



**GMES
AND AFRICA**

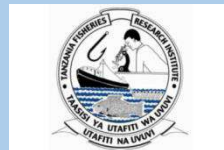


Global Monitoring for Environment and Security (GMES) & Africa

Marine and Coastal Management

Service Usage in Eastern Africa

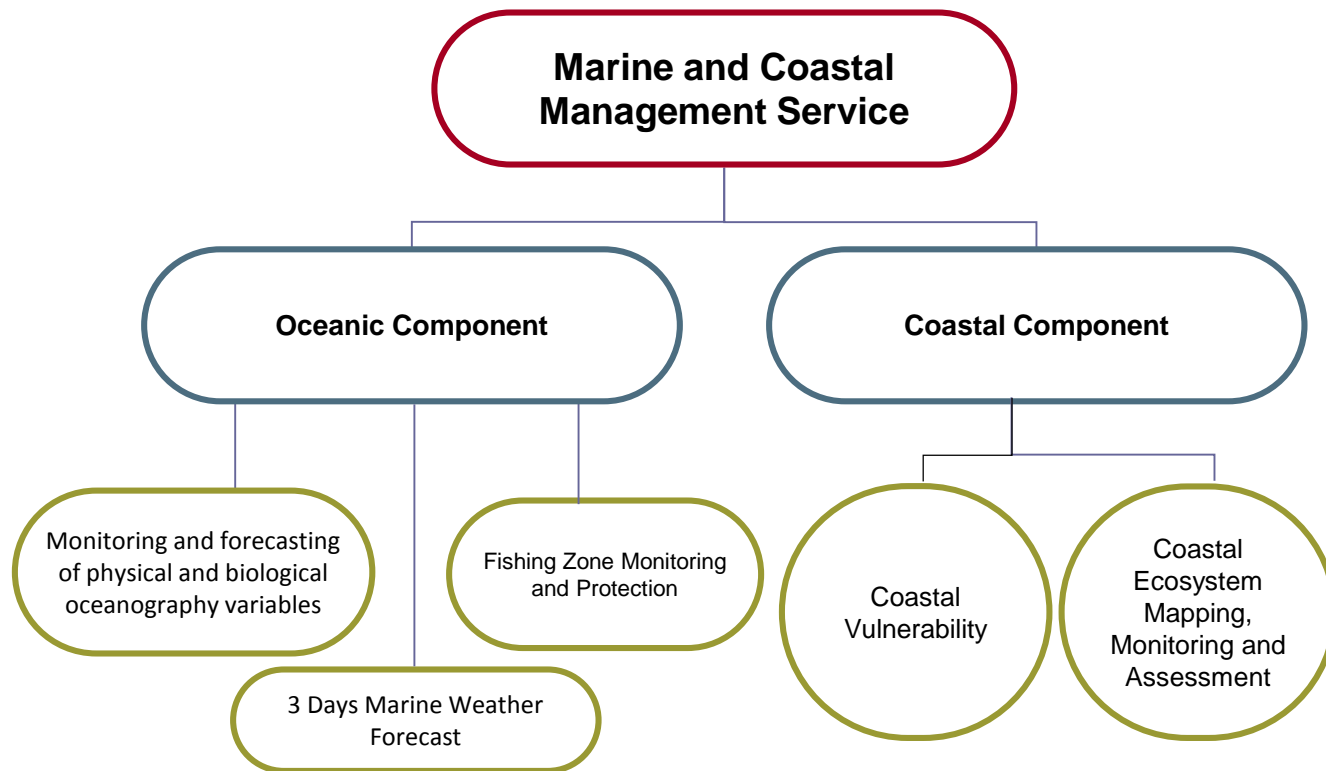
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MARINE AND COASTAL MANAGEMENT IN EAST AFRICA

Overall Objective:



To promote a more sustainable management of marine and coastal resources by improving decision making process through provision of additional pertinent information to mandated institutions in the East Africa region.



Consortium Members

 Mauritius Oceanography Institute	 Tanzania Fisheries and Research Institute
 Institut Halieutique et des Sciences Marines	 Western Indian Ocean Marine Science Association
 Kenya Marine Fisheries Research Institute	
 Seychelles Meteorological Authority	

Associates

 Plymouth Marine Laboratory	Plymouth Marine Laboratory
 Council for Scientific and Industrial Research - South Africa	Council for Scientific and Industrial Research - South Africa

AUC Grant: 1.4 M €

TARGETED END-USERS



Geographical Coverage

Users

- National Meteorological Services
- Fishing Authorities
- National Coast guards
- Operators in tourism industry
- Coastal community
- Scientific community
- Fishermen

Oceanic Component

Users

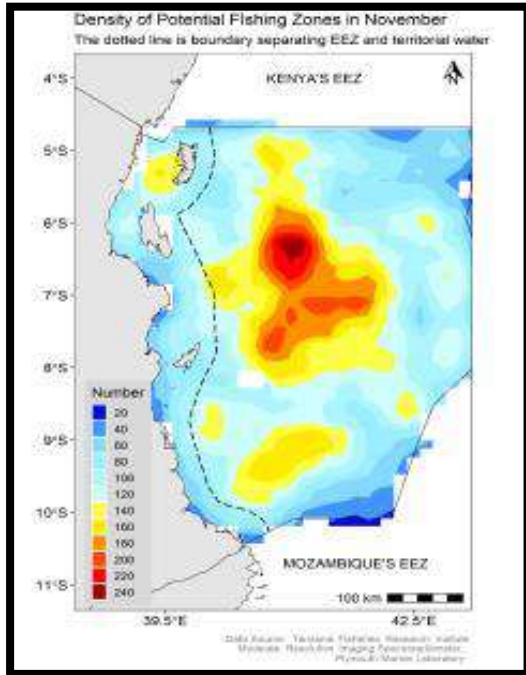
- Ministries responsible for Fisheries
- Ministries responsible for Environment
- Oceanographers
- Scientific Community
- Disaster Management Agencies
- Ministries responsible for Tourism
- NGOs

Coastal Component

POTENTIAL FISHING ZONE IDENTIFICATION IN TANZANIA



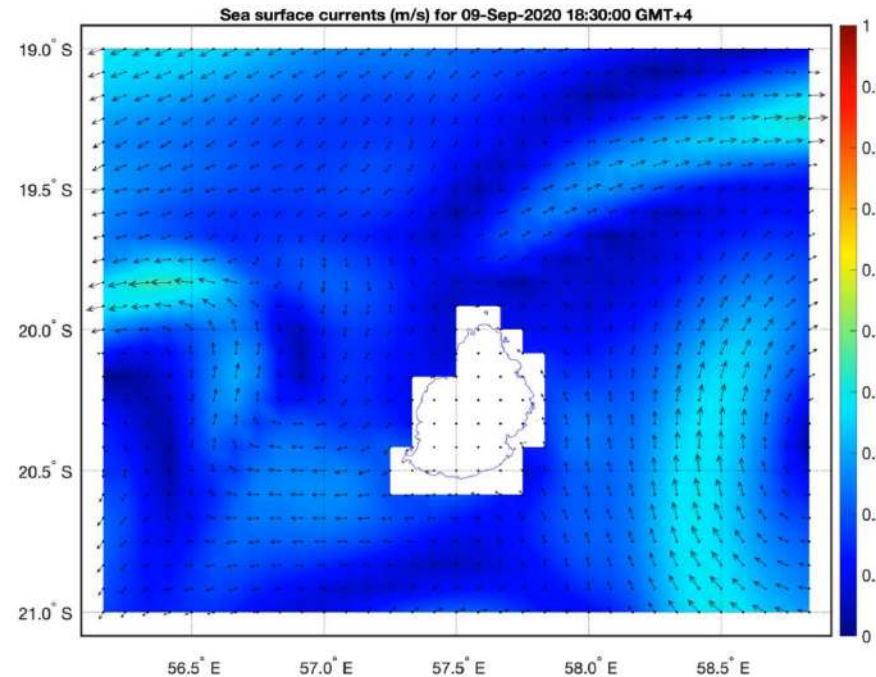
- Tanzania Fisheries Research Institute (TAFIRI) introduced the Potential Fishing Zone (PFZ) application to 20 District Fisheries Officers in December 2019
- PFZ map as a tool to reduce fishing effort introduced to 148 ring-net fishers
- Public (TAFIRI) Private (fishers community) partnership established
- Chl-a and SST fronts data from GMES & Africa station used to produce Potential Fishing Zone maps
- TAFIRI disseminating PFZ maps to 30 ring-net fishers from Unguja, Pemba, Tanga, Bagamoyo, Kilwa and Mtwara
- Fishers provide geo-tagged fisheries information to TAFIRI
- Access to more profitable fishing grounds
- Reduce fishing effort





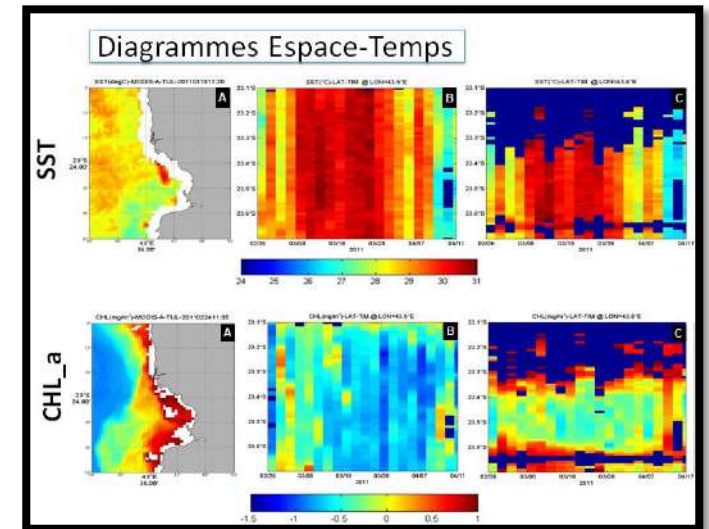
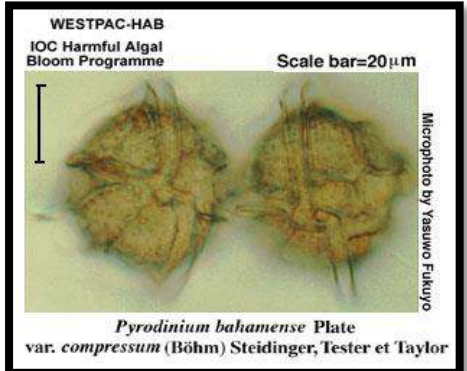
TRACKING OIL SPILL IN MAURITIUS

- Forecast data from the Copernicus Marine Environment Monitoring Service
- Sea surface current has been a crucial tool to predict the movement of oil slick
- Hourly sea surface current forecast derived under the GMES and Africa project coupled with *in-situ* current patterns used during the crisis period
- Information provided by MOI thematic experts used for decision making regarding
 - placement of booms to contain floating oil
 - for prediction of any new oil spill



HARMFUL ALGAL BLOOM OBSERVATORY IN MADAGASCAR

- Intoxication by marine animal consumption incidents occur regularly in Madagascar. Sudden death has been commonly reported
- Harmful Algal Bloom Observatory set up at IHSM in 2014
- EO data SST, Chl-a from GMES & Africa station used to monitor toxic micro-algal blooms
- SST and Chl-a used to model risk of harmful algal bloom
- Information obtained from analysis of EO data passed on to the local authorities and decision makers to warn the population
- IHSM can now predict a HAB some 10 days prior to its occurrence





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THANK YOU



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