

SESSION REPORT

Session Title	Mini Symposium - Satellite Data for Coastal Risk Applications - building capacity in the South West Indian Ocean
Date	Monday 1 st July
Time	1600-1740

Chair	Rapporteurs			
David Cotton	Amani Becker	Hajanirina Razafindrainibe	Clousa Maueua	Ando Rabearisoa
SatOC Ltd UK	National Oceanography Centre, UK	CNRO, Madagascar	INAHINA, Mozambique	Conservation International, Madagascar
d.cotton@satoc.eu	abeck@noc.ac.uk	hajaniry@gmail.com	clousamaueua@gmail.com	arabearisoa@conservation.org

Session summary

The mini symposium discussed the analysis and application of satellite derived information on sea level, wave and wind extremes, to understand the implications of climate change in terms of coastal risk (to people and marine ecosystems), and the development of local capacity in the South West Indian Ocean as part of the C-RISE project

Short presentations described the relevant satellite data and analyses, training that has been provided within the C-RISE project, and the application of satellite data to a wide range of different use cases across different themes, including marine protected area management, near real time sea state information, sea level analyses, wave and wind climatologies, and climate change impact on marine ecosystems. Then short summaries of ten of the use cases were provided as introduction to posters displayed as part of the main WIOMSA symposium. After a final presentation on improving decision making and increasing impact, an open discussion was held to identify gaps in knowledge and capacity, to provide information for a planned “road map” document for developing a regional self-supporting network for accessing and applying satellite data in coastal risk applications.

The recommendations below were identified from experience within the C-RISE training and Use Cases, and from the discussion at the mini-symposium

Recommendations

i) Knowledge gaps as identified by presenters/speakers

- Dissemination of real time information on marine conditions to remote locations is needed for information and safety of marine operations, including marine park managers, conservation wardens and fishers.
- Access to regionally relevant higher resolution satellite data (in time and space) is needed, , to map and understand key features of small scale variability to support coastal management planning on small islands.
- Knowledge of how to apply and adapt software to support processing and analysis of satellite data products and in situ data. In many areas the serious lack of long term in situ data is a gap that is impeding progress in this respect.

ii) Capacity needs identified by presenters/speakers

- A basic understanding of satellite data, how the data are measured, how to interpret the data, and the capabilities and limitations of the data are needed.
- Training in software and tools to read and process satellite data are needed. People who already have a capability to use data want to expand their capability to access and process basic satellite products.
- Existing efforts to build knowledge and skills could be complemented by adaptive capacity building activities. This could include the self-supporting regional network to enhance data sharing and learning across organisations and countries. Application of data together with policy considerations to explore future scenarios could enhance capacity to plan for potential changes and develop more effective management responses.

iii) Policy recommendations from presentations and discussions

- Creating more compelling data narratives could enhance policy impact. A regional expansion of training should focus on potential applications of satellite-based data, to overcome perceptions that such data are of limited use to the scientific community and wider publics. Connecting the use of satellite-based data to clearly defined, policy-relevant questions and articulating how this data can complement other data sources to help resolve policy challenges can help create compelling stories for decision makers and the public.
- All relevant data sources should be applied in establishing the scientific evidence base to guide the development of marine and coastal policies. Filling the aforementioned knowledge gaps supports this by ensuring this knowledge base is more robust.
- Key actors with knowledge of policy issues should be engaged in the development and outreach of scientific projects to help ensure maximum impact of research. Similarly, it is important to identify champions within organisations who can connect lessons from the data with decision making activities and identify windows of opportunity to actively connect science with policymaking.