

# ACQUISITION OF OCEANOGRAPHIC DATA IN THE GULF OF GUINEA / NF-POGO SHIPBOARD TRAINING FOR EARLY CAREER SCIENTISTS ONBOARD NIOMR's RV BAYAGBONA

## 1. Background

POGO approved project on Acquisition of Oceanographic Data in the Gulf of Guinea has brought together marine scientists from five African institutions within the Gulf of Guinea region (NIOMR - Nigeria, IHROB - Benin, University of Lome - Togo, University of Ghana – Ghana, and CURAT - Côte d'Ivoire), with GEOMAR - Germany as the technical partner. The main objective was to acquire oceanographic data needed for better understanding of the dynamics of the ocean waters within this region. This was with the view of establishing a regional oceanographic databank needed for studies on the analysis and monitoring of ocean and climate conditions, their influence on the regional climate, and sustainable management of living & non-living resources within the Gulf of Guinea. In order to promote regional capacity building, which is one of the POGO's priority areas, Nippon Foundation - POGO shipboard training fellowship for early career scientists was incorporated into the GoG project.

## 2. Arrival and Inauguration of the Early Career Scientists

In getting the project started through detailed milestones set previously by partners for its implementation, six (6) early career scientists (ECSs) - Maffoue Jeanne KOUADIO, Ayao Oscar DJEBLE, Kofi Ferni ANYAN, Phyllis AMAMOO, Opeyemi Otolorin OYATOLA, Esther Karo OGHENEDE were received and inaugurated on December 13<sup>th</sup>, 2020 and December 14<sup>th</sup>, 2020 respectively. Plate 1 below shows the pictures taken during the inauguration at NIOMR.



**Plate 1: pictures taken during inauguration on Dec14<sup>th</sup>, 2020 - left: ECSc with NIOMR management staff; right: ECSs with host supervisor – Dr Nubi Olubunmi.**

### 3. One Month Pre-Cruise Training

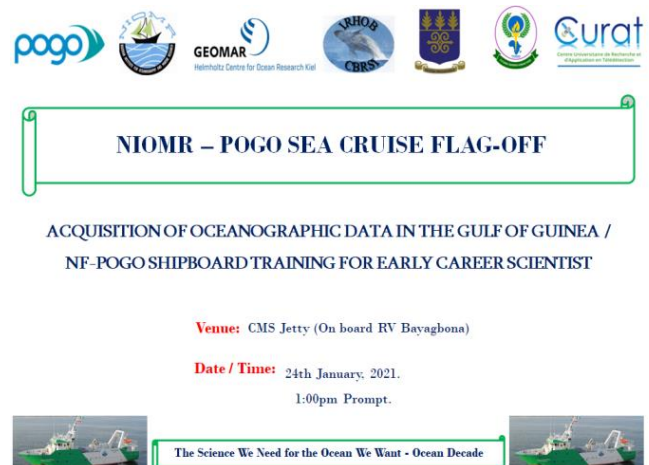
In line with the training schedule, the early career scientists were taken through several activities / scientific operations (lectures, laboratory analyses and instrument handling) in relevant departments and central laboratory within the institute for four (4) weeks. NIOMR's ED / CEO also approved their participation in Certificate Trainings on STCW basic safety and ISPC code security awareness to get them prepared for the oceanographic cruise component. Plate 2 below shows a picture taken during the attachment of the ECSs to NIOMR central laboratory.



**Plate 2: Attachment to NIOMR Central Laboratory of the Early Career Scientists**

### 4. First Leg Cruise Component of the GoG Project and the NF-POGO ECS Shipboard Training

We embarked on a daily-return ocean cruise on 24<sup>th</sup>, 25<sup>th</sup> and 27<sup>th</sup> January, 2021 to acquire oceanographic data and also conduct shipboard training for NF-POGO fellows in the Gulf of Guinea. There was a flag-off in the morning of January 24<sup>th</sup> 2021 before departure – Plate 3 below shows the picture taken during the arrival of some of the early career scientists onboard RV Bayagbona and the flag-off banner.

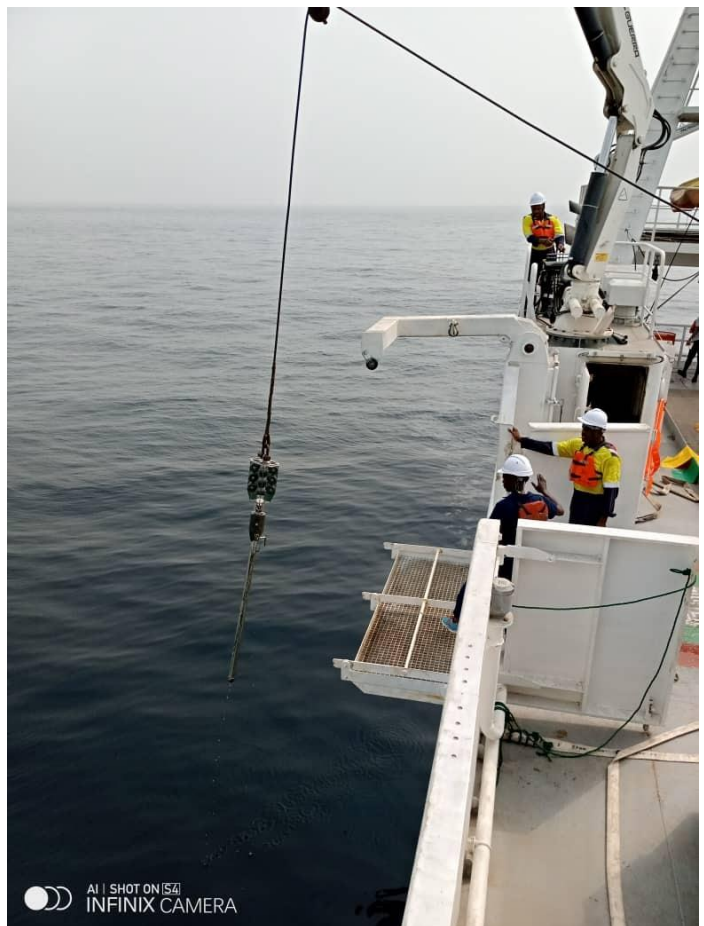
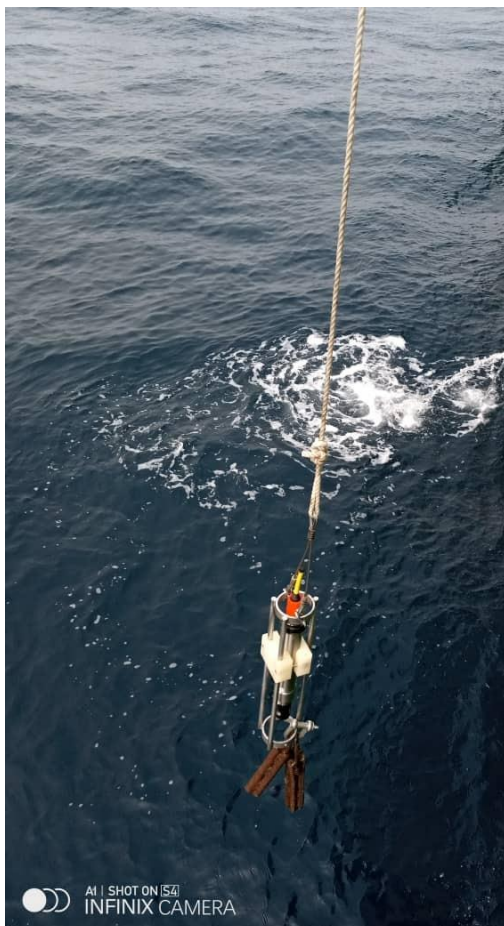


**Plate 3: left – arrival of the ECSs onboard RV Bayagbona; right – flag-off banner**

We were able to cover 7 stations in all for the period of the three days daily-return cruise. We cored for sediment, collected grab samples, and acquired in-situ data. Water samples were also collected at different depths using Niskin bottle. The Early Career Scientists were engaged on shipboard / hands-on training. They all participated actively in various activities both on the deck and in the wet / dry labs. We disembarked in the morning of 28th January, 2021 and all the collected samples were moved to relevant departmental laboratories for further analyses. Plates 4a – 4d below show some pictures taken during and after the cruise.



**Plate 4a: NF-POGO ECSs onboard RV Bayagbona during the 1<sup>st</sup> Leg Ocean Cruise**



**Plate 4b: Mini CTD and gravity corer deployments during the 1<sup>st</sup> Leg Ocean Cruise**



**Plate 4c: left - Taking ECSs through CTD configuring and data downloading procedures; right – ECSs sub-sampling water from Niskin bottle / in-situ measurements during the 1<sup>st</sup> Leg Ocean Cruise**



**Plate 4d: Post-Cruise activity - ECSs participating in laboratory analyses of collected samples**

## **5. Completion of NF – POGO Shipboard Training / Send-Forth for ECSs**

After a two (2) months period of attachment to NIOMR, the Early Career Scientists completed their trainings on February 11<sup>th</sup>, 2021. They all made presentations on their newly acquired knowledge and skills in ocean sciences, and they were awarded certificates of completion in different aspects of their trainings. Plates 5a – 5b below show the picture taken with the NIOMR Executive Director / CEO – Dr Sule Abiodun and some management staff during the send-forth program.



**Plate 5a: left - ECSs with the NIOMR ED/CEO and some management staff during the send-forth; right – NIOMR ED/CEO admonishing the ECSs during the send-forth.**



**Plate 5b: left - ECSs holding their certificates during the send-forth; right –ECSs with the Director of Research, NIOMR during the send-forth.**

## **6. Limitations / Challenges occasioned by Covid-19 Pandemic**

Due to surge in Covid-19 pandemic and its restrictions in January 2021, some crucial changes were made to the initial plan of the project, while still sustaining its objectives. These include:

1. Postponement of the date for the cruise;
2. Cancellation of the arrangement for two (2) African partners to join the cruise;
3. The research cruise was changed to daily return trips.

These changes were considered necessary to ensure that the project was not terminated due to Covid 19 pandemic restrictions.

## **7. Testimonials from Early Career Scientists**

The ECSs had a swell time in NIOMR, and they wished the training could go on for a longer time. They gained a lot of experience and testified that they have a lot to give back to their home institutions.

*‘It was my first shipboard training and was quite interesting and productive. All marine scientists need to experience this’* (Jeanne KOUADIO, Cote d’Ivoire).

*‘It was a nice experience; I gained a lot in terms of professional and relational knowledge. Kudos to POGO’* (Oscar DJEBLE- Benin).

*“My experience in NIOMR for the NF-POGO GoG Cruise was quite revealing as it exposed me to several areas of Oceanographic research, equipment and networking. I also had time to familiarize myself with the food and culture of the good people of Nigeria”* (Kofi ANYAN- Ghana).

*“This is a timely experience, being introduced to oceanographic sampling, data analysis and interpretation, most especially at the time I’ve begun sampling for my PhD work”* (Phyllis AMAMOO- Ghana).

*“It was a great experience, especially learning more about the use of some oceanographic equipment”* (Opeyemi OYATOLA- Nigeria).

*“It was a great privilege being part of the GoG NF-POGO Shipboard training. It was my first time at Sea and it was a great experience. Thanks to NF-POGO and NIOMR for the opportunity, I look forward to more of such trainings to keep me updated”* (Esther OGHENEDE-Nigeria).

## **8. Conclusion**

Despite some encountered challenges, it could be said that the first phase of the Gulf of Guinea project is about 85% completed. According to the set milestones, the remaining aspects for the first phase, which are:

- Engagement of MSc students on the collected data for their thesis; and
- Submission of progress report for the 1st leg to POGO)

shall be completed within the set time.

## **9. Acknowledgments**

It has been by the collective efforts and commitments of partners that we have succeeded thus far on this project. Partners are grateful to Partnership for Observation of the Global Ocean (POGO) and Nippon Foundation for approving this project, and giving required financial support towards it. Institutional support provided by the host institution (NIOMR) and other partner institutions are greatly appreciated.