff time and financial support for programme coordination (e.g. project endorsement, governance) and communications (brand development, website, newsletter, mailing list etc). POGO funding for the Biological Observations WG was also used to support a hybrid meeting of the newly established OBON interim Science Advisory Council.

WG on Building Capacity in Ocean AcidificaTion MoniToring in the Gulf of GuineA (BIOTTA)

Grant (10K EUR) awarded to the University of Ghana to lead the WG and support capacity building workshop; funding has leveraged 100K USD from the Ocean Foundation to purchase equipment to set up the monitoring stations.

The productive waters of the Gulf of Guinea (GoG) support shellfish and a diverse finfish fishery which provide significant income to coastal communities in the region. Climate change in West Africa is characterized by increasing temperatures, changing ocean pH, erratic rainfall patterns and an increase in the number of extreme events. Changing ocean pH coupled with other climate and non-climate stressors such as pollution and overfishing present huge threats to the future of the fishery and other marine resources in the region. A lack of skills in the measurement of ocean acidification (OA) hinders ocean observation which puts the fishery and other marine biological resources in the GoG at a greater risk.

In this context, the BIOTTA working group was set up to equip graduate students, early career ocean scientists and other marine science professionals in the GoG region with skills on sustainable OA data acquisition to expand our understanding of the threats, risks and impacts to marine ecosystems and chart pathways for sustainable management of marine resources at risk to OA in the GoG region. This working group hopes to also bridge national, regional and international data gaps in ocean acidification.

BIOTTA aims to complement global efforts such as the Global Ocean Acidification Observing Network (GOA-ON) and the International Ocean Carbon Coordination Project (IOCCP) by convening a series of virtual regional workshops and webinars to train young and professional scientists in setting up and maintaining OA observation systems in the GoG and other African coastal waters.

The BIOTTA working group objectives are to:

1. Develop a coordinated network for observing OA in the GoG: the network has been formed, with partners from new countries (Benin, Cote d'Ivoire and Cameroon) added to the original group of country representatives from Ghana and Nigeria.

2. Develop capabilities to undertake analysis of seawater OA parameters using low-cost, readily available and easy-to-use equipment: this is underway, with an on-line training course having been prepared by the Ocean Foundation and IOC-UNESCO, and trialled in the Pacific Islands. The on-line training is due to be implemented in the BIOTTA countries in 2022/23, in conjunction with an in-person training course.

3. Map OA hotspots in BIOTTA member countries for long-term OA monitoring: planned for after the training.

4. Initiate OA monitoring activities in BIOTTA member countries after successful mapping of hotspots in these countries, making use of OA observation kits developed by GOA-ON and the International Atomic Energy Agency (IAEA): planned for after the training.

5. Integrate into global OA observing networks, such as GOA-ON, with the goal to share and make data available to the global ocean observing community: planned for once monitoring activities established.

WG on Acquisition of Oceanographic Data for Sustainable Resources Management in the Gulf of Guinea:

Grant (10K EUR) awarded to the Nigerian Institute for Oceanography and Marine Research (NIOMR) to lead the WG, support travel costs and ship operations.

The initiation of an oceanographic network and a regional databank is a very important project to be embraced by all countries within the West African sub region. Sea surface temperature in the Gulf of Guinea varies at seasonal and inter-annual time scales, and thus may have a strong impact on climate (West African monsoon onset and intensity), precipitation (water resources), and fisheries. The WG aims to obtain data on seawater characteristics up to the 500m isobath within the Gulf of Guinea region. This will provide salient information for physical, chemical, biological and geological description of the water column and sediment characteristics within this region. The main objectives are to collect oceanographic data to complement the completed and ongoing international programs within the Gulf of Guinea region, establish and maintain a long-term network of measurements within the Gulf of Guinea, and also incorporate training and local capacity building.

To fulfil one of the goals of POGO in building a community of ocean scientists, this WG brings together marine scientists from five African countries within the Gulf of Guinea region (Nigeria, Benin, Togo, Ghana and Côte d'Ivoire), in partnership with oceanographers from GEOMAR, Germany (5 out of these 6 institutions are POGO members). The main goals are:

- To establish a regional oceanographic databank needed for studies on the analysis and monitoring of ocean and climate conditions within the Gulf of Guinea, their influence on the regional climate, and sustainable management of living and non-living resources (e.g. identification of potential fishing zones): a comprehensive dataset was collected during the first leg of the cruise (January 2021); plans for data management and sharing need to be elaborated.

- To promote regional capacity building through academic/research institutions and shipboard trainings: this was achieved through the provision of shipboard training fellowships to 6 early-career scientists from the region (Benin, Cote d'Ivoire, Ghana and Nigeria) who spent 1 month receiving training at NIOMR prior to the cruise and one month processing samples and data after the cruise.

- To develop and maintain a long-term ocean monitoring network within the Gulf of Guinea region: to be completed.

- To assist governments through research and development in implementing sustainable economic policies on living and non-living resources, which are geared towards sustainable societal livelihood: to be completed.

WG on Capacity building for biochemical observation of anthropogenic pollution in tropical, transitional waters (BEACON)

Grant (10K EUR) awarded to the University of Ghana to lead the WG and support capacity building workshop and procure field equipment.

There is a need to build capacity to monitor human activities (e.g., pollution) on benthic communities and chemical tracers within the biota and sediment in the coastal waters of the Gulf of Guinea. The capacity building will increase access to state-of-the-art sampling methodologies, laboratory processes, and instrumentations useful for expanding the knowledge of Benthic Biodiversity and Chemical tracers in biota coupled with the sediment in West Africa, a field poorly documented. Coastal ecosystems, such as lagoons and estuaries, serve as economic, social, and educational resources. As the aquatic environment is a source of food, its pollution is a global health concern. Mercury is a toxic element occurring in low concentrations, but its by-product, methylmercury, is highly toxic, and can accumulate in the sediment and biota (e.g., bivalves and fish). This can lead to human health concerns, such as increased risk of circulatory system disorders and cancers, through consumption of contaminated food.

Benthic organisms are good bioindicators for investigating anthropogenic environmental disturbances such as pollution, as species composition can reflect the ecological conditions of an aquatic environment. Transitional waters (e.g., estuaries) are complex systems that are regional in scale. There is limited information on transitional tropical waters and their biota in the particular spatial regional inventory of benthic fauna from West Africa. Increasing human population coupled with growing demand for a resource and generation of wastes put coastal lagoons and estuaries at risk of collapse. Continuous monitoring of these systems is necessary for understanding changes in their ecosystem structure and functioning. Yet, there is inadequate information on well-documented biological data and biota as chemical tracers of contaminants from the tropical West Africa coast. Information on species occurrence, habitat, and spatial-temporal distribution will allow local and regional distribution of indicator species to understand pollution and environmental change.

It is important to build the capacity of interdisciplinary scientists to help monitor and measure human impacts on transitional and coastal waters. The BEACON working group will organise a workshop for interdisciplinary scientists on benthos sampling with bottom grab and Multi-Parameter Probe to observe the conditions of the coastal waters and use of a Direct Mercury Analyzer to measure chemical tracers such as analysis of total Hg in sediment and biota.

The BEACON working group will contribute spatial knowledge on benthos and contaminant of Hg in biota and sediment from coastal waters in the Gulf of Guinea. The preliminary findings can support decision-making, policy development for biodiversity conservation, future coastal benthic research, and understanding of pollution in tropical transitional coastal waters.

Status: some equipment has been procured, but the in-person workshop has been delayed due to Covid.

NANO Global Project "A global study of productivity, deoxygenation and ocean acidification at selected coastal sites":

Research grants awarded to 18 participating institutions in the following countries: Argentina, Bangladesh, Brazil, Colombia, Ghana, India, Indonesia, Kenya, Lebanon, Mexico, Nigeria, Peru, Senegal, Thailand, Togo and Tunisia.

The NANO global project has three major components:
- Promote in situ and remotely sensed observations of the ocean at selected coastal sites in order to contribute to the global effort of monitoring the levels of ocean acidification and deoxygenation;

- Provide opportunities to the project participants for: i) capacity building to strengthen their efforts to monitor levels of acidification and oxygenation; ii) join larger observation networks of ocean acidification and deoxygenation;

- Organize workshops and webinars dedicated to share experiences in i) monitoring levels of productivity, acidification and oxygenation; ii) training on marine data management; iii) compare results from fieldwork and produce a biogeographic distribution of the stations.

Field work was conducted in 2021-22 in all countries, for a set of variables (e.g., temperature, chlorophyll-a, pigments, bio-optical variables, conductivity, nutrients, total alkalinity, pH, dissolved oxygen, phytoplankton) varying from station to station. The budget was allocated depending on the local sampling costs, so as to enable each country to sample on a bimonthly basis (up to a maximum of 3K EUR per station). In general, sampling was able to resume at or close to pre-COVID frequencies.

Object 2: The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research:

POGO outreach and advocacy:

Public outreach is normally conducted through participation in international exhibitions, however 2021/22 saw once again most face-to-face exhibitions, meetings and conferences either cancelled or moved online due to COVID-19 restrictions. During this year, POGO continued to participate in various events virtually (see section on Communication Strategy).

This year continued to see a significant move away from printed (paper) materials. This change was already beginning to take place in 2019 - e.g. displaying laminated 'hard copies' of leaflets on our booths, together with an array of QR codes to allow mobile device users to access digital copies quickly and easily, or handing out branded USB Flash Drives, pre-loaded with digital materials. However, the 2020 shift to virtual meetings has made paper products almost obsolete. All of POGO's brochures, leaflets and other written products are available as digital versions online.

In 2021, the POGO Strategy was updated to take into account changes in the international context and advances in technology since 2016, and to lay out a more specific focus for POGO activities over the next 5 years. POGO Members were invited to contribute to an interactive publication by recording short video clips of themselves making statements from the strategy text. Members were also invited to contribute images to illustrate sections of the text. The Secretariat commissioned a designer and video producer to bring all the components together, with a formal launch on 22 October. View the announcement here, and the full interactive document here. In December, the Secretariat sent postcards to Members and other contacts (178 in total) to raise awareness of the launch. In March 2022, the Strategy was professionally translated into Arabic, French, Portuguese and Spanish.

The Secretariat has developed a set of Case Studies to illustrate various socio-economic benefits of ocean observing. A freelance science writer was contracted to work on the project and to interact directly with researchers at POGO institutions. A call for story ideas went out to all POGO members in May, resulting in 30 proposals from 16 members. Once reviewed, it became clear that the majority fitted into one of four main 'themes'- (1) Coastal water quality monitoring, (2) Climate-critical observing, (3) Fisheries/food security and (4) Geohazards. We decided to group similar stories together, starting with coastal water quality monitoring (five examples from Malaysia, Nigeria, Portugal, China and Mexico) for the first phase of the project. The case studies are designed for use in a variety of settings - website, social media, print, etc - to help those outside the ocean observing community to understand the value of such observations in the wider societal context, and the critical need for GOOS. We have created an Interactive Map on the POGO website, with links to each example, and printable PDFs.

Citizen Observations of Local Litter in Coastal ECosysTems (COLLECT) -citizen science project

Project funded by the Richard Lounsbery Foundation, led by Dr. Ana Catarino from the Flanders Marine Institute (Belgium) and Dr. Edem Mahu from the University of Ghana, 100K USD, Jan 2021 - Sept 2022. Funds provided to the University of Ghana, NIOMR, University of Calabar, CURAT, IRHOB, IMAR and INRH.

COLLECT aims to acquire data on marine plastic debris distribution and abundance on the coasts of six African countries, through training citizen scientists (secondary school students) and promoting knowledge transfer between local communities, researchers, and POGO members.

This project targets ten secondary schools from six African countries (Ghana, Nigeria, Benin, Ivory Coast, Cape Verde and Morocco) and an external collaboration with Malaysia. Each POGO collaborator (except for Malaysia) received funds to purchase locally any required materials to organise the field activities, engage with the media, to cover for transport to the field, provision of meals/snacks for the students and staff, and to cover modest fees for technicians' and teachers' support. Expenses also covered the purchase of small gifts for the students, namely foldscopes (www.foldscope.com) and POGO/COLLECT-branded face masks. The collaborator in Malaysia shared the protocols but conducted the field work at their own cost.

The main scientific tasks focused on developing a sampling protocol for macro, meso and microplastics in sandy beaches, for the citizen scientists (school students), using systematic sampling techniques along a 50 m transect. The protocol included a technical extended version for partners and teachers, and an illustrated (2-pager/video) simplified version for students. Protocols included datasheets based on the OSPAR classification of macroplastic and on the vocabularies used by EMODnet Chemistry. All materials were produced in the three working languages (English, French and Portuguese). The project includes a data management plan (DMP), submitted to the VLIZ Data Centre and stored at the DMPonline platform (dmponline.be). The first sampling season took place in October 2021, and the data analysis began in January 2022. The development of validation steps of the sampling methods is ongoing. The second sampling season took place in March 2022, and a calibration exercise for plastics identification will take place in the next financial year.

The social sciences component of the project aimed at evaluating the impact on the wellbeing and environmental awareness of the students before and after participating in the sampling activities. This component is led by Marine Severin (VLIZ), who developed a DMP for data collection, a submission for the ethics committee of Ghent University, and surveys to be given to students prior and post-intervention, prepared in the three working languages. This component of COLLECT has been pre-registered in the platform OSF (https://osf.io) and the first data analysis will take place in January 2022.

Activities related to the communications component of the project included the creation and update of social media handles (Facebook, Instagram and Twitter), publication of news pieces in the POGO newsletter, production of a banner, and media engagement via a press release (in the three working languages) as well as via direct contact by the local POGO partners (TV, radio and newspapers).

COLLECT has been submitted by POGO as a "voluntary commitment" to the UN Partnerships for Sustainable Development Goals online platform.

South East Asia project for General Regional Awareness of Seagrass by Society (SEAGRASS)

Grant awarded to the Centre for Marine and Coastal Studies (CEMACS) of Universiti Sains Malaysia (USM) to cover field trip expenses, production of videos and pamphlets, and expenses for international speakers.

The Straits of Malacca is the second busiest ocean maritime trade route in the world with a passage of over a thousand ships a day transiting its waterways. Naturally, this brings with it a lot of environmental pressure and risks to existing natural habitats. However, there are still very special pockets of marine habitats that possess high diversities of marine life such as shallow seas, intertidal mudflats, uninhabited islands and seagrass beds. We have chosen the Middle Bank (northern Straits of Malacca) - an area of rich seagrass community to study its changing evolution in an evolving climatic and anthropogenic influence. This area adjacent to the Penang World Heritage Site can be managed as a sustainable expanse of natural sanctuary in a crowded ocean. As the only extensive and established seagrass area in the northern Straits of Malacca, Middle Bank seagrass meadow serves as nursery ground for many commercially important fish and mollusc species. Small-scale fisheries using artisanal fishing gears are also done by local coastal communities at the seagrass meadow as their livelihood. Apart from physical uses for societal and economic importance, CEMACS has been working closely with Penang State Government to gazette this area as ecologically important, serving as a carbon sink (complementing adjacent mangrove area) to mitigate climate change and offset the state's carbon emission.

The carbon sequestration potential of seagrass beds is higher than the rainforests. In addition, the seagrass communities in the Straits of Malacca are affected by anthropogenic and climatic influences. As many natural ecosystems such as coral reefs, mollusc beds and other carbonate ecosystems will be adversely affected in a CO2 rich world seagrass beds can be seen as a valuable resilient ecosystem. Data of seagrass cover and carbon stocks from the Indo-Pacific region are sparse. This seagrass area has been monitored continuously for the past 20 years through the changes and different pressures due to the adjacent rapid coastal developments. The resilience of Middle Bank seagrass meadow serves as a very good example as well as case study to be showcased globally for effective management of coastal area faced with many pressures of pollution and land reclamation.

The proximity of the Middle Bank to a World Heritage Site can be exploited to drive awareness and education on the value of these marine habitats to the general public. We hope this will encourage the local government and agencies to set up a marine protected area for research, monitoring and education. Awareness and education programmes will be deliberated by the cooperative partners in the project where this may later be promoted to other relevant areas of the region and our global partners.

Milestones and Deliverables:

Field programme
- Seagrass field trip programmes for schools at CEMACS 1
- Seagrass afield trip programme for schools at CEMACS 2

Awareness, outreach and advocacy programme
- Preparation of video material
- Virtual video creation of the Middle Bank
- Engagement with local/international schools and virtual tour of Middle Bank environment

Publication programme
- Preparation of photographic material
- Pamphlet 1: The natural heritage of the Middle Bank
- Pamphlet 2: The animals and plants of the Middle Bank
- Opportunistic Publications

Scientific training and capacity development
- Stake holder training on the ecology of the Middle Bank (national and international)
- Stake holder training on seagrass mapping and ecology (national and international)

Collaborations with other organisations:

POGO leads a group of science communicators called "Ocean Communicators United". This is an informal grouping of representatives of international, regional or national oceanographic research organisations that provides a forum for its members to share information, expertise, best practices and materials related to marine science communications. Through OCU, the POGO Communications Officer has been invited to serve on the UN Decade Communications Advisory Group, to help define the networking, engagement and communications tools required to involve key stakeholders in the UN Decade of Ocean Science, which will run from 2021 to 2030. This will be a major public engagement initiative, led by the United Nations, to educate and empower people to address the climate and ocean crisis we are all facing.

Following the 23rd POGO Annual Meeting in January 2022, a joint statement was issued with GOOS, on our mutual intent to work closer together, to accelerate progress towards UN Ocean Decade Challenge 7 "Expanding the Global Ocean Observing System". POGO and GOOS also submitted a contribution to the UNFCCC Subsidiary Body on Science and Technology (SBSTA) "Ocean and Climate Change Conference" on possible topics to be discussed during the meeting. Our statement outlined the importance of ocean observations in the context of climate change monitoring, prediction, and mitigation/adaptation.

POGO also submitted comments for the UN Ocean Conference Global On-line Stakeholder Consultation for the Concept Papers of Interactive Dialogues, some of which were included in the final Summary Report.

POGO partnered with the US National Oceanic and Atmospheric Administration (NOAA), Ocean Networks Canada and the US Arctic Research Commission to sponsor an annual supplement of Oceanography magazine on "Frontiers in Ocean Observing". The purpose of the supplement was to widely disseminate information about the many different ways in which scientists observe the ocean to improve our understanding and support the sustainable management of the ocean and its resources. One of the aims of the supplement is to help explain the scientific and societal importance of ocean observing to funders, policymakers, and the general public.

The POGO Secretariat was represented on the Editorial Board, and contributed to defining the scope and themes of the supplement, issuing the call for contributions, selection of invited articles, and review and proof reading of final submissions. The themes were selected in line with the UN Decade of Ocean Science for Sustainable Development:

- Ocean-Climate Nexus
- Ecosystems and Their Diversity
- Ocean Resources and the Economy Under Changing Environmental Conditions
- Pollutants and Contaminants and Their Potential Impacts on Human Health
- Multi-hazard Warning Systems

In addition to these, there was a section featuring new technologies. Each section features 5-7 articles, generally starting with a longer overview article.
The supplement was published in January 2022 and is available as an open-access publication at https://tos.org/oceanography/issue/volume-34-issue-04-supplement.

Object 3: The provision of scholarships and research fellowships:

Scholarships and fellowships have been provided to 19 early-career scientists for training/education periods of between 3 and 10 months during this financial year. These consisted of:

- **Scholarships for 10 scholars from 10 countries to attend the Nippon Foundation-POGO Centre of Excellence in Observational Oceanography** hosted by the Alfred Wegener Institute (a POGO member institute) in Germany, postponed to Feb-Nov 2022 due to Covid. The postgraduate-level training consists of 1- to 2-week modules on all aspects of observational oceanography (e.g. physical, chemical, biological, remote sensing, modelling) as well as key skills (scientific writing, presentation skills, scientific communication, research ethics) and a 3-month individual research project. Unlike the previous year, all scholars were able to travel to Germany and the course is been conducted in-person.

- **5 Visiting Fellowships awarded to early-career scientists from developing countries to spend up to 3 months at another research Institute** receiving individual training and supervision on a research topic of their choice. Two of these were selected in 2020 but their travel had to be postponed due to restrictions on both travel and institutions be able to welcome visiting scientists due to Covid health and safety protocols. The fellows were from Brazil, Colombia India, Peru and Venezuela, and visited research institutes in France, Germany, Mexico, UK and USA. Another 3 Fellowships (for individuals from India and Venezuela) are still pending due to the international COVID-related travel restrictions.

- **4 Shipboard Training fellowships for one week on-board a research ship** receiving hands-on training in sampling and analysis techniques, and an additional one-month stay at the host research institute prior to the cruise and a further month after the cruise to analyse the data and interpret the results. Fellows were from Argentina, Cabo Verde, India and Morocco, and the host institutes were in Denmark, Portugal and Spain.

The feedback on these programmes was overwhelmingly positive, not only from the scholars and fellows, but also from the host supervisors and parent supervisors, who commented on the networking and collaborations as well as the cultural exchanges facilitated by the programmes, and the enhanced skills and knowledge the fellows bring back to their home institutes and pass on to their peers.

Grants were awarded to 4 member institutions to support the following training programmes:

- GEOMAR to run the 2022 Surface Ocean Lower Atmosphere Study (SOLAS) Summer School (pre-payment made in Dec 2021, summer school taking place in June 2022).

- Scottish Association for Marine Science to support a training course on best practices for biogeochemical ocean observations (pre-payment made in April, course taking place in June 2022.

- Indian National Centre for Ocean Information Services (INCOIS) to support a training course on "Regional training workshop on observing the coastal and marginal seas in the Western Indian Ocean" (pre-payment made in April to local host institution in Mozambique, course taking place in June 2022).

- Second Institute of Oceanography to support a training course on "Principles and Applications of Argo and BGC-Argo" (no payment made, due to take place in 2022/23).

Object 4: The promotion of innovation and technology In the science of global ocean observation:

This has been conducted mainly through two innovation projects focussing on developing low-cost instrumentation for ocean observing aimed at developing countries and citizen science. These both address the issue that, despite a high-level political endorsement, there are few international initiatives to make more observations possible in coastal areas with little resources. In particular, the ability to access user-friendly, low-cost instrumentation is still a limiting factor in coastal ocean observing, since most marine observation equipment is difficult to deploy, costly to operate and requires specific technical skills. On the other hand, recent technological advancements have allowed novel improvements in sensors, platforms and communication that will enable a step change in coastal ocean observing philosophy.

Open Access Marine Observation Devices" (OpenMODs):

Grant awarded to National Institute of Oceanography and Applied Geophysics (OGS), Alfred Wegener Institute (AWI) and Instituto do Mar (IMar); in 2021/22 payments made only to OGS and AWI as the instrument testing in Cabo Verde has been postponed to June 2022.

Supported by POGO since 2018-19, this project has the overarching goal "to devise ocean sensors and monitoring devices, globally available to all and not just to a privileged few". The overarching objective of the current phase was to realize a prototype of a versatile low-cost ocean observing platform ready to be tested and equipped with a variety of sensors, to consolidate and enlarge the potential user community and to narrow the data and knowledge gaps between "advanced" and "developing" countries. Its potential is not limited to developing countries, but it can be advantageous in all those applications that require a high temporal and spatial coverage of observations. The implementation of the prototype has followed three main lines: the platform, the sensors and the communication systems.

During the first phase of the project, the participants agreed that the platform would:
- operate with minimum modifications as moored system, drifting buoy or manually deployed equipment;
- include essential sensors and operate in dual mode as a self-recording system or real-time autonomous system;
- include a low-cost low-power embedded system to acquire, control, process, store and (in case) transmit data;
- employ low-cost materials (e.g. plastic pipes for domestic use for the instrument housing);
- be assembled on-site by trained non-professional operators or for educational purposes.

Furthermore, the communication system would:
- use the most popular low-cost/no transmission cost communication systems;
- enable the timely communication of the relevant data and control flags and its delivery on the web;
- be ready to exploit the present and future opportunities and facilities offered by the Internet of Things technologies.

It was agreed that the resulting platform would then be tested and used as educational equipment in a conceptual framework of science, technology and practice transfer and dissemination to local user communities.

Although the Covid-19 pandemic caused significant delays and revisions to the project, the OpenMODs team made further progress in 2021/22 on the instrument platform and sensors. An improved platform was designed and assembled and was tested in the OGS test tank for watertightness and strength of its structure. Several tests were performed on the instrument's pressure module for temperature and depth (TD) measurements. The final predicted accuracy was 20 cm with an operating range of 0 to 140 m depth. The housing for the TD was manufactured on a lathe and was tested at the OGS naval tank at a depth of 2 m to test its watertightness. Several TD probes were produced, and two platforms equipped with LoRa data transmission and temperature depth (TD) probe for temperature and pressure (depth) measurement and a gateway for data reception were shipped to the AWI in March 2022 for training the NF-POGO Centre of Excellence scholars in the assembly, deployment and use of the instrument.

As a first step the scholars set up the gateway correctly by connecting it to the network through a cell phone that acted as a hot spot. A user account was created on the ttn site (an open source platform to monitor the gathered data that allowed the visualization and collection of data sent by the probe). The TD probe interfaced correctly with the gateway via the LoRa module and data were received properly. During the training in the laboratory one of the TD probes suffered a short circuit that probably damaged part of the electronics.

A stress test was performed at sea with repeated launches of the OpenMODs platform in drifter mode also from a relevant height. The TD probes and the LoRa module were mounted on the platform (drifter mode) and tested at sea. Unfortunately, small amounts of seawater entered one of the housing units containing a LoRa module which then suffered irreparable damage.

The training unit was very successful in terms of increased knowledge on the maintenance and improvements to the system. The scholars gained hands on knowledge on low-cost devices and developed a deep understanding of the underlying processes and possible pitfalls. The main deliverables were a manual and a video on the maintenance and launching of the devices, produced by the scholars. These products will be formatted and proofread within the duration of this NF-POGO CofE cohort.

The COVID-19 pandemic has affected many industries in numerous ways, including widespread shortages of supplies and materials. Unfortunately, many orders have been cancelled by suppliers due to supply chain disruptions and unpredictable lead times. The manufacturing of the electronic part of the TD probe has come to a halt as a result.

Social AGITation for Temperature Analysis" (SAGITTA):

The project aims to implement a citizen science approach for consistent and regular temperature profile data collection in the coastal ocean. This requires distribution of cheap and simple temperature-depth (TD) probes among the general public. Though suitable equipment is present on the market, it is quite expensive (5,000-9,000 USD per probe) and relatively complex for users without specialised training. Therefore the project aims to create a cheap TD probe, simple smartphone application and web portal to make this idea possible. The probe should be cheap (about 100 USD) yet scientifically reliable. The smartphone app will be used for probe control, instant data visualization and data transmission to the web. The web portal is necessary for data storage, access and dissemination; it will also be useful for training and outreach. The main achievements this year have been (1) finalising and production of the probe prototype, (2) development of the smartphone application, and (3) testing the prototype in the field.

This financial year, a smartphone application was developed by a US-based company and tested by the project PI, with several rounds of feedback and improvements made to the app over a period of several months. Several prototypes of the housing were produced and tested, as well as several versions of the Printed Circuit Board (PCB). A prototype of the instrument was shipped to Plymouth for testing by the POGO Secretariat at the L4 time series station (50o15' N, 4o 13' W), about 16 km southwest of Plymouth in the western English Channel. Although the instrument was successfully connected to a smartphone via the app, some issues were detected with the data transmission so the in sit testing was put on hold while the issue was being investigated by the PI. Meanwhile, the PI was able to test the probe in the North Pacific during a scientific cruise. He was able to attach the sensor to the CTD and deploy it to 100-110 meters three times. Because there were difficulties with the app, only two of those tests were successful in terms of data collection. None of them were completely successful, because the housing had a slight leak (one or two drops of water inside the housing were observed each time after deep deployment). Further tests will be needed with other units to determine the cause of the leek.

Nonetheless, it was an important achievement for the project that the sensor was finally tested in the field and that professional CTD data were obtained in parallel to compare results and assess the sensor performance.

Financial review
Principal funding sources
The principal sources of funding are:

- membership dues: these are used to cover all operational costs of the charity as well as some grants and fellowships

- grants from charitable foundations and other organisations, notably the Nippon Foundation, which supports POGO's capacity development programme, the Lounsbery Foundation, which has supported POGO's "COLLECT" citizen science project, and the Scientific Committee on Oceanic Research (SCOR), which co-funds the POGO-SCOR visiting fellowship programme.

STRATEGIC REPORT

Financial review

Reserves policy

POGO's reserves policy was adopted in Jan 2020. The target minimum Operating Reserve Fund is 12 months of average operating costs. The calculation of average monthly operating costs includes all recurring, predictable expenses such as salaries and benefits, insurance, office, travel, communications, projects, Working Groups and capacity development programmes. Depreciation, in-kind, and other non-cash expenses are not included in the calculation. The calculation of average monthly expenses also excludes one-time or unusual, capital purchases.

The Operating Reserve is intended to provide an internal source of funds for situations such as a sudden increase in expenses, one-time unbudgeted expenses, unanticipated loss in funding, or uninsured losses.

Operating Reserves are not intended to replace a permanent loss of funds or eliminate an ongoing budget gap. It is the intention of POGO for Operating Reserves to be used and replenished within a reasonably short period of time. The Operating Reserve Fund is defined as a designated fund set aside by action of the Board of Trustees. The minimum amount to be designated as Operating Reserve will be established in an amount sufficient to maintain ongoing operations and programmes for a set period of time, measured in months. The Operating Reserve serves a dynamic role and will be reviewed and adjusted in response to both internal and external changes.

The amount of the Operating Reserve Fund target minimum will be calculated each year after approval of the annual budget, reported to the Finance Committee/Board of Trustees, and included in the regular financial reports. The Operating Reserve will be funded with surplus unrestricted operating funds. The Board of Trustees may from time to time direct that a specific source of revenue be set aside for Operating Reserve.

The main contingencies allowed for by the Reserves Policy, are:

- POGO having to relocate the office, in case the agreement in place with the current Secretariat host(s) is terminated by either party. The provision in the contract is for 6 months' notice, which would mean any costs incurred would have to be met at relatively short notice. Costs could include redundancy and other compensation that POGO may be required by law to pay the staff (e.g. related to the Transfer of Undertakings (Protection of Employment) -TUPE; legal costs; potential increased salary costs related to employment by a different host, etc. If POGO were to start employing the Secretariat staff itself there would be additional costs related to HR/IT and other services, office rental etc.

- Other emergencies including legal costs, insurance excess, or uninsured losses.

- Loss of income: This is a potential threat caused by fluctuations in membership, or by some members being unable to pay their dues in a given year. In addition, the Nippon Foundation grant is only renewed from one year to the next, so if it is not renewed we would potentially receive very little notice of this (in this case the project would not go ahead, but additional funds from POGO could potentially be needed to cover staff costs, to which NF contributes £40,000 per annum).

The amount of reserves currently held is higher than the amount stated in the reserves policy due to delays in expenditure for workshops and travel caused by the Covid pandemic. With travel restrictions being lifted and international meetings resuming, it is anticipated that POGO will be able to make the expenditures that were planned in 2020/21 and 2021/22 as per its commitments. The reserves should therefore be reduced in 2022-23.

STRATEGIC REPORT

Financial and risk management objectives and policies

The trustees have a duty to identify and review the risks to which the charity is exposed and to ensure appropriate controls are in place to provide reasonable assurance against fraud and error. The trustees recognise that risks can arise not only from the charity's activities but also from failure to act or exploit opportunities. The trustees do not consider that all risks should be avoided. They are not averse to taking reasonable risks as part of their strategy to achieve the charity's objectives. However, they wish to be made aware of the major risks the charity faces so that they can plan how to manage those risks and mitigate their effects. The trustees have therefore appointed the Chair and CEO to review major risks and make recommendations to the trustees as to how to manage them. The trustees expect all members, staff and volunteers when engaging in any activity to consider the risks it poses and to act in accordance with any recommendations made for risk management. The trustees expect that staff and volunteers will not engage in significant types of activity which are not similar to activities the trustees are already aware of, without first having made to the trustees a proper proposal for the charity engaging in such activity, including an analysis of the risks such activity might pose to the charity. The trustees have the same expectation in relation to significant increases in activities already pursued by the charity or significant changes in the way those activities are pursued.
Risk management will be conducted according to the following steps: (1) identify the risks, (2) assess the risks, (3) evaluate what action needs to be taken, (4) monitoring and assessment.

The trustees have developed and approved a risk management policy and a risk register to identify and assess the potential risks and develop strategies to manage them. The risk register is reviewed monthly by the Chair and CEO, and twice per year by the Board as a whole. Given the charity is relatively young, it has not had a great deal of time to develop a mature 'risk appetite' approach. It is the intention of the charity for Trustees to engage in 'risk appetite' training with a view to developing a measured approach to risk. The time-scale for this will be agreed during 2022/23.

Future plans

During the coming period the organisation will work towards its aims in respect of education for developing the science of global ocean observation, developing the science as well as publishing and disseminating the results of research undertaken. The CIO will continue to provide scholarships and research fellowships in accordance with its objects, using funds from membership dues as well as grants from the Nippon Foundation, the Lounsbery Foundation and SCOR. Specifically, POGO will:

- Expand its global footprint and benefit from in-kind support from member institutions by establishing Regional and Thematic Secretariat Nodes in other parts of the world, funded entirely by the host institutions (in China to begin with);

- Continue to fund Working Groups such as the Biological Observations WG, BIOTTA, Data Acquisition in the Gulf of Guinea, BEACON and SEAGRASS;
- Conclude the project on marine litter COLLECT funded by the Richard Lounsbery Foundation (due to finish Sept 2022);

- Continue to fund the OpenMODs project on low-cost technology development, focussing particularly on the educational aspects and dissemination to developing countries;

- Continue global research projects for NF-POGO alumni;

- Continue to run the NF-POGO Centre of Excellence and provide Visiting Fellowships and Shipboard Training Fellowships for early-career researchers; an application for Phase IV of the NF-POGO project shall be submitted to the Nippon Foundation in Jan 2023 following consultation with the POGO members;

- Hold exhibition stands and give presentations at major international conferences (UN Oceans Conference, COP27);

- Increase its visibility and outreach/advocacy impact, through the development of new outreach materials, case studies on the societal benefits of ocean observations, and sponsorship of a second Supplemental Issue of the journal Oceanography, on "Frontiers in Ocean Observing".

STRUCTURE, GOVERNANCE AND MANAGEMENT

Governing document

The Charitable Incorporated Organisation ("the CIO") is governed by it's constitution in accordance with the Charities Act 2011. The CIO is based on the association model.

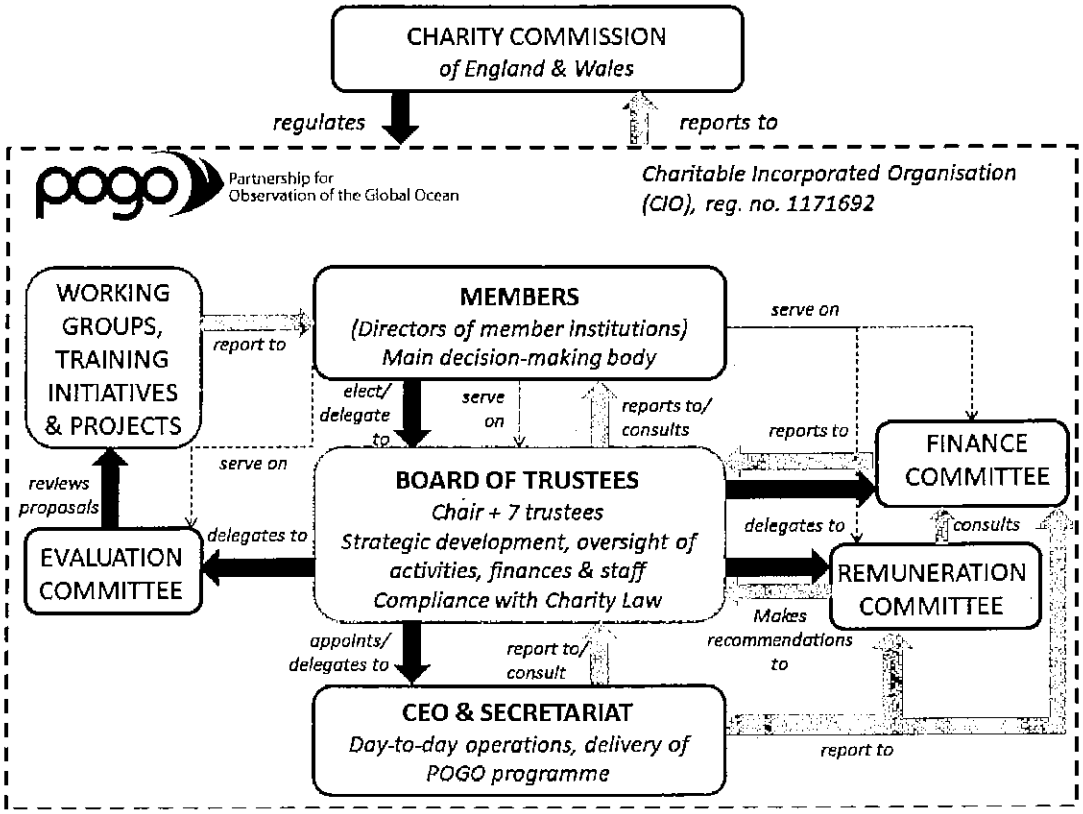
Recruitment and appointment of new trustees

Trustees are selected from the membership organisations and are appointed by the decision of the members of the CIO at the annual general meeting (with the exception of two trustees elected by the trustees themselves to improve regional and/or gender balance and/or to fill gaps in expertise). Each appointment is for a term of two years (renewable once), ending at the close of the meeting of the board of trustees immediately after an AGM.

STRUCTURE, GOVERNANCE AND MANAGEMENT

Organisational structure

Membership of the CIO is open to any oceanographic research institution, educational department or organisation from any part of the world that is interested in furthering the purposes of the CIO. The affairs of the CIO are managed by a Board of Trustees, elected by the members. The day to day operations of the CIO are delegated by the trustees to the CEO. Financial matters are delegated to a Financial Committee, which reports to the Board of Trustees. Oversight of staff performance and salaries is delegated to a Remuneration Committee, which makes recommendations regarding salaries to the Board of Trustees, following consultation with the Finance Committee. At least one trustee serves on these Committees. The governance structure is summarised in the following diagram.



Induction and training of new trustees

The charity trustees make available to each new trustee a copy of the CIO's constitution and any amendments made to it, as well as a copy of the CIO's latest trustees' annual report and statement of accounts, and the Charity Commission's guidance documents on the role of the trustee. All trustees have previous knowledge of the activities of POGO and are given guidance on their responsibilities as a trustee. Trustees are also invited to training courses on governance, which the charity pays for. These have been attended virtually in 2020/21 and 2021/22, and the trustees found the virtual training mode to be very effective.

REFERENCE AND ADMINISTRATIVE DETAILS

Registered Company number

CE010344 (England and Wales)

Registered Charity number

1171692

Registered office

Plymouth Marine Laboratory
Prospect Place
The Hoe
Plymouth
Devon
PL1 3DH

Report of the Trustees
For The Year Ended 31 March 2022

Trustees
Prof N Owens (Chair)
Prof H Brinkhuis (resigned 29.1.22)
Dr E Pavia Lopez (resigned 29.1.22)
Dr G Lericolais
Dr E Mahu
Dr S Juniper
Professor T S Hwai
Captain F A Arias-Isaza
Dr F P Chavez (appointed 29.1.22)
Dr J Mees (appointed 29.1.22)

Auditors
Bromhead
Chartered Accountants
Statutory Auditors
Harscombe House
1 Darklake View
Plymouth
Devon
PL6 7TL

COMMENCEMENT OF ACTIVITIES
The CIO was formed in February 2017 to take on the activities of a Canadian Society with the same name. The process for transferring operations to the CIO took longer than initially anticipated and had not taken place at 31 December 2017.

Operations began in the CIO in July 2018.

GOVERNANCE STATEMENT
The Board of Trustees have had due regard to the principles of recommended practices as set out by the "Charity Governance Code" and have applied these wherever practical and in decision making.

STATEMENT OF TRUSTEES' RESPONSIBILITIES
The trustees (who are also the directors of Partnership for Observation of the Global Ocean CIO for the purposes of company law) are responsible for preparing the Report of the Trustees and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Company law requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charitable company and of the incoming resources and application of resources, including the income and expenditure, of the charitable company for that period. In preparing those financial statements, the trustees are required to

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charity SORP;
- make judgements and estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charitable company will continue in business.

The trustees are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the charitable company and to enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the charitable company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

In so far as the trustees are aware:

- there is no relevant audit information of which the charitable company's auditors are unaware; and
- the trustees have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditors are aware of that information.

AUDITORS
The auditors, Bromhead, will be proposed for re-appointment at the forthcoming Annual General Meeting.

Report of the trustees, incorporating a strategic report, approved by order of the board of trustees, as the company directors, on 1 December 2022 and signed on the board's behalf by:

Prof N Owens - Trustee

Report of the Independent Auditors to the Trustees of Partnership for Observation of the Global Ocean CIO

Opinion

We have audited the financial statements of Partnership for Observation of the Global Ocean CIO (the 'charitable company') for the year ended 31 March 2022 which comprise the Statement of Financial Activities, the Statement of Financial Position, the Statement of Cash Flows and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 31 March 2022 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We are independent of the charitable company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the charitable company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the trustees with respect to going concern are described in the relevant sections of this report.

Other information

The trustees are responsible for the other information. The other information comprises the information included in the Annual Report, other than the financial statements and our Report of the Independent Auditors thereon.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Charities (Accounts and Reports) Regulations 2008 requires us to report to you if, in our opinion:

- the information given in the Report of the Trustees is inconsistent in any material respect with the financial statements; or
- the charitable company has not kept adequate accounting records; or
- the financial statements are not in agreement with the accounting records and returns; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of trustees

As explained more fully in the Statement of Trustees' Responsibilities, the trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the charitable company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the charitable company or to cease operations, or have no realistic alternative but to do so.

Our responsibilities for the audit of the financial statements
We have been appointed as auditors under Section 144 of the Charities Act 2011 and report in accordance with the Act and relevant regulations made or having effect thereunder.

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a Report of the Independent Auditors that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below:

The engagement partner ensured that the engagement team collectively had the appropriate competence, capabilities and skills to identify or recognise non-compliance with applicable laws and regulations.

We identified the laws and regulations applicable to the company through discussions with directors and other management and from our commercial knowledge.

We focused on specific laws and regulations which we considered may have a direct material effect on the financial statements or the operations of the company including, Companies Act 2006, Health & Safety at Work Act, Employment Law and data protection.

We assessed the extent of compliance with the laws and regulations identified above through making enquiries of management and inspecting legal correspondence.

We assessed the susceptibility of the company's financial statements to material misstatement, including obtaining an understanding of how fraud might occur by, making enquiries of management as to where they considered there was susceptibility to fraud, their knowledge of actual, suspected and alleged fraud. Also, considering the internal controls in place to mitigate risks of fraud and non-compliance with laws and regulations.

To address the risk of fraud through management bias and override of controls we tested journal entries to identify any unusual transaction and assessed whether judgement and estimates were indicative of potential bias.

In response to the risk of irregularities and non-compliance with laws and regulations, we designed procedures which included, but were not limited to agreeing financial statement disclosures to underlying supporting documents, reading the minutes of meeting of those charged with governance and enquiring of management as to actual and potential litigation claims.

There are inherent limitations in our audit procedures described above. The more removed that laws and regulations are from financial transactions, the less likely it is that we would become aware of non-compliance. Auditing standards also limit the audit procedures required to identify non-compliance with laws and regulations to enquiry of the directors and other management and the inspection of regulatory and legal correspondence, if any.

Material misstatements that arise due to fraud can be harder to detect that those that arise from error as they may involve deliberate concealment or collusion.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at www.frc.org.uk/auditorsresponsibilities. This description forms part of our Report of the Independent Auditors.

Report of the Independent Auditors to the Trustees of Partnership for Observation of the Global Ocean CIO

Use of our report

This report is made solely to the charitable company's trustees, as a body, in accordance with Part 4 of the Charities (Accounts and Reports) Regulations 2008. Our audit work has been undertaken so that we might state to the charitable company's trustees those matters we are required to state to them in an auditors' report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charitable company and the charitable company's trustees as a body, for our audit work, for this report, or for the opinions we have formed.

Bromhead
Chartered Accountants
Statutory Auditors
Eligible to act as an auditor in terms of Section 1212 of the Companies Act 2006
Harscombe House
1 Darklake View
Plymouth
Devon
PL6 7TL

Date: 06.12.22

Partnership for Observation of the Global Ocean CIO T/A POGO

Statement of Financial Activities For The Year Ended 31 March 2022

	Notes	Unrestricted fund £	Restricted funds £	31.3.22 Total funds £	31.3.21 Total funds £
INCOME AND ENDOWMENTS FROM					
Charitable activities	3				
Centre of Excellence		-	**587,635**	**587,635**	653,548
Subscriptions		**235,933**	-	**235,933**	245,796
Fellowship programme		-	**10,968**	**10,968**	7,871
Citizen Observation of Local Litter in Coastal ECosysTems		-	-	-	73,625
Investment income	2	**39**	-	**39**	2,415
Total		**235,972**	**598,603**	**834,575**	983,255
EXPENDITURE ON					
Charitable activities	4				
Centre of Excellence		-	**369,884**	**369,884**	511,312
NANO activities		-	**112,176**	**112,176**	40,337
Shipboard training		-	**31,157**	**31,157**	12,573
Biological observations		-	-	-	13,786
POGO activities		**200,409**	**13,042**	**213,451**	210,080
Fellowship programme		**5,723**	**10,968**	**16,691**	7,893
Citizen Observation of Local Litter in Coastal ECosysTems		-	**43,509**	**43,509**	3,429
Return of residual grants		-	**134,778**	**134,778**	-
Total		**206,132**	**715,514**	**921,646**	799,410
NET INCOME/(EXPENDITURE)		**29,840**	**(116,911)**	**(87,071)**	183,845
RECONCILIATION OF FUNDS					
Total funds brought forward		**367,198**	**342,593**	**709,791**	525,946
TOTAL FUNDS CARRIED FORWARD		**397,038**	**225,682**	**622,720**	709,791

The notes form part of these financial statements

Partnership for Observation of the Global Ocean CIO T/A POGO

Statement of Financial Position
31 March 2022

	Notes	Unrestricted fund £	Restricted funds £	31.3.22 Total funds £	31.3.21 Total funds £
CURRENT ASSETS					
Debtors	9	**11,241**	**15**	**11,256**	30,340
Cash at bank		**424,660**	**1,044,072**	**1,468,732**	1,451,237
		435,901	**1,044,087**	**1,479,988**	1,481,577
CREDITORS					
Amounts falling due within one year	10	**(38,863)**	**(818,405)**	**(857,268)**	(771,786)
NET CURRENT ASSETS		**397,038**	**225,682**	**622,720**	709,791
TOTAL ASSETS LESS CURRENT LIABILITIES		**397,038**	**225,682**	**622,720**	709,791
NET ASSETS		**397,038**	**225,682**	**622,720**	709,791
FUNDS	11				
Unrestricted funds				**397,038**	367,198
Restricted funds				**225,682**	342,593
TOTAL FUNDS				**622,720**	709,791

The charitable company is entitled to exemption from audit under Section 477 of the Companies Act 2006 for the year ended 31 March 2022.

The members have not deposited notice, pursuant to Section 476 of the Companies Act 2006 requiring an audit of these financial statements.

The trustees acknowledge their responsibilities for
(a) ensuring that the charitable company keeps accounting records that comply with Sections 386 and 387 of the Companies Act 2006 and
(b) preparing financial statements which give a true and fair view of the state of affairs of the charitable company as at the end of each financial year and of its surplus or deficit for each financial year in accordance with the requirements of Sections 394 and 395 and which otherwise comply with the requirements of the Companies Act 2006 relating to financial statements, so far as applicable to the charitable company.

These financial statements have been audited under the requirements of Section 145 of the Charities Act 2011.

The financial statements were approved by the Board of Trustees and authorised for issue on 1 December 2022 and were signed on its behalf by:

N Owens - Trustee

The notes form part of these financial statements

Partnership for Observation of the Global Ocean CIO T/A POGO

Statement of Cash Flows For The Year Ended 31 March 2022

	Notes	31.3.22 £	31.3.21 £
Cash flows from operating activities			
Cash generated from operations	1	**17,456**	216,523
Net cash provided by operating activities		**17,456**	216,523
Cash flows from investing activities			
Interest received		**39**	2,415
Net cash provided by investing activities		**39**	2,415
Change in cash and cash equivalents in the reporting period		**17,495**	218,938
Cash and cash equivalents at the beginning of the reporting period		**1,451,237**	1,232,299
Cash and cash equivalents at the end of the reporting period		**1,468,732**	1,451,237

The notes form part of these financial statements

Notes to the Statement of Cash Flows
For The Year Ended 31 March 2022

1. RECONCILIATION OF NET (EXPENDITURE)/INCOME TO NET CASH FLOW FROM OPERATING ACTIVITIES

	31.3.22 £	31.3.21 £
Net (expenditure)/income for the reporting period (as per the Statement of Financial Activities)	**(87,071)**	183,845
Adjustments for:		
Interest received	**(39)**	(2,415)
Decrease/(increase) in debtors	**19,084**	(6,598)
Increase in creditors	**85,482**	41,691
Net cash provided by operations	**17,456**	216,523

2. ANALYSIS OF CHANGES IN NET FUNDS

	At 1.4.21 £	Cash flow £	**At 31.3.22 £**
Net cash			
Cash at bank	**1,451,237**	**17,495**	**1,468,732**
	1,451,237	**17,495**	**1,468,732**
Total	**1,451,237**	**17,495**	**1,468,732**

The notes form part of these financial statements

Notes to the Financial Statements
For The Year Ended 31 March 2022

1. ACCOUNTING POLICIES

Basis of preparing the financial statements
The financial statements of the charitable company, which is a public benefit entity under FRS 102, have been prepared in accordance with the Charities SORP (FRS 102) 'Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019)', Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' and the Companies Act 2006. The financial statements have been prepared under the historical cost convention.

The charity constitutes a public benefit entity as defined by FRS 102.

The trustees consider there are no material uncertainties about the charity's ability to continue as a going concern. These financial statements are prepared on a going concern basis. The financial statements are prepared in sterling which is the functional currency of the charity and rounded to the nearest £1.

The significant accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all years presented unless stated otherwise.

The charity adopted SORP (FRS 102) in the current year and an explanation of how transition to SORP (FRS 102) has affected the reporting financial position is given in note 16.

Income
The charity receives annual subscriptions from its members in alignment with the financial year. Any subscriptions billed in advance are deferred and recognised in the following financial period.

All other income is recognised in the Statement of Financial Activities once the charity has entitlement to the funds, it is probable that the income will be received and the amount can be measured reliably.

Expenditure
Liabilities are recognised as expenditure as soon as there is a legal or constructive obligation committing the charity to that expenditure, it is probable that a transfer of economic benefits will be required in settlement and the amount of the obligation can be measured reliably. Expenditure is accounted for on an accruals basis and has been classified under headings that aggregate all cost related to the category. Where costs cannot be directly attributed to particular headings they have been allocated to activities on a basis consistent with the use of resources.

Grants offered subject to conditions which have not been met at the year end date are noted as a commitment and accrued as an expense.

Allocation and apportionment of costs
All costs that can be directly associated with a charitable activity have been attributed to the activity.

Support costs are those that assist the work of the charity but do not directly undertake charitable activities. Governance costs involving the public accountability of the charity and its compliance with regulation and good practice include costs relating to statutory examinations and legal fees.

Finance costs include all expenses incurred for operation of the charity's bank accounts as well and the total foreign exchange gain or loss the charity has achieved or suffered in the financial period.

Taxation
The charity is exempt from corporation tax on its charitable activities.

Fund accounting
Unrestricted funds can be used in accordance with the charitable objectives at the discretion of the trustees.

Restricted funds can only be used for particular restricted purposes within the objects of the charity. Restrictions arise when specified by the donor or when funds are raised for particular restricted purposes.

Further explanation of the nature and purpose of each fund is included in the notes to the financial statements.

Foreign currencies
Assets and liabilities in foreign currencies are translated into sterling at the rates of exchange ruling at the statement of financial position date.

continued...

1. ACCOUNTING POLICIES - continued

Foreign currencies
Transactions in foreign currencies are translated into sterling at the average rate of exchange ruling for the year. Resulting exchange differences are taken into account in arriving at the operating result.

Donated goods
Donated goods are provided in the form of office space with Plymouth Marine Laboratory. The relationship remains healthy and the trustees feel this service will be provided for the foreseeable future.

2. INVESTMENT INCOME

	31.3.22	31.3.21
	£	£
Deposit account interest	39	2,415

3. INCOME FROM CHARITABLE ACTIVITIES

	Activity	31.3.22	31.3.21
		£	£
Grants	Centre of Excellence	587,635	653,548
Subscriptions	Subscriptions	235,933	245,796
SCOR income	Fellowship programme	10,968	7,871
Grants	Citizen Observation of Local Litter in Coastal ECosysTems	-	73,625
		834,536	980,840

Grants received, included in the above, are as follows:

	31.3.22	31.3.21
	£	£
Nippon Foundation	587,635	653,548
Richard Lounsbery Foundation	-	73,625
	587,635	727,173

4. CHARITABLE ACTIVITIES COSTS

	Direct Costs	Grant funding of activities (see note 5)	Support costs (see note 6)	Totals
	£	£	£	£
Centre of Excellence	58,383	311,501	-	369,884
NANO activities	5,492	106,684	-	112,176
Shipboard training	3,745	27,412	-	31,157
Citizen Observation of Local Litter in Coastal ECosysTems	-	43,509	-	43,509
POGO activities	54,215	17,531	141,705	213,451
Fellowship programme	-	16,691	-	16,691
Return of residual grants	134,778	-	-	134,778
	256,613	523,328	141,705	921,646

continued...

5. GRANTS PAYABLE

The total amount awarded to institutions was £329,032 (2021: £473,356), those institutions are listed below:

Alfred-Wegener Institute
University Sains Malaysia
Isituto Nazionale di Oceanograpfia e di Geofisica

Grants paid to Alfred-Wegener Institute are for the provision of the Centre of Excellence, which provides scholarship training to improve the global knowledge regarding ocean observation. Additionally, a small grant was paid for the provision of Open Access Marine Observation Devices (OpenMODS), which helps provide access to important ocean data to less developed countries.

Grants paid to University Sains Malaysia are for the provision of research cruise support and project participants' support costs.

Grants paid to Isituto Nazionale di Oceanografia e di Geofisica are for the provision of Open Access Marine Observation Devices (OpenMODS), which helps provide access to important ocean data to less developed countries.

The total amount awarded to individuals was £194,297 (2021: £46,393) and the number of individual beneficiaries was 55 (2021: 31).

Grants paid to individuals are for the reimbursement of travel expenses, workshops and equipment to allow less developed countries access to the best training courses and events to improve global knowledge of ocean.

6. SUPPORT COSTS

	Management	Finance	Governance costs	Totals
	£	£	£	£
POGO activities	**132,776**	**760**	**8,169**	**141,705**

7. NET INCOME/(EXPENDITURE)

Net income/(expenditure) is stated after charging/(crediting):

	31.3.22	31.3.21
	£	£
Auditors' remuneration	**5,091**	4,847
Auditors' remuneration for non audit work	**3,078**	2,964
Foreign Exchange (gain)/loss	**9,192**	73,221

8. TRUSTEES' REMUNERATION AND BENEFITS

There were no trustees' remuneration or other benefits for the year ended 31 March 2022 nor for the year ended 31 March 2021.

continued...

8. TRUSTEES' REMUNERATION AND BENEFITS - continued

Trustees' expenses

During the year there were no expenses paid to trustees.

9. DEBTORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	31.3.22	31.3.21
	£	£
Trade debtors	10,193	30,340
Prepayments	1,063	-
	11,256	30,340

10. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	31.3.22	31.3.21
	£	£
Trade creditors	20,281	52,873
Other creditors	1,805	-
Accruals and deferred income	591,465	610,055
Accrued expenses	243,717	108,858
	857,268	771,786

11. MOVEMENT IN FUNDS

	At 1.4.21	Net movement in funds	At 31.3.22
	£	£	£
Unrestricted funds			
General fund	367,198	29,840	397,038
Restricted funds			
Nippon Foundation Grant	273,242	(73,402)	199,840
Richard Lounsbery Foundation	69,351	(43,509)	25,842
	342,593	(116,911)	225,682
TOTAL FUNDS	709,791	(87,071)	622,720

continued...

11. MOVEMENT IN FUNDS - continued

Net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	**235,972**	**(206,132)**	**29,840**
Restricted funds			
Nippon Foundation Grant	**587,635**	**(661,037)**	**(73,402)**
Richard Lounsbery Foundation	**-**	**(43,509)**	**(43,509)**
SCOR fellowship			
	10,968	**(10,968)**	**-**
	598,603	**(715,514)**	**(116,911)**
TOTAL FUNDS	**834,575**	**(921,646)**	**(87,071)**

Comparatives for movement in funds

	At 1.4.20 £	Net movement in funds £	At 31.3.21 £
Unrestricted funds			
General fund	325,153	42,045	367,198
Restricted funds			
Nippon Foundation Grant	187,852	85,390	273,242
Richard Lounsbery Foundation	12,941	56,410	69,351
	200,793	141,800	342,593
TOTAL FUNDS	525,946	183,845	709,791

Comparative net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	248,211	(206,166)	42,045
Restricted funds			
Nippon Foundation Grant	653,548	(568,158)	85,390
Richard Lounsbery Foundation	73,625	(17,215)	56,410
SCOR fellowship			
	7,871	(7,871)	-
	735,044	(593,244)	141,800
TOTAL FUNDS	983,255	(799,410)	183,845

continued...

11. MOVEMENT IN FUNDS - continued

A current year 12 months and prior year 12 months combined position is as follows:

	At 1.4.20 £	Net movement in funds £	At 31.3.22 £
Unrestricted funds			
General fund	325,153	71,885	397,038
Restricted funds			
Nippon Foundation Grant	187,852	11,988	199,840
Richard Lounsbery Foundation	12,941	12,901	25,842
	200,793	24,889	225,682
TOTAL FUNDS	525,946	96,774	622,720

A current year 12 months and prior year 12 months combined net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	484,183	(412,298)	71,885
Restricted funds			
Nippon Foundation Grant	1,241,183	(1,229,195)	11,988
Richard Lounsbery Foundation	73,625	(60,724)	12,901
SCOR fellowship	18,839	(18,839)	-
	1,333,647	(1,308,758)	24,889
TOTAL FUNDS	1,817,830	(1,721,056)	96,774

NIPPON Foundation Fund - Activities related to the delivery of the Centre of Excellence, the Global NANO project and Shipboard Training and outreach programme. During the period, residual funds from prior years were agreed to be repaid to the grant provider and are therefore included in the funds movement for the period.

Richard Lounsbery Foundation Fund - Activities related to the delivery of the Citizen Observation of Local Litter in Coastal EcosysTems programme.

12. RELATED PARTY DISCLOSURES

There were no related party transactions for the year ended 31 March 2022.

continued...

13. OTHER DISCLOSURES

During the period Plymouth Marine Laboratories gave POGO free use of office space in lieu of membership fees. This has been reflected in the accounts at a value of £3,918 (2021: £4,126), being the membership fees that would have been paid without the agreement.

Partnership for Observation of the Global Ocean CIO
T/A POGO

Detailed Statement of Financial Activities
For The Year Ended 31 March 2022

	31.3.22 £	31.3.21 £
INCOME AND ENDOWMENTS		
Investment income		
Deposit account interest	**39**	2,415
Charitable activities		
Subscriptions	**235,933**	245,796
SCOR income	**10,968**	7,871
Grants	**587,635**	727,173
	834,536	980,840
Total incoming resources	**834,575**	983,255
EXPENDITURE		
Charitable activities		
Insurance	**934**	934
Events and associated travel	**45,348**	17,642
Outreach materials	**13,185**	5,478
Website development	**2,421**	10,036
Project administration	**50,754**	29,740
Foreign exchange (gain)/loss	**9,193**	73,221
Residual grant returns	**134,778**	-
Grants to institutions	**329,032**	473,356
Grants to individuals	**194,296**	46,393
	779,941	656,800
Support costs		
Management		
Office rent	**3,918**	4,126
Annual Meetings	**588**	3,634
Postage and stationery	**127**	3,929
Advertising	**42**	-
Travel	**454**	(857)
Staff training	**202**	89
Subscriptions	**2,454**	1,900
Contribution to key management personnel	**124,991**	121,333
	132,776	134,154
Finance		
Bank charges	**760**	645
Governance costs		
Auditors' remuneration	**5,091**	4,847
Auditors' remuneration for non audit work	**3,078**	2,964
	8,169	7,811
Total resources expended	**921,646**	799,410
Net (expenditure)/income	**(87,071)**	183,845

PARTNERSHIP FOR OBSERVATION OF THE GLOBAL OCEAN

England & Wales - Charity number 1171692

Accounts

REGISTERED COMPANY NUMBER: CE010344 (England and Wales)
REGISTERED CHARITY NUMBER: 1171692

Report of the Trustees and

Financial Statements

For The Year Ended 31 March 2021

for

Partnership for Observation of the Global Ocean CIO T/A POGO

Bromhead
Chartered Accountants
Statutory Auditors
Harscombe House
1 Darklake View
Plymouth
Devon
PL6 7TL

Partnership for Observation of the
Global Ocean CIO
T/A POGO

Contents of the Financial Statements
For The Year Ended 31 March 2021

Partnership for Observation of the Global Ocean CIO T/A POGO

Report of the Trustees For The Year Ended 31 March 2021

The trustees who are also directors of the charity for the purposes of the Companies Act 2006, present their report with the financial statements of the charity for the year ended 31 March 2021. The trustees have adopted the provisions of Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019).

REFERENCE AND ADMINISTRATIVE DETAILS

Registered Company number
CE010344 (England and Wales)

Registered Charity number
1171692

Registered office
Plymouth Marine Laboratory
Prospect Place
The Hoe
Plymouth
Devon
PL1 3DH

Trustees
Prof N Owens (Chair)
Prof H Brinkhuis
Dr E Pavia Lopez
Dr G Lericolais
Prof T Li (resigned 29.1.21)
Dr E Mahu
Dr S Juniper
Dr S S C Shenoi (resigned 12.10.20)
Professor SH Tan (appointed 27.11.20)
Captain F A Arias-Isaza (appointed 27.1.21)

Company Secretary

Auditors
Bromhead
Chartered Accountants
Statutory Auditors
Harscombe House
1 Darklake View
Plymouth
Devon
PL6 7TL

Report of the Trustees
For The Year Ended 31 March 2021

OBJECTIVES AND ACTIVITIES
Objectives and aims

The charity aims to bring together the world's major oceanographic institutes to plan joint actions to advance sustained ocean observations for societal benefit. POGO institutes are motivated by a common belief that advancing scientific understanding of the ocean is rooted in making systematic, high quality measurements. They believe that this understanding and its wise use are critical to, and will make a real positive difference in, enabling humanity to develop a sustainable relationship with a healthy, productive and biologically diverse ocean. POGO is further motivated by the shared belief that its vision can only be realised by working together across the world, where we can achieve together what none of us could do alone.

The ocean produces half of the world's oxygen, most of its fresh water and much of its food. It regulates climate and weather, is critical to the cycling of heat, water and carbon. It is the source of huge biodiversity. However, far too little is actually known about the state and functioning of the ocean. Accordingly, scientifically sound study of the ocean and support and advocacy for such study (and for the conclusions drawn from such study) is of vital importance to mankind. POGO seeks to expand international support for ocean observing, through innovation of the ocean observing system, capacity development and outreach/advocacy.

In terms of innovation, POGO members are at the forefront of oceanographic methods and technology development, often in partnership with industry, as they are the future "users" of such new technologies. Thus, POGO is in a critical position to identify the emerging methods and technologies that POGO members are developing and using, and highlighting those that can be expanded and deployed on a global scale in order to achieve global datasets of specific parameters measured using the same methods. POGO is also strongly focussed on the affordability issues associated with ocean observing, particularly for developing countries, and is therefore engaged in projects looking to develop low-cost sensors and systems for coastal ocean observing. The societies and economies of many developing countries rely heavily on the ocean, for example through coastal tourism, trade infrastructure, natural resource extraction, and small-scale and industrial fisheries and aquaculture. However, extreme weather events, sea-level rise, tsunamis, harmful algal blooms and water pollution threaten the world's poorest and most vulnerable coastal and island communities. Ocean observations and information services can be used to improve human health and safety and food security, support livelihoods and small-scale economic activities (artisanal fisheries and aquaculture, coastal tourism), and improve climate resilience and disaster risk reduction.

POGO also recognises that the expertise for conducting ocean observations is not evenly distributed between countries, and therefore the ocean is unevenly observed, with a much higher density of observations conducted in the North Atlantic and North Pacific, than in, for example, the South Atlantic, South Pacific and Indian Ocean. POGO therefore provides professional training opportunities for early-career scientists, mainly from coastal developing countries, to expand the worldwide capacity for conducting sustained ocean observations, data collection, analysis and management, and interpreting the scientific results for the benefit of society.

Many actors, working together internationally, are needed to bring about sustainable management of the oceans that is informed by sound science, underpinned by a comprehensive global ocean measurement system.

These include:

1) National governments working individually and through intergovernmental structures and bodies - who are agents for political action and international consensus and support the governance framework for international cooperation.

2) Non-governmental organisations aimed at coordinating science, influencing policy and/or raising public awareness at regional and global scales.

3) The wider scientific community, working nationally and internationally - who undertake research, share and synthesise ideas and findings and identify key scientific challenges and develop internationally agreed research agendas.

4) Funders of research and monitoring programmes whether they be governments, businesses or not for profit foundations - who provide the resources needed.

5) Individual citizens working individually and collectively whose support and desire for a better life and world provides continuing motivation and inspiration for all involved.

POGO highlights the societal need for ocean observations, as well as the key issues facing global ocean observing, and the obstacles hampering the completion of a global ocean observing system, and brings these issues to relevant public and policy fora.

The objects of the CIO are to advance the science of global ocean observation for the public benefit in particular (but not exclusively) by:

i. Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation;

ii. The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research;

iii. The provision of scholarships and research fellowships;

iv. The promotion of innovation and technology in the science of global ocean observation.

In the short term, POGO aims to provide training for early-career scientists, to develop the next generation of scientists and ocean observers, as well as to raise the levels of awareness and education about the importance of the ocean and ocean observing for society. Measures of success include numbers of trainees, numbers of countries having received training, numbers of website visits and downloads of outreach materials, mentions on social media and other statistics.

The longer-term vision is to develop the capacity of research institutions in developing countries to conduct ocean observations, by (1) integrating the trained scientists and their institutions into the POGO network and have them actively participate in POGO projects, (2) sharing best practices among POGO member institutions, and (3) contributing to the development and dissemination of low-cost instrumentation for coastal ocean observing. Measures of success include numbers of POGO members and numbers of new (developing) countries being added to the network, establishment of new ocean observing systems in those countries, and demonstrated long-term impacts of the training programmes (e.g. >5 years after the training, on institutional capacity and continued knowledge-transfer).

Significant activities

i. Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation: this has been achieved by supporting Working Groups on specific topics related to ocean observation, such as the Biological Observations WG, which convened an International Virtual Conference on "Environmental DNA (eDNA) in Marine Environments: Opportunities and Challenges" in Nov-Dec 2020.

ii. The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research: this has been achieved through POGO's outreach and advocacy initiatives, through printed, on-line and social media and in particular the creation of short videos. POGO also launched a new citizen science project on coastal litter. Unfortunately, due to the COVID-19 pandemic, it has not been possible to participate in any outreach events as we have done in previous years.

iii. The provision of scholarships and research fellowships: scholarships and fellowships have been provided to 19 early-career scientists for training/education periods of between 1 and 10 months during this financial year (the number is somewhat lower this year due to various training programmes being postponed/affected by the pandemic);

iv. The promotion of innovation and technology in the science of global ocean observation: this has been conducted mainly through two innovation projects focussing on developing low-cost instrumentation for ocean observing aimed at developing countries and citizen science.

More detailed information on these activities can be found below, under the heading "Achievement and Performance".

Public benefit
The trustees have complied with their duty, as set out in the Charities Act 2011, with regard to the public benefit guidance published by the Charity Commission.

The CIO has been working towards achieving its charitable objectives, delivering benefit to the wider public through its work to advance sustained ocean observations.

Report of the Trustees
For The Year Ended 31 March 2021

OBJECTIVES AND ACTIVITIES

Grantmaking

POGO allocates some of its funds (received from charitable foundations and/or membership dues) to help support ocean observation activities (e.g. through Working Groups) and to provide training for early-career scientists (generally in developing countries). POGO has a set of policies and procedures for allocating such grants, which are summarised below.

POGO issues a call to its members once or twice per year for proposals for Working Groups, workshops, travel grants, training initiatives and other activities that are directly relevant to POGO's core mission, i.e. sustained, long-term ocean observing systems and shared use of infrastructure, data and information. This includes a template for applicants to complete and submit to the POGO Secretariat. Proposals must be submitted by members of POGO, although participants can be from other institutes if necessary. If a Working Group or other initiative wishes to continue for a second year, a request for extension must be submitted, using the template provided, by the same deadline as the new proposals. A sub-committee of POGO members (who do not have conflicts of interest) reviews the proposals, according to a number of criteria, e.g. relevance to POGO's Strategy and priority areas; timeliness of proposal; adequacy of proposed deliverables and milestones; adequacy of WG/project membership (including geographic and gender balance). For training initiatives, the expected impact of the training and proposed methods for evaluating success are also taken into account. The Committee then makes recommendations to the Board of Trustees on the proposal(s) to take forward, depending on the available budget. The availability of other funding sources is not a determining factor in the selection process.

POGO and the Nippon Foundation have set up the NF-POGO Alumni Network for Oceans (NANO) to maximise the benefits to the alumni from the training received and facilitate active contacts among the alumni. Through POGO, the Nippon Foundation funds modest regional and global research projects and public outreach projects. Proposals are received in response to an open call, and funding is renewed for successive years based on performance. The projects are selected according to the following criteria:

(1) Projects should have an observational/applied focus (not "blue skies" research)
(2) They should have a societal benefit focus
(3) They should add value to and build upon existing programmes/projects
(4) Funding should be used mainly for coordination (but also consumables, field work, modest equipment).
(5) Projects should be coordinated by NANO alumni but participants can be a mixture of alumni and external scientists. They should be supported by senior mentors and endorsed by the participating institutes' senior management.
(6) They should include a minimum of two different countries, preferably more.

POGO also offers scholarships/fellowships to individuals, both through the Nippon Foundation grant and using its own funds and a grant from the Scientific Committee on Oceanic Research (SCOR). These fellowships all operate following similar procedures, i.e. an announcement and call for applications is made, which is open to anyone who fulfils the country and scientific background/career stage requirements (e.g. Official Development Assistance recipient countries, early-career scientists, but not just those affiliated with POGO member institutions). An impartial committee composed of one or two members of the POGO Secretariat plus 2 or more experts from the scientific community (often involved in teaching/supervising students) is assembled to review the applications, based on a set of criteria such as quality of the applicant (education/experience/potential), quality of the training proposal or motivation letter, quality of the host institute (if applicable), relevance to POGO and to the priority areas identified in the call for proposals, and potential for sustained capacity building in the host institute/country. The scores are then totalled and a number of top-ranked applicants are selected according to the budget available, with consideration given to gender and geographical balance, as well as occasionally other factors such as whether the candidate has received POGO funding previously.

Report of the Trustees
For The Year Ended 31 March 2021

STRATEGIC REPORT
Achievement and performance
POGO Communication Strategy:

Overall, POGO has increased its visibility through its web presence, social media and representation at international meetings (all virtual this year). Specifically, POGO was represented by Secretariat staff, trustees or members, at:

- IOC-UNESCO Virtual Ocean Literacy Summit (June 2020)
- GEO Virtual Symposium (June 2020)
- the Ocean Best Practices 4th Annual Workshop (Sept 2020),
- EU4Ocean workshop - Designing Ocean Literacy action in Europe (Sept 2020)
- the SCOR Annual Meeting (Oct 2020)
- the North Pacific Marine Science Organisation (PICES) Annual Meeting (Nov 2020)
- Various planning meetings and webinars for the UN Decade of Ocean Science for Sustainable Development
- The Economist World Ocean Summit (March 2021).

POGO representatives also contributed to planning and oversight committees for:

- the Group on Earth Observations (GEO) Blue Planet Initiative
- the International Quiet Ocean Experiment (IQOE)
- Ocean Info Hub
- the 2nd Operational Satellite Oceanography Symposium (OSOS2)
- the UN Decade on Ocean Science for Sustainable Development Communications Advisory Group
- CommOcean 2020 (Marine Science Communication Conference)
- Ocean Obs Research Coordination Network
- The World Congress of Marine Stations

Presentations were given on POGO at several of these events. POGO information packs have also been sent to a number of prospective members in Africa, Asia, Australia, Europe, and Latin America.

The **POGO website** underwent a complete rebuild during 2020, with the new site launched in August. In addition to the redesign, the Secretariat took the opportunity to register four new domain names which are more in line with POGO's name and social media identity (pogo-ocean.org and derivatives).

The new design presents a more holistic view of POGO activities, including features such as interactive membership list, with a zoomable map, and summaries of how our members contribute to GOOS. The site also boasts an interactive timeline of POGO's history, with thoughtful contributions from Founders, Members, Partners, Alumni and more.

POGO maintains an active social media presence on Twitter (@POGO_Ocean), Facebook /POGO.Ocean/). Instagram (/pogo_ocean) and LinkedIn (/pogo_ocean), as well as a minor presence on YouTube. Social media continues to be an excellent means to share news and information with an interested and interactive audience.

In addition, the secretariat runs or shares responsibility for the following Twitter accounts: Ocean Training Partnership, NANO Network, and Blue Planet.

Charitable activities

Object 1: Advancing education in global ocean observation by identifying areas of further study for developing the science of global ocean observation:

Progress has been achieved by providing grants for the establishment of 2 new Working Groups (WGs) in 2020/21, as well as through an International Conference on eDNA Opportunities and Challenges, and a Nippon Foundation-POGO Alumni Network for the Ocean (NANO) Global Project.

International Virtual Conference on eDNA: Opportunities and Challenges (led by POGO Biological Observations WG):

Remaining grant from the Lounsbery Foundation used to fund the virtual conference.

The use of environmental DNA (eDNA) and other omics analyses in studies of marine ecosystems has blossomed. Both scientists and managers hope that the rigorous development of these analyses will allow us to address important science and management questions through our ability to census marine biota across multiple trophic levels with a single sample of DNA. Species of special interest for eDNA observation include those that are commercially important, protected, or invasive. The techniques are also amenable to automation in situ and deployment in global observing systems. At this time there are significant challenges to making rapid and major advances in understanding the techniques and their application to decision-making and management related to both analytical methods and strategies for sampling. The UN Decade of Ocean Science for Sustainable Development offers the potential to engage scientists and managers around the world to resolve these challenges and develop an observational strategy that can answer critical questions for each. Building on the call to action at OceanObs'19 for enhancing biodiversity observations as well as the growing number of organisations fostering omics and eDNA development, this meeting provided an opportunity to envision what a sustainable global 'omics/eDNA monitoring system could look like and (i) promote global coordination among the organisations that are fostering eDNA and 'omics for marine environments, and (ii) coordinate efforts to develop a programme proposal in response to the call for action from the UN Decade of Ocean Science for Sustainable Development. The proposal was submitted to the UN Decade for endorsement in January 2021.

Other future directions for the POGO Bio Obs WG, and thus for POGO, include (1) inexpensive technologies for biological observing (also linked to OpenMODs topic below), (2) data archaeology for critical marine biodiversity observations, (3) interoperability of marine biological data, and (4) capacity development for biological observing.

WG on Building Capacity in Ocean AcidificaTion MoniToring in the Gulf of GuineA (BIOTTA)

Grant (10K EUR) awarded to the University of Ghana to lead the WG and support capacity building workshop; funding has leveraged 100K USD from the Ocean Foundation to purchase equipment to set up the monitoring stations.

The Gulf of Guinea (GoG) is host to many distinct ecosystems, among which is the Guinea Current Large Marine Ecosystem extending from the intense upwelling area of the Guinea Current in the north to the Benguela Current in the south. The GoG region is, however, characterized by a high poverty rate within fishing communities, with an average daily income of USD 6.1 for over 610,000 artisanal fishers, with the situation getting worse in recent times due to continual decline in fish landings. Dotted along the relatively wide continental shelf of the GoG are several lagoonal/estuarine systems including adjacent coastal marine waters that provide livelihood benefits, i.e., nutrition and jobs to deprived communities living around them. The productive waters of the GoG support shellfish and a diverse finfish fishery which provide significant income to coastal communities in countries such as Cote d'Ivoire, Ghana, Togo, Benin and Nigeria. Climate change in West Africa is characterized by increasing temperatures, changing ocean pH, erratic rainfall patterns and an increase in the number of extreme events. Changing ocean pH coupled with other climate and non-climate stressors such as pollution and overfishing present huge threats to the future of the fishery and other marine resources in the region. A lack of skills in the measurement of ocean acidification (OA) hinders ocean observation which puts the fishery and other marine biological resources in the GoG at a greater risk. This deficit in ocean acidification measurement skills forestalls our understanding of species vulnerability to changing pH. The BIOTTA working group will equip graduate students, early career ocean scientists and other marine science professionals in the GoG region with skills on sustainable OA data acquisition to expand our understanding of the threats, risks and impacts to marine ecosystems and chart pathways for sustainable management of marine resources at risk to OA in the GoG region. This working group hopes to also bridge national, regional and international data gaps in ocean acidification.

To date, OA monitoring efforts in Africa remain a major challenge with a paucity of data mainly as a result of the lack of prerequisite skills for carrying out OA measurements. BIOTTA aims to complement global efforts such as the Global Ocean Acidification Observing Network (GOA-ON) and the International Ocean Carbon Coordination Project (IOCCP) by convening a series of virtual regional workshops and webinars to train young and professional scientists in setting up and maintaining OA observation systems in the GoG and other African coastal waters.

The BIOTTA working group is working to:

1. Develop a coordinated network for observing OA in the GoG
2. Develop capabilities to undertake analysis of seawater OA parameters using low-cost, readily available and easy-to-use equipment
3. Map OA hotspots in BIOTTA member countries for long-term OA monitoring
4. Initiate sound OA monitoring activities in BIOTTA member countries after successful mapping of hotspots in these countries, making use of OA observation kits developed by GOA-ON and the International Atomic Energy Agency (IAEA)
5. Integrate into global OA observing networks, such as GOA-ON, with the goal to share and make data available to the global ocean observing community.

WG on Acquisition of Oceanographic Data for Sustainable Resources Management in the Gulf of Guinea:

Grant (10K EUR) awarded to the Nigerian Institute for Oceanography and Marine Research (NIOMR) to lead the WG, support travel costs and ship operations.

The initiation of an oceanographic network and a regional databank is a very important project to be embraced by all countries within the West African sub region. Sea surface temperature in the Gulf of Guinea varies at seasonal and inter-annual time scales, and thus may have a strong impact on climate (West African monsoon onset and intensity), precipitation (water resources), and fisheries. The WG aims to obtain data on seawater characteristics up to the 500m isobath within the Gulf of Guinea region. This will provide salient information for physical, chemical, biological and geological description of the water column and sediment characteristics within this region. The main objectives are to collect oceanographic data to complement the completed and ongoing international programs within the Gulf of Guinea region, establish and maintain in-situ long term network of measurements within the Gulf of Guinea, and also incorporate training and local capacity building.

In order to fulfil one of the goals of POGO in building a community of ocean scientists, this WG brings together marine scientists from five African countries within the Gulf of Guinea region (Nigeria, Benin, Togo, Ghana and Côte d'Ivoire), in partnership with oceanographers from GEOMAR, Germany (5 out of these 6 institutions are POGO members). The main goals are:

- To establish a regional oceanographic databank needed for studies on the analysis and monitoring of ocean and climate conditions within the Gulf of Guinea, their influence on the regional climate, and sustainable management of living and non-living resources (e.g. identification of potential fishing zones)
- To promote regional capacity building through academic/research institutions and shipboard trainings
- To develop and maintain a long-term ocean monitoring network within the Gulf of Guinea region
- To assist governments through research and development in implementing sustainable economic policies on living and non-living resources, which are geared towards sustainable societal livelihood.

Due to COVID, most of the WG activities took place via virtual meetings of the participants. However, NIOMR was successful in organising daily sampling trips during a 1-week period in January, and hosted 6 early-career scientists (funded via NF-POGO shipboard training fellowships) from 4 of the participating African countries for 1 month prior to the cruise and 1 month after the cruise. These were trained by NIOMR in various aspects of shipboard sampling, analysis and data processing.

NANO Global Project "A global study of productivity, deoxygenation and ocean acidification at selected coastal sites":

Research grants awarded to participating institutions in the following countries: Argentina, Tunisia, Brazil, Ghana, Colombia, Mexico, Bangladesh and Kenya.

The NANO global project has three major components:

1) Promote in situ and remotely sensed observations of the ocean at selected coastal sites in order to contribute to the global effort of monitoring the levels of ocean acidification and deoxygenation;
2) Provide opportunities to the project participants for: i) capacity building to strengthen their efforts to monitor levels of acidification and oxygenation; ii) join larger observation networks of ocean acidification and deoxygenation;
3) Organize workshops and webinars dedicated to share experiences in i) monitoring levels of productivity, acidification and oxygenation; ii) training on marine data management; iii) compare results from fieldwork and produce a biogeographic distribution of the stations.

Field work was conducted in 2020-21 in all countries, for a set of variables (e.g., temperature, chlorophyll-a, pigments, bio-optical variables, conductivity, nutrients, total alkalinity, pH, dissolved oxygen, phytoplankton) varying from station to station. The budget was allocated depending on the local sampling costs, so as to enable each country to sample on a bimonthly basis (up to a maximum of 3K EUR per station). However, sampling was hampered by COVID restrictions, particularly during the first half of the year, and the bimonthly sampling was not always possible to maintain.

Object 2: The promotion of research in global ocean observation for the public benefit and the publication and dissemination of the useful results of such research:

POGO outreach and advocacy:

Public outreach is normally conducted through participation in international exhibitions, however 2020 has been an unusual year, with most face-to-face exhibitions, meetings and conferences either cancelled or moved online due to COVID-19 restrictions. After COVID travel restrictions were implemented, POGO continued to participate in numerous events virtually (see section on Communication Strategy).

Report of the Trustees
For The Year Ended 31 March 2021

This year has seen a significant move away from printed (paper) materials. This change was already beginning to take place in 2019 - e.g. displaying laminated 'hard copies' of leaflets on our booths, together with an array of QR codes to allow mobile device users to access digital copies quickly and easily, or handing out branded USB Flash Drives, pre-loaded with digital materials. However, the 2020 shift to virtual meetings has made paper products almost obsolete. All of POGO's brochures, leaflets and other written products are available as digital versions online.

In August, the Secretariat commissioned a new POGO video, to celebrate 20 Years of Ocean Partnerships, highlighting POGO's key achievements. The video has been designed in 5 parts, with an introduction, a section on each of the Three Pillars, and an 'outro'. The idea is that each of these short segments can be used independently, or together, which makes the format suitable for a range of platforms, eg social media, conference booths etc. We wanted the film to represent the global nature of POGO, and to include faces/voices from POGO members and alumni around the world. Producing such a 'composite' video has proved a challenge under the 2020 restrictions, but the video was successfully completed and launched at the POGO annual meeting in January 2021.

Finally, POGO has been preparing Fact Sheets as outcomes of the Working Groups and Training Initiatives, summarising the scientific objectives of the WGs and their societal relevance, and providing recommendations for policy makers, where relevant. A fact sheet from the Working Group OASIIS: observing and understanding the Oceans below Antarctic Sea Ice and Ice Shelves was published in partnership with the Southern Ocean Observing System (SOOS) and members involved. This and other publications are available at https://pogo-ocean.org/outreach-and-advocacy/media-and-publications/.

Collaborations with other organisations:

POGO also leads a group of science communicators called "Ocean Communicators United". This is an informal grouping of representatives of international, regional or national oceanographic research organisations that provides a forum for its members to share information, expertise, best practices and materials related to marine science communications. Through OCU, the POGO Communications Officer has been invited to serve on the UN Decade Communications Advisory Group, to help define the networking, engagement and communications tools required to involve key stakeholders in the UN Decade of Ocean Science, which will run from 2021 to 2030. This will be a major public engagement initiative, led by the United Nations, to educate and empower people to address the climate and ocean crisis we are all facing.

Six OCU members have committed to a working group on the topic of "Making Outreach Easy", with a view to developing guidance for outreach work, and a first virtual meeting was held on 18 Nov 2020. The WG members agreed to initiate the project by surveying the target audience (i.e. marine scientists with little or no outreach experience, but who would like to do more) to find out more about the barriers they perceive or have encountered. The WG has analysed the results and will use them to inform the content of the planned publication, which will be shared through the Ocean Best Practices repository (as per the 2017 "Writing a Communication Strategy: A Step-by-Step Guide and Template. Tailored for International (Marine) Science Organisations").

Object 3: The provision of scholarships and research fellowships:

Scholarships and fellowships have been provided to 19 early-career scientists for training/education periods of between 3 and 10 months during this financial year. These consisted of:

- **Scholarships for 10 scholars from 10 countries to attend the Nippon Foundation-POGO Centre of Excellence in Observational Oceanography** hosted by the Alfred Wegener Institute (a POGO member institute) in Germany, originally planned to run from September 2020 to July 2021. The postgraduate-level training consists of 1- to 2-week modules on all aspects of observational oceanography (e.g. physical, chemical, biological, remote sensing, modelling) as well as key skills (scientific writing, presentation skills, scientific communication, research ethics) and a 3-month individual research project. Due to COVID, the course started on-line, with the 10 scholars attending modules from their home countries until they were able to travel to Germany (this took between 1-2 months depending on the country). Only 2 of the scholars were not able to travel (from Pacific Islands) and will attend the practical part of the training with the next cohort, in 2022. Upon arrival in Germany, the scholars continued to attend classes remotely for the first 2 months, but were able to interact with one another in-person (as a single household). The practical, in-person training and independent research projects are due to start in May.
- **3 Visiting Fellowships awarded to early-career scientists from developing countries to spend up to 3 months at another research institute** receiving individual training and supervision on a research topic of their choice. This year's fellows were from Colombia and Morocco, and visited research institutes in Spain. Another 3 Fellowships (for individuals from India and Venezuela) are still pending due to the international COVID-related travel restrictions.
- **6 Shipboard Training fellowships for one week on-board a research ship** receiving hands-on training in sampling and analysis techniques, and an additional one-month stay at the host research institute prior to the cruise and a further month after the cruise to analyse the data and interpret the results. Fellows were from Benin, Cote d'Ivoire, Ghana and Nigeria, and the host institute was in Nigeria.

The feedback on these programmes was overwhelmingly positive, not only from the scholars and fellows, but also from the host supervisors and parent supervisors, who commented on the networking and collaborations as well as the cultural exchanges facilitated by the programmes, and the enhanced skills and knowledge the fellows bring back to their home institutes and pass on to their peers.

Grants were awarded to 1 member institutions to support the following training programmes:

- Institute of Oceanology, Chinese Academy of Sciences (IOCAS) to support a training course on subsurface mooring deployment (pre-payment made but course postponed to 2021/22 due to COVID).

Object 4: The promotion of innovation and technology in the science of global ocean observation:

This has been conducted mainly through two innovation projects focussing on developing low-cost instrumentation for ocean observing aimed at developing countries and citizen science. These both address the issue that, despite a high-level political endorsement, there are few international initiatives to make more observations possible in coastal areas with little resources. In particular, the ability to access user-friendly, low-cost instrumentation is still a limiting factor in coastal ocean observing, since the majority of marine observation equipment is difficult to deploy, costly to operate and requires specific technical skills. On the other hand, recent technological advancements have allowed novel improvements in sensors, platforms and communication that will enable a step change in coastal ocean observing philosophy.

"Open Access Marine Observation Devices" (OpenMODs):

Grant awarded to National Institute of Oceanography and Applied Geophysics (OGS), Alfred Wegener Institute (AWI) and Instituto do Mar (IMar), but in 2020/21 only paid to OGS as other activities were postponed due to COVID.

Supported by POGO since 2018-19, this project has the overarching goal "to devise ocean sensors and monitoring devices, globally available to all and not just to a privileged few". The overarching objective of OpenMODS 2.0 is to realize a prototype of a versatile low-cost ocean observing platform ready to be tested and equipped with a variety of sensors, to consolidate and enlarge the potential user community and to narrow the data and knowledge gaps between "advanced" and "developing" countries. Its potential is not limited to developing countries but it can be advantageous in all those applications that require a high temporal and spatial coverage of observations. The implementation of the prototype has followed three main lines: the platform, the sensors and the communication systems.

The project participants have agreed that the platform will implement the following functionalities:

- can operate with minimum modifications as moored system, drifting buoy or manually deployed equipment;
- can mount essential sensors and operate in dual mode as a self-recording system or real-time autonomous system;
- mounts a low-cost low-power embedded system to acquire, control, process, store and (in case) transmit data;
- employs low-cost material (e.g. plastic pipes for domestic use for the instrument housing);
- simplifies the assembling process of the system in order to be done on-site by trained non-professional operators or for educational purposes.

The sensors are not supposed to substitute the best technological products available on the market. Instead, they are meant to complement/integrate these, by extending the coverage/number and by making them deployable also by trained non-professional operators. The sensor choice will be defined by their performance starting with temperature and pressure sensors. An accurate GPS system is also needed for localization and tracking.
The general idea is that the platform has to be an open and expandable system. Although, the implementation on the platform of other sensors for example for the measurements of salinity, chlorophyll, dissolved oxygen, turbidity is not part of this step of the project, it has been considered.

Lastly, the communication system will implement the following functionalities:

- will use the most popular low-cost/no transmission cost communication systems;
- will enable the timely communication of the relevant data and control flags and its delivery on the web;
- will be ready to exploit at best the present and future opportunities and facilities offered by the Internet of Things technologies.

The resulting platform will then be tested and used as educational equipment in a conceptual framework of science, technology and practice transfer and dissemination to the local user communities. The prototype potential is not limited to the developing countries. It is useful for any infrastructural remote and poorly observed regions and it can be advantageous for those applications requiring a dense coverage of timely observations in remote/under-observed sites, especially along coasts.

A virtual meeting of the project participants was held on 11-12 Nov 2020. The scope of the meeting was to compare, combine and network different viewpoints and expertise and to determine the best solutions for the realization of the low-cost (or cost-effective) prototype and finalize a technical document as a final plan.

Priority was given to:

- a platform that will operate in drifter mode which is extremely easy to deploy and perfect for studies associated with search and rescue operations (another need that has emerged). It also constantly guarantees the knowledge of the instrument position. The platform can be easily converted into the moored mode
- temperature and pressure sensors should be low-cost with the idea to replace them rather than calibrate them
- LoRaWAN communications preferably with Bluetooth integration for the in-situ download of the data.

"Social AGITation for Temperature Analysis" (SAGITTA):

The project is aimed at implementation of citizen science approach for consistent and regular temperature profile data collection in the coastal ocean. This requires distribution of cheap and simple temperature-depth (TD) probes among representatives of the general public. Though suitable equipment is present on the market, it is quite expensive (5,000-9,000 USD per probe) and relatively complex for users without specialised training. Therefore the project aims to create a cheap TD probe, simple smartphone application and web portal to make this idea possible. The probe should be cheap (about 100 USD) yet scientifically reliable. The smartphone app will be used for probe control, instant data visualization and data transmittance to the web. The web portal is necessary for data storage, access and dissemination; it will also be useful for training and outreach. The main achievements this year have been (1) finalising the probe prototype, (2) preparing it for manufacturing and (3) initiating the development of the smartphone application.

A Russian company (AppFox) was contracted to develop Terms of Reference (ToR) for the app development. including all possible desired functions of the app (e.g., training mode, link to video lessons, FAQ, feedback, push notifications), which may only be implemented in future versions of the app. The ToR were then used to request quotations for app development. Conversations with potential developers for the smartphone application were held in autumn 2020. In late November, a contract with a USA-based company (ENC Data) was signed and discussions were held on features of the application requiring modifications in the ToR. The development started in early December 2020. By February, ENC Data team provided an update on the application with a layout and list of accomplishments so far, which included: Icon, header, and menus designed, Screen flow implemented, Maps implemented via OpenStreetMaps (OSM), Geolocation permissions implemented, User login/authentication via Amazon AWS, WiFi and data collection dialogs started, MySql database created to hold measurement data.

ENC Data requested a prototype sensor for the application-device connection development phase. As proper waterproof housing was still under development, a special version of the prototype was prepared, which included additional switches for easier test control and absence of waterproof housing. Unfortunately, this prototype experienced malfunctioning in internal electronics, for which search for the source and correction took a few weeks. This issue was fixed by changing the scheme of the switch power supply and adding a filtering unit (RC-filter) to the ground connection of the switch. This was also added to the board scheme to include this step into manufactory assembling of the board and make further assembling easier. The testing prototype was finally shipped to USA with batteries and a brief manual.

As a result of all of the communication efforts previously detailed, as well as targeted efforts by trustees and by the Secretariat to recruit new members, POGO's membership grew from 45 to 51 between April 2020 and March 2021.

Financial review
Principal funding sources
The principal sources of funding are:

- Membership dues: these are used to cover all operational costs of the charity as well as some grants and fellowships

- Grants from charitable foundations and other organisations, notably the Nippon Foundation, which supports POGO's capacity development programme, the Lounsbery Foundation, which has supported POGO's work on biological ocean observations, and the Scientific Committee on Oceanic Research (SCOR), which co-funds the POGO-SCOR visiting fellowship programme.

Report of the Trustees
For The Year Ended 31 March 2021

STRATEGIC REPORT
Financial review
Reserves policy

POGO's reserves policy was adopted in Jan 2020. The target minimum Operating Reserve Fund is 12 months of average operating costs. The calculation of average monthly operating costs includes all recurring, predictable expenses such as salaries and benefits, insurance, office, travel, communications, projects, Working Groups and capacity development programmes. Depreciation, in-kind, and other non-cash expenses are not included in the calculation. The calculation of average monthly expenses also excludes one-time or unusual, capital purchases. Based on the current year results the reserves policy is around £210,000 which is the average operating costs less expenditure relating to restricted funds.

The Operating Reserve is intended to provide an internal source of funds for situations such as a sudden increase in expenses, one-time unbudgeted expenses, unanticipated loss in funding, or uninsured losses.

Operating Reserves are not intended to replace a permanent loss of funds or eliminate an ongoing budget gap. It is the intention of POGO for Operating Reserves to be used and replenished within a reasonably short period of time. The Operating Reserve Fund is defined as a designated fund set aside by action of the Board of Trustees. The minimum amount to be designated as Operating Reserve will be established in an amount sufficient to maintain ongoing operations and programmes for a set period of time, measured in months. The Operating Reserve serves a dynamic role and will be reviewed and adjusted in response to both internal and external changes.

The amount of the Operating Reserve Fund target minimum will be calculated each year after approval of the annual budget, reported to the Finance Committee/Board of Trustees, and included in the regular financial reports. The Operating Reserve will be funded with surplus unrestricted operating funds. The Board of Trustees may from time to time direct that a specific source of revenue be set aside for Operating Reserve.

The main contingencies allowed for by the Reserves Policy, are:

- POGO having to relocate the office, in case the agreement in place with the current Secretariat host(s) is terminated by either party. The provision in the contract is for 6 months' notice, which would mean any costs incurred would have to be met at relatively short notice. Costs could include redundancy and other compensation that POGO may be required by law to pay the staff (e.g. related to the Transfer of Undertakings (Protection of Employment) -TUPE; legal costs; potential increased salary costs related to employment by a different host, etc. If POGO were to start employing the Secretariat staff itself there would be additional costs related to HR/IT and other services, office rental etc.

- Other emergencies including legal costs, insurance excess, or uninsured losses.

- Loss of income: This is a potential threat caused by fluctuations in membership, or by some members being unable to pay their dues in a given year. In addition, the Nippon Foundation grant is only renewed from one year to the next, so if it is not renewed we would potentially receive very little notice of this (in this case the project would not go ahead, but additional funds from POGO could potentially be needed to cover staff costs, to which NF contributes £31,000 per annum).

The amount of reserves currently held is £367,198 which is higher than the amount stated in the reserves policy, although there are a number of workshops and other activities POGO has committed to funding. The reserves should therefore be reduced in 2021-22, although expenditure is still very dependent on the global situation with the COVID-19 pandemic and associated international travel restrictions.

Report of the Trustees
For The Year Ended 31 March 2021

STRATEGIC REPORT

Financial and risk management objectives and policies

The trustees have a duty to identify and review the risks to which the charity is exposed and to ensure appropriate controls are in place to provide reasonable assurance against fraud and error. The trustees recognise that risks can arise not only from the charity's activities but also from failure to act or exploit opportunities. The trustees do not consider that all risks should be avoided. They are not averse to taking reasonable risks as part of their strategy to achieve the charity's objectives. However, they wish to be made aware of the major risks the charity faces so that they can plan how to manage those risks and mitigate their effects. The trustees have therefore appointed the Chair and CEO to review major risks and make recommendations to the trustees as to how to manage them. The trustees expect all members, staff and volunteers when engaging in any activity to consider the risks it poses and to act in accordance with any recommendations made for risk management. The trustees expect that staff and volunteers will not engage in significant types of activity which are not similar to activities the trustees are already aware of, without first having made to the trustees a proper proposal for the charity engaging in such activity, including an analysis of the risks such activity might pose to the charity. The trustees have the same expectation in relation to significant increases in activities already pursued by the charity or significant changes in the way those activities are pursued.
Risk management will be conducted according to the following steps: (1) identify the risks, (2) assess the risks, (3) evaluate what action needs to be taken, (4) monitoring and assessment.

The trustees have developed and approved a risk management policy and a risk register to identify and assess the potential risks and develop strategies to manage them. The risk register is reviewed monthly by the Chair and CEO, and twice per year by the Board as a whole. Given the charity is relatively young, it has not had a great deal of time to develop a mature 'risk appetite' approach. It is the intention of the charity for Trustees to engage in 'risk appetite' training with a view to developing a measured approach to risk. The time-scale for this will be agreed during 2021/22.

Future plans

During the coming period the organisation will work towards its aims in respect of education for developing the science of global ocean observation, developing the science as well as publishing and disseminating the results of research undertaken. The CIO will continue to provide scholarships and research fellowships in accordance with its objects, using funds from membership dues as well as grants from the Nippon Foundation, the Lounsbery Foundation and SCOR. Specifically, POGO will:

- Expand its global footprint and benefit from in-kind support from member institutions by establishing Regional and Thematic Secretariat Nodes in other parts of the world, funded entirely by the host institutions (in China and Germany to begin with)
- Continue to fund Working Groups such as the Biological Observations WG, BIOTTA, Data Acquisition in the Gulf of Guinea, and a new WG on Women in Science
- Conduct a project on marine litter funded by the Richard Lounsbery Foundation (funding was received in Dec 2020 for this and preparatory work started in Jan/Feb 2021)
- Continue the OpenMODs project on low-cost technology development
- Continue global research projects for NF-POGO alumni
- Continue to run the NF-POGO Centre of Excellence and provide Visiting Fellowships and Shipboard Training Fellowships for early-career researchers
- Hold exhibition stands and give presentations at major international conferences (if and when the global health crisis allows for these to resume)
- Increase its visibility and outreach/advocacy impact, through the development of new outreach materials, case studies on the societal benefits of ocean observations, and sponsorship of a Supplemental Issue of the journal Oceanography, on ocean observing.

STRUCTURE, GOVERNANCE AND MANAGEMENT

Governing document

The Charitable Incorporated Organisation ("the CIO") is governed by it's constitution in accordance with the Charities Act 2011. The CIO is based on the association model.

Recruitment and appointment of new trustees

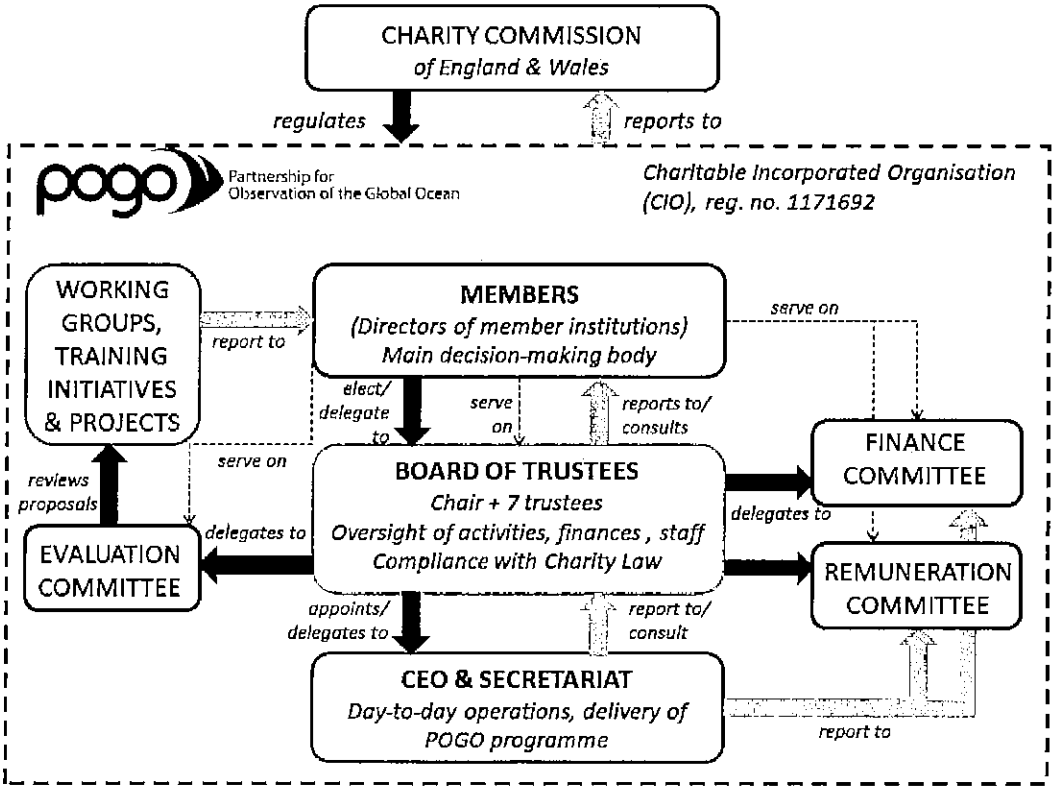
Trustees are selected from the membership organisations and are appointed by the decision of the members of the CIO at the annual general meeting (with the exception of two trustees elected by the trustees themselves to improve regional and/or gender balance and/or to fill gaps in expertise). Each appointment is for a term of two years (renewable once), ending at the close of the meeting of the board of trustees immediately after an AGM.

Report of the Trustees
For The Year Ended 31 March 2021

STRUCTURE, GOVERNANCE AND MANAGEMENT

Organisational structure

Membership of the CIO is open to any oceanographic research institution, educational department or organisation from any part of the world that is interested in furthering the purposes of the CIO. The affairs of the CIO are managed by a Board of Trustees, elected by the members. The day to day operations of the CIO are delegated by the trustees to the CEO. Financial matters are delegated to a Financial Committee, which makes recommendations to the Board of Trustees. The governance structure is summarised in the following diagram.



Induction and training of new trustees

The charity trustees makes available to each new trustee a copy of the CIO's constitution and any amendments made to it, as well as a copy of the CIO's latest trustees' annual report and statement of accounts, and the Charity Commission's guidance documents on the role of the trustee. All trustees have previous knowledge of the activities of POGO and are given guidance on their responsibilities as a trustee. Trustees are also invited to training courses on governance, which the charity pays for. These have been attended virtually in 2020/21, and the trustees found the virtual training mode to be very effective.

COMMENCEMENT OF ACTIVITIES

The CIO was formed in February 2017 to take on the activities of a Canadian Society with the same name. The process for transferring operations to the CIO took longer than initially anticipated and had not taken place at 31 December 2017.

Operations began in the CIO in July 2018.

Report of the Trustees
For The Year Ended 31 March 2021

GOVERNANCE STATEMENT
The Board of Trustees have had due regard to the principals of recommended practices as set out by the "Charity Governance Code" and have applied these wherever practical and in decision making.

STATEMENT OF TRUSTEES' RESPONSIBILITIES
The trustees (who are also the directors of Partnership for Observation of the Global Ocean CIO for the purposes of company law) are responsible for preparing the Report of the Trustees and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Company law requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charitable company and of the incoming resources and application of resources, including the income and expenditure, of the charitable company for that period. In preparing those financial statements, the trustees are required to

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charity SORP;
- make judgements and estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charitable company will continue in business.

The trustees are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the charitable company and to enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the charitable company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

In so far as the trustees are aware:

- there is no relevant audit information of which the charitable company's auditors are unaware; and
- the trustees have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditors are aware of that information.

AUDITORS
The auditors, Bromhead, will be proposed for re-appointment at the forthcoming Annual General Meeting.

Report of the trustees, incorporating a strategic report, approved by order of the board of trustees, as the company directors, on 18 January 2022 and signed on the board's behalf by:

Prof N Owens - Trustee

Report of the Independent Auditors to the Trustees of Partnership for Observation of the Global Ocean CIO

Opinion

We have audited the financial statements of Partnership for Observation of the Global Ocean CIO (the 'charitable company') for the year ended 31 March 2021 which comprise the Statement of Financial Activities, the Statement of Financial Position, the Statement of Cash Flows and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 31 March 2021 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We are independent of the charitable company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the charitable company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the trustees with respect to going concern are described in the relevant sections of this report.

Other information

The trustees are responsible for the other information. The other information comprises the information included in the Annual Report, other than the financial statements and our Report of the Independent Auditors thereon.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Charities (Accounts and Reports) Regulations 2008 requires us to report to you if, in our opinion:

- the information given in the Report of the Trustees is inconsistent in any material respect with the financial statements; or
- the charitable company has not kept adequate accounting records; or
- the financial statements are not in agreement with the accounting records and returns; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of trustees

As explained more fully in the Statement of Trustees' Responsibilities, the trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the charitable company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the charitable company or to cease operations, or have no realistic alternative but to do so.

Report of the Independent Auditors to the Trustees of Partnership for Observation of the Global Ocean CIO

Our responsibilities for the audit of the financial statements
We have been appointed as auditors under Section 144 of the Charities Act 2011 and report in accordance with the Act and relevant regulations made or having effect thereunder.

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a Report of the Independent Auditors that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below:

Obtained and understanding of the laws and regulations applicable to the company through discussions with management, and those charged with governance, as well as reviewing legal correspondence files of the company. These laws and regulations were identifies follows; health and safety, employment and company law. Additionally the group that the entity is a subsidiary of has a strict moral code that has to be upheld.

Obtained an understanding of the entity's policies and procedures for assessing fraud risk and identifying actual or alleged fraud by discussions with managements and those charged with governance.

Obtained an understanding of the effectiveness of the entity control environment by testing of management override of controls, which includes but is not limited to; testing of journal entries and accounting estimates and reviewing transaction occurring outside the normal scope of business.

The use of qualified and experienced staff members to ensure the audit team is comprised of only competent and capable members who are able to recognise and document any instances of non-compliance.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at www.frc.org.uk/auditorsresponsibilities. This description forms part of our Report of the Independent Auditors.

Use of our report
This report is made solely to the charitable company's trustees, as a body, in accordance with Part 4 of the Charities (Accounts and Reports) Regulations 2008. Our audit work has been undertaken so that we might state to the charitable company's trustees those matters we are required to state to them in an auditors' report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charitable company and the charitable company's trustees as a body, for our audit work, for this report, or for the opinions we have formed.

Bromhead
Chartered Accountants
Statutory Auditors
Eligible to act as an auditor in terms of Section 1212 of the Companies Act 2006
Harscombe House
1 Darklake View
Plymouth
Devon
PL6 7TL

Date: 27.01.22

Partnership for Observation of the
Global Ocean ClO
T/A POGO

Statement of Financial Activities
For The Year Ended 31 March 2021

	Notes	Unrestricted fund £	Restricted funds £	31.3.21 Total funds £	31.3.20 Total funds £
INCOME AND ENDOWMENTS FROM					
Charitable activities	3				
Centre of Excellence		-	653,548	653,548	514,169
Subscriptions		245,796	-	245,796	215,256
Fellowship programme		-	7,871	7,871	8,268
Citizen Observation of Local Litter in Coastal ECosysTems		-	73,625	73,625	-
Investment income	2	2,415	-	2,415	6,164
Total		248,211	735,044	983,255	743,857
EXPENDITURE ON					
Charitable activities	4				
Centre of Excellence		-	511,312	511,312	499,101
NANO activities		-	40,337	40,337	36,420
Shipboard training		-	12,573	12,573	127,780
Biological observations		-	13,786	13,786	26,009
POGO activities		206,166	3,914	210,080	205,771
Fellowship programme		-	7,893	7,893	12,205
Citizen Observation of Local Litter in Coastal ECosysTems		-	3,429	3,429	-
Total		206,166	593,244	799,410	907,286
NET INCOME/(EXPENDITURE)		42,045	141,800	183,845	(163,429)
RECONCILIATION OF FUNDS					
Total funds brought forward		325,153	200,793	525,946	689,375
TOTAL FUNDS CARRIED FORWARD		367,198	342,593	709,791	525,946

The notes form part of these financial statements

Partnership for Observation of the Global Ocean CIO
T/A POGO

Statement of Financial Position
31 March 2021

	Notes	Unrestricted fund £	Restricted funds £	31.3.21 Total funds £	31.3.20 Total funds £
CURRENT ASSETS					
Debtors	9	**30,340**	-	**30,340**	23,742
Cash at bank		**418,129**	**1,033,108**	**1,451,237**	1,232,299
		448,469	**1,033,108**	**1,481,577**	1,256,041
CREDITORS					
Amounts falling due within one year	10	**(81,271)**	**(690,515)**	**(771,786)**	(730,095)
NET CURRENT ASSETS		**367,198**	**342,593**	**709,791**	525,946
TOTAL ASSETS LESS CURRENT LIABILITIES		**367,198**	**342,593**	**709,791**	525,946
NET ASSETS		**367,198**	**342,593**	**709,791**	525,946
FUNDS	11				
Unrestricted funds				**367,198**	325,153
Restricted funds				**342,593**	200,793
TOTAL FUNDS				**709,791**	525,946

The charitable company is entitled to exemption from audit under Section 477 of the Companies Act 2006 for the year ended 31 March 2021.

The members have not deposited notice, pursuant to Section 476 of the Companies Act 2006 requiring an audit of these financial statements.

The trustees acknowledge their responsibilities for

(a) ensuring that the charitable company keeps accounting records that comply with Sections 386 and 387 of the Companies Act 2006 and

(b) preparing financial statements which give a true and fair view of the state of affairs of the charitable company as at the end of each financial year and of its surplus or deficit for each financial year in accordance with the requirements of Sections 394 and 395 and which otherwise comply with the requirements of the Companies Act 2006 relating to financial statements, so far as applicable to the charitable company.

These financial statements have been audited under the requirements of Section 145 of the Charities Act 2011.

The financial statements were approved by the Board of Trustees and authorised for issue on 18 January 2022 and were signed on its behalf by:

N Owens - Trustee

The notes form part of these financial statements

Partnership for Observation of the
Global Ocean CIO
T/A POGO

Statement of Cash Flows
For The Year Ended 31 March 2021

	Notes	31.3.21 £	31.3.20 £
Cash flows from operating activities			
Cash generated from operations	1	**216,523**	(94,630)
Net cash provided by/(used in) operating activities		**216,523**	(94,630)
Cash flows from investing activities			
Interest received		**2,415**	6,164
Net cash provided by investing activities		**2,415**	6,164
Change in cash and cash equivalents in the reporting period		**218,938**	(88,466)
Cash and cash equivalents at the beginning of the reporting period		**1,232,299**	1,320,765
Cash and cash equivalents at the end of the reporting period		**1,451,237**	1,232,299

Notes to the Statement of Cash Flows
For The Year Ended 31 March 2021

1. RECONCILIATION OF NET INCOME/(EXPENDITURE) TO NET CASH FLOW FROM OPERATING ACTIVITIES

	31.3.21 £	31.3.20 £
Net Income/(expenditure) for the reporting period (as per the Statement of Financial Activities)	**183,845**	(163,429)
Adjustments for:		
Interest received	**(2,415)**	(6,164)
(Increase)/decrease in debtors	**(6,598)**	105,794
Increase/(decrease) in creditors	**41,691**	(30,831)
Net cash provided by/(used in) operations	**216,523**	(94,630)

2. ANALYSIS OF CHANGES IN NET FUNDS

	At 1.4.20 £	Cash flow £	**At 31.3.21 £**
Net cash			
Cash at bank	**1,232,299**	**218,938**	**1,451,237**
	1,232,299	**218,938**	**1,451,237**
Total	**1,232,299**	**218,938**	**1,451,237**

The notes form part of these financial statements

Notes to the Financial Statements
For The Year Ended 31 March 2021

1. ACCOUNTING POLICIES

Basis of preparing the financial statements
The financial statements of the charitable company, which is a public benefit entity under FRS 102, have been prepared in accordance with the Charities SORP (FRS 102) 'Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019)', Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' and the Companies Act 2006. The financial statements have been prepared under the historical cost convention.

The charity constitutes a public benefit entity as defined by FRS 102.

The trustees consider there are no material uncertainties about the charity's ability to continue as a going concern. These financial statements are prepared on a going concern basis. The financial statements are prepared in sterling which is the functional currency of the charity and rounded to the nearest £1. The significant accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all years presented unless stated otherwise. The charity adopted SORP (FRS 102) in the current year and an explanation of how transition to SORP (FRS 102) has affected the reporting financial position is given in note 16.

Income
The charity receives annual subscriptions from its members in alignment with the financial year. Any subscriptions billed in advance are deferred and recongised in the following financial period. All other income is recognised in the Statement of Financial Activities once the charity has entitlement to the funds, it is probable that the income will be received and the amount can be measured reliably.

Expenditure
Liabilities are recognised as expenditure as soon as there is a legal or constructive obligation committing the charity to that expenditure, it is probable that a transfer of economic benefits will be required in settlement and the amount of the obligation can be measured reliably. Expenditure is accounted for on an accruals basis and has been classified under headings that aggregate all cost related to the category. Where costs cannot be directly attributed to particular headings they have been allocated to activities on a basis consistent with the use of resources.

Grants offered subject to conditions which have not been met at the year end date are noted as a commitment and accrued as an expense.

Allocation and apportionment of costs
All costs that can be directly associated with a charitable activity have been attributed to the activity.

Support costs are those that assist the work of the charity but do not directly undertake charitable activities. Governance costs involving the public accountability of the charity and its compliance with regulation and good practice include costs relating to statutory examinations and legal fees.

Finance costs include all expenses incurred for operation of the charity's bank accounts as well and the total foreign exchange gain or loss the charity has achieved or suffered in the financial period.

Taxation
The charity is exempt from corporation tax on its charitable activities.

Fund accounting
Unrestricted funds can be used in accordance with the charitable objectives at the discretion of the trustees. Restricted funds can only be used for particular restricted purposes within the objects of the charity. Restrictions arise when specified by the donor or when funds are raised for particular restricted purposes.

Further explanation of the nature and purpose of each fund is included in the notes to the financial statements.

Foreign currencies
Assets and liabilities in foreign currencies are translated into sterling at the rates of exchange ruling at the statement of financial position date. Transactions in foreign currencies are translated into sterling at the average rate of exchange ruling for the year. Resulting exchange differences are taken into account in arriving at the operating result.

continued...

Notes to the Financial Statements - continued
For The Year Ended 31 March 2021

1. ACCOUNTING POLICIES - continued

COVID

On 11 March 2020 the coronavirus disease called 'Covid-19' was assessed as a pandemic and on 23 March 2020 a lockdown was imposed across the United Kingdom to stop the spread of the virus. As a result, economic uncertainties have arisen across the global economy which have had an effect on the charities ability to operate.

As stated on page 7 it did have a small impact on field work due to be carried out in the year as collecting sampling was hampered by restrictions. It also impacted the charities' ability to hold face to face meetings, however by using online resources there were still able to carry out these meetings with a high attendance. The trustees believe there will be a limited ongoing impact.

Donated goods

Donated goods are provided in the form of office space with Plymouth Marine Laboratory. The relationship remains healthy and the trustees feel this service will be provided for the foreseeable future.

2. INVESTMENT INCOME

	31.3.21	31.3.20
	£	£
Deposit account interest	2,415	6,164

3. INCOME FROM CHARITABLE ACTIVITIES

	Activity	31.3.21	31.3.20
		£	£
Grants	Centre of Excellence	653,548	514,169
Subscriptions	Subscriptions	245,796	215,256
SCOR income	Fellowship programme	7,871	8,268
Grants	Citizen Observation of Local Litter in Coastal ECosysTems	73,625	-
		980,840	737,693

Grants received, included in the above, are as follows:

	31.3.21	31.3.20
	£	£
Nippon Foundation	653,548	514,169
Richard Lounsbery Foundation	73,625	-
	727,173	514,169

4. CHARITABLE ACTIVITIES COSTS

	Direct Costs	Grant funding of activities (see note 5)	Support costs (see note 6)	Totals
	£	£	£	£
Centre of Excellence	76,794	434,518	-	511,312
NANO activities	14,401	25,936	-	40,337
Shipboard training	99	12,474	-	12,573
Biological observations	13,786	-	-	13,786
POGO activities	28,542	38,928	142,610	210,080
Fellowship programme	-	7,893	-	7,893
Citizen Observation of Local Litter in Coastal ECosysTems	3,429	-	-	3,429
	137,051	519,749	142,610	799,410

continued...

5. GRANTS PAYABLE

The total amount awarded to institutions was £454,976 (2020: £504,671), those institutions are listed below:

Alfred-Wegener Institute
Isituto Nazionale di Oceanograpfia e di Geofisica
Nigerian Institute For Oceanography & Marine Research
University of Ghana College of Basic and Applied Sciences
Institute of Oceanology, Chinese Academy of Sciences

Grants paid to Alfred-Wegener Institute are for the provision of the Centre of Excellence, which provides scholarship training to improve the global knowledge regarding ocean observation.

Grants paid to Isituto Nazionale di Oceanograpfia e di Geofisica are for the provision of Open Access Marine Observation Devices (OpenMODS), which helps provide access to important ocean data to less developed countries.

Grants paid to Nigerian Institute For Oceanography & Marine Research are for the reimbursement of cruise support costs and participants' travel expenses in connection with data acquisition in the Gulf of Guinea.

Grants paid to University of Ghana College of Basic and Applied Sciences are for the provision of workshops in relation to building capacity in ocean acidification monitoring in the Gulf of Guinea.

Grants paid to Institute of Oceanology, Chinese Academy of Sciences (IOCAS) to support a training course on subsurface mooring deployment (pre-payment made but course postponed to 2021/22 due to COVID).

The total amount awarded to individuals was £60,179 (2020: £173,993) and the number of individual beneficiaries was 31 (2020: 73).

Grants paid to individuals are for the reimbursement of travel expenses, workshops and equipment to allow less developed countries access to the best training courses and events to improve global knowledge of ocean.

6. SUPPORT COSTS

	Management	Finance	Governance costs	Totals
	£	£	£	£
POGO activities	**134,154**	**645**	**7,811**	**142,610**

7. NET INCOME/(EXPENDITURE)

Net income/(expenditure) is stated after charging/(crediting):

	31.3.21	31.3.20
	£	£
Auditors' remuneration	**4,847**	4,416
Auditors' remuneration for non audit work	**2,964**	5,700
Foreign Exchange (gain)/loss	**73,221**	(19,417)

continued...

Notes to the Financial Statements - continued
For The Year Ended 31 March 2021

8. TRUSTEES' REMUNERATION AND BENEFITS

There were no trustees' remuneration or other benefits for the year ended 31 March 2021 nor for the year ended 31 March 2020.

Trustees' expenses

During the year there were no expenses paid to trustees.

9. DEBTORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	31.3.21	31.3.20
	£	£
Trade debtors	30,340	23,742

10. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	31.3.21	31.3.20
	£	£
Trade creditors	52,873	13,143
Other creditors	-	85
Accruals and deferred income	610,055	610,710
Accrued expenses	108,858	106,157
	771,786	730,095

11. MOVEMENT IN FUNDS

	At 1.4.20	Net movement in funds	At 31.3.21
	£	£	£
Unrestricted funds			
General fund	325,153	42,045	367,198
Restricted funds			
Nippon Foundation Grant	187,852	85,390	273,242
Richard Lounsbery Foundation	12,941	56,410	69,351
	200,793	141,800	342,593
TOTAL FUNDS	525,946	183,845	709,791

continued...

Notes to the Financial Statements - continued
For The Year Ended 31 March 2021

11. MOVEMENT IN FUNDS - continued

Net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	**248,211**	**(206,166)**	**42,045**
Restricted funds			
Nippon Foundation Grant	**653,548**	**(568,158)**	**85,390**
Richard Lounsbery Foundation	**73,625**	**(17,215)**	**56,410**
SCOR fellowship			
	7,871	**(7,871)**	**-**
	735,044	**(593,244)**	**141,800**
TOTAL FUNDS	**983,255**	**(799,410)**	**183,845**

Comparatives for movement in funds

	At 1.4.19 £	Net movement in funds £	At 31.3.20 £
Unrestricted funds			
General fund	313,334	11,819	325,153
Restricted funds			
Nippon Foundation Grant	337,091	(149,239)	187,852
Richard Lounsbery Foundation	38,950	(26,009)	12,941
	376,041	(175,248)	200,793
TOTAL FUNDS	689,375	(163,429)	525,946

Comparative net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	216,122	(204,303)	11,819
Restricted funds			
Nippon Foundation Grant	519,467	(668,706)	(149,239)
Richard Lounsbery Foundation	-	(26,009)	(26,009)
SCOR fellowship			
	8,268	(8,268)	-
	527,735	(702,983)	(175,248)
TOTAL FUNDS	743,857	(907,286)	(163,429)

continued...

Notes to the Financial Statements - continued
For The Year Ended 31 March 2021

11. MOVEMENT IN FUNDS - continued

A current year 12 months and prior year 12 months combined position is as follows:

	At 1.4.19 £	Net movement in funds £	At 31.3.21 £
Unrestricted funds			
General fund	313,334	53,864	367,198
Restricted funds			
Nippon Foundation Grant	337,091	(63,849)	273,242
Richard Lounsbery Foundation	38,950	30,401	69,351
	376,041	(33,448)	342,593
TOTAL FUNDS	689,375	20,416	709,791

A current year 12 months and prior year 12 months combined net movement in funds, included in the above are as follows:

	Incoming resources £	Resources expended £	Movement in funds £
Unrestricted funds			
General fund	464,333	(410,469)	53,864
Restricted funds			
Nippon Foundation Grant	1,173,015	(1,236,864)	(63,849)
Richard Lounsbery Foundation	73,625	(43,224)	30,401
SCOR fellowship			
	16,139	(16,139)	-
	1,262,779	(1,296,227)	(33,448)
TOTAL FUNDS	1,727,112	(1,706,696)	20,416

NIPPON Foundation Fund - Activities related to the delivery of the Centre of Excellence, the Global NANO project and Shipboard Training and outreach programme.

Richard Lounsbery Foundation Fund - Activities related to the delivery of the Citizen Observation of Local Litter in Coastal EcosysTems programme.

12. RELATED PARTY DISCLOSURES

There were no related party transactions for the year ended 31 March 2021.

13. OTHER DISCLOSURES

During the period Plymouth Marine Laboratories gave POGO free use of office space in lieu of membership fees. This has been reflected in the accounts at a value of £4,126 (2020: £3,998), being the membership fees that would have been paid without the agreement.

continued...

Partnership for Observation of the
Global Ocean CIO
T/A POGO

Detailed Statement of Financial Activities
For The Year Ended 31 March 2021

	31.3.21 £	31.3.20 £
INCOME AND ENDOWMENTS		
Investment income		
Deposit account interest	**2,415**	6,164
Charitable activities		
Subscriptions	**245,796**	215,256
SCOR income	**7,871**	8,268
Grants	**727,173**	514,169
	980,840	737,693
Total incoming resources	**983,255**	743,857
EXPENDITURE		
Charitable activities		
Insurance	**934**	887
Events and associated travel	**17,642**	33,775
Outreach materials	**5,478**	2,088
Website development	**10,036**	3,985
Project administration	**29,740**	42,744
Bad debts	**-**	14,412
Foreign exchange (gain)/loss	**73,221**	(19,417)
Grants to institutions	**473,356**	504,671
Grants to individuals	**46,393**	170,638
	656,800	753,783
Support costs		
Management		
Office rent	**4,126**	3,998
Annual Meetings	**3,634**	7,862
Postage and stationery	**3,929**	1,208
Travel	**(857)**	11,947
Staff training	**89**	1,605
Subscriptions	**1,900**	2,071
Contribution to key management personnel	**121,333**	114,135
	134,154	142,826
Finance		
Bank charges	**645**	561
Governance costs		
Auditors' remuneration	**4,847**	4,416
Auditors' remuneration for non audit work	**2,964**	5,700
	7,811	10,116
Total resources expended	**799,410**	907,286
Net income/(expenditure)	**183,845**	(163,429)