



# **International Workshop on Marine & Atmospheric Science In West Africa OSCM, Mindelo, Republic of Cabo Verde November 12<sup>th</sup> to 17<sup>th</sup>, 2017**

**- Concept Note -**

The German Science Year 2016\*17 “Seas and Oceans” as well as the Africa strategy of the German Federal Ministry of Education and Research provide an excellent opportunity to organize an international workshop in Mindelo/Cape Verde to present and discuss the current state and future perspectives of marine and atmospheric research and academic education in West Africa. It will be jointly organized by the GEOMAR Helmholtz Centre for Ocean Research Kiel and the National Institute for Fisheries Development in Mindelo (INDP). It aims at transforming existing bilateral cooperation structures into a larger international network and to develop it into a West African research and education center for marine and atmospheric research.

The workshop will be structured into four main blocks and addresses the different topics in plenary as well as optional working group sessions. In addition, the participants of the workshop will be given the opportunity to visit the on-site research infrastructures, such as FS ISLANDIA and the atmospheric station CVAO. The workshop will bracket the opening ceremony for the Ocean Science Centre Mindelo. Also included is a reception onboard the German research vessel Maria S. Merian in the port of Mindelo.

## ***“Atlantic Observatories”*** **Monday, 13 November**

At the start of the workshop we will focus on the two Cabo Verdean Observatories, the Cape Verde Ocean Observatory (CVOO) and the Cape Verde Atmosphere Observatory (CVAO), that were set up in joint collaboration with the national institutes of INDP and INMG (Instituto Nacional de Meteorologia e Geofísica) already back in 2006 and have formed the nucleus of common projects of both the marine and atmospheric science community. Current results and projects of marine and atmospheric research in the region will be presented. Furthermore, the workshop will provide the opportunity to present both observatories to a wider international community and to develop concrete collaborations and research projects and to develop the technology transfer technology for solution-oriented applied science (Blue Growth).

## ***“Inauguration of the Ocean Science Centre Mindelo”*** **Tuesday, 14 November**



GEOMAR and INDP welcome all participants of the workshop to attend the ceremonial inauguration of the Ocean Science Centre Mindelo. Starting 2012, the partners joined to plan a scientific-logistical base for the national and international science community in order to facilitate field work in the region. The embedding of the opening of the OSCM into the context of the workshop will increase both the attractiveness and the visibility of the event and also allows the inclusion of decision-makers and stakeholders from the participating countries in the workshop.

***“The Regional Relevance – ICAWA 4th Edition & PREFACE Side Event”***  
**Wednesday, 15 November**

The ICAWA have obtained the CoP21 and CoP22 labels for the former editions and the institutions participants and delegates, had redacted the common declaration “Ocean Climate of Dakar”. This year we join the CV symposium to trigger synergies with Cabo Verdean initiatives. Coastal states of West Africa face host of problems, notably, overexploitation of fisheries resources together with climate change. The consequences of the two phenomena on the fisheries resources are at the heart of debates between managers to which researchers of the subregion take part. Within the framework of AWA, financed by IRD (France) and BMBF (Germany), the SRFC is to support the member states and associated West African partners with concrete actions and enhanced advisory capacities on fisheries management approaches. The multidisciplinary approach adopted in AWA allows the interaction of ecologists, biogeochemists, oceanographers, sociologists, economists and climatologists. The long term objective of this conference is to promote the development of an Observatory to monitor, simulate and predict key parameters of the ecosystem of North West Africa. Aside the regular sessions, this year, the organizers will provide feedback from the Ocean conference held in United Nations headquarter and encourage the presentation in the line of SDG14 targets.

The primary objective of the conference is to permit member states of the SRFC and partners from West Africa and northern countries to put in place a sustainable fisheries and marine environment management systems based on biological, ecological, laws, economic and social state of the art knowledge. The conference enhance the observation and modeling of ocean physics supporting the ecosystem approach to marine management as well as a better understanding of the variability of pelagic productivity in West-African waters. The Physical-biogeochemical modeling and observations on processes and control of small pelagic fish or other species are very welcome. Economics integrated into the ecosystem approach to marine management and reports on “human dimension” in West African fisheries in a framework of adaptation and governance will be relevant. Lastly this edition will allow keynote speech taking advantage of AWA project closure and to organize aside meeting to set common report (CT5) for the 2018 Preface final meeting.

***“The Regional Relevance – Macaronesia Matters & WASCAL”***  
**Thursday, 16 November**

The **Macaronesia** region is a wide oceanic area that comprises four main archipelagos: Azores, Madeira, Canary Islands and Cape Verde. All clearly show a common volcanic (hotspot) origin which gives them similarities concerning biodiversity, although there is a climate variation due to their latitudinal distribution. The status of outermost region, the land fragmentation of each archipelago in islands as bounded units and the external dependence, are structural features that have conditioned and decisively influenced the development of human activities and the availability of resources. Despite this, Macaronesia has a clear and strategic international interest for all major socio-economic sectors within the marine maritime fields. The R3M (Macaronesia Marine and Maritime Network) is a regional initiative since 2004, aimed to increase the quantity and quality of marine environment observations, in order to understand and predict both the phenomena that take place on it and the related environmental and socioeconomic impacts.

This workshop aims to strengthen common efforts of the Azores, Madeira, Canary Islands and Cabo Verde in the field of marine research and observations. It will be organized in close collaboration with PLOCAN - Plataforma Oceanica de Canarias. Scientists will be given a forum to look into existing and planned research platforms and observation technologies, align ocean observation efforts and time-series management and exchange on topics of common interest and concern for observation and methodologies. The sharing of the infrastructures will be addressed including funding opportunities for collaborative research.

**WASCAL** - *West African Science Service Centre on Climate Change and Adapted Land Use* - is an initiative by the German Federal Ministry of Education and Research that has started in 2010 and is entering its second program phase in 2018. The BMBF, WASCAL, GEOMAR, INDP and the University of Cabo Verde strive to add and develop a marine component to the current agenda. The workshop will provide opportunity to bring together partners and scientists to develop a future research agenda and a marine graduate study program also considering socioeconomic aspects. It will also strengthen the research network of the West African coastal states in the context and cooperation of existing structures and projects in the field of marine and atmospheric research.

***“Outreach & Blue Growth”***  
**Friday, 17 November**

The Cape Verdean-German-British consortia in the region strive to build a visible bridge between science, society and industry. Aspects such as “citizen science” and “blue economy” will be addressed, with a special focus on regional networks (Macaronesia, West Africa). The GEOMAR Helmholtz Centre for Ocean Research and the Future Ocean Excellence Cluster of the University of Kiel will share some of their experience in this area with the goal to develop concrete ideas for technology transfer projects for solution-oriented applied science for national and regional relevance for the society.