Western Indian Ocean Regional Initiative in Marine Sciences and Education

RISE Meeting
25th – 26th October 2013
Johannesburg, South Africa
Exceptional Achievements by Graduates

- Fialho Nehama (Ph.D.)
  - Currently Deputy Director for Science and Outreach at the School of Marine and Coastal Sciences, at UEM
  - Received an IFS Grant to the tune of US $12,000, which will allow him to conduct further investigation related to his Ph.D. research work “Dynamics of the Zambezi River Plume – the nearshore circulation caused by river discharge and its effects on the ecosystem”
Exceptional Achievements by Graduates...

- Fialho Nehama (Ph.D.) cont.
  - After attending a training in South Africa, he was identified as a trainer for his nation (Mozambique), for the Ecosystem Approach to Fisheries Management. He will be teaching courses on the theme to various stakeholders.

- Co-investigator in the project, entitled “Oceanic and Atmospheric processes in the Mozambique Channel”, JEAI-MOCAs: A Multi-Institutional Initiative to build research capacity in Mozambique. The project is funded by a French Agency - AIRD.
Charine Collins (Ph.D.)

- Charine will formally graduate in Dec. 2013, but she already passed well her thesis report. During her time as a student, she has published two peer-reviewed articles from her research work for Ph.D.

- Attended the 12th CAS-TWAS Forum, an International Workshop on Operational Oceanography for developing Countries, in Beijing, China (Sept 2013) and presented two posters.
Exceptional Achievements by Graduates...

- Charine Collins (Ph.D.) cont.
  - During a workshop funded under NRF/FIN SA/ Mozam Bilateral Project, Charine gave an excellent set of lectures and tutorials on Matlab to a group of INAM (Mozambique Meteorol. Serv) employees and some researchers from UEM (Department of Physics, working on Climate Sciences).

- Co-investigator in the project, entitled “Oceanic and Atmospheric processes in the Mozambique Channel”, JEAI-MOCAs: A Multi-Institutional Initiative to build research capacity in Mozambique. The project is funded by a French Agency - AIRD
Exceptional Achievements by Graduates...

- **Joseph Jean Maurice Ravina (M.Sc.)**
  - He is currently working at the Mauritius Research Council, as a Research Assistant. He is based at the Rodrigues Island.

  - He has initiated an NGO – Ter-Mer Rodrigues involving several young graduates and professionals in about 11 different fields of interests, in order to constitute a strong team that can think about and work towards sustainable development. The NGO has the following objectives:
    - To conduct multidisciplinary research
    - To promote education and awareness campaigns around the theme of sustainable development for the Island
    - To foster capacity building
    - To conduct projects aimed at promoting a Sustainable Rodrigues Island
Exceptional Achievements by Graduates...

- Joseph Jean Maurice Ravina (M.Sc.) cont.

- He was appointed as the Focal point for Coral Reef Management under the Indian Ocean Commission/ ISLANDS Project of the Rodrigues Regional Government.

  - Here, he is involved in fostering best coral Reef Management practices. Through this, he has participated in a study tour in Queensland, Australia
Exceptional Achievements by Graduates...

- Avelino Langa (M.Sc.) cont.

- After graduation at the University of Dar-Es-Salaam, was appointed as the Head of Department of Marine Sciences at the Eduardo Mondlane University.
Unusual Collaborative Activities: JEAI-MOCAs

JEAI-MOCAs: A multi-institutional initiative to build marine research capacity in Mozambique.

About JEAI-MOCAs:

- Developed by a Mozambican research group to focus on oceanic and atmospheric dynamics.
- The JEAI-MOCAs group involves faculty and students from the WIORISE nodes of UEM and UCT, among others.
- The Group relies on 15 years of collaboration between the Dept. of oceanography at UCT and Marine and Coastal Management and the French Institut de Recherche pour le Developpment.
- Four Mozambican Institutions are involved: Department of Physics at UEM, Escola Superior de Ciencias Marinhas e Costeiras at UEM, IIP and the Instituto de Hidrografia e Navegacao (INAHINA).
- JEAI-MOCAs is funded by a French Agency, ‘Agence Inter-établissements de Recherche pour le Developpment (AIRD).
JEAI-MOCAs Composition

- Primarily composed of nine Mozambican nationals:
  - Three senior researchers with Ph.D.
  - One post-doctoral fellow
  - Three Ph.D. Students at UCT
  - Two MSc. Graduates at the Dept. of Oceanography at UCT
- Two international Ph.D. students (one British and one South African), based at UCT
- JEAI-MOCAs has a supervision of seven international senior scientists (three South African and four French)
  - Supervisors specialize in physical oceanography, atmospheric sciences and marine ecosystems
JEIA-MOCAs Objectives

The JEAI-MOCAs programme was launched in Mozambique in May 2013 during an inaugural workshop. It deals with 3 scientific themes:

1. Impact of tropical cyclones on the ocean in the Mozambique Channel;
2. Effect of the mesoscale eddies of the Mozambique Channel on marine ecosystems;
3. Marine ecosystems along the coasts of Mozambique.
JEIA-MOCAs Objectives...

- The ultimate goal of JEIA-MOCAs is to create and strengthen the research capacity of a well-motivated group of oceanographers and atmospheric scientists in Mozambique.

Some members of the JEIA-MOCAs group at the launch of the programme at the Inhaca Marine Biological Centre of the University of Eduardo Mondlane
JEIA-MOCAs Implementation

- Total budget for JEAI-MOCAs: USD 50,000 for the duration of three years (2013-2015).
- Funding in three phases, each year getting one third of the total amount funded.
- Three Linux-based computers will be purchased and installed at three institutions: UEM, IIP and INAHINA.
- International missions for the JEAI-MOCAs team every year of the programme involve:
  - Travelling of Mozambican researchers to SA and France for collaboration and capacity building;
  - Travel of SA and French researchers to Mozambique for monitoring of the achievements/performance of the programme.
- Organisation of and participation in summer/winter Schools as well as workshops and Symposia (one will run parallel to the WIOMSA Symposium in Maputo – next week).
WIO-RISE contribution to capacity building at ESCMC-UEM

Research facilities set by WIO-RISE supported:

- undergraduate and post graduate students
- a PhD student from Cambridge University
- various research and technology innovative projects
Research onboard of Pluma
Waves and coastal currents in Xai-Xai Beach

Diagram showing wave propagation, surf zone, break point, reef flat, fore reef, and lagoon.
Innovative projects - Solar fridges
Innovative projects – wind turbines
Innovative projects: Solar dessalinators
Innovative projects - Fishing gears

A - 2,5 m x 2m x 1,5m = 7,5 m³

B - Ensaio experimental

C - 2,0 m x 1,5 m x 1,0m = 3,0 m³

D - Massificação das Gaiolas
Innovative projects – aquaculture in cages
Innovative projects – Fish processing
Innovative project s– extension work – fish quality studies in the markets
Innovative projects – fish food production
Updates on graduates since last meeting

- **One PhD** –
  - Ms Charine Collins (UCT)

- **Three MSc** -
  - Ms Nyamisi PETER (UDSM - IMS).
  - Mr Stefano Hanolo (UDSM - IMS)
  - Mr Richard Clement (UDSM - IMS)
  - Mr Sidonio Chamo (UEM)
Thank you