



Ocean to climate Seamless Forecasting in Africa (OSFiA)

This project is an initiative between some African countries and Ocean Forecasting System (OFS) of the First Institute of Oceanography under Ocean decade call. The project aims expansion of in-situ observation network around Africa. Climate change-induced natural hazards, e.g., extreme droughts, tropical cyclones, marine heatwaves, cause heavy personnel and property losses in Africa. OSFiA aims to improve the forecasting capability of the ocean and climate in Africa, realizing the seamless forecasting from minutes to years. During its implementation, OSFiA will 1) conduct ocean and climate observations around Africa utilizing new-type buoys and satellites, 2) develop a pan-Africa ocean forecasting system of ultra-high resolution, 3) establish an intra-annual climate prediction system in Africa, 4) provide public services and products (e.g., monsoon and precipitation forecasting) to Africa and further to the world, and 5) carry out capacity building related to ocean and climate to the young generation with international partners including IOCAFRICA, Organization of African Academic Doctors (OAAD) and the UNESCO/IOC-RTRC-ODC Center. All in all, OSFiA relies on the outcome of the OSF programme and its implementation will be closely aligned with OSF. OSFiA focuses on narrowing the forecasting gap from minutes to year in Africa, aiming 1) to extend the current ocean and climate observation that are still relatively sparse around Africa; 2) to develop a wave-tide-current coupled forecasting system of ultra-high resolution, and a seamless climate prediction system in Africa; 3) to provide high-quality ocean and climate prediction products and services to end-users; 4) to elaborate the changes of and controls on extreme weathers and climate events in Africa (e.g., monsoon, heat wave); 5) to provide knowledge of ocean and climate for governments as the base to deal with Africa climate affairs, and 6) to transfer knowledge of Africa's climate system to the young generation. In the first 3 years, OSFiA will 1) Deployment of dozens of Global Navigation Satellite System (GNSS) surface drifting buoys; 2) Application of latest ocean satellites launched by China in marine research in Africa; 3) Ocean-climate forecasting in Africa; 4) Open-access public services; 5) Establishment of observation network and 6) Capacity building activities. Key words: Ocean Forecasting System (OFS); Africa; GNSS; forecasting

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