LME NEWS

The newsletter of the **African LME Caucus**

Encouraging collaboration and synergies between African LMEs

Issue 2 December 2011

The African LMEs

The Mediterranean Large Marine Ecosystem
www.iwlearn.net/projects

The Canary Current Large Marine Ecosystem
www.canarycurrent.org

The Guinea Current Large Marine Ecosystem
www.gclme.org

The Benguela Current Large Marine Ecosystem
www.benguelacc.org

The Agulhas and Somali Current Large Marine Ecosystems
www.asclme.org

Africa in the spotlight at IW6

Representatives of African Large Marine Ecosystem (LME) projects made valuable contributions to the debates and discussions at the sixth International Waters Conference held in Dubrovnik, Croatia, in October.

Four out of five African LME projects were represented at the four-day Conference which attracted 300 participants, including project managers, representatives of beneficiary countries, non-governmental organisations, United Nations agencies and private sector partners. Participants were drawn from the 71 active projects in 80 countries that make up the International Waters (IW) portfolio.

The IW Conference is a bi-annual event that encourages the sharing of knowledge, best practices and experience between IW projects. At this year's meeting, senior representatives of the GEF urged project managers and others involved in the management of transboundary water resources to "raise their gaze from the technical requirements of the job and engage politicians, governments and the citizens of the world in the cause."

Alfred Duda, a GEF Senior Advisor told the conference that little progress would be made with poverty reduction, sustainable livelihoods, public health, food security or relations between countries unless water and natural resource conflicts are brought to the centre of discussions.

The African LMEs were well represented at the GEF International Waters Conference in Croatia. Pictured here are (back row): Nico Willemse, Senior Project Manager, BCLME SAP Implementation project; Birane Sambe, Regional Coordinator of the CCLME project; Al Duda, GEF Senior Advisor; Maxwell Donkor, Executive Secretary of the Interim Guinea Current Commission; and a member of the GEF community.

In front are Magnus Ngoile, Policy & Governance Coordinator of the ASCLME Project; Dr Ken Sherman of the National Oceanic and Atmospheric Administration in the USA; and Christian Susan, Technical Advisor to the GCLME project.

The African experience

As a caucus, the four African LME projects had valuable experiences to share with the IW community. Each of the four LME projects is at a different stage of implementation, yet all are grappling with a range of governance issues. Some of these were discussed in detail at a day-long round table discussion at the IW Conference.

One of the biggest challenges facing African LME is the warming of sea surface temperatures and the impact that associated climatic variability and climate change is having, and is expected to have on millions of coastal people in Africa.

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Fisheries and aquaculture provide over 500 million people around the world with a means to make a living. Fish provides essential nutrition for three billion people, including 400 million people in the poorest countries who receive more than 50 percent of animal protein and essential nutrients from fish.

Making the best of change

A worker in the Namibian aquaculture industry is pictured at an oyster farm near Swakopmund. The workshop recommended that the fisheries and aquaculture sector should be supported with national and regional climate change strategies.

The countries of the Benguela Current LME should utilise and build on the existing political commitment and institutional arrangements of the Benguela Current Commission (BCC) to facilitate and coordinate a regional programme on climate change adaptation.

This was one of the recommendations made at a three-day workshop entitled "Making the best of change" which took place in Windhoek, Namibia in November.

The workshop was organised by the Food and Agriculture Organization (FAO) of the United Nations and the BCC and attended by representatives of Angola, Namibia and South Africa. It focused on improving understanding of the impacts of climate change on fisheries, and the need to develop strategies to help fishing communities adapt to new challenges.

The Angolan research vessel, *Tombwa*, anchored off Luanda. Workshop participants agreed that improved understanding of the vulnerability of aquatic ecosystems and humans to climate change was needed.

Convenors of the workshop noted that, because of relatively low adaptive capacities and a growing dependence on fisheries for food and security, the direct risks from climate variability and change pose increased threats to the fisheries sector. Improved understanding and knowledge of national, regional and community level vulnerabilities is paramount to develop and implement adaptation strategies that enhance the resilience of people and ecosystems.

Other recommendations to come out of the workshop were:

- actions that improve understanding of the vulnerability of human and aquatic ecosystems to climate change and variability should be supported;
- actions that reduce vulnerability to climate change and encourage sustainable development should be identified and supported;
- national and regional processes such as workshops and pilot studies, to support the fisheries and aquaculture sectors reach consensus on strategies and priorities should be arranged;
- pilot projects that explore or demonstrate best practises for implementing practical adaptations to climate change should be identified and implemented;
- the involvement of stakeholders from a wide range of interest groups – from fisheries to water, agriculture and land management – must be encouraged;
- means for supporting and funding the implementation of recommended actions should be identified;
- the fisheries and aquaculture sectors should be encouraged to participate in national, regional and global discussions and actions around climate change;
- the BCC should coordinate follow-up actions with FAO, UNDP and other relevant partners.

Participants at the workshop recognised that the Benguela Current LME is a complex system facing multiple drivers of change, from over exploitation of fisheries resources, to poor land and water management and natural variability. They also took note of the fact that vulnerability to climate change impacts may be influenced by factors other than the environment.

As a result, adaptation to climate change must take place in a multi-sectoral and multi-disciplinary "big picture" context, but individual actions may be led by sector-specific groups.

The participants agreed that, although evidence for climatic variability and change is incomplete, immediate and informed action is necessary to support the resilience of the human and aquatic systems' ability to cope with climate change.

Joint data course hosted in Windhoek

Nansis software helps scientists and technicians to process and store data collected at sea.

A training course on survey data analysis using NANSIS software was hosted by the Benguela Current Commission and the EAF-Nansen project in Windhoek, Namibia in September.

The week-long course was attended by 19 trainees from Angola, Namibia, Kenya, Madagascar, Mauritius, Mozambique and Liberia.

NANSIS is an information system for logging, editing and analysing biological and environmental data collected on marine research surveys.

The objective of the training course was to teach scientists and technicians how to get the best possible use out of the software and thereby optimise the processing and evaluation of data collected at sea.

NANSIS is also used as a tool for storing trawl catch data and associated information on board the research vessel *Dr Fridtjof Nansen*. Therefore, the training course enabled participants to get an overview of, and extract data from, historical surveys conducted from the *Dr Fridtjof Nansen* and other research vessels. This information has the potential to be used for stock assessment purposes and ecosystem studies.

Learning NANSIS

Fisheries scientists in developing countries have been using NANSIS software for well over 20 years. The original software was developed by Dr Tore Stromme of the Institute of Marine Research in Bergen. It was designed for the DOS environment and used for fisheries surveys conducted from the *Dr Fridtjof Nansen*.

With rapid advances in information technology it has been necessary to develop a Windows version of NANSIS and expand the system to meet modern data storage and retrieval needs.

The EAF-Nansen project, in collaboration with the GEF-funded LME projects and other regional fisheries projects in Africa, offers a week-long training course in NANSIS so that African scientists become familiar with the Windows version of the software. The course was delivered by Jens-Otto Krakstad from the Centre for Development Cooperation in Fisheries (CDCF) at the Institute of Marine Research in Bergen, Norway.

Africa in the spotlight continued from page 1

According to Dr Ken Sherman of the United States' National Oceanic and Atmospheric Administration (NOAA), accelerated warming has taken place in 61 out of 63 LMEs since 1982. In his presentation to the IW Conference, Dr Sherman listed the 15 fastest warming LMEs in the world. Although only one of these is an African LME (the Mediterranean LME), each African LME project presented evidence of climate variability to the gathering. For example, evidence from the Canary Current LME showed a notable increase in sea surface temperature between 1960 and 2007. Three major events have occurred in the Canary Current region over the past 15 years that may be attributed to climate change. These include the sardine stock collapse of 1997, the migration of sardinella to the north of the region and a decline in the sardine stock since 2006.

From the Agulhas and Somali Current LMEs there is evidence to suggest the western Indian Ocean region is warming at a faster rate than the global mean. Sea-level rise around vulnerable islands in the region is seen to be approximately 10mm per year, higher than the average global trend of 3.5mm.

Changes in the ranges and distribution of species have been recorded in the western Indian Ocean and the Benguela Current LME. For example, dramatic shifts in the distribution of sardine, anchovy and west coast rock lobster were documented in South Africa in the decade 2000 to 2010. The Guinea Current LME was shown, by Dr Sherman, to have warmed by 0,45°C since 1982.

The impacts of climate change are expected to be unevenly distributed across nations and communities as a result of different levels of exposure and vulnerability. The forging of close ties between African LMEs, as demonstrated by the activities of the African LME Caucus, will help African nations to cooperate in the management and mitigation of climate change, the Conference heard.

News from the Agulhas and Somali Current LMEs

ASCLME and SWIOFP projects sign *Aide Memoire*

An *Aide Memoire* that captures the intention of the ASCLME and SWIOFP projects to "cooperate and collaborate" in introducing an ecosystem approach to the management of the marine and coastal resources in the western Indian Ocean (WIO) region was signed in Mozambique in September 2011.

The *Aide Memoire* was formalised during a short ceremony held at the close of the steering committee meetings of the two projects in Maputo.

A high degree of cooperation already exists between the two projects which are involved in a number of joint activities. The *Aide Memoire* was drafted with the intention of clearly defining areas of mutual activity and developing further areas for collaboration. It lists a number of areas in which collaboration will be beneficial and examines the means and modalities for expanding existing synergies. The areas of collaboration include the development of a joint Transboundary Diagnostic Analysis (TDA) and Strategic Action Programme (SAP) for the western Indian Ocean region.

The projects have also agreed to work together to establish a Western Indian Ocean Sustainable Ecosystem Alliance, or WIOSEA. Though still in the early stages of development, WIOSEA will harness and coordinate national, regional and global initiatives with the goal of securing the sustainable management of the WIO region's marine and coastal ecosystems.

Other areas for collaboration include the development of a joint application for donor support for the implementation of the SAP currently under development; the sharing of data and information; joint training initiatives; and the coordination of Science-to-Governance and other communications activities.

David Vousden, Regional Director of the ASCLME Project; Magnus Ngoile, Policy and Governance Coordinator of the ASCLME Project; and Rondolph Payet, Regional Executive Secretary of the SWIOFP prepare to sign the *Aide Memoire* that formalises the close working relationship between the ASCLME Project and the SWIOFP.

The *Aide Memoire* is not a legally binding instrument and it imposes no legal obligations on either of the projects. It may be modified at any time by mutual agreement of both projects and will remain effective until the close of one or both projects (on or around 31 March 2013).

To read the full text of the Aide Memoire, visit www.asclme.org or www.swiofp.net.

First "Alliance" cruise sets sail in January

The South African research ship *Algoa* is scheduled to embark on a first so-called "Alliance" cruise in January 2012.

It is envisaged that the Western Indian Ocean Sustainable Ecosystem Alliance (WIOSEA) – currently being established by the countries of the region – will support an annual research cruise of between 40 and 50 sea days. The goal of the annual cruise will be to maintain the monitoring platforms deployed in the region by a host of regional and international projects and programmes; build up a long-term data set; and conduct fisheries and ecosystem research.

In January the *Algoa* is expected to retrieve data from three ATLAS moorings deployed between 8°S and and 16°S, and retrieve and service another five oceanographic moorings on the South East Madagascar shelf. These moorings are expected to produce exciting results from the first long-term study of the dynamics of the East Madagascar Current, possibly the region's least well studied oceanographic feature.

News from the Benguela Current LMEs

BCC hosts stakeholder workshops

A National Inter-Sectoral Stakeholder Group, or NISG, has been set up in Namibia to facilitate stakeholder involvement in the activities and planning of the Benguela Current Commission.

Namibia's NISG is the first to be established in the Benguela region. It was set up after a series of stakeholder meetings held in the coastal town of Walvis Bay and the capital city of Windhoek in November. Participants at these meetings elected the members of the NISG steering committee which will help to communicate the issues, needs and aspirations of stakeholders to the BCC, and to disseminate information from the BCC to the broader stakeholder community.

It is expected that, in time, a NISG will be set up in Angola and South Africa. To this end, a first stakeholder workshop took place in Cape Town, South Africa in September. It was attended by approximately 50 people from very diverse backgrounds, ranging from representatives of fishing communities to government departments responsible for marine diamond mining and drilling.

The workshop provided an opportunity for participants to familiarise themselves with the content of the Benguela Current Convention, learn about some of the planned activities for stakeholder engagement and provide suggestions for improving communication between the BCC and its stakeholders.

On day two of the workshop, participants were introduced to the web-based DLIST platform and its associated tools. (DLIST is a tool that provides information to people interested in the management of the BCLME, and hosts distance learning courses.)

Stakeholder engagement is a priority of the Benguela Current Commission. The BCLME SAP Implementation project is encouraging effective stakeholder participation across all sectors, with emphasis on community and civil society involvement.

Building partnerships, making friends

The 2011 Science Forum of the Benguela Current Commission, held in Swakopmund, Namibia in October, attracted over 100 scientists, resource managers, academics and students with an interest in the scientific research being conducted in the Benguela region.

While the Science Forum provides an ideal opportunity for scientists to report on their research and, in consultation with their peers, evaluate their progress, it is also an important opportunity for discussing collaborations and making

Pictured here are Dr Hashali Hamukuaya, Executive Secretary of the BCC; Christian Fougner, Counsellor at the Royal Norwegian Embassy in Pretoria; Martha Mwandingi, Assistant Resident Representative and head of the Energy and Environment Unit of UNDP in Namibia; and Dr Kwame Koranteng, Coordinator of the EAF-Nansen project.

Report presents a wealth of fisheries data

The 2011 State of the Stocks Report, which contains the latest available information about the status of shared, commercially exploited living marine resources in Angola, Namibia and South Africa, was presented to the annual Science Forum of the Benguela Current Commission in October.

The 2011 State of the Stocks Report was compiled by independent fisheries consultant, Dr Carola Kirchner, who presented key finding from the report to the Forum. Speaking after the presentation, Dr Hashali Hamukuaya, Executive Secretary of the Benguela Current Commission, emphasised the importance of the 2011 State of the Stocks Report, saying ministers from the three countries had requested that information be made available in a concise and accessible format.

"This data is very important for regional managers," said Dr Hamukuaya.

It is expected that, from now on, the Benguela Current Commission will produce an annual State of the Stocks Report.

News from the Canary Current LME

Dr Fridtjof Nansen survey is well underway

An extended survey of the marine ecosystem stretching from Guinea to Morocco is currently underway on the Norwegian research vessel, *Dr Fridtjof Nansen*.

The objective of the survey, which is jointly funded by the CCLME and EAF-Nansen projects, is to gather data on the major drivers of the Canary Current Large Marine Ecosystem. This will help to improve knowledge and understanding of the LME which supports substantial transboundary fish stocks and provides vital goods and services like critical fish habitat, wood from mangroves, and tourism opportunities.

The survey is part of a program of scientific activities planned by the CCLME project in partnership with representatives of seven participating countries. It began in Conakry, Guinea on 20 October and is scheduled to end in Agadir, Morocco on 18 December 2011.

Scientists who participated in the first leg of the *Dr Fridtjof Nansen* survey from Guinea to Senegal from 20 October to 3 November 2011.

CCLME paper presented at ICES conference

The CCLME project is playing an important role in the Canary Current region by forging links between initiatives that are addressing the primary objectives of the CCLME project: declining fisheries, loss of biodiversity and water quality.

This was one of the messages delivered by Birane Sambe at the 2011 ICES Annual Science Conference which took place in Gdańsk, Poland in September. Mr Sambe's paper was formally titled "Reversing the degradation of the Canary Current Large Marine Ecosystem" and co-authored by Birgitta Liss Lymer, Marine Fisheries and Coastal Management Officer in Senegal; Ana Maria Caramelo, a consultant with FAO; and Merete Tandstad, Fishery Resources Officer with FAO.

The paper was delivered at a session of the ICES conference devoted to the assessment and management of LMEs. The session was chaired by Dr Gotthilf Hempel of Germany and Yvonne Walter of Sweden.

According to the paper, fisheries resources in the Canary Current are on the decline. Factors contributing to the decline include the over-capacity of fishing fleets and weak management of resources. There has also been degradation of several important habitats including estuaries, wetlands, mangroves and benthic habitats, much of it caused by the over-harvesting of wood, changes in salinity, sedimentation and trawling. These problems are being aggravated by the impacts of climate change.

Strong collaboration between fisheries and environment sectors will lead to improved management and help to reverse negative trends, Mr Sambe told the ICES conference: "The partner mechanism provided by the CCLME project is crucial to achieve a joint and concerted effort to reverse the degradation of the CCLME."

Seven North African countries are participating in the CCLME project, including Cape Verde, The Gambia, Guinea, Guinea Bissau, Mauritania, Morocco and Senegal.

CCLME website acknowledged at IW Conference

The website of the CCLME project was ranked second in the WOW! competition at the GEF International Waters Conference held in Croatia in October.

The website of the REPCAR project (www.cep.unep.org) was declared the eventual winner of the competition which aims to recognise the technical proficiency, content and usefulness of websites compiled by GEF-funded International Waters projects.

The CCLME project's high placing in this popular competition confirms that the project's website is playing an important role by keeping participating countries up-to-date with the project's progress and promoting the project's objectives in a clear and attractive way.

The WOW! Competition was judged by five experts in information and communications technology and transboundary management.

News from the Guinea Current

IGCC profiled at Ghana Science Congress

The Executive Secretary of the Guinea Current LME (and coordinator of the Interim Guinea Current Commission), Dr Stephen Donkor, has called for scientists and professionals to use modern technologies to improve water management systems in Ghana.

Dr Donkor made the call at Ghana's inaugural Science Congress which was hosted by the Ghanaian Ministry of Environment, Science and Technology in Accra earlier this year.

The theme of the four-day congress was "Water, sanitation and environment: securing our future through science" and was attended by scientists, scholars, professionals, exhibitors and the general public.

Dr Donkor, who has decades of experience in the field of African water management, chaired the session on water. He said the use of modern satellite communication technologies had the potential to support Ghana's efforts to improve its management of water resources. He also suggested ways for the African continent to protect water resources and thereby meet the goals set out in the African Water vision, endorsed by AU Heads of State recently.

Dr Donkor speaks at Ghana's first Science Congress

As part of its public awareness campaign, the GCLME project exhibited at the congress, disseminating information about the GCLME and raising awareness of the impact of marine pollution in coastal areas.

Intensive training in water quality management

Scientists and technicians involved in water quality management in 16 African countries participated in an intensive training course on coastal water quality monitoring procedures.

The five-day training course was arranged and supported by the Guinea Current LME project / Interim Guinea Current Commission, and took place at the Nigerian Institute of Oceanography and Marine Research (NIOMR), in Lagos.

The training aimed to harmonise water quality monitoring techniques - including field sampling and laboratory analysis methods - across the GCLME region.

Trainees gained hands-on experience by collecting and analysing water and sediment samples from Lagos Lagoon.

The ultimate goal of this and other training excercises is to build the capacity of the Guinea Current Commission countries to work together to define and address priority transboundary environmental issues within the framework of the Abidjan Convention and its protocols.

A trainee at work in the laboratory of the Nigerian Institute of Oceanography and Marine Research in Lagos.

Speaking at the training facility on behalf of the Guinea Current Commission, environmental scientist, Dr Jacques Abe, stressed the importance of water quality in the Guinea Current region. He noted that pollution from industries, agriculture and oil exploration and extraction have significantly degraded water quality in the region.

He encouraged the trainees to use their newly acquired knowledge to achieve their countries' targets for water quality monitoring.

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THE AGULHAS AND SOMALI CURRENT LARGE MARINE ECOSYSTEMS

There are two Large Marine Ecosystems in the western Indian Ocean. These are the Somali Current LME – which extends from the Comoros Islands and the northern tip of Madagascar up to the horn of Africa – and the Agulhas Current LME which stretches from the northern end of the Mozambique Channel to Cape Agulhas. Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa and Tanzania share the resources of the LMEs.

www.asclme.org

THE BENGUELA CURRENT LARGE MARINE ECOSYSTEM

Three countries sharing a productive ecosystem

The Benguela Current LME stretches from Port Elizabeth in South Africa to the province of Cabinda in northern Angola, encompassing the full extent of the cold Benguela Current. The BCLME sustains important artisanal and commercial fisheries and valuable offshore industries, including marine diamond mining and oil and gas extraction. Angola, Namibia and South Africa are the countries bordering the Benguela Current LME.

www.benguelacc.org

THE CANARY CURRENT LARGE MARINE ECOSYSTEM

The Canary Current LME is a major tropical upwelling region off the coast of Northwest Africa. It is strongly influenced by the Canary Current that flows along the African coast from north to south between 30° N and offshore to 20° W. Morocco, Mauritania, Senegal, Guinea-Bissau, the Canary Islands (Spain), Gambia, Cape Verde and Western Sahara are the countries bordering the Canary Current LME.

www.canarycurrent.org

THE GUINEA CURRENT LARGE MARINE ECOSYSTEM

The Gulf of Guinea LME is one of the world's most productive marine regions. It is shared by 16 countries in West and Central Africa. An estimated 80 million people depend on the fisheries, habitat and energy resources of the LME.

www.gclme.org

THE MEDITERRANEAN LARGE MARINE ECOSYSTEM

The Mediterranean Large Marine Ecosystem

Twelve countries are engaged in a partnership to address the major environmental concerns of the Mediterranean LME. These are a decline of biodiversity, a decline of fisheries, a decline in seawater quality, human health risks, and a loss of groundwater dependent coastal ecosystems.

www.iwlearn.net/projects

The newsletter of the* African LME caucus *is produced twice a year

The newsletter strives to improve communication between Large Marine Ecosystem projects and inter-governmental LME commissions across Africa. If you would like to receive a copy of this newsletter, please contact Nico Willemse at the office of the Benguela Current Commission:

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