NF-POGO-IRD shipboard training Fellowship for PIRATA FR-36 expedition

Fellowship Report

Name of Trainee: Yago AMEMOU

Name of Supervisor (Parent Institution): Université de San Pedro

Supervisor (Host Institution): Dr Jérome LLIDO (IRD/LEGOS)

Dates of Training: 10 March 2026 – 10 April 2026

Topic of Training: Oceanographic field training during the PIRATA FR-36 expedition (deployment and maintenance of oceanographic moorings, hydrological and biogeochemical sampling, and ocean observation techniques)

Section A

(To be completed by the fellow and returned to the POGO Secretariat)

Please note that this form should be passed on to the host and parent supervisor and when complete it will be made publicly available on the OTP website;

1) Please provide a brief description of activities during the training period:

During the training period of the PIRATA FR-36 cruise aboard the R/V Thalassa, I actively participated in a wide range of oceanographic operations. The main activities included the replacement of five meteorological and oceanographic buoys located at 23°W-0°N, 10°W-0°N, 10°W-6°S, 10°W-10°S and 3°W-0°N, as well as the maintenance of an equatorial current meter mooring at 3°W-0°N.

I was involved in conducting hydrological profiles and current measurements, particularly along the 10°W transect, reaching depths from 200 m to 2000 m and in some cases up to 4000 m. I contributed to seawater sampling using CTD-rosette systems for the analysis of various physico-chemical and biogeochemical parameters, including dissolved oxygen, methane, salinity, pH/total alkalinity, nutrients, chlorophyll pigments, carbon parameters, and stable isotopes (^{13}C and ^{18}O).

In addition, I participated in the deployment of expendable bathythermographs (XBT) for temperature profiling and worked with Vertical Microstructure Profilers (VMP) to study ocean turbulence down to 400 m depth. I also contributed to the deployment of autonomous Argo floats and took part in biological sampling activities, particularly related to tuna.

This experience allowed me to gain hands-on training in modern oceanographic instruments, data acquisition techniques, and multidisciplinary fieldwork at sea.

2) What applications of the training received do you envision at your parent institution?

At my home institution, Université de San Pedro, I intend to apply the knowledge and skills acquired during this training in both teaching and research activities. Specifically, I plan to integrate practical oceanographic methods into my courses to better illustrate the link between theoretical concepts and real-world applications. I also intend to organize seminars for my colleagues and students to share the techniques and experiences gained during the expedition. Furthermore, this training will help strengthen capacity building in oceanographic sciences at my institution and may contribute to the development of future research projects related to ocean observation, climate variability, and marine ecosystems.

3) Please provide your comments on the Fellowship Programme.

The Fellowship Programme has been an extremely valuable and enriching experience for me, especially as it was my first oceanographic campaign. It provided a unique opportunity to bridge the gap between theory and practice and to gain direct experience with advanced oceanographic instruments and field operations. One of the main challenges I faced was seasickness at the beginning of the campaign; however, I was able to adapt progressively and fully benefit from the training. I strongly recommend the continuation and expansion of this programme. In particular, I suggest developing partnerships with institutions such as Université de San Pedro to enable more regular participation of students and researchers. This is especially important for institutions that do not have access to research vessels or opportunities for offshore campaigns.

PRINT NAME

Yago AMEMOU

Date: April 20, 2026

Section B

(To be completed by host supervisor and returned to the POGO Secretariat)

Please note that this form will be passed on to the parent supervisor and trainee and when complete will be made publicly available on the OTP website;

1) Please provide your comments on the performance of the trainee.

Yago took part in the PIRATA-FR36 oceanographic cruise, demonstrating his motivation, and a keen interest in the preparation, deployment and use of ocean observation instruments.

Despite the sometimes demanding conditions of working on board, Yago adapted to constraints of life at sea. During his watch period, Yago participated to the preparation and deployment of CTDO2/LADCP, XBT, Argo floats and others surface drifters. He also learned how to collect water samples from the CTD bottles for several types of measurements (nutrients, salinity ….) and demonstrated professionalism throughout the mission. Yago contributed to the recovery and deployment operations of meteo-oceanographic PIRATA buoy with the scientific team, while strictly adhering to safety protocols highly appreciated by both the scientific and crew members. Yago was

very enthusiastic about helping to deploy the Vertical Microstructure Profiler and to carry out the different profiles needed.

He also plans to integrate theoretical and practical oceanographic techniques (such as CTD profile) into his lectures at the University of San Pedro in Ivory Coast.

Finally, Yago showed team spirit, contributing to the positive atmosphere on board. We thank him for his contribution to this cruise and wish him all the best in his future.

2) Is this exchange likely to lead to future collaboration with the trainee's parent institution? If so please give example(s) of how this collaboration may be pursued.

This exchange is likely to lead to future collaboration with the trainee's parent institution. In the context of the PIRATA program, the data collected are freely accessible to the scientific community, which naturally facilitates collaborative work.

Future collaboration may be pursued through joint research projects based on PIRATA datasets, particularly on topics of shared interest such as ocean-atmosphere interactions and climate variability. In addition, there is already an existing history of collaboration between laboratories in Côte d'Ivoire and LEGOS, which provides a strong foundation to further strengthen scientific partnerships.

3) Please provide your comments on the Fellowship Programme.

The NF-POGO fellowship for Ship-board Training is a very nice initiative to enable early-career scientists as Master's, PhD's students or young researchers… from developing countries to participate in significant oceanographic cruises. The fellowhip program gives them the opportunity to gain experience on several points such as the cruise preparation and practical training including equipment operation, sea water sample collection and/or analysis as well as data acquisition and data pre-processing. The program puts the fellow in contact with researchers, engineers and technicians from different horizons, and this sharing of both scientific and human experience will be highly beneficial to the fellow's career.

PRINT NAME

Jérome LLIDO

Date: April 22, 2026

SECTION C

(To be completed by parent supervisor and returned to the POGO Secretariat)

Please note that this form will be passed on to the host supervisor and trainee and when complete will be made publicly available on the OTP website;

1) Do you agree with the above comments and do you have any additional feedback you wish to provide?

I confirm that I have reviewed the report and the comments provided by the host supervisor regarding Mr Yago AMEMOU's participation in the PIRATA FR-36 cruise. I agree with the assessment of his performance, engagement, and professionalism during the training period.

I consider this training to be highly beneficial for his academic and professional development. It has provided him with valuable practical experience in oceanographic fieldwork, which will strengthen his teaching and research activities at the Université de San Pedro.

PRINT NAME

Vamara KONE

Date: 4 May, 2026