



# An African Partnership in Marine and Coastal Management

ANGOLA, NAMIBIA and SOUTH AFRICA are working together through the BENGUELA CURRENT LARGE MARINE ECOSYSTEM PROGRAMME to manage their shared marine resources in an integrated and sustainable way. Scientists, resource managers and stakeholders have joined hands to work towards a sustainable future for the Benguela region.

The BCLME Programme is funded by the Global Environment Facility (GEF) which has contributed US\$15.2 million through the United Nations Development Programme (UNDP) for the initiative. The GEF's funding complements an investment of US\$16 million by the three countries, and over US\$7 million from other sources such as the Benguela Environment Fisheries Training Interactions Programme, BENEFIT.

The BCLME Programme is administered by a Programme Co-ordinating Unit, based in Windhoek, Namibia, and an Activity Centre is situated in each of the three countries. The Programme is guided by a Programme Steering Committee consisting of senior representatives from the relevant ministries of the three governments.

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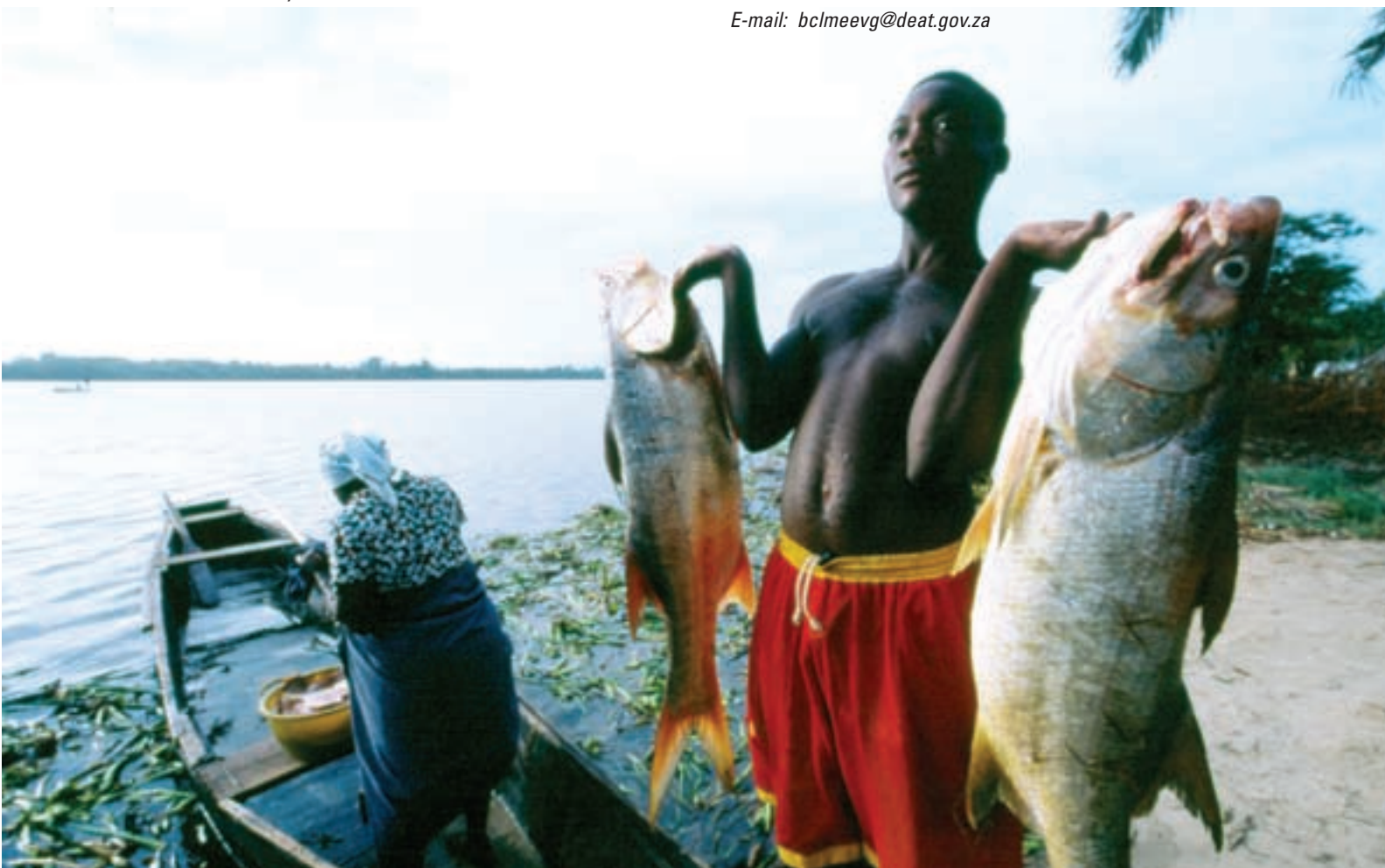
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## FIRST MOVES TOWARDS A BENGUELA CURRENT COMMISSION

One of the major goals of the BCLME Programme is to establish a Benguela Current Commission which will enable Angola, Namibia and South Africa to engage constructively and peacefully in resolving the transboundary fisheries and environmental issues that threaten the integrity of the BCLME.

A preliminary study has found that the establishment of a Benguela Current Commission (BCC) can be justified on several grounds. These include the need for an appropriate institution to implement an ecosystem-based management approach in the BCLME and the need to fulfill the international obligations and undertakings of the three countries of the Benguela.

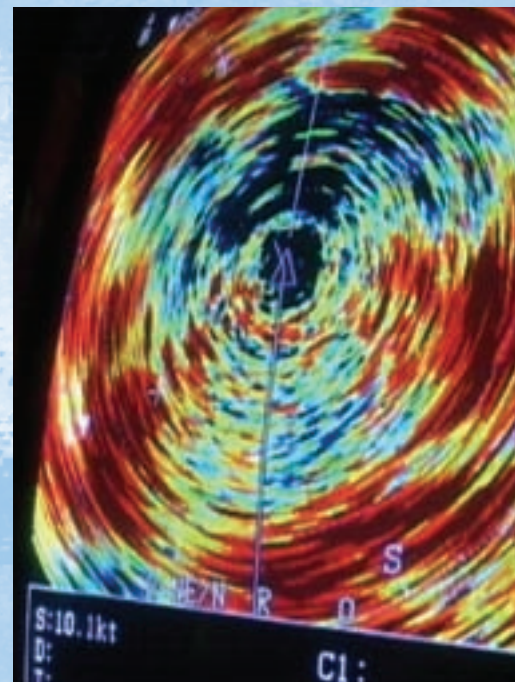
Other motives for the establishment of a regional commission include the need to develop a better understanding of the BCLME, to improve the management of human impacts on the BCLME, to facilitate regional capacity building and to increase the benefits derived from transboundary management and harvesting of fish stocks.

A phased approach towards establishing a Benguela Current Commission has been recommended. The first priority would be to draft the necessary agreement between the three countries of the Benguela region. Thereafter, working groups and joint management committees could be brought into operation to address the most pressing transboundary concerns.

The study supports the formation of an Interim Benguela Current Commission (IBCC) and recommends that it be established as soon as possible.

The IBCC is seen as a preliminary step towards a permanent Commission. It would provide the three countries with an opportunity to test and strengthen the institutional structures that will be required for a permanent Commission.

It is envisaged that the BCLME Programme's existing structures would support the IBCC until new structures are made operational.





## SUSTAINABILITY OF THE BENGUELA COMMERCIAL FISHERIES

The productive waters of the Benguela Current support a number of commercially exploited fish, including hake, anchovy, pilchard, sardine, horse mackerel and tuna, as well as crustacean fisheries for rock lobster in the south and shrimp and deep-sea crab in the north.

In NAMIBIA, the fisheries sector is the second largest export earner in the economy, after mining. Earnings from fishing grew from \$48 million (4% of GDP) in 1991 to \$336 million (6.6% of GDP) in 2002. More than 20 commercially important species are targeted and total landings amounted to 623 391 tons in 2002.

In ANGOLA, sardinellas, horse mackerel, sardines, dentex, shrimps, crabs, lobster and tropical bottom species are targeted by the fishing industry which has a large artisanal component. The fisheries sector is the third most important industry in the country, after oil and diamond mining. Fish provide nearly half of the animal protein in Angola. Between 1998 and 2000, the total Angolan catch increased from 157 148 tons to 245 806 tons and fish consumption increased over the same period, reaching 17.3 kg per person.

In SOUTH AFRICA, the main targeted species are hake, sardine, anchovy, rock lobsters, squid, tuna and various line fish species. The country's fishing

fleet ranges in size from small rock lobster dinghies, to highly sophisticated freezer trawlers.

In 2002, South Africa's total catch amounted to 746 808 tons.

*"The fishing industry is supportive of the BCLME Programme's objective of facilitating the sustainable and integrated management of resources across the Benguela region."*

Sylvanus Kathindi  
Chairperson: Namibian Hake Fishing Industry Association

*"The pelagic fishing industry has embraced the BCLME Programme's ecosystem approach to fisheries management project and they agree with its objectives."*

Awie Badenhorst  
Scientific Advisor to the South African Pelagic Fishing Industry Association

- The BCLME Programme is engaged in 10 projects focused on the sustainability of marine living resources. The fishing industry is collaborating with the BCLME Programme in an effort to:
- establish an ecosystem approach to fisheries management in the Benguela region.
  - Mitigate the by-catch of sharks, turtles and seabirds in longline fisheries in the Benguela region.
  - Optimise the utilisation of hake, the most important commercial species in Namibia and South Africa.
  - Develop a responsible aquaculture policy for the BCLME region.
  - Improve knowledge and understanding of the artisanal fisheries of the Benguela region.



# The Benguela Current Large Marine Ecosystem Programme

ANGOLA, NAMIBIA and SOUTH AFRICA share one of the most productive ecosystems on earth. The BENGUELA CURRENT LARGE MARINE ECOSYSTEM, or BCLME, extends from Angola's Cabinda Province in the north, to just east of Port Elizabeth in South Africa. The BCLME is considered to be a globally important centre of biodiversity, commercial fisheries, diamond mining and oil and gas production.

*Since 2003, the Benguela Current Large Marine Ecosystem Programme has allocated more than US\$5 million in support of 65 projects. These projects are addressing transboundary environmental problems in the fields of marine living resources, biodiversity, ecosystem health, pollution and environmental change. Many projects are forging new links between scientists and resource users in the three key industries of the Benguela region: the fishing, diamond mining and oil and gas industries.*

## DIAMOND MINING IN THE BENGUELA

The nearshore and shelf environments of the BCLME hold rich reserves of minerals.

In Namibia, mining is by far the most important productive sector of the economy, contributing 20% to GDP.

Onshore diamond mining in Namibia is winding down and the future lies in offshore diamond mining. In 2003, beach and marine mining yielded 54% of the country's total diamond production of 1.48 million carats. The contribution of diamond mining to Namibia's GDP was N\$1.8 billion, or 5.6% of GDP in 2003. Offshore diamond mining concessions extend for the full length of the Namibian coastline, from the Orange River in the south to the Kunene River in the north. Namdeb Diamond Company, an equal partnership between De Beers and the Namibian government, is the country's main diamond producer.

In SOUTH AFRICA there is an increasing emphasis on offshore diamond mining operations. At present marine diamonds comprise about 10% of South Africa's total diamond production.

Terrestrial concessions, including beach mining concessions, are mined between the



*"As the major diamond miner in Namibia, Namdeb fully supports the BCLME projects. They will enhance our understanding of the environmental issues and associated management actions that are required to secure a sustainable future for Namibia."*

Rob Smart  
General Manager: Namdeb

Orange River mouth and an area slightly south of the Olifants River. Alexkor and De Beers Namaqualand (Pty) Ltd dominate diamond production in South Africa.

In 2002, 74 000 carats were recovered from marine mines. This was up from 51 000 in 2001.

No coastal or offshore mining currently occurs in ANGOLA. Prospecting and mining activities are concentrated inland.

The BCLME Programme is engaged in four projects that are designed to measure the environmental impacts of marine diamond mining. The diamond mining industry is collaborating with the BCLME Programme in an effort to:

- Assess the cumulative effects of marine diamond mining activities on the BCLME.
- Assess the cumulative impacts of scouring of sub-tidal areas and kelp cutting by diamond divers in the nearshore areas of the BCLME.

The BCLME PROGRAMME is a concrete and constructive initiative which clearly addresses and supports some of the overall goals of the New Partnership for Africa's development (NEPAD). It is a country-driven initiative that is focused on the most pressing environmental issues in the Benguela region.



## OIL AND GAS PRODUCTION IN THE BENGUELA

ANGOLA is the second largest oil producer in Africa, after Nigeria. Offshore oil mining began in Angola in 1966 following the discovery, by the Gulf Oil Company, of an oil field in the Cabinda enclave and in the province of Zaire.

Today, oil contributes 70% of Angola's GDP and about 90% of all exports. Oil production has exceeded 700 000 barrels per day every year since 1996 and is currently in the region of one million barrels per day. Production is expected to rise rapidly over the next decade.

Angola's offshore waters are subdivided into 35 blocks, stretching into the Atlantic Ocean in three distinct bands - the shallow-water blocks, deep water blocks and the "ultra-deep water" blocks. By 2012 over 80% of the country's oil production will come from deepwater and ultra-deepwater wells.

There has been active gas exploration off NAMIBIA since 1968, but only one discovery of any significance has been made. This is in the Kudu Gas Field, which lies 130 km offshore of southern Namibia.

Namibia plans to exploit the Kudu Gas Field for use in electricity generation and supply in both Namibia and neighbouring South Africa.

Exploration for oil in South Africa has resulted in 20 gas and nine oil discoveries. The Mossgas gas field is currently in production, as are the Oribi and Sable oil fields which lie approximately 120 km offshore.

It is anticipated that there will be an increase in oil and gas prospecting off the west and south coasts of South African in the future. New wells are likely to be drilled in deep water (<350m) on the continental shelf.

*"Chevron Texaco Southern Africa Strategic Business Unit, headquartered in Luanda, Angola is very supportive of the efforts being undertaken by the BCLME Programme and hopes to continue working with the BCLME for the protection of the Benguela Current Ecosystem"*

Manuel Graças de Deus  
Manager: Health, Environment & Safety ~ Chevron Texaco, Angola

The BCLME Programme is engaged in two projects that are designed to enhance the environmental management of offshore oil and gas exploration and production activities in the BCLME region. The oil and gas industry is collaborating with the BCLME Programme in an effort to:

- Harmonise national environmental policies and legislation for marine mining, dredging and offshore petroleum exploration and production activities in the BCLME region.
- Model the cumulative effects of offshore petroleum exploration and production activities on the marine environment of the BCLME region.

