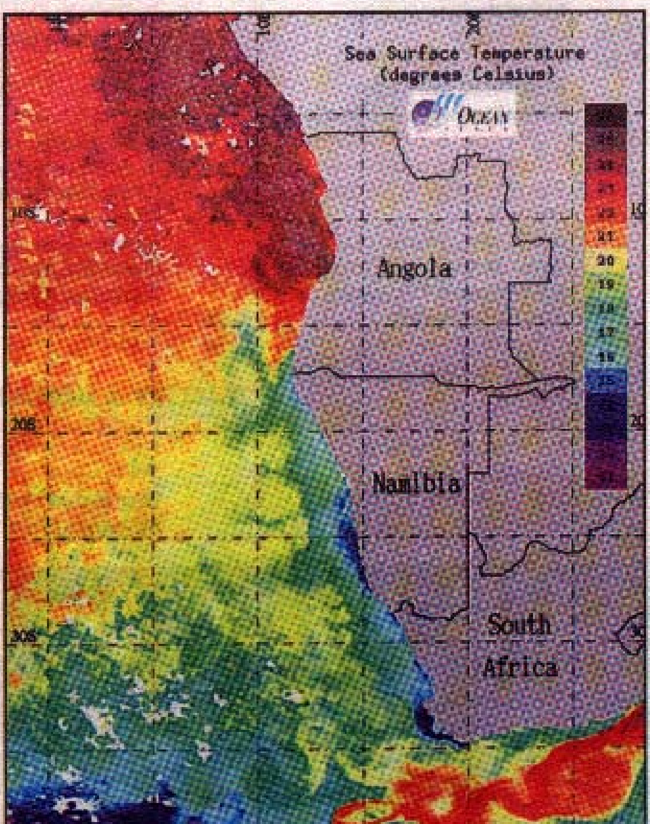
Single strategy

A research cruise on board the South African research vessel *Africana*. South Africa and Namibia are conducting joint stock assessment surveys of their most important commercial stocks.

STOCKS influenced by the fish-rich Benguela current off South Africa, Namibia and Angola are set to come under a single management programme.

This is one of the world's most productive ecosystems on earth and the region's total catch during 2000 was 1,166,000 tonnes, the main species being horse mackerel, hake, pilchard, tuna, rock lobster, shrimp, seabreams and anchovy.

Fisheries are an economic mainstay in the region, accounting for 10% of gross



The BCLME stretches from Angola's Cabinda Province to just east of Port Elizabeth in South Africa.

for 1.166m ton fishery

– moves to manage Benguela current stocks

domestic product in Namibia, 4% in Angola and 0.37% in South Africa.

Full details of how the new management plan will be developed will available be at Fish Africa 2003.

The three countries have already started joint stock assessments of hake and pilchard. And the plan is to have a regional authority to advise on the trans-boundary management of shared stocks within a few years.

This move towards greater co-operation in fisheries management results from the setting up of the Benguela Current Large Marine Ecosystem (BCLME) Programme.

BCLME's regional initiative is being supported by the Global Environment Facility (GEF) and implemented by the United Nations Development Programme (UNDP).

Setting up an Interim Benguela Current Commission (IBCC) is one of the major objectives of the BCLME Programme.

It is anticipated that the IBCC will complement the work of the South-East Atlantic Fisheries Organisation (SEAFO) and ICCAT, regional fisheries organisations regulating high seas and tuna fisheries in the Benguela region.

The area of interest for the BCLME Programme stretches from just east of Port Elizabeth, in South Africa (20°E), to Angola's Cabinda Province (5°E). Therefore, it includes the full length of Namibia and Angola's coastlines.

The BCLME Programme will improve the capabilities of Angola, Namibia and South Africa to manage marine resources and address environmental problems across national boundaries so that the Benguela ecosystem can be managed in a sustainable way as a whole.

Marine scientists from the three countries have been working together since 1995 through the Benguela Environment Fisheries Interaction and Training Programme (Benefit), focusing on research into the major shared fish resources and the profound influence that environmental variability has on the productivity and distribution of stocks.

According to Dr. Mick O'Toole, BCLME Programme co-ordinator, one of its key interventions has been to encourage Angola, Namibia and South Africa to undertake joint assessments of their shared stocks.

Joint surveys using local research vessels and Norway's *Dr. Fridjtof Nansen* have already been completed and foundations for further co-operation will be laid later this year.

This is when scientists will begin to develop operational management procedures (OMPs) for trans-boundary hake stocks in the Benguela region.

The Cape hakes *Merluccius paradoxus* and *Merluccius capensis* are stocks shared between Namibia and South Africa and – to a lesser extent – Angola. However, they are assessed and managed separately.

Individual assessments do not allow for differences in the life history parameters of the two hake species, nor for changes in the catch ratios between Namibia and South Africa, or differences in the targeting priorities of each country's fleets.

A three-year project funded by the BCLME Programme will assess ways in which hake OMPs in Namibia and South Africa can be harmonised.

The project is also expected to address technical issues such as fishing gear, mesh size and compatibility of assessment methodologies.

An important component of this project is training stock assessment scientists in Angola, Namibia and South Africa.

Another project to be funded by the BCLME Programme expected to have important implications for hake stock management in Namibia and South Africa is a study to determine optimal harvesting strategies for the hake trawl and longline fisheries.

Cape hakes are caught largely by bottom trawling and, to a lesser extent, longline vessels operating in Namibia and South Africa. Longliners tend to catch large adult female hakes, while trawlers also take medium to small sizes. In addition, longliners fish rough areas inaccessible to trawlers.

While longliners are labour intensive at sea and produce a higher value product, the trawl industry is more labour intensive on land where value is added.

The optimal harvesting ratio of these two fisheries is unknown, so the BCLME Programme aims to fund a study to determine how the maximum socio-economic value can be extracted from hake resources in both countries. It will also look to ensure the long-term sustainability of hake stocks in the region.

Major funding

THE Global Environment Facility (GEF) has contributed $15.2 million to the BCLME Programme through the UN Development Programme, complementing an investment of $16 million by the three countries and $7 million from other sources.

Eighty projects planned!

AN estimated 80 projects will be supported by the BCLME Programme over the next four years, according to Dr. Mick O'Toole, BCLME Programme co-ordinator.

The aim will be to develop baseline scientific and economic information on what is known about the Benguela Current Large Marine Ecosystem, how this is changing over time and how the trans-boundary management problems associated with fishing, mining, oil exploration, coastal development, biodiversity and pollution can best be addressed across the entire Benguela region.

The BCLME Programme has provision for setting up a self-sustaining and permanent Benguela Current Commission (BCC) to develop the regional managerial infrastructure, at a political and technical level, to manage the Benguela ecosystem as a whole.

The BCC will be negotiated between the three countries and is scheduled to become operational, with a supporting secretariat, by 2007.