WIOMSA Newsbrief

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MARINE SCIENCE FOR MANAGEMENT (MASMA) PROGRAMME REVIEWED:

The Marine Science For Management (MASMA) Programme was among the four marine programs reviewed by Sida/SAREC in March 2003. The review was conducted by two consultants, Drs James Tobey and Elin Torell from the Coastal Resources Center, University of Rhode Island. The other three are the Coral Reef Degradation in Indian Ocean (CORDIO), International Coral Reef Initiative (ICRI), and the Kinondoni Integrated Coastal Management Programme (KICAMP). The review was not meant to be a full evaluation of each program but rather to be a foundation for the discussion and planning of the next phase (2004-2006) of the programs through giving ideas and recommendations for its scope and focus.

The review examined and assessed to what degree these initiatives in terms of what degree of the objectives of the program's first phase have been fulfilled and identified deviations from the original plans. More specifically, each program was assessed in terms of program relevance and importance; capacity building and sustainability; scientific results and dissemination; collaboration and networks; functioning of supported institutions and cost effectiveness; and, relevance of research results for management. Furthermore, the review team made several recommendations regarding the different programs and their project components that can serve as input for the discussion and planning of the next phase (2004-2006) of the programs.

The review was implemented through detailed interviews with program participants, key informants, and review of program documentations. For the interviews, the review team visited Stockholm, Kalmar and Göteborg, Sweden; Mombassa, Kenya; Dar es Salaam and Zanzibar, Tanzania. They also conducted interviews through emails.

Overall, the team was satisfied with the achievements made by the MASMA programme so far as most of the planned activities have been implemented successfully. The team noted that "*in spite of the newness of the MASMA program and the learning process involved in a new program such as this, the scientific results are significant. This is partly due to the fact that MASMA is more than a competitive grants scheme. Through support for scientific symposiums, workshops, a professional journal, and selected book publications, the program has had a major impact on the dissemination of marine science and international visibility of coastal and marine issues in the WIO region.*"

Furthermore, the team pointed out that one of the achievement of the MASMA programme is the transformation of WIOMSA *"from a professional network with few activities, to a regional center of excellence, and major catalyst in coastal and marine sciences in the WIO region."*

The team also highlighted a number of challenges facing the program and the promotion and implementation of the multi-disciplinary research projects was highlighted as one of the major challenge facing the programme. It acknowledged that "multi-disciplinary research, striking a balance between applied and basic sciences, and pursuing science with clear links to management and policy are all great challenges for society today. The MASMA program is remarkable in this respect because it is very strategically and consciously tackling these challenges."

According to the review team *"the program is proceeding well and we strongly recommend that it be continued with minor adjustments and improvements. We believe that MASMA is an important global example of capacity building in coastal and marine research that provides experience and lessons learned for other regions of the world.*

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Without the earlier investments in marine sciences supported by Sida/SAREC, the ambitious MASMA program would not have been possible. MASMA provides valuable insight into how to promote science on a regional level that is policy and management relevant, interdisciplinary, has local ownership, and builds institutions that provide long term sustainability."

The review team came up with several recommendations to assist the program as it moves forward. Some of the key recommendations are:

1. Increase the support to project and planning grants – without compromising the quality of projects funded.

2. Increase social science expertise within the Program Committee, Reference Group, and within the technical assistance and support on the part of COMREC

3. Consider establishment of a small social science advisory group to serve as an additional and extraordinary Reference Group to MASMA

4. Expand the size of the Program Committee (by two) to increase expertise in a wider range of scientific disciplines, particularly social sciences and provide a greater on-the-ground resource-management experience.

5. Revisit the thematic focus of the program every three year to provide guidance on the priority management and policy issues that science should address

6. Encourage and assist the Island States to become more competitive in the grants process

7. Use the Scientific Symposium as a venue to purposively share information and coordinate across the other research efforts in the region, especially CORDIO, KICAMP

8. Operationalize the MOU between COMREC and WIOMSA by developing a formalized annual work plan with targets and timeline to clarify expectations, roles, and activities

9. Broaden WIOMSA institutional capacity – strengthen the role of Country Coordinators as national points of contact for communication, dissemination of information, and promotion and marketing of the Western Indian Ocean Journal of Marine Science. Examine and discuss the idea of national chapters

10. Recruit for a MASMA coordinator to assist the Executive Secretary with activities such as coordination of MASMA proposals and grants, training, workshops, capacity building events, and coordination of the review process of the Western Indian Ocean Journal of Marine Science

11. Make WIOMSA materials available online in pdf formats. WIOMSA is a unique regional resource center for research, training and outreach in marine sciences in the WIO region and it is therefore very important that its materials are available to its members, other scientists and all interested parties

The Review Report was presented, discussed and endorsed by both the meetings of the Board of Trustees and the MASMA Programme Committee held in Mombasa, Kenya in April 2003. The observations and recommendations provided by the Review Team were incorporated as appropriate into the proposal for the second phase of MASMA submitted to Sida in June 2003.

'Living fossil' fish captured off Songa Mnara Island, Kilwa!

Coelacanth has, for the first time, been found to occur off the Tanzanian coast. On the 9 September 2003, Coelacanth was caught by a fisher off Songo Mnara Island in Kilwa.

The fish was caught in a net at a depth of 100m, which is only a few hundred meters from shore. The coelacanth, 132 cm long and weighing 40 kilogrammes, was first kept at the Marine Parks and Reserves Unit in Dar es Salaam for processing before it is preserved and put on display at the National Museum in Dar es Salaam for public viewing.

No coelacanth had ever before been recorded in Tanzanian African waters, so this was a very good find. And it came only few weeks after the Tanzanian Government through its National Coelacanth Committee hosted a research and training ship MV FRS ALGOA at the Dar es Salaam port. The cruise was organized and coordinated by the Joint Coelacanth Research and Marine Conservation Programme. The ship was on Dar es Salaam from 27-29 July 2003.

Described as 'living fossils,' coelacanths have changed little anatomically over the past 360-million years. In the Western Indian Ocean region, they have now been found in South Africa, the Comoros Islands, Mozambique, Madagascar, and Kenya.

ODINAFRICA Looks To The Future

The Ocean Data and Information Network for Africa (ODINAFRICA) held it's planning and review meeting at the Flemish International Conference Centre, Markiesgebouw in Brussels, Belgium from 8-10 September 2003. In his opening address, the Vice Chairman of the Intergovernmental Oceanographic Commission (IOC) of UNESCO, Dr K. Radhakrishnan pointed out that ODINAFRICA was one of the major initiatives that IOC has undertaken in Africa to implement the recommendations of the Pan African Conference on Sustainable Coastal Area Management (PACSICOM) held in Maputo, Mozambique in 1998 and is a contribution to the African Process for the Development and Protection of the Coastal and Marine Environment. He noted that ODINAFRICA has succeeded in it's objective which was to enable IOC member states in Africa to obtain access to ocean data and information, to develop skills for manipulation of data and to develop infrastructure for archival, analysis and dissemination of the data and information products. IOC was happy to be involved in development of the proposal for the next phase of ODINAFRICA.

Dr Mara, ODINAFRICA Coordinator Madagascar with Ms Lydia Indrianjafy from the Madagascar Embassy and Mr Teka from the Angolan Embassy

Mrs Arame Keita of Senegal presents to Dr Rudy Herman of the Flanders department of Science, Innovation and media.

The achievements of the current phase of ODINAFRICA include: establishment of ten new National Oceanographic Data and Information Centres (NODCs) in Benin, Cameroon, Comoros, Gabon, Ghana, Mauritania, Morocco, Senegal, Togo, and Tunisia during the current phase of ODINAFRICA, bringing the total number of NODCs in Africa to 22; support for NODCs in the participating Member States to cater for a wide range of activities such as operational expenses (including internet connection); development of meta databases and data archives; development of data and information products; and public awareness creation on the project's products and services. The databases developed at national level (such as directories of experts and institutions, meta databases, library catalogues etc) are now being collected, quality controlled and formatted for access via the Internet in order to encourage broader usage. Training and follow-up support in marine data and information management was provided to experts from the participating institutions. Several of the institutions have already embarked on preparation of national marine atlases.

The participants endorsed the elements of the proposal for the next phase, which will encompass: development of an African Coastal Ocean Observing System; further development and strengthening of the NODCs to enable them manage data streams from the coastal observation network, and biogeographic and hydrological data streams; and development and dissemination of a wide range of data and information products required for the integrated management of the coastal and marine environment/ resources.

The representative of the government of Flanders Dr Freddy Colson, the Director General of the department for Science, Innovation and Media noted that an external evaluation of the Flanders UNESCO Trust fund (FUST) through which ODINAFRICA is implemented had concluded that the FUST agreement had been successful, and individual projects under the agreement had been well managed and the desired results achieved. This was further demonstrated by the presentation of posters and products outlining the achievements of ODINAFRICA exhibited during the Brussels meeting. Dr Colson noted that the new proposal developed during the meeting intends to consolidate the ODINAFRICA achievements in the past six years and also enhance the networking of the data centers by linking them to other programmes, including GOOS Africa and the Integrated Coastal Management programmes, both at local and regional level. Such an common and integrated approach is the only way to solve the many problems faced in the coastal areas of Africa. He conveyed the best wishes of the Flemish government of the Kingdom of Belgium, and its concern and firm dedication for international cooperation and full partnership.

Chairperson of IODE Dr Lesley Rickards presents Centenary Edition of GEBCO Digital Atlas to Mika Odido (ODINAFRICA Regional Coordinator)

The symposium and exhibition was also attended by Ambassadors of African Member States of IOC/UNESCO based in Brussels, Belgium.

Participatory Fisheries Stock Assessment

A new stock assessment method is being developed which supports sustainable development and conservation in coral reef and other artisanal fisheries. The approach makes considerable use of fishers' knowledge as well as scientific data to improve management decision-making. The project is DFID (UK Aid) funded and is the result of collaboration between the Institute of Marine Sciences in Zanzibar and Marine Resources Assessment Group in London, UK.

The method does not use new assessment models, but rather uses new techniques in statistics and computing to make better use of information and models available. The method is based upon decision theory, a branch of statistics which tries to help make rational decisions even when there is little information available. The emphasis is also on robustness, and therefore where possible non-parametric models have been used. These allow the data to express itself rather impose a theoretical model structure which may be incorrect.

The method will provide an assessment even where there is no historical time series data. Most assessments require data such as catch and effort or survey indices collected over a long period of time. Many fisheries do not currently possess these sorts of data, but cannot wait for 10 or so years before making management decisions. As a result, the software being developed will concentrate on dealing with data which can be collected rapidly, namely fisher interviews and fishing experiments.

Fishers can be interviewed to get their opinion on the state of the fishery and productivity of the stock as well as their preferences with respect to fisheries management controls and possible outcomes. This information can be obtained rapidly and by itself, can be used for stock assessment.

Small scale fishing experiments, where fishing is concentrated in a small area over a short time and careful monitoring is carried out, provide useful information linking fishing effort to fishing mortality, particularly for multi-species fisheries.

Two assessment approaches should be available. Firstly, a simple biomass dynamics model will provide assessments for single species assessments, or where it is considered adequate to combine species into single catch groups.

Secondly, multigear, multispecies yield-per-recruit model will provide more detailed assessments where differentiation by size and species is required. This latter model is more complicated and will require fishing experiment data to estimate catchability by species and size selectivity by gear.

The fishers involvement in both the interviews and experiment forms an important part of the approach. By taking using the fishers interview information, their opinion is taken directly into account, and the experiment allows them to see at first hand the impact they have on the fish population. It is hoped that by including fishers in the assessment, they will be more ready to co-operate with management decisions based on the information obtained.

The first studies are currently being done at one village in the southern part of Zanzibar, Kizimkazi with assistant from IMS and Zanzibar fisheries Department staff and the fishers have been very cooperative. Therefore we expect, that the software should be available by the end of October 2003.

For more information about the project, please contact: Paul Medley (paul.medley@virgin.net) and Narriman S. Jiddawi (Jiddawi@ims.udsm.ac.tz)

Zanzibar Turtle Conservation Committee visits counterparts in Kenya

The Turtle Conservation Committee of Zanzibar made a two day study tour to the Kenyan coast in early July. The aim of the trip was to learn from the Kenyan experience in turtle conservation, specifically the Kenya Sea Turtle Conservation Committee (KESCOM), who, together with the Kenya Wildlife Services, were their hosts.

The TCC team comprised of ten members, including the Chairperson and Vice-chair. On the first day the committee attended the Marine Environment Day celebrations in Mombasa. Some of the Committee members were involved in judging the various categories, and prize giving.

On the second day the Committee met with their hosts, KESCOM. They received a presentation on KESCOM, its objectives, history, activities and organizational structure. KESCOM, which oversees sea turtle conservation activities on the Kenyan coast, is hosted by the Kenya Wildlife Services (KWS).The Turtle Conservation Committee was then taken to see a number of turtle conservation initiatives along the coast of Mombasa up to Kilifi. These included hatcheries maintained by individuals and NGOs.

Members of the Zanzibar Turtle Conservation Committee at the Marine Environment Day celebrations in Mombasa, Kenya.

The Turtle Conservation Committee of Zanzibar members learnt a lot on this trip They were happy to see that there are many similarities between their activities and those of KESCOM, as far as research and monitoring, management and involvement of community in turtle conservation is concerned. Also with regard to building awareness through informing and educating the general public and government. The TCCZ looks forward to continued cooperation in the future for the sake of sea turtles in the region.

Reef Check - WIOMSA - ICRAN/UNEP Workshop
Training - of - trainers for voluntary coral reef monitoring

The workshop "Training of trainers for voluntary coral reef monitoring" was held 30th June - 4th July at the Marine National Park in Malindi, Kenya. It was organized by Reef Check together with the Western Indian Ocean Marine Science Association (WIOMSA) and supported by National Fisheries and Wildlife Foundation (NOAA), USA, WIOMSA, Coral Reef Task Force, Kenya Wildlife Service (KWS), CORDIO - Coral Reef Degradation in the Indian Ocean, Ministry of Environment - Mauritius, Tanga Coastal Zone Conservation and Development programme, Tanzania, ICRAN/UNEP- International Coral Reef Action Network/ United Nations Environment Programme, and Wildlife Conservation Society/ Masoala Nat. Park (WWF), Madagascar.

Participants of the Malindi Workshop

The workshop brought together 26 potential Reef Check coordinators from the East African and island countries in order to be trained in the Reef Check monitoring protocol and to make plans on how to carry out Reef Check trainings and surveys, fundraising and Public Relations.The workshop was attended by participants from Kenya, Madagascar, Mauritius, Seychelles, Tanzania from organizations and institutions such as Kenya Wildlife Service, Kenya Marine and Fisheries Research Institute, MPA Authority (SCMRT-MPA) Seychelles, Menai Bay Conservation Area (Institute of Marine Science), Department of Fisheries and Marine Resources, Faculty of Aquatic Sciences and Technology, University of Dar es Salaam, Tanga Coastal Zone Conservation and Development programme, Institute of Marine Sciences, Wildlife Conservation Society/ Masoala Nat. Park, Ministry of Environment-Mauritius, CORDIO Diani, Malindi Boat operators association and Mombasa Boat operators association.

Reef Check is an international coral reef conservation and volunteer program that has been enthusiastically supported by hundreds of scientists and thousands divers around the world works with communities, governments and businesses to scientifically monitor and manage coral reef health. Reef Check is active in over 40 countries and territories throughout the tropical world and dedicated to achieve the following goals:

· to educate the public about the coral reef crisis;
· to create a global network of volunteer teams which regularly monitor and report on reef health;
· to scientifically investigate coral reef processes;
· to facilitate collaboration among academia, NGOs, governments and the private sector;
· to stimulate local community action to protect remaining pristine reefs and rehabilitate damaged reefs worldwide using ecologically sound and economically sustainable solutions.

The participants were trained to lead teams to carry out the Reef Check surveys in which the teams collect four types of data:

1) a description of each reef site based on over 30 measures of environmental conditions and ratings of human impacts,
2) fish counts along an 800 m2 section of shallow reef,
3) invertebrate counts over the same area, and
4) a measure of the percentage of the seabed covered by different substrate types including live and dead coral.

Sixteen global and eight regional indicator organisms have been selected to serve as specific measures of human impacts on coral reefs. The indicators were chosen based on their economic and ecological value along with their sensitivity to human impacts. In areas where these organisms are over-exploited, their populations are expected to decrease. Through this process, Reef Check has raised public awareness about the global coral reef crisis and potential solutions in addition to collecting a wealth of valuable data from reefs around the world.

After the workshop several participants expressed that they are planning to use the RC monitoring protocol for their future work in their respective protected areas. With the new Reef Check team leaders the network has now a major component in the Western Indian Ocean and the condition of reefs will be monitored on a regular basis.

More information on
http://www.reefcheck.org
mailto:
georg.heiss@reefcheck.de

Bulletin Board

Updated Eastern African Website And Database

Visit http://www.unep.org/eastafrica and browse our newly redesigned website! The Eastern Africa coastal and marine environment website and database, serving the interests of the coastal populace in Eastern Africa, has also been enhanced.

The new site, with its streamlined, easy to use design and expanded search capabilities, highlights thousands of publications, articles, maps, pictures and research resources covering the coastal and marine environment of Eastern Africa. The site is also accessible from http://www.unep.org/nairobiconvention and from http://eastafrica.unep.org .
A mirror site exists at WCMC, London.

Here are some links to our new features:

- A new, more powerful homepage featuring latest press releases and an easy to use search engine. Clients can query for online resources in the database through 'search all' icon at http://www.unep.org/eastafrica
- A resource center, with a new look, featuring credible resources and links under four main areas - maps, documents, pictures and contacts database at http://www.unep.org/eastafrica/login/login.html?topic=6 From this page:

New users can add themselves to the database via the web interface allowing them to create new data entries by clicking 'login' and applying for username and password.

- Each user or data provider can now manage his/her data uploaded from any location
- Users can also upload data files in the update/add pages by clicking 'login' and obtaining a user account.
- Users can also subscribe online requesting info on new entries through the automated monthly e-newsletter.
- An online discussion forum exists where you can talk to the administrator directly from the website for comments suggestions, and/or constructive criticism.

The website is constantly growing to become an authoritative platform for data and information exchange on the coastal environment amongst the countries of the Eastern African region namely Comoros, Kenya, Madagascar, Mauritius, Mozambique, Reunion, Seychelles, Somalia, South Africa and Tanzania including stakeholders, coastal managers, policy and decision makers and the general public.

Future enhancement will include the ability of users to create customized dynamic spatial maps from data gathered by the established GIS units in the countries and other sources.

We believe you will enjoy the changes we have made and as always welcome your feedback. Please send comments to eafatlas@unep.org

WIOMSA Website Updated

WIOMSA website was recently updated and new items have been posted. New items included:

i) Third WIOMSA Scientific Symposium, including Book of Abstracts and List of Keynote Presentations

ii) The Second MASMA Grantee Meeting, including the Meeting Programme, the Book of Abstracts and Some of the full papers submitted

iii) Planning for Sustainable Tourism: Training Course, Zanzibar, Tanzania 22-30 October 2003

iv) Scientific Methodologies in Marine Ecology, Inhaca Marine Biological Station, Mozambique, 2 - 13 December 2003

v) All the articles in the Western Indian Ocean Journal of Marine Science

We are requesting all the members to visit the membership database and determine the correctness of their information. If you have suggestions or comments, please send them to the WIOMSA Secretariat.

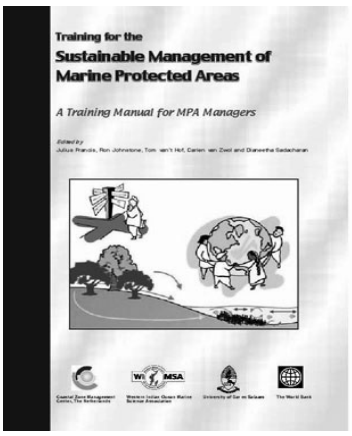
New Publication!!!!

The Western Indian Ocean Marine Science Association (WIOMSA) in collaboration with the Coastal Zone Management Centre of the Netherlands have produced a new publication entitled "*Training for the Sustainable Management of Protected Areas: A Training Manual for MPA Managers* "

This manual, which has been well received, was introduced and distributed during the recently concluded World Parks Congress held in Durban, South Africa from 8 to 17 September 2003.

The manual was initially prepared to assist the delivery of the regional training courses in marine protected areas management in the Western Indian Ocean region in 2000 and 2002. The manual was recently updated and expanded and now contain up-to-date and relevant information from the region and, where necessary, information and experiences from other parts of the world.

The manual could be obtained from the WIOMSA Secretariat.



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