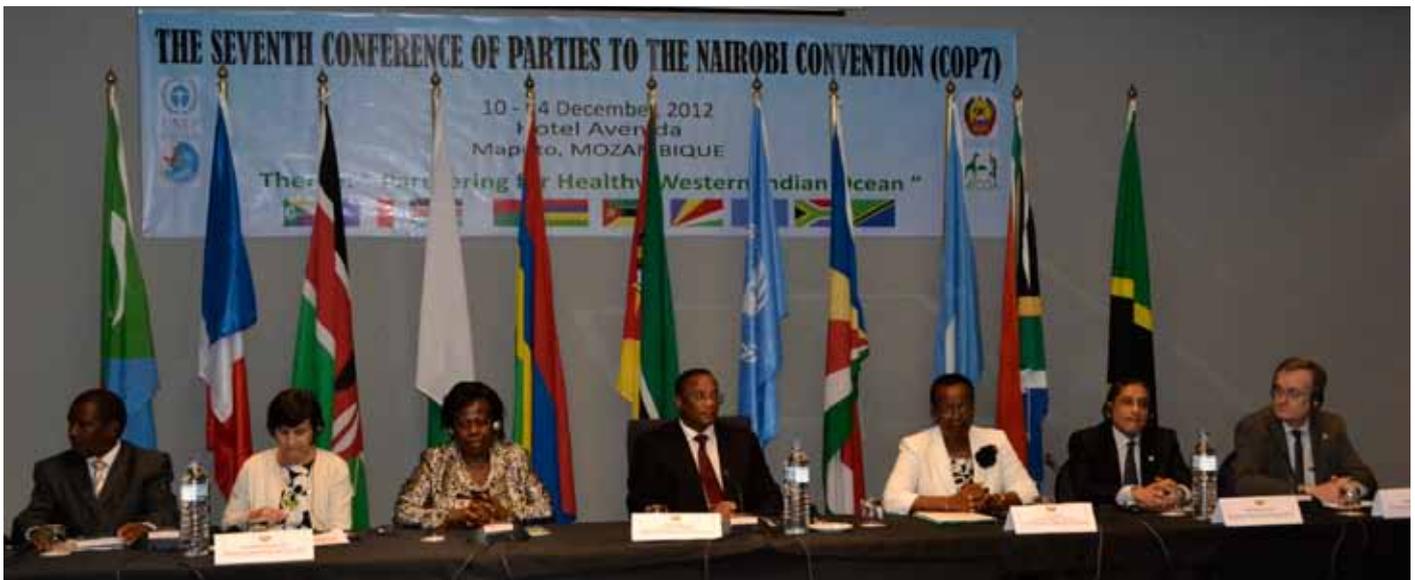




# Newsbrief

## *The Nairobi Convention holds a successful Meeting of the Contracting Parties New partnerships for emerging issues agreed!*



*The Guest of Honour during the opening ceremony of the COP 7, Dr A. Cuereneia, Minister for Planning Development of Mozambique (middle) and other dignitaries.*

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*Countries of the Western Indian Ocean region have agreed to the creation of new partnerships on oil and gas, climate change, green economy, ecologically or biologically significant marine areas, and World Heritage sites, at the Seventh Meeting of the Contracting Parties to the Nairobi Convention (COP7), which ended on 14 December 2012. This was in line with the theme of COP7, "Partnering for a Healthy Western Indian Ocean".*

### **New Partnerships**

Parties to the Convention recommended partnerships be developed with the Secretariats' of the Convention on Biological Diversity, Convention on Migratory Species, Convention on International Trade in Endangered Species, International Maritime Organization, Food and Agriculture Organization, UNESCO and other partners, to support countries to participate in the process of recognising and describing ecologically or biologically significant marine areas. COP7 also urged partnerships be created to facilitate: the collection and sharing of information and best practices on the management of environmental impacts of oil and gas exploration and production particularly on transboundary resources and the development of regional guidelines addressing transboundary environmental impacts of oil and gas exploration and production.

*The Seventh Conference of Parties for the Nairobi Convention was officially opened on 12 December 2012 by Dr Aiuba Cuereneia, Minister for Planning and National Development, on behalf of the Prime Minister of the Government of Mozambique. The Conference of Parties was attended by over 100 participants, including Dr Alcinda Antonio de Abreu, Minister for Coordination of Environmental Affairs (MICOA) Mozambique, and Dr Ana Paulo Chichava, Deputy Minister, MICOA; Ms Rejoice Mabudafhasi, Deputy Minister, Department of Water and Environmental Affairs, South Africa; Ms Chodoulitai Abdou Chakour, Minister for the Ministry of Sustainable Development and Environment, Comoros; Dr Abdirizak Omar Mohamed, Minister for National Resources, Federal Republic of Somalia; Dr Terezya Huwisa Luoga, Minister of State in the Vice President's Office responsible for Environment and Dr Rolph Payet, Minister of Energy and Environment, Seychelles. The meeting was also attended by Director and senior representatives of member countries. Also present were representatives of UN organizations, NGOs, IGOs, research institutions and academia, including Mr. Ali Kaka, Director, IUCN Regional Office for Eastern and Southern Africa and the Chair of the Consortium for the Conservation of the Marine and Coastal ecosystems (WIO-C).*

### ***New Priorities***

Governance in the Northern Mozambique Channel and shark conservation were among a range of new priority issues to receive special attention by governments in Maputo. For the shark conservation, it was agreed a status report on the state of sharks, especially on matters of institutional, legal and capacity, be prepared and submitted to the next COP. The need for regional collaboration on the conservation and management of sharks was also stressed during the meeting.

COP 7 called for developing and supporting of implementation of priority projects aiming at the development of marine governance in the Northern Mozambique Channel. Mr. Ali Kaka, the Chair of the Consortium for the Conservation of the Marine and Coastal Ecosystems (WIO-C), stressed the importance of the Mozambique Channel in his remarks during the opening ceremony of the COP 7, "...recognizing the superlative nature of the Mozambique channel - its uniqueness globally, its productivity and fishery resources, and its buried treasure such as oil and gas that will help sustainably develop our countries."

### ***Promoting green economy***

In line with the outcomes of the United Nations Conference on Sustainable Development (Rio+20) held in Rio de Janeiro, June 2012 and the 14th session of the African Ministerial Conference on Environment held in Arusha, September 2012 (regarding green economy), the Convention urged the Contracting Parties to develop and implement green economy policies in accordance with national sustainable development plans, strategies and priorities taking into consideration the contribution of the natural blue capital and to share information on best practices on green economy strategies, tools and methodologies that relate to marine and coastal resources. A study on green economy tools and methodologies applicable for the Western Indian Ocean region was recommended to be undertaken by the Secretariat in collaboration with partners.

### ***Climate change on the agenda***

Building on report on "Climate Change Impacts in Coastal and Marine Areas of the Western Indian Ocean Region: An Assessment of Problems, Solutions, and Strategic Options for Promoting Climate Resilient Development in the WIO Region", decisions on climate change called on the

Contracting Parties to take urgent adaptation and mitigation measures to address the adverse effects of climate change on marine and coastal areas, mainstream climate change into national programmes and policies and develop a project on integration of climatic variability and change into national strategies for implementation of integrated coastal management programmes in the Western Indian Ocean region.

The Convention urged the Nairobi Convention Secretariat in collaboration with partners to facilitate the finalization of the regional strategy on climate change impacts, adaptation and mitigation in the marine and coastal environment of the Western Indian Ocean region and to develop regional projects on climate change adaptation and mitigation.

### ***Science to Policy partnerships strengthened***

The Science for Policy Workshop, which was held from 10-11 December 2012 and attended by over 85 (participants, about 40 of them were policy experts from national government institutions and rest were from partner organizations including national and regional NGOS, UN Agencies, and research and academic institutions), provided the basis for the majority of the decisions adopted during the COP 7. In recognition to the role played by the workshop in the successful conclusion of the COP 7, the Parties to the Convention urged the Secretariat to hold and encourage partners to support regular science

to policy dialogues to provide continuous interaction between the scientists, civil society, private sector, policy and decision makers.

### ***Role of WIO-C recognized***

The role played by the WIO-C in preparing technical papers for discussions and in the development and implementation of the work of the Convention and in the protection of the marine and coastal environment of the West Indian Ocean region was acknowledged in the adopted decision of the COP 7. This was also stressed by Mr. Ali Kaka, the Chair of the WIO-C in his remarks "WIO-C has contributed substantially to the programme of work of the Convention and has maintained a consistent source of expertise to countries in the region as well as emerging initiatives in the region.

### ***Launching of the Green Economy report***

The Convention also saw the launch of the UNEP's Green Economy report for SIDS entitled "SIDS Focused Green Economy: An Analysis of Challenges and Opportunities". The report analyses five development sectors in SIDS, namely small scale fisheries and aquaculture, water, tourism, energy and solid waste in attempt to show how transition to green economy can assist in addressing some of their most critical challenges while stimulating economic development, maintaining stability, facilitating job creation while conserving resources.



*Dr A. P. Chichava, Deputy Minister for MICOA, giving her remarks during the opening ceremony.*

## *Science for Policy meeting at COP7 of the Nairobi Convention, Maputo, Mozambique*



*Participants to the Science to Policy workshop group photo.*

A science for policy workshop was recently held at the Avenida Hotel, Maputo, as part of the COP7 meeting of the Nairobi Convention. The workshop was held on 10th and 11th December 2012, directly before the meetings of the Heads of Delegation at the Conference of Parties.

The purpose of the workshop, which was attended by technical teams and policy makers from all 10 of the Contracting Parties to the Convention as well as international and regional NGOs, intergovernmental bodies, experts in various fields and a range of other partners, was to discuss current and emerging issues in the marine and coastal environment of the WIO to inform decisions to be taken at the COP7 meeting. The workshop format allowed for a number of thematic areas to be presented by experts followed by extensive discussion and debate to come out with agreed upon recommendations that could be taken forward for consideration by the policy makers.

A total of 18 thematic areas were covered over the two days. On the first day discussions included Ecosystem Based Management (EBM) of the marine and coastal areas of the WIO; the Convention for Biological Diversity's (CBD) process of assessing ecologically or biologically

significant areas (EBSAs) in the WIO; the Food and Agriculture Organisation of the UN (FAO) process of identifying Vulnerable Marine Areas (VMEs) in the Convention area; efforts to manage areas beyond national jurisdiction (ABNJ); potential Marine World Heritage Sites in the WIO; a potential conservation area in the northern Mozambique Channel (NMCCA); potential uses of an Ocean Health Index (OHI) in the WIO countries; and the Seychelles led WIO Coastal Challenge initiative (WIO-CC).

On day two discussions continued to include reports on progress with the draft ICZM Policy for the Nairobi Convention; the Coral Reef Task Force which is hosted by the Convention; current status of sea grasses and mangroves in the region and management requirements; the need to move towards greening the marine sector (i.e. the Green Economy for a Blue World initiative of UNEP; a draft Climate Change Strategy for the WIO; emerging issues within the Oil and Gas sector; the importance of birds as ecosystem level indicators in marine areas; a Mangroves for the Future programme for the WIO aligned with the ongoing initiative in south east Asia; and finally an update on the important issue of shark conservation in the WIO.

In support of Tanzania (who were the official rapporteurs for this meeting), WIOMSA, KMFRI, WWF and UNEP were asked to summarise and report back on the two days of discussion during plenary on day two. During this wrap-up Tim Andrew of WIOMSA concluded that an enormous amount of varied issues and information had been presented and discussed over the two days and many important recommendations had been made by the experts for consideration. The process had achieved the important goal of ensuring contributions from a wide range of stakeholders were considered by the countries, and that a set of inclusive and transparently developed recommendations would be forthcoming for the policy makers to work with in drafting decisions for COP7.

Discussion with delegates at the meeting suggested that the initiative of bringing scientists and policy-makers together at a regional level, prior to finalizing decisions, was a good idea, and one that should be supported into the future. This is an area where partners such as WIOMSA could play an important supporting role to the Nairobi Convention Secretariat and the sentiment expressed by many at the meeting was that they would like to see similar gatherings being held more regularly in the region.

## *Sea Cucumber Fisheries: an Ecosystem Approach to Management in the Indian Ocean (SCEAM Indian Ocean)*

*By H. Eriksson, C. Conand, A. Lovatelli, N. Muthiga, and S. Purcell*

In November, participants from fifteen countries around the Indian Ocean met in Zanzibar for the 5-day SCEAM Indian Ocean workshop on an ecosystem approach to managing sea cucumber fisheries. The workshop was organized by WIOMSA and FAO under the FAO/EU Smart Fish project of the Indian Ocean Commission, with additional financial contributions from the Australian Centre for International Agricultural Research (ACIAR) and the Sultanate of Oman through the Fishery Support Unit within the Indian Ocean Rim Association for Regional Cooperation (IOR-ARC). The workshop had a regional focus with participants from the Western Indian Ocean (continental countries and islands), Red Sea, western and eastern Arabian Sea, eastern Indian Ocean (India and Sri Lanka), and followed the format of a similar workshop (SCEAM Pacific) held in Fiji Islands in 2011. The participants were managers invited by the organizers based on the relevance of their position and ability to influence changes in management of these fisheries in their country. This approach aligned with WIOMSA's ambitions to strengthen science-policy interaction and support the application of research for improved management.

At the workshop, the participants were exposed to up-to-date research on sea cucumber ecology and fisheries management. This information was then applied by participants in workgroup sessions to define the status of their fisheries using a "manager's toolbox" manual developed by ACIAR<sup>1</sup>. Once each participant had defined the status of the fishery in his or her country, manuals developed by FAO<sup>2,3</sup> were then used to identify relevant regulatory measures and management actions to improve fishery sustainability. These manuals assisted the participants by providing "roadmaps", but the workshop emphasized the diversity of fishing activities and institutional systems in the region – and that the roadmap is a starting point to be modified for each fishery circumstances.



*Workgroup session with participants defining the status of their fisheries.*

An important and appreciated component of the workshop was the field day, which was arranged by Dr. Narriman Jiddawi from the Institute of Marine Science (IMS) in Zanzibar. In the morning, Prof. Chantal Conand presented updated information about taxonomy and Indian Ocean commercial sea cucumber species identification. This was later put into practice when the participants walked through the intertidal areas near Fumba village and went snorkeling around Kwale Island. The day finished at a processor's facility in Mtoni where processing was explained and participants could view sea cucumber products (bêche-de-mer). In the post-workshop satisfaction forms all of the participants responded that the activity had been useful for them— emphasizing that the workshop format helped to guide fishery managers through existing publications and connecting science with policy.



## SCEAM Indian Ocean Workshop Zanzibar 12-16 November 2012

1 Friedman K., Purcell S., Bell J., and Hair C. 2008. Sea cucumber fisheries: a manager's toolbox. ACIAR Monograph No. 135. 32pp. <http://www.aciar.gov.au/publication/mn135>

2 Purcell S.W. 2010. *Managing sea cucumber fisheries with an ecosystem approach*. Edited/compiled by Lovatelli, A., Vasconcellos, M. and Y. Yimin. FAO Fisheries and Aquaculture Technical Paper No. 520. FAO, Rome. 157 pp. <http://www.fao.org/docrep/012/i1384e/i1384e.pdf>

3 FAO 2010. Putting into practice an ecosystem approach to managing sea cucumber fisheries. FAO, Rome. 81 + vii p. <http://www.fao.org/docrep/013/i1780e/i1780e00.htm>





*Bêche-de-mer (dried sea cucumber products) examined during the workshop visit to a processor's facility in Mtoni.*

## ***WIO-COMPAS adds six new marine field operators to the ranks of certified Marine Protected Area Professionals (MPA PROs)***

Western Indian Ocean Certification of MPA Professionals (WIO-COMPAS), in conjunction with The Marine Parks and Reserves Unit Tanzania (Mafia Island Marine Park) recently held the 4th Level 1 (L 104) Certification Assessment event resulting in 6 experts in Marine Field Operations from Kenya and Tanzania being certified MPA PRO Level 1 and two candidates whose certification is pending their provision of further evidence of competence. The event was held at the Mafia Island Marine Park from the 13-18 November 2012. Following a call for applications, nine candidates were enrolled into the certification program from a total of thirteen applications received for the offering, with eight of these attending the event. The certification of Mwanahamisi Haodo and Willys Osore both from Malindi Marine Park, Kenya; Mwandungo Mwinyi of Mombasa Marine Park, Kenya; Munezero Kanyangemu, Albert Makalla and Mussa Ally Hamisi from Mafia Island Marine Park- brings the number of certified MPA

PROs in the region to 48. The L 104 event was attended by the candidates; the lead assessor and moderator- Lawrence Sisitka of Grahamstown University; assessors- George Msumi of Mafia Island Marine Park and Arthur Tuda of Kenya Wildlife service panel of assessors; and the WIO-COMPAS Secretariat. Also in attendance were two apprentice assessors from Madagascar - Heritiana Raharitiana from Wildlife Conservation Society and Domoina Rakotomalala from WWF Madagascar who attended the event as part of their training as assessors for the 5th Level 1 event to be held in Madagascar in March 2013. The event will be open to the French speaking countries in the region.

The competence of candidates was tested using a wide range of instruments including the application form, the core activity document and presentation, portfolio of evidence, field simulation and interviews. All candidates thought that the certification

process was well worth their time and that it gave them new appreciation of the value and the need for all MPA personnel, no matter the focus of their own role, gaining a good understanding of the 'bigger picture' of the MPA and the roles and competencies of other staff. "After attending the assessment event, I think differently about my place and role in the MPA. This process has shown me the importance of having an understanding of other units or departments' activities. I initially thought the certification was just for rangers but looking at the Competence Areas covered by the assessment, I highly recommend the process for any MPA professional", quipped one of the candidates.

During the event evaluation, candidates discussed the need for continued support from WIO-COMPAS in their professional development after certification as a means of further professionalizing the field of marine protected area management. This would be in the form of scholarships or funding to attend

relevant training courses as well as exchange programs. WIO-COMPAS is in the process of planning for Exchange Program as part of the services to be provided for MPA PROs starting next year 2013. Assessors however stressed on the importance of having a proper match between the MPA PRO and the target MPA- the MPA PRO must add value to the target MPA they are visiting/ learning from. The exchange program has to be carefully structured and very specific about the particular skill that MPA PRO needs to develop such that the exchange is a focused learning experience. Regarding training courses, there was a concession that while these are important and where funds were available would be made accessible to MPA PROs, assessors stressed the need for candidates to assume responsibility for their own development through self-study. This

*The aim of WIO- COMPAS is to provide an opportunity for MPA professionals working in the region to be assessed on their skills and knowledge of MPA management. Being certified as an MPA PRO signifies that an individual has reached certain standards of performance and has specific skills related to a set of competencies gained not only through a course of study/training but through practical on the job experience, application and testing. The Program promotes core competencies, professional growth and ethical conduct. WIO-COMPAS, the first program of its kind in the world to certify Marine Protected Area Professionals was engendered by the Western Indian Ocean Marine Science Association and the Coastal Resources Center at the University of Rhode Island. For further information on the program and to apply for upcoming event offerings, visit the website [www.wio-compas.org](http://www.wio-compas.org).*

called for self-discipline and effective use of the resources already available within their MPAs. The case of Domoina was cited, in that she endeavours to secure copies of all field guides to Malagasy flora and fauna as soon as they are published. The issue of tying professional development to re-certification was also discussed. The candidates agreed to take the lead role in their own development- setting clear targets and proper time frames on what they want to achieve in their professional growth. These target areas could be for the competence areas that are weak or other areas of the candidates' choice and candidates would present the outcome as evidence of professional growth when seeking the renewal of their certification. Other areas for formal networking were discussed along the lines of writing peer reviewed papers or articles.

## ***Growing from Strength to Strength: Building a Critical Mass of Practitioners for Integrated Sustainable Coastal Development***

*For the past two years, the Swedish consultancy firm NIRAS Natura AB and the School of Global Studies at the University of Gothenburg and WIOMSA have jointly organized 3 international training courses on "Integrated Sustainable Coastal Management" (ISCD). The courses have so far attracted 75 participants from Bangladesh, Cambodia, China, DPR Korea, Indonesia, Kenya, Liberia, Tanzania and Vietnam. Participants have included government officials -drawn from terrestrial or marine spatial planning departments, environment, tourism, natural resources management, fishing, shipping, research and other institutions, local authorities, private companies, universities and nongovernmental organizations.*

The ISCD program is sponsored by the Swedish International Development Corporation Agency (Sida) and will run for 5 years. It is a comprehensive training programme which aims to develop capacity at an organisational level. The long term objective of the programme is to contribute to an integrated sustainable development of coastal zones in which the needs and rights of poor people are taken into account. The program will achieve this by supporting processes of change in key organizations working with planning and management of coastal zones- from which the participants are drawn. The ISCD course directly links to change processes in the participating organizations. The idea is to have participants link what they have learnt during the training course to their own work context and define a relevant change

idea based on the needs and opportunities in the home organization. Selected course participants work with a specific Change Process (CP) that aims to strengthen their own organization contribution to ISCD. The ISCD course consists of five compulsory phases including three self-study phases and two scheduled courses. Phase 1 is the inception phase in which the participant is assigned to an individual mentor and prepares for the CP by establishing a support group within their organization. Phase 1 lasts 3 months. Phase 2 is a combination of classroom based training and study visits held in Sweden lasting 3 weeks. Here the participant undergoes training that is focused on planning, integration and participation with topics such as the challenges of sustainable coastal development including environmental protection, effects of climate change, human rights and urbanisation. They are introduced to the planning process, including methods for spatial planning and international experiences from integrated coastal management. Other topics covered include legal and administrative mechanisms for ISCD. Training methods vary from technical presentations to group discussions and exercises. In terms of the CP, in phase 2, participants develop posters of their change ideas, get peer reviews and have meetings with their mentors to help them analyse their organizations and develop change ideas. In Phase 3 (3 months), the participants plan for change in their organization. They arrange a workshop for the support group, immediate supervisor, colleagues and other stakeholders to share the obtained knowledge

and insights and to present and gain support for the change idea. The participant develops a CP with objectives, activities, and time plan. Phase 4 in Tanzania is about further development of the CP through discussions, peer review and mentor support. Phase 5 is the implementation phase and it lasts 7 months. The participants are offered support by the mentors as they implement their change plans and at the end of the phase they organize a seminar for relevant stakeholders to present the change process and the results. Participants change plans cover a wide range of topics including the development/ revision of organizational strategic plans to cover ISCD, bottom up approaches for ISCD (community involvement in planning, co-management ), strengthening cooperation amongst institutions and organizations involved in coastal management, using ISCD for Coastal zone planning, waste water management and sanitation, planning for climate change and disaster management, environmental education, enhancing education/research and awareness for sustainable coastal development; organization capacity building on ISCD issues, development of ISCD platforms and fora for discussion on ISCD amongst many other key issues.

WIOMSA is responsible for the coordination and the organization of Phase 4 of the ISCD course. In 2012, WIOMSA hosted 2 course groups in Zanzibar with the ISCD Group A course of 27 participants running from the 8-19 October and the B Group training with 23 participants running from the 3-14 December 2012. The trainings consisted of



*ISCD Participants on a field trip.*

technical presentations to compliment the knowledge already obtained in Phase 2 in Sweden on topics such as ISCD in practice-case studies from Asia and other regions, regional cooperation of ISCD, poverty (from an economic, sociological and governance perspective), a case study of the experience Integrated Coastal Management in Bagamoyo, shoreline change, a case study of Menai Bay Conservation Unit, Zanzibar, and

Spatial planning in Zanzibar. Participants also had study visits to Menai Bay and Fumba where they had the opportunity to interact with stakeholders such as fishers, hotel owners, boat operators and local villagers. A practical spatial planning exercise took place in Nungwi village north of Zanzibar-with the help of the Department of Urban Planning in Zanzibar- where the participants had to develop a bottom up spatial plan for

the village that considered the vision and the wishes of the people and looked into tourism development; livelihoods; infrastructure and family life (sociological factors).

The ISCD program goes to the third year in 2013 with two courses being planned for. The second offering is now open for applications. Download the brochure and application form on the NIRAS website - [www.niras.com](http://www.niras.com).

## ***A strategic discussion on a proposed Northern Mozambique Channel Conservation Area (NMCCA)***

*The Mozambique Channel can be considered the cradle of the Indian Ocean in geological terms. The area, particularly the Northern Mozambique Channel (NMC), also constitutes the core of Western Indian Ocean marine biodiversity, acting as the source for areas further to the north and the south fed by the region's major current systems. The NMC's peculiar ecosystems underpin significant fisheries and tourism activities on which the bordering nations base their economy, and offer important tuna resources for distant waters fishing nations and most coastal communities.*

At the invitation of WWF (MWIOPO), several experts and organisations (including WIOMSA) recently gathered at the Vanilla Hotel in Nosy-Be, northwestern Madagascar, to discuss ways of furthering the idea of establishing a transnational conservation area in the northern parts of the Mozambique Channel. The meeting was held over three days, with the first devoted to an excursion to Nosy Komba and Nosy Tanikely (including diving at the latter, a national marine park!) which proved to be an excellent way of



*Mooring area on Nosy Tanikely from the lighthouse, with Nosy Komba in the background.  
Credit: Tim Andrew*



Group photo. Credit: Richard Hughes.

breaking the ice and paving the way for the two days of discussion that were to follow. WWF and several other partners had identified this area as exceptionally important from a biological perspective with the area not only supporting high biodiversity, but important ecosystem processes, as well as valuable livelihoods and economic activity in 6 island and mainland states.

Under the expert facilitation of Dr Magnus Ngoile, the first part of the meeting was spent in reviewing the background information that has led to this transnational seascape being recognized as a special place worthy of conservation effort on a very broad scale. The importance of the area in supporting exceptional coral diversity (estimated to be more than 400 species), fisheries, migration routes of several species of megafauna, as well as essential oceanographic processes that effect not only the WIO, but the global ocean and climate, was highlighted. Threats and opportunities associated with emerging issues such as development of the oil and gas sector were also highlighted in a presentation by Dr Lalanirina Rasoanandrianina, WWF's Extractive Industries Programme Officer.

Dr Jackie Thomas, representing WWF's Coral Triangle Project in Indonesia and the south Pacific, provided the meeting with the experience in establishing a regional conservation initiative, and some guidelines that could help with the process in the WIO. Organisations present were then asked to indicate how they envisioned themselves contributing to this process in the WIO.

This meeting was brought about in part by the recognition that the Mozambique Channel has been identified as important by a number of different initiatives including those of the World Heritage Centre, the IMO, CBD, CI, WCS and WWF, among others. As such, it was agreed that it was important to approach any future interventions in a manner that is sensitive to these other initiatives. In order to avoid confusion in the future, it was felt that it will be important to ensure that there is coordination between the different initiatives, and that collaboration towards achieving common goals should be encouraged. This would lead to all initiatives being strengthened, rather than weakened.

Those present at the Nosy Be meeting were in agreement that the idea of promoting the NMCCA was something that was worthy of support, with NGOs working closely with the governments of the region

The organisations present ended the meeting by agreeing that they would work together to further investigate the idea of establishing a multi-national, geographically expansive, world-class multiple-use marine conservation area in the Mozambique Channel. It was also recognized that this ambitious goal could only be reached if the process was country-driven. It was also agreed that close collaboration would be needed with all initiatives and processes having an interest in this geographic area for conservation purposes. It is also key to ensure that governments were made aware that the many different initiatives focusing on this area present a great opportunity for collaborative action, with countries working together, as well as with NGOs and the Private Sector, to achieve complex and ambitious common goals.

## *Conservation of WIO Mangroves as important Blue Carbon Sinks*



*The Deputy Minister of MICOA, Mozambique Hon. Ana Paula Chichava opening the Workshop.*

The first ever Western Indian Ocean (WIO) Mangroves and Carbon Workshop was recently held in Maputo, Mozambique from the 29th to 31st October 2012. The meeting brought together global practitioners in mangrove carbon assessments comprising of scientists, managers and policy makers to share regional and global experiences in carbon stock assessments in mangrove ecosystems including associated methodologies in the context of an emerging interest in mangroves as critical carbon sinks for climate change mitigation.

Mangroves of the region have continued to support livelihoods of millions of people directly and indirectly for many years. Total economic valuation of WIO marine and coastal resources yield a value of at least US\$22.8 Billion/year, with mangroves contributing US\$8.8 Billion. Recent scientific evidence indicate that mangroves are very critical blue carbon sinks sequestering about five times more carbon per unit area than any other forest. This makes mangrove conservation crucial

in the context of climate change.

The experts in the meeting noted that the decline of these spatially limited ecosystems due to multiple global and local pressures is increasing thus compromising their capacity to provide ecosystem goods and services. Deforestation rates of between 1-2% per year have been reported thus precipitating a global loss of 30-50% of mangrove cover over the last half century majorly due to overharvesting and land conversion. The scientists and managers noted that regional mangroves are undergoing unprecedented rates of mangroves, which far exceed the global rates of loss. The Zambezi delta which is the biggest mangrove block in the region has been declining at a rate of 4.1% pa, while peri-urban mangroves in Mombasa have reported rates of between 3.1 and 5.1% pa. Some of the drivers of change include: over exploitation, conversion, pollution, development and recently climate change. This means that some mangroves in the region are highly threatened and their ability to provide ecosystem goods and services

highly compromised. The practitioners made a call to action for regional governments to give urgent attention to and mitigate this loss through management planning, including mangroves in forest sector legislation and appointing competent senior level management personnel in relevant government departments to oversee mangrove management among others.

The meeting noted that deforestation and land-use currently account for 8-20% of global anthropogenic CO<sub>2</sub> emissions, second only to fossil fuel combustion. Mangroves loss alone contribute about 0.02-0.12 Kg carbon per year, which is about 10% of emissions from deforestation globally. Reduced Emissions from Deforestation and Degradation; and enhanced forest conservation (REDD+) has been fronted as a relatively cost effective means of mitigating climate change. REDD+ and associated programs require rigorous monitoring of carbon pools and emissions, thus underscoring the importance of robust C storage estimates. This will require



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*Participants at the WIO Mangrove Carbon workshop.*

harmonization of methodologies to make assessments in different regional countries comparable. The meeting appreciated the need of harmonizing methodologies on carbon stock assessments across the region, and further proposed the need to explore the possibility of establishing a regional lab specializing on carbon analysis to ensure accurate estimation of carbon stocks. On the development of carbon projects, the experts advised regional governments and institutions intending to market carbon credits to ensure that they work with the preferred carbon standard from the beginning to ensure that methodological issues are dealt with and thus time and funds not wasted. The experts emphasized that while mangroves have recorded the highest amount of carbon per a unit area than any forest ecosystem, they should be managed as multiple resource uses providing other important services which have even higher values than just carbon. An ecosystem based

The delegates noted that mangroves are not adequately provided for within the forest policies of the regional countries and are just mentioned or grouped under indigenous forests. The current review of forest policies

going on in the different countries can be taken as an opportunity to provide adequately for issues on mangroves. Mangroves can also be captured in the REDD Strategies currently being developed in the different countries. The existence of ICZM policies and Action Plans developed or are being developed in different countries could also provide for mangrove management in an integrated approach. The experts noted with concern that there is limited funding allocated to the forest sector and the contribution of forests to national development not well valued and thus not appreciated. Appreciating that forests provide so much in terms of ecosystem services, more funding will be required under national budgets. Additionally, governments of the region need to include sea level rise in their coastal planning to allow mangrove migration- sustainable planning. The meeting also strongly recommended that transboundary mangroves should be managed jointly among different countries under the Nairobi Convention.

The Workshop was organized by the Western Indian Ocean (WIO) Mangrove Network (WMN) and the United States Forest Service (USFS), in partnership with WWF,

University of Eduardo Mondlane (UEM), Kenya Marine and Fisheries Research Institute (KMFRI) and Institute of Marine Sciences (IMS), University of Dar es Salaam (UDSM). The countries represented in the workshop include Tanzania, Kenya, Mozambique, Madagascar, Indonesia, USA and Cameroon. International organizations represented include: UNEP, Grid Arendal Norway, CIFOR (Center of International Forestry Research) and USAID.

The workshop was opened by the Deputy Minister for the Ministry of the Coordination of the Environment (MICOA) of Mozambique, the Hon. Ana Paula Chichava. The Minister however noted that mangroves face various management challenges, which has seen a reduction of cover and thus loss of inherent ecosystem goods and services. She noted the recent appreciation of mangroves as very significant carbon sinks and the associated opportunities under the UNFCCC REDD+ schemes. The Minister further challenged the scientists and managers to urgently undertake feasibility studies on the science and marketing of potential carbon credits from regional mangroves so as to enhance their conservation.

## ***Understanding the Potential for PES schemes to support climate compatible development in Kenya's coasts EAFPES and iCoast workshop***

*By Lesley King (LTS International) and Caroline Kairo (KMFRI)*

In 2011, the East Africa Forum for Payments for Ecosystem Services (EAFPES) was launched. This forum is an opportunity to bring together stakeholders interested in the opportunities that payment for ecosystem services (PES) can provide to support conservation and development needs in the coasts of East Africa. It is a multi-institutional network consisting of NGOs, government agencies, communities, scholars and the private sector. It has the over-arching goal of seeking to stimulate informed PES activities in the region.

iCoast, is a new research project funded by the Climate Development Knowledge Network (CDKN), an initiative of the UK Government's Department for International Development. This project seeks to understand the potential market that mechanisms, such as PES, have to support climate compatible development in coastal zones. Climate compatible development is defined as '*Actions that seek to minimise the harm caused by climate impacts, while maximising the many human development opportunities presented by transitions to a low-emissions, more resilient future*'.

With the Kenyan Marine and Fisheries Research Institute acting as the hub for both initiatives in Kenya, it made perfect sense to host a joint meeting to discuss the opportunities afforded by PES in Kenya's coasts to support climate compatible development. Thus on the 14th and 15th November 2012, KMFRI hosted the Regional Meeting on PES and Climate compatible development in Mombasa. The purpose of this meeting was to review the major environmental policies in Kenya, with respect to the opportunities or conflicts they provide for enabling PES and climate compatible development; prepare a road map on how to incorporate PES into environmental policies; introduce EAFPES as an important vehicle to promote PES in the region; and to officially launch the iCoast project in Kenya.

The workshop was attended by a range of experts in natural resource management, policy planning, community group representatives, NGOs, research groups, government agencies and the private sector. A common theme from all these groups was

the need to understand the potential market mechanisms such as PES has to support sustainable development in the coastal region.

There were spirited discussions on day 1 regarding the theoretical concepts of PES and climate compatible development with more detailed case studies of approaches to these issues in Kenya supporting this theoretical discussion. Day 2 focused on identifying challenges and opportunities for implementing PES and climate compatible development in Kenya's coasts. Groups provided good insight into the enabling institutional and policy environment in Kenya's coasts and steps forward were suggested to support more wide scale adoption of climate compatible development and PES schemes.

To find out more information on the EAFPES network please check out the website [www.eafpes.org](http://www.eafpes.org) or contact Caroline Kairo for more information [ckairo2002@yahoo.com](mailto:ckairo2002@yahoo.com).

To find out more information on the iCoast research project please check out the group on [LinkedIn.com](https://www.linkedin.com/company/iCoast) 'iCoast'.



Attendees at the EAFPES iCoast regional meeting, November 2012. Credit L King.

## ***Community Mobilization to Conserve Highly Degraded Urban Mangroves in Kenya***

*By Jared Bosire*

Mangrove forests continue to face unprecedented management challenges ranging from over-exploitation, conversion, pollution and now more recently climate change. While these challenges may be generic, urban mangroves especially suffer compounded challenges of even greater magnitude due to high human population which exerts more pressure, illegal extraction, pollution due to the lack of and/or dysfunctional sewage treatment plants in addition to natural pressures.

Scientists from KMFRI through support from WIOMSA under the MASMA funding scheme assessed spatial temporal change for Mombasa mangroves, the most urban mangroves in the country to determine the extent of degradation due to a combination of the above mentioned factors and thus provide managers with information for decision making. Mombasa mangroves cover two main creeks i.e. Tudor and Mwache Creeks. The results obtained indicate that these unique mangroves have experienced the highest ever recorded rates of mangrove



*Degraded site at Mwache Creek.*

loss over the years, higher than the global average of 1 – 2% per year. Tudor mangroves declined from a total cover of 1,641 ha in 1992 to a low of 215 ha in 2009, representing a loss of 87% over this time and an annual loss of 5.1% per year; Mwache recorded a loss of 45% (from 1,848 ha in 1992 to 1,017 ha in 2009) over the period and a loss of 2.6% per year, which far exceed the global

recorded rates of loss. This has in effect completely decimated Tudor mangroves which are the closest to Mombasa town, with many informal settlements and many illegal activities going on in the mangroves e.g. illicit alcohol distillation which depends on direct mangrove fuelwood extraction. Many such brewing units are functional right within the mangroves.



*Community mangrove planting.*



*Youth group leader receiving a cheque from Dr. Jared Bosire, the Project Leader and Mr. Nicolas Munyao, the Head of Mangrove Conservation in Kenya.*

Top down enforcement of forestry regulations including stoppage of illicit brewing in mangroves and closure of all wood extraction from these mangroves to allow recovery has been recommended. Mwache Creek has fairly resident communities and this makes implementation of management interventions much easier. Current utilization of these mangroves is completely unsustainable. KMFRI scientists jointly with the Kenya Forest Service (KFS) have initiated community based mangrove reforestation at Mwache where natural regeneration has failed.

In November 2012, 6,500 seedlings of *Avicennia marina* were planted over two days using seedlings raised by the local youth

group whose capacity in nursery installation, monitoring and outplanting was built by KMFRI scientists. About 170 residents of the adjacent community participated with the majority being women and youth. This planting was followed a week later by a community awareness meeting during which the residents were sensitized about the extent of mangrove degradation from the mapping outputs. The community feedback also confirmed the effects of the recorded mangrove loss by indicating that there has been a decrease in fish catches, which has led to migration of fishermen from the area to the northern coast. Socio-economic assessments within the project indicate that poor land-use, low levels of education and

lack of alternative livelihoods have indirectly aggravated mangrove degradation. The latter has especially made local communities highly vulnerable to climate change related impacts and now depend on food rations from relief agencies. The community indicated their continued willingness to engage in conservation, the need for support for alternative livelihoods and capacity building in mangrove conservation and management. From the sale of seedlings, the youth group got a seed fund to plough back into establishing more mangrove nurseries. KMFRI will continue to give them technical support and upscale these conservation efforts.



Mr. Jacob Ochiewo addressing the community during the sensitization meeting.

## ***WIOMSA appoints a Coordinator of Research Programmes***

Mr. Innocent Ngao Wanyonyi has been appointed the Coordinator, Research Programmes for WIOMSA beginning February 2013. He worked as the Principal Coordinator of the SocMon programme in the WIO until 2011. He has been undertaking his doctoral research in Environmental Sciences and Artisanal Fisheries Management at Linnaeus University from September 2008. Mr. Ngao has an interdisciplinary



academic background, with a Masters degree in Tropical Coastal Management and over 12 years experience in tropical coastal fisheries, socioeconomic research and project management. In his previous assignments he worked across the Western Indian Ocean region and interacted with research and academics institutions, government agencies, non-governmental agencies as well as communities implementing projects at various levels from local to regional.

Mr. Ngao joins WIOMSA at a time when our priority is to enhance the delivery of the information from our past and present

initiatives to better inform the policy-making processes at all levels. In his new role, he looks forward to fostering closer partnerships with individual scientists, projects, programmes and institutions involved in coastal and marine research and management in the region, and outside the region. Your continued active participation is key to the sustainability of WIOMSA initiatives. Innocent is keen to work with grantees, partners and the entire WIOMSA fraternity towards further strengthening the quality of research for the wider good of the WIO community.

## ***Eighth WIOMSA Scientific Symposium: First Announcement and Call for Abstracts***

The Western Indian Ocean Marine Science Association (WIOMSA) and the Universidade of Eduardo Mondlane (UEM) are pleased to announce the Eighth WIOMSA Scientific Symposium which will be held in Maputo, Mozambique from Monday 28th October – Saturday, 2 November 2013.

The week is divided into the following:

- The Eighth WIOMSA Scientific Symposium - 28th to 30th October 2013. This component will include: keynote presentations, oral and poster presentations.

- Specially convened sessions and roundtable discussions - 31 October 2013
- Fifth WIOMSA General Assembly – 1 November 2013
- Excursions and tours to different places of interest – 2 November 2013.

The Symposium will bring together practitioners, academics, researchers and students to share knowledge, experience and solutions to the challenges experienced in our coastal and marine environment. The Symposium theme is "***Science and Society: Building Partnerships for Action***".

This theme is in line with WIOMSA's core activities. WIOMSA has been promoting partnerships through three main approaches: linking multiple scientific domains; institutional partnerships beyond the academic sphere; and linkages across geographic boundaries. The intention is to use the Eighth Symposium to reach out to new partners such as decision-makers and the private sector.

The deadline for submission of abstracts is **26 April 2013**.

For more information, visit  
[www.wiomsa.org](http://www.wiomsa.org)



Original photo credit: David Caron

*Season's  
Greetings from  
the Staff and  
Board of  
Trustees*

*Best wishes for 2013*



### ***Get your article published:***

We are accepting articles for the March issue of the WIOMSA Newsbrief. Articles should be a maximum of two pages. Send your articles to [secretary@wiomsa.org](mailto:secretary@wiomsa.org) by the 28<sup>th</sup> of February 2013.

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