



GEF INDEPENDENT MID TERM EVALUATION - JULY 2005

OF THE PROJECT

INTEGRATED MANAGEMENT OF THE BENGUELA CURRENT LARGE MARINE ECOSYSTEM (BCLME)

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Acronyms

AC	Activity Centre
ADB	African Development Bank
ASCLMEs	Agulhas & Somali Large Marine Ecosystems
BCC	Benguela Current Commission
BCLME	Benguela Current Large Marine Ecosystem
BEHP	Biodiversity, Environmental Health and Pollution
BENEFIT	Benguela Environment Fisheries Interaction and Training Programme
BOBLME	Bay of Bengal Large Marine Ecosystem
CBD	Convention for Biological Diversity
CB&T	Capacity Building and Training
CoP	Conference of Parties
CSD	Commission for Sustainable Development
CSIR	Council for Scientific and Industrial Research
CTA	Chief Technical Advisor
DLIST	Distance Learning and Information Sharing Tool
EA	Executing Agency (of GEF)
EAF	Ecosystem Approach to Fisheries
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EU	European Union
EV	Environmental Variability
EWS	Early Warning System
FAO	Food and Agricultural Organisation (United Nations)
GEF	Global Environment Facility
GIS	Geographic Information System
GTZ	Gesellschaft für Technische Zusammenarbeit (German Development Agency)
HAB	Harmful Algal Bloom
IA	Implementing Agency
IBCC	Interim Benguela Current Commission
ICM	Integrated Committee of Ministers
ICCAT	International Commission for the Conservation of Atlantic Tuna
IIM	Instituto de Investigação Marinha - Institute of Marine Research, Namibia
INIP	Instituto Nacional de Investigação Pescado - the National Institute for Fisheries Research (replaces IIM)
IUCN	World Conservation Union (formally the International Union for the Conservation of Nature and Natural Resources)
IW:LEARN	International Waters: Learning Exchange And Resource Network
LBS	Land-Based Sources (of Pollution)
LME	Large Marine Ecosystem
LMR	Living Marine Resources
LOW	Low Oxygen Water
MCS	Monitoring, Control and Surveillance
MDG	Millennium Development Goal
MEA	Multinational Environmental Agreements
MPA	Marine Protected Area
MSY	Maximum Sustainable Yield
MTE	Mid Term Evaluation
NATMIRC	National Marine Information and Research Centre, Namibia

NEPAD	New Partnership for African Development
NGO	Non-Governmental Organisation
NORAD	Norwegian Agency for Development Cooperation
NRF	National Research Foundation
NTG	National Task Groups
OMP	Operational Management Procedure
OP	Operational Programme (of GEF)
OSCP	Oil Spill Contingency Plan
PCU	Programme Coordination Unit
PDF	Project Development Facility (of GEF)
PIR	Project Implementation Review
SADC	South African Development Community
SAP	Strategic Action Programme
SEAFO	South East Atlantic Fisheries Organisation
TAC	Total Allowable Catch
TDA	Transboundary Diagnostic Analysis
ToR	Terms of Reference
UCT	University of Cape Town
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNOPS	United Nations Office for Project Services
WSSD	World Summit on Sustainable Development
WWF	Worldwide Fund for Nature

1. Executive Summary

Significant progress has been achieved at the Mid-Term point by the BCLME Programme and associated GEF Project. This progress has primarily focussed on filling critical data gaps and capturing knowledge and information vital to the development of an integrated, ecosystem-based, cooperative management approach for the BCLME. However, the Project has also made noteworthy advances in capacity building and training, as well as in the development of cooperation and trust between the various national scientific stakeholders, and has captured the interest of the international scientific community as well.

There is now an urgent need to move on from what has essentially been a scientific and technical process of completing studies and improving knowledge, to a process of operational application of such knowledge into management approaches and mechanisms focusing on resource management of a transboundary nature across the LME. Resource Managers within both the public and private sectors need to be engaged in this process of applied and cooperative management. Policy makers also need to be appraised of the need for such an ecosystem-based approach to resource management and the long-term economic sustainability and gains that can arise from such a cooperative approach.

The BCLME Programme is now ready to move toward a formal regional body (Commission) supported by a multilateral agreement (Convention or Treaty), and the political will is present in the region to make this a timely proposition, although the Mid-Term Evaluation (MTE) recommends that interim measures should be adopted initially to 'test' for lessons and best practices and to allow time for appropriate national dialogue to nurture cross-sectoral support for such a multilateral agreement.

The MTE makes a number of recommendations related to the development of a Commission and supportive regional legal agreement. It also advises of the need for early development and adoption of certain management priorities (especially those related to fisheries), and for the general application of an ecosystem-based management approach. The MTE notes the need for a coordinated long-term programme of monitoring to support such a regional management approach as well as the need for further emphasis on strategic capacity building and training in relation to such monitoring and to sustainable resource management.

The MTE notes a general recognition among stakeholders (including GEF) of the need for a second 'Implementation' Phase to the BCLME Programme, but that such a second phase of funding would be dependent on the current Project achieving certain benchmarks (defined in the Recommendations) and verifying its priority indicators as defined within the Project's Logical Framework. In this context, the MTE urges the Project to review these indicators and develop certain strategies and road-maps for the remainder of the Project lifetime to ensure a successful Terminal Evaluation of the Project. In particular, Output 5, which seeks to increase donor participation, needs to be urgently reviewed and rationalised to suit the Project's overall workplan.

The BCLME Programme represents a 'model' demonstration of LME Project development and implementation within Sub-Saharan Africa and the GEF International Waters portfolio at large. In this respect, the Project provides a number of lessons and best practices which should be captured in future LME project design and implementation. These lessons and best practices are also captured within the **Recommendations** section along with some lessons for GEF Project Design and Implementation *per se*.

2. Evaluation Process (Purpose and methodology)

The purpose of a GEF Independent Mid-Term Evaluation is effectively two-fold. Firstly, it serves as a stocktaking exercise by which the progress and direction of the Project to date can be compared with the original objectives and balanced against any new events or requirements. Based on this review, evaluators can then provide recommendations for realignment or revision of the project as appropriate, and advise the project management on areas that have fallen behind schedule and are therefore at risk with respect to their overall delivery. Secondly, it provides GEF with a valuable opportunity to capture lessons and best practices from the earlier stages of the project. These lessons and practices can then be used, A) to further relevant areas and activities of the same project and B). reflected in other GEF projects under preparation or ready for implementation.

To this effect, the MTE is an immensely valuable exercise for all parties and stakeholders. It should not be seen as simply an administrative and bureaucratic requirement, which needs to be fitted into day-to-day project activities. It should be embraced as an opportunity to put the project on hold for a short period and to take stock of achievements, re-visit objectives and deliverables, ascertain which outputs are on schedule and which need additional effort and support, identify and resolve any concerns or criticism from project stakeholders, and re-start the project with a clearer definition of the end-landscape, the beneficiaries, and the intended delivery. This is an essential process within the dynamic nature that is GEF project implementation. Specifically, a MTE provides a project and its management with a basis for identifying appropriate actions to address particular issues or problems in design, implementation and management, and to reinforce any initiatives within the project that demonstrate potential for success.

In order to ensure a fair and transparent evaluation, this process needs to be independent (within certain guidelines). This 'independent' requirement is necessary as the evaluation is as much a review and assessment of GEF and the Implementing Agencies as it is of the Executing Agencies and the project as a whole (including the stakeholders and their involvement/input).

The methodology used for this MTE is straightforward, although time-consuming and fairly intense work-wise. The aim of the Evaluators is to provide as many stakeholders as possible with the opportunity to comment on project design, performance and delivery, and to offer opinions on future direction and expected success. Wherever possible this should be done on one-to-one basis although there are occasions when it is both acceptable and more time-effective to interview several related stakeholders at once. In any event, confidentiality is the key to the evaluation process and stakeholders should be assured that all comments and suggestions would be treated with discretion. However, this confidentiality then places a burden on the Evaluators to ensure accurate and fair presentation of opinions and not to place unnecessary weight on single criticisms or comments, but to make judicious efforts to corroborate and confirm (or equally refute) any such concerns through further inputs.

Where it was not possible to speak with stakeholders, they were nevertheless given an opportunity to respond to a set of questions pertinent to the needs of the evaluation and to add any additional comments. Such a questionnaire was circulated prior to the current evaluation process (see Annex 6), and the responses (28 in all) have been carefully reviewed (and clarified where necessary) and comments and opinions have been reflected in the evaluation process.

Readers should note that the word 'Project' (with a capital 'P') is used through out this document to refer to the GEF component of the BCLME Programme, Project being the standard description

used by GEF. Sub-projects refer to the 77 smaller projects nested under the main BCLME Programme and funded through the main GEF Project.

Many stakeholders both within the participatory countries and within the international arena were consulted and interviewed during this evaluation process. A full list of their names and affiliations would represent a document almost as large as the Evaluation Report itself (an estimate places the number of persons at well over 100). Suffice to say that the Evaluators spoke with representatives at every sector and level from Ministers down to field scientists and administrative staff, and including private sector and academic representatives. The distribution of those interviewed percentage-wise was approximately Government 50%; Academic Representatives 15%; Project and UN Staff 15%; Private Sector 10%; and NGO 10%. Consultants working on specific areas of focus within the Project were also consulted face-to-face or by email.

3. Project Background and Landscape

3.4 Objectives

The long-term objective of this Project is to undertake an array of priority measures as identified in the Transboundary Diagnostic Analysis (TDA) and the Strategic Action Programme (SAP). These measures should be addressed in conjunction with the on-going efforts of the participating countries, donors, industry, NGOs and other relevant stakeholders. The primary aim is to bring about the integrated, sustainable management and protection of the Benguela Current Large Marine Ecosystem.

According to the Convention on Biological Diversity, the ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Thus the application of the ecosystem approach will help to reach a balance of the three objectives of the Convention i.e. conservation; sustainable use; and the fair and equitable sharing of benefits arising out of the utilisation of genetic resources.

The Project SAP lists specific country commitments that are to be the subject of implementation as part of the overall Benguela Current Large Marine Ecosystem Programme, based on advice they will be receiving from the Interim Benguela Current Commission (IBCC), the creation of which is a specific activity of the GEF funded project. Such issues include, *inter alia*, the harmonizing of country specific approaches to shared fish-stocks; fishery conservation methods; cumulative impact assessment; development of an environmental early-warning system; actions to address harmful algal blooms (HABs); the harmonization of environmental quality objectives; harmonization of oil spill contingency plans; and addressing maritime litter. The GEF project will make possible the institutional base and provide the expertise and knowledge base necessary for the countries to implement the general and specific objectives that they have committed to in their jointly developed and approved SAP. These implementation activities will continue under the institutional framework of the IBCC and, when fully ratified, the Benguela Current Commission (BCC). The creation of the IBCC and the BCC are salient features of this project. The countries intend that the BCC shall operate over the long term and thus ensure project sustainability.

3.5 Justification for the Project

The major transboundary issues confronting the countries as they attempt to sustainably manage the resources of the BCLME were identified (during the PDF B process) through the TDA and were adopted as part of the SAP. These are:

- A decline in BCLME commercial fish stocks and non-optimal harvesting of living resources;
- Uncertainty regarding ecosystem status and yields in a highly variable environment;
- Deterioration in water quality – chronic and catastrophic;
- Habitat destruction and alteration, including *inter alia* modifications of the seabed and coastal zone and degradation of coastscapes;
- Loss of biotic integrity and threat to biodiversity;
- Inadequate capacity to assess ecosystem health; and
- Harmful algal blooms

The project aims to undertake relevant studies and knowledge acquisition measures, within a complex and fluctuating system, as a prelude to implementing real-time operational management strategies and mechanisms. The specific measures that will be undertaken to sustainably manage the resources of the BCLME will be determined by the IBCC, and ultimately by the BCC.

The creation of the BCC, which must be negotiated among the participating countries, and immediate creation of the Interim Benguela Current Commission (IBCC), are highlights of the country-prepared and endorsed SAP. Seven Ministers have formally signed the SAP.

The overall objective and associated project outputs and activities are compatible with the three elements of the GEF- funded International Waters activities to meet the incremental costs of:

- a) assisting groups of countries better understand the environmental concerns of their international waters and work collaboratively to address them;
- b) building capacity of existing institutions, or through new institutional arrangements, to utilize a more comprehensive approach for addressing transboundary water-related environmental concerns; and
- c) implementing sustainable measures that address priority transboundary environmental concerns.

3.6 Project Components and Outputs

Primary outputs include the provision of effective inter and intra project coordination and support through establishment of a Programme Coordination Unit (PCU) and the identification and provision of resources for a Lead Agency in each of the participating countries. The project makes provision for the transfer of increasing amounts of responsibility and ownership of project activities to the countries as implementation proceeds. Other outputs include creating mechanisms for, and steps to be undertaken to effect the sustainable management and use of the resources of the BCLME; assessment of environmental variability, ecosystem impacts, and improvement of predictability, preliminary steps to maintain BCLME ecosystem health and effectively control pollution; and support to recruit new, additional donors and increase the level of co-finance during the life of the project and increased funding for the post- project programmes and activities of the newly created Benguela Current Commission (BCC).

The Project has five principal Outputs:

1. Effective intra and inter-project coordination and support through the establishment of a Programme Coordination Unit (PCU) leading to the creation and functioning of the Interim

- Benguela Current Commission, and the identification of, and provision of resources for, Lead Agencies and Inter-ministerial Committees in each of the participating countries.
2. Creation of the necessary mechanisms for, and steps undertaken to develop real-time management capability to better sustain and utilize the resources of the BCLME.
 3. Improved understanding of BCLME environmental variability, ecosystem impacts created by environmental variability, and thus improve predictability as a means of strengthening the management of fish-stocks;
 4. Undertake preliminary steps to maintain BCLME ecosystem health and effectively manage pollution as a means to safeguard fishery and other resources.
 5. Recruitment of additional donors and increase the level of co-finance during project implementation.

Annex 1 – The Project Logical Framework Table lists the Development Goal, Project Aim and the defined Project Outputs along with the associated indicators and means of verification for the delivery from each Output. It should be noted that this LogFrame differs from the original table included in the Project Document as it was modified after the Project had commenced. This modification was undertaken through a stakeholder workshop so as to improve the indicators and means of verification, and was adopted by the Steering Committee. The LogFrame and associated indicators represents one of the primary means of verification of project delivery and achievement for the evaluation process.

4. Findings and Evaluation

In the early stages of the BCLME Project (May 2003), a Stakeholder Workshop was convened to review the Project's Logical Framework (LogFrame). This Workshop identified the need to revise the LogFrame due to mismatches between the goal, purpose and output statements in the LogFrame tables and those objectives and activities as stated in the main text. The Workshop decided that considerable further elaboration was needed to change it into a useful management tool. As an outcome of this Workshop, the following descriptive guidance was adopted for the Project:

Project Development Goal:

The ecological integrity of the Benguela Current Large Marine Ecosystem is sustained through integrated transboundary ecosystem management.

Project Purpose:

Participating countries and their institutions sharing the Benguela Current Large Marine Ecosystem have the understanding and capacity to utilise a more comprehensive ecosystem approach and to implement sustainable measures to address collaboratively transboundary ecosystem related environmental concerns.

The Workshop also undertook to review and revise the Objectively Verifiable Indicators and their Means of Verification as these were seen to be very weak in the original LogFrame attached to the ProDoc.

It is important to identify this critical change to the Project's primary means of evaluation (the LogFrame and its indicators) at an early stage in this report.

4.1 Project Delivery

4.1.11 Outputs and Activities

Output 1: Establishment of Operational and Effective Intra- and Inter- Programme Coordination and support through the establishment of a PCU and IBCC.

Indicators

1. Three Activity Centres and Six Advisory Groups created by end of 2003
2. PSC and Advisory Groups meet at least two times per Year
3. Regional strategic plan for capacity strengthening and maintenance by 2004
4. Collaborative study on human capacity and training and infrastructure needs for addressing priority transboundary issues by 2005.
5. Agency document on phasing in of IBCC signed by mid 2005.
6. IBCC phased in and functional by 2006.
7. IBCC to secure funding for core activities by 2006

The Project Steering Committee and the Advisory groups have been functioning effectively and meeting regularly since the early days of Project inception. So far there have been 8 formal meetings of the PSC in 3 years of Project operation.

A detailed Training and Capacity Needs Assessment has been carried out which identifies needs and requirements. The objectives of this study were to obtain a broad overview of the key human capacity, training and infrastructure needs amongst institutions and organisations that were mandated with responsibility for the action areas being addressed by the Project within the BCLME countries. The findings of this study are discussed in more detail under **4.1.7 Capacity Building** (below). However, there is still a need for the Project to develop a more strategic approach to capacity building and training through a defined road-map of delivery and time scheduling that clearly addresses transboundary issues and a cooperative ecosystem-based approach to marine resource management.

The BCLME Project has undertaken a number of studies on the feasibility and structure of a possible regional organisation to support BCLME. In this context, the Project has made significant steps toward identifying the way forward for the adoption of an Interim BCC, including generating strong political support.

The Institutional Study regarding the Establishment of a Regional Organisation to Promote Integrated Management and Sustainable Use of the BCLME was completed in March 2005. This study was required to answer the following questions:

- Are the existing governance systems for marine resource management adequate to ensure the long-term protection and ecologically sustainable use of the BCLME?
- Is regional co-operation between the three BCLME countries necessary and/or desirable for the effective protection of the BCLME and to manage human uses of it, and if so, in relation to which matters should the countries co-operate?
- Is the establishment of an institutional structure for regional co-operation in relation to the BCLME necessary and/or desirable, and if so, how should it be established and structured to ensure that it is viable, sustainable, and effective?

The conclusions of this report run to many pages. In brief, their findings identified that:

- The current institutional structures necessary to meet the obligations and commitments of the countries as agreed in the SAP are inadequate or non-existent

- Existing governance systems and legal frameworks for marine resource management are inadequate to ensure the long-term protection and ecological sustainable use of the BCLME

Therefore the establishment of a Benguela Current Commission (BCC) requires:

- An appropriate institutional mechanism (to implement an ecosystem approach; to fulfil existing international obligations; to develop a better understanding of the BCLME; to facilitate regional capacity building; to increase the benefits derived from shared resources).
- This requires a formal agreement (Treaty) between the 3 countries
- An Interim BCC would be advisable to enable learning by experience before formal agreement to a permanent BCC

Three options have been proposed for such regional cooperation:

1. Establishment of an IBCC/BCC as defined in the SAP
2. A more management –oriented structure
3. a minimalistic option with regional cooperation based on a network of issue-specific bilateral/trilateral agreements

Option 2 was deemed to be the preferred option, with some modifications, both from the point-of-view of cost-effectiveness and the potential for sustainability while achieving net benefits. This was also the feeling of the PSC which met during the MTE. However, the study deemed that even Option 2 would only be feasible if it receives a high level of political support from every country; has a lead Ministry with specifically mandated officials responsible for the coordination of national activities in line with the overall objectives of the BCLME Programme; the approach and structure is phased and is reviewed after an initial period for any necessary adjustments. The report also urged that priority issues that could be fairly easily reconciled should be targeted first to build trust and cooperation. A working draft of a Convention on the Ecological Sustainable Development of the BCLME has already been submitted to the PSC for its preliminary review and initial feedback..

An important point made within the report is the need to emphasise the increased benefits to each country and sector from the presence of a BCC and the sustainable LME approach. This is about enhancing the opportunities and long-term advantages for each partner rather than restricting who gets access to what. In economic terms the BCLME approach is already proving beneficial and has developed some very real potential for long-term economic improvements. In the absence of a BCLME approach or a suitable regional management and policy structure this could all collapse with massive financial losses for each country. This understanding is critical to the fostering of adequate political support within the participating countries in order to ensure the development of a sustainable BCC and transboundary management regime.

Within the context of increased benefits and enhanced opportunities and advantages, the Project undertook an Economic Study and Cost-Benefit Analysis of Cooperative Research and Management for the BCLME Region. The main purpose of this study was to analyse the economics of fishery management and other marine industries in the Benguela Current Large Marine Ecosystem (BCLME), reviewing the case for and against regional co-operation in managing the BCLME. The analysis was undertaken for the major transboundary commercial fisheries of the region using hake as the core species underlying the study. Specifically, the Economic Study looked at:

- Analysis of the current domestic costs and benefits of fishery management in Angola, Namibia and South Africa, providing a default scenario for further analysis. The analysis

utilised appropriate and comparable economic yardsticks to provide estimates of costs and benefits of current management systems in the three countries of the BCLME.

- Identification of the incremental costs and benefits attached to and derived from regional co-operation on fisheries management and environmental protection to the three countries individually and to the region as a whole. This included assessment of the costs and risks associated with non-co-operation in fishery management, environmental monitoring and resource protection regionally. The study also provided a general assessment of the net benefits of joint ecosystem management in the region, and its contribution to broader national and regional development objectives such as food security, poverty alleviation and job creation.
- A review of the economic case for taking an ecosystem approach to LME management relative to traditional fisheries management models in relation to fisheries, and as far as possible non-fisheries benefits (e.g. recreational fishing, coastal tourism).

The conclusions of the Study were very clear. The potential for obtaining net benefits from regional cooperative management of the BCLME were seen to be huge, and the Study therefore recommended that the establishment of an Interim Benguela Current Commission (IBCC) should be pursued. However,

- Strong political commitment, at the highest level of government, will be required to make a joint management structure work.
- If the Commission is to be sustainable, then resources for running it will have to come from the region, although a funding structure could consist of both internal and external sources.
- Current funding levels by international donors should be continued until a selected date when the national governments would take over the full funding of the Commission (preferably in a phase in – phase out approach).
- The initial IBCC should commence at a modest level to allow for learning and the building of confidence and mutual trusts between the parties.
- There are functional and effective institutional structures and working relationships between BENEFIT (the Benguela Environment Fisheries Interaction and Training Programme) and BCLME that will serve the IBCC very well.
- Any new Commission should put in place structures for collaborating with regional and international organizations such as ICCAT, SADC, Regional Seas Conventions such as the Abidjan Convention, SEAFO and other LME projects .

One very important finding of the Study was that if only a fraction of the predicted increase in economic rent resulting from joint management is realised, a move to such joint management will more than pay for itself.

Clearly there is a political momentum within at least some of the participating countries to move toward an Interim BCC as a means to testing and evolving appropriate practices for a full BCC. This is discussed more from the viewpoint of political commitment under the section on **Country Commitment and Drivenness below**. However, within the context of actual delivery and sustainability, the Evaluators are conscious of the considerable amount of work and effort needed to build adequate political support, and to create a sufficiently robust structure to be able to put into practice the concept of transboundary LME management. This represents a major benchmark in the overall LME management process and such a significant step will take much negotiation and

consultation. Furthermore, financial and political commitments will need to be formally agreed by and between all three countries to ensure sustainability of such a management regime. This progression must now be seen as one of the major challenges for the BCLME Project as it is to achieve its aims under Output 1.

The adoption and evolution of the IBCC is undoubtedly a delicate process and, in many respects, the BCLME countries are spearheading the global effort as far as LME management regimes are concerned. With this in mind it is probably advisable that the IBCC should A. be negotiated initially at the national, Cabinet level, then B. at the bilateral level (to address matters of mutual concern) and then C. at the regional (3-country) level. Furthermore, it would also be advisable to restrict the mandate of the initial Interim BCC to those urgent matters which all of the countries feel need to be addressed as a priority and to avoid, in the first instance at least, any particularly sensitive and controversial issues which may prove to be too challenging to an early and delicate iteration of the Interim BCC.

MTE Assessment of Output 1: The BCLME Project has achieved most of the expected deliveries for this Output at this stage in the Project and Output 1 should be viewed as having been very successful. There is every possibility that an Interim BCC can be adopted, functional and have its core activities funded by the end of 2006. However, the remaining challenges and potential constraints to the adoption of an effective and sustainable BCC should not be underestimated, nor should the amount of effort that will be necessary to raise political support and develop a strong constituency within the senior political echelons of all three countries

Output 2: Enhanced and Improved Sustainable Management and Utilisation of Transboundary Marine Resources.

Indicators

1. Annual state of the BCLME Ecosystem reports by 2004 and six monthly by 2006.
2. Annual state of the shared commercial fish stocks available by 2004 and by 2006 every six months.
3. Joint surveys and assessments of shared stocks of key species by the end of 2005.
4. Regional working group on conservation and management measures of shared stocks established by 2005.
5. The decline in shared stocks has been arrested by 2005.
6. Responsible regional mariculture policy by December 2006.
7. 50 % of the shared stocks have been rebuilt to optimal level by 2007.
8. Quality and sanitary standards for aquaculture products being used in the region meet international standards.
9. All transboundary stocks are being managed by agreed operational management plans (OMP) by 2007.

In relation to this Output, a number of LME Activity Centre sub-projects have focussed on fish stocks. One in particular has undertaken a transboundary survey of hake stocks between Namibia and South Africa so as to better understand their life-cycle and particularly to see if deep-water hake are a shared resource between the two countries. This was an interdisciplinary project using biological and oceanographic surveys and utilising hydro-acoustics and genetics, etc, to achieve cutting edge results. The conclusions of this study are that oceanographic 'gates' open and close depending on climate and season and this controls hake movement to some extent. The deep-water hake in Namibia do appear to originate from South African waters and there is a trend that suggests spawning in South Africa with migration and recruitment into Namibian waters. There is still some

disagreement between fisheries scientists in the region as to the actual mechanism and nature of stock movement but this sub-project has clearly raised a concern that the sustainability of Namibian hake fisheries may be dependent on effective management of South African hake stocks. Further work on this subject is considered essential. Without doubt there is a need for closer cooperation between the different national fisheries management bodies.

Furthermore, in relation to the need to address fisheries management as a transboundary, ecosystem-based approach, there have been workshops within each country to set up a risk assessment for a commercial species as an example of how this should be done for each of the commercial fish stocks.

Other sub-projects which have looked at such regional approaches to resource management include the harmonisation of aquaculture policies in the BCLME. There are a number of aspects in favour of aquaculture in the region including highly favourable environmental conditions, a growing demand for fish protein, the need for food security, the need for improved livelihood opportunities, etc. The aquaculture sub-project works on the principle that management intervention is required to facilitate the development process in a rational manner so as to minimise environmental impact and optimise socio-economic benefits. As part of its outputs the sub-project has developed a model BCLME-driven Angolan policy on aquaculture that has been officially accepted by the Angolan government and is reflected in Angola's fisheries legislation. This includes putting in place vital government institutional structure and identifying the Angolan Marine Research Institute (IIM) as the lead agency to manage and promote aquaculture. Policies, legislation and deployment strategies are at various stages for other countries. A regional aquaculture policy has been developed and is aligned with the SADC fisheries protocol (i.e. development orientated) and reflects international guidelines for best practice and environmental governance. An implementation plan for this policy is currently under formulation.

Studies on quality and sanitary standards for aquaculture products are helping to bring such standards in line with EU and other requirements. Activity Centre sub-projects addressing HABs have also looked at shellfish sanitation issues in detail and made recommendations on same (see also below under Output 3 assessment). The LMR_{AC} has undertaken one sub-project that has assessed the status of catch data and the need for quality assurance. This resulted in a recommendation to the BCLME Programme for the need to hire a Data Manager for each institute. As far as could be ascertained there had been no follow up to this recommendation.

Another valuable sub-project looked more at fisheries genetics to understand the transboundary nature of shared stocks. The sub-project found that it was feasible to use genetic techniques to identify such transboundary relationships. A follow-up study is being undertaken by BENEFIT to build on developing this approach which has important implications for effective ecosystem-based fisheries management.

However, there is a strong concern among regional and international fisheries experts that the real problems of shared fish stocks are still not being addressed adequately, that different countries give this critical issue different levels of priority, and that there is still an urgent need to educate and inform senior management and policy-level personnel within Government regarding shared stock management needs.

A Joint BENEFIT / NRF / BCLME Stock Assessment Workshop was held at the University of Cape Town between 12th –17th January 2004. This Workshop discussed in particular the South African and Namibian hake stocks and their management, as well as assessments and management

of Namibian Fur Seals. As well as national representatives, a panel of international experts were invited along to provide review and guidance. The Workshop discussed possible assessment and management methods for the two potential hake stocks within South African waters, and the possibility of a shared transboundary deepwater hake population between the two countries. It identified the urgent need to develop compatible assessment and data analysis techniques such as ageing. It was noted that the absence of readily available and high quality data on the age of hake was impairing consistent stock assessment. The workshop also stressed the need to monitor all sectors of the fishery, and to ensure that any changes to surveys are accompanied by suitable inter-calibration research and do not compromise long-term data series. Multi-species and ecosystem effects were seen to be important to stock assessment (e.g. interspecific predation, high rates of cannibalism, seal predation, etc). Again, the workshop felt that advances in this area have been impeded by lack of data and knowledge of appropriate modelling processes. In brief, given that all these assessments are in transition and that there are gaps in data analysis (especially missing age data) the workshop concluded that it was difficult to develop a clear view of the status and recent trends in hake resources within the region.

One valuable mechanism that was discussed at this Workshop (and one that is being used more commonly now both within Fisheries and also on the periphery with regard to competing top predators) is that of the Operational Management Procedure (OMP). In its simplest form, the OMP agrees on pre-ordained data suites and analyses approaches to be used to guide management strategies thereby avoiding conflicts based on scientific conclusions when recommendations are made to management bodies. This has been described more elegantly as:

‘An OMP comprises pre-specified monitoring data, together with a formula to be used to convert these to a TAC (Total Allowable Catch) recommendation. A key aspect of the approach is computer simulation testing to check that the formula is adequately robust in the face of uncertainty about the dynamics of the resource.

One of the most successful aspects of moving towards management using an OMP approach has been the substantial reduction in the time spent annually in haggling over TAC recommendations. Although the scientific processes of developing each of the three OMPs summarised here have not been without difficulties and extensive debate, when it came to implementing agreed TAC formulae, only minor questions related to input data have arisen, and the resultant TAC recommendations have, without exception although sometimes with some debate, been implemented without change by decision makers. The pre-specified TAC calculation rules have also resulted in an increase in transparency and improved understanding by all parties, and have allowed the focus of research to move towards other important management issues such as area disaggregated assessments.’

From: *Butterworth, D. S.; Punt, A. E. 1999: Experiences in the evaluation and implementation of management procedures. ICES Journal of Marine Science 56: 985–998.*

Notwithstanding the clear potential benefits of the OMP approach to provide scientific recommendations for the management of hake resources, the panel was concerned at the evidence of lack of acceptance and/or understanding of the approach by key managers, industry representatives and some scientists. They recommended that this issue should be addressed with a sense of urgency if effective national and transboundary stock management is to be adopted. They felt that the general approach (and its more specific application to the management of hake resources) needed to be explained in clear and plain language using simple models that illustrate the approach and its application. This explanation needs to be targeted at ALL participants in fisheries

management from the industry and the scientists up through management to the policy-makers. This is deemed critical to future national economies and the sustainable welfare of the fish stocks.

In relation to the selection of activities related to this Output, a specific concern raised by a relevant senior stakeholder identified the fact that a proposal was submitted to BCLME Programme to develop a regional centre for ageing fish (primarily through otolith measurements). This is considered critical within the BCLME region (especially for Angola and Namibia), as it is essential for fish-stock monitoring. Quite a number of international fisheries advisors who are now involved in the BCLME Programme have stated that the fisheries science within the 3 countries and associated with the ACs is very good but it is still impossible to draw final management-related conclusions on the status of the fisheries without reliable ageing information. However, the sub-project was not approved as there were concerns expressed regarding the sustainability of such a centre. A compromise was proposed which consisted of setting up regional working groups. Some of the stakeholders directly involved in fisheries studies and concerned with the management needs feel this decision was incorrect. A feasibility study had been taken which addressed sustainability and identified how the centre could capture funding through charges for otolith analyses (as opposed to sending the otoliths abroad for assessment). By establishing itself as a Centre of Excellence for certain species, the Ageing Centre could have attracted work from outside the BCLME region much as Australia now has the specialisation for ageing orange roughy, and the BCLME sends its hake otoliths to Spain.

These institutions and scientists dealing with fisheries stock assessment and management all seem to agree that the overall area and concept of shared fish stocks is still very contentious between the 3 countries. There is a general concern that there has been a decline in BCLME fish stocks but there is no scientific consensus as to why or as to what management approaches need to be adopted to resolve this issue. The sharing of information between national institutes or within the BCLME Programme is a very sensitive issue. It is also noteworthy that, up until the BCLME Programme was implemented, the emphasis by the national agencies was purely on commercial species. The BCLME Programme has promoted and encouraged more studies of non-commercial species and by-catch.

MTE Assessment of Output 2: Although there have been significant achievements under this Output (e.g. work on assessing hake stocks and their transboundary nature, stock assessment workshops, etc.) there is a need for a more rational approach to delivery to ensure that all the indicators are verifiable by the end of the project. There is also an urgent need to review priorities and needs in respect of national and regional fisheries management, especially in relation to Operational Management Procedures and Monitoring, Control and Surveillance. It is important now to define what can be expected as the end-of-project landscape in terms of fisheries management. This Output should be re-assessed by the relevant Advisory Group(s) and discussed in the PSC to ensure that intended delivery is not lost. An example of the evaluator's concerns here is the indicator stating that [the decline in shared stocks has been arrested by 2005](#). It would be near-impossible to verify this under current management and monitoring arrangements but, even if it were, such a target is almost certainly unachievable within such a short time and should not have been included as a realistic Indicator.

Output 3: Assessment of Ecosystem Impacts, and Improvement in Predictability, of Environmental Variability as Measures toward Enhancing the Management of Living Marine Resources

Indicators

1. Living marine resource managers in the three countries will utilise regional state of the environment (SOE) reports (with attended forecasts in formal decision making) by 2007. To be reflected in TACs and operational fishing.
2. Monitoring and EWS of HABs regionally in place including contingency plans and draft regulations (in support of aquaculture and human health warning /needs) by 2007.
3. Environmental baseline against which all future changes in variability will be measured by 2007.
4. Management actions by IBCC is based on knowledge of:
 - a) environmental control factors in the Orange cone/Luderitz area which apparently separates the pelagic fish stocks of Namibia and South Africa, and
 - b) the permeability of this barrier which might enable the restocking of pelagic resources between the countries and serve as a conduit for inter-country transfer of deep water hake by 2007.
5. Management action by IBCC based on knowledge of the shifts in the configuration and position of the Angolan/Benguela Front (which separates Namibian and Angolan fish stocks and controls the geographic ranges of these stocks) by 2007.

A lot of work has been done within the Project looking at environmental variability and related predictive approaches and mechanisms. The understanding of algal blooms and low oxygen water events has been advanced considerably with a view to developing early warning systems and contingency plans.

The BCLME Project focuses strongly on an Ecosystem Approach to Fisheries (EAF). This originates from problems with traditional single-species approaches, and the recognition of these problems and the need for EAF within a number of International Conventions and Declarations (UNCLOS, UNCED-Agenda 21, FAO Code of Conduct for Responsible Fisheries, etc.). FAO notes that the purpose of an ecosystem approach to fisheries is to plan, develop and manage fisheries in a manner that addresses the multiplicity of societal needs and desires, without jeopardising the options for future generations to benefit from the full range of goods and services provided by marine ecosystems. Such an ecosystem approach takes into account the biotic, abiotic and human components of an ecosystem and their interactions by applying an integrated approach to fisheries within ecologically meaningful boundaries.

The Living Marine Resources Activity Centre is implementing a sub-project entitled "Ecosystem Approaches for Fisheries Management in the BCLME". The United Nations Food and Agricultural Organisation (FAO) are the international coordinators of the EAF project. They have allocated two of their top experts to assist in this project and there is a formal MoU with FAO relating to this work and to co-financing arrangements by way of in-kind contributions. The objectives are to investigate the feasibility of EAF management through examination of the existing issues, problems and needs, and thus developing different management options to achieve sustainable management of the resources at an ecosystem level. The scope of this Activity Centre (AC) sub-project is wide and detailed but in summary it is reviewing TROM (Target Resources Oriented Management) versus the EAF approach in all major fisheries, undertaking cost-benefit analyses of different approaches and options. Proposing operational objectives and management goals, identifying ecosystem indicators for monitoring of effective EAF, identifying research needs, proposing incentive measures to support EAF, and recommending institutional arrangements and capacity building needs. All of the final outputs vis-à-vis recommendations on approaches, techniques, incentives, institutional arrangements, etc. are planned for delivery to the PCU by September 2006. The sub-project includes a number of working groups addressing issues within specific fisheries

(such as pelagic, demersal, inshore, etc) and a number of workshops. The sub-project aims to demonstrate the general process necessary to begin implementation of EAF. National Task Groups have been set up to identify and address the national issues and needs related to EAF. These NTGs have undertaken every detailed studies of the current situation for national fisheries, the constraints and the potential way forward for development of a national-regional EAF approach. Namibia has embarked upon an exercise to develop management plans for all commercially harvested species based on the EAF approach. This has been made possible through the BCLME sub-project. As a result of BCLME Programme intervention and assistance, the co-management of shared resources in the BCLME is now becoming a reality, at least for Namibia and Angola.

Within the EAF sub-project, standardised methods have been developed such as ecological risk assessment, ecosystem modelling approaches (such as Ecopath with Ecosim), use of international criteria to develop indicators, and collaboration with international working groups such as SCOR/IOC (on quantitative ecosystem indicators). These initiatives and results have been achieved with the assistance and support of IRD in France (Institut de Recherche pour le Développement). In particular such collaboration has included a joint French-South African project (ECO-UP addressing upwelling ecosystems) and work with the Centre de Recherche Halieutique Méditerranéenne et Tropicale (CRHMT) which focuses on EAF research.

Discussions with stakeholders to this EAF sub-project indicate that they feel their activities have been successful following a difficult start-up period (coordination problems between 3 countries) and that they will be able to deliver the sub-project's outputs on time. Their feasibility study won't necessarily result in a regional EAF within the short-term, but that was not the aim of the sub-project. The science and the monitoring have been difficult because of the huge area to cover. Also the EAF people felt that insufficient funding had been given to the scientific aspects of EAF and that the outputs so far were mostly national stakeholder workshops. They would have liked to see more project funds being used for actual scientific studies and research into EAF and more regional workshops. Such a recent workshop in Namibia was cited as being very useful. At this workshop national task forces from the 3 countries made presentations on their experience and on national issues pertaining to regional EAF. EAF stakeholders felt that they need to get together more often to work on regional issues.

The BCLME Programme has also been looking at artisanal fisheries in the region. The definition used for artisanal includes inland waters and any fishing vessels smaller than 14 metres. The AC sub-projects related to this work undertook an overview of the policy and legal framework governing the artisanal sector, as well as the socio-economic and fisheries information relevant to the artisanal sector. These sub-projects identified that the 3 countries have different policy positions regarding how marine resources serve political and socio-economic goals (and that harmonisation of legal and institutional arrangements are not feasible), that there is no common understanding of the term artisanal, that Angola has made significant progress in implementing the provisions of the SADC fisheries protocol while the other 2 countries still have much work to do, and that there is a need to establish institutions and mechanisms for ongoing exchange of information and shared lessons. In Angola alone where artisanal fishing is critically important to the communities, the sub-project identified the presence of more than 25,000 artisanal fishermen. If the dependent families are included then over 300,000 persons within the BCLME area are directly dependent on artisanal fisheries. Total catches per year are in the order of 90,000 tons using approximately 5,000 boats. Artisanal lobster fishing is significant with estimates of catches between 100-200 tons per year but possibly as high as 700 tons. Currently there is no control over lobster fishing in Angola. Neither artisanal or subsistence fishers are properly regulated by the legislative provisions of either Namibia or South Africa, therefore the data collected from those countries is currently inconsistent.

One valuable side-effect of these AC sub-projects on artisanal fisheries is the interaction with the community which gave BCLME Project staff opportunity to raise awareness on the BCLME Programme. involvement with artisanal fisheries issues goes beyond species biology and stock assessment and overlaps with health and hygiene issues, environmental impacts from firewood collection, exploitation of juvenile fish and endangered species (e.g. turtles), coastal management, etc. The next logical step would be to develop a management strategy for artisanal fisheries within the BCLME region.

One major threat to artisanal fisheries and community welfare in Angola is the incidence of large trawlers coming into the artisanal fishery zone (out to 4 nautical miles). Such vessels frequently break this law causing conflicts between themselves and the artisanal fishermen. Angola is trying to promote gear exchange replacing smaller meshed nets with new larger mesh equipment to protect juvenile stocks. MCS is a problem in view of limited manpower. The Ministry of Fisheries have a Surveillance Department but it is ill-equipped and needs support. There is a plan to require all licensed fishing vessels to install VMS but experience to date has shown that the vessels remove these 'blue' boxes to prevent being tracked. A continued programme of interaction with artisanal fishing communities has been recommended by researchers working on the AC sub-projects to continue to promote and develop trust and feedback.

Activity Centre sub-projects have also looked at harmonising regulations for micro-algal toxins for application in BCLME countries, development of an operational capacity for monitoring HABs, and the development of a shellfish sanitation programme. HABs represent dangers on a wide scale through trophic transfer of toxins (leading to mortalities), clogging of gills, hypoxia in the water column as a result of bloom decays, and allergies/irritations to humans. Understanding and predicting HAB is critical to the health of the ecosystem and the human population, especially when considering the potential for development of aquaculture. Multi-stakeholder workshops were held to discuss HAB management plan needs, legislation, harmonisation of activities and policies, etc. Pilot studies looked at monitoring of sanitary indicators related to HABs using frequent monitoring and sampling at selected stations within the BCLME. Problems existing at present include the need for improved monitoring programmes (none in Angola) and sampling capacity, as well as effective facilities for analyses of samples to avoid slow turnaround times of sending samples out of the countries. These HABs sub-projects have been successful in promoting awareness and identifying the lack of monitoring, setting up pilot monitoring programmes in Angola and Namibia, identifying legislative needs and creating legislation in Angola (Law on Biological Aquatic Resources). This momentum needs to be continued to arrive at sustainable government monitoring programmes (this is particularly important for Namibia and Angola where seafood products are eaten fresh and often live without appropriate analytical capability. Discussions with the personnel and institutes associated with the HABs sub-projects identified the fact that they were strongly of the opinion that these HABs initiatives were directly addressing the transboundary issues and the concerns identified by the TDA. The studies have been very effective and the information has reached out to a lot of people in the scientific community, especially in relation to the linkages with mariculture. However, on a general note, they felt that most of the AC sub-projects have been reviewing, planning and designing and that there is now a need to implement and make operational specific activities related to monitoring and management approaches.

It should be noted that, in Namibia at least, the Ministry is now supporting studies into HAB directly through microbiological testing and through a shellfish sanitation programme (which has a clear commercial advantage). This constitutes co-funding for the HAB sub-projects and represents potential for sustainability of this work.

This Component of the Full Project (and the associated AC sub-projects) has placed a lot of emphasis on modelling and forecasting environmental variability. AC sub-projects have looked into the feasibility of extending the PIRATA (pilot research array in the tropical Atlantic) buoyed network, have undertaken modelling and satellite observations for the Benguela Niños, studied harmful algal blooms in southern Benguela and developed modelling platform hardware and an associated operational website. The work has also looked at the dynamic variability and assessments of predictability of warm and cold events in the BCLME, and undertaken a numerical model investigation of near-surface circulation features of the Angola Basin, as well as studies on seasonal and interannual fluctuations of the Angola-Benguela Frontal Zone using satellite imagery. The sub-project has deployed HAB monitoring buoys to collect time-series data and chlorophyll a data to demonstrate the detection capabilities for dinoflagellate blooms. Associated with all this work are a Real Time Data Web Site and a number of valuable cutting edge BCLME publications. The BCLME Project has been instrumental in the development of software and hardware to support this modelling and environmental variability detection work. As a consequence, excellent progress is being made towards modelling and forecasting in an number of important areas of concern within the BCLME, capacity is being built (especially at postgraduate level). However, it is now essential that plans be made for the implementation of an early warning system for hazardous events and predictable environmental variations, and it is time to turn pilot studies into full operational projects.

Sub-projects looking at low oxygen water events (LOWs) and at warm water intrusions associated with the Benguela El Niños have been geared to modelling the variable environment or at least specific environmental scenarios that may affect the commercial fish stocks and, once this is achieved, setting up early warning systems for specific environmental perturbations. A valuable forecasting and prediction related sub-project under the Environmental Variability AC is that looking at forecasting LOW variability in the BCLME. This sub-project (contracted to CSIR – Council for Science and Industrial Research – a South African parastatal body – for website see www.csir.co.za) has demonstrated the linkages between LOW events and other oceanographic and climatic events and drivers and has also demonstrated that it is possible to forecast LOW events. This is of critical importance to certain commercial fisheries (i.e. hake in Namibia) and associated species such as rock lobster which are forced into the intertidal and then perish. Single lobster ‘walk-out’ events can involve numbers of lobsters as high as the total annual catch allowance. The sub-project has shown that LOWs and HABs are often formed together and effectively corral the lobster into the intertidal zone. However, the sub-project has demonstrated that this can be forecast in advance on a 7-day basis (which is applicable to the southern edge of the system) as well as on a 2-month basis (applicable to fisheries concerns in the North of the LME). However, further uncertainties that need to be explored include the effect of longer climatic cycles over several years, how the predictability of events may be affected by climate change and El Niños. Prior to this AC sub-project being funded under BCLME, scientists had only ever looked at LOW events at the localised scale and had never considered them at the system level. Now they are starting to understand the role of the equatorial system and the external drivers. This was imperative before they could design a forecasting strategy (i.e. need to know how the events occur and what to base their forecasting on). The sub-project should be completed by June 2007. It should be noted here that CSIR undertakes interdisciplinary science with commercial applications. In this respect there needs to be a better balance on such sub-projects between research and implementation. Some components of this sub-project were providing straightforward contractual services but others were developing new capabilities. This sub-project would not have been feasible unless CSIR had co-funded a substantial amount of research and development activities. The personnel and institutions working with the LOW sub-project now recognise the need to set up early warning and state-of-the-

environment monitoring systems. This could not be done until the modelling sub-projects are completed. The modelling skills are being built fast and the time is now ready for the 'hands-on' work but there is still a need for more specific training and capacity building to support this and to integrate it into institutional and agency line functions.

In terms of environmental variability, the Project has also been working closely with various international organisations in the areas of geology and geophysics as well as oceanography. These interested Organisations such as GOOS (Global Ocean Observation System) and SCORE (Scientific Commission on Oceanographic Research) have been developing an approach to use international expertise and technology in order to transfer forecasting capacity into the developing countries and BCLME provides a good pilot for such an approach. In relation to this, the BCLME Project sponsored an International Workshop on Forecasting and Data Assimilation, which took place in November 2004, for the Benguela Current LME (and for comparable systems). The invitations to this workshop targeted top researchers and experts in the field. As the discussions were high quality and cutting edge it was decided to produce a book rather than a standard set of proceedings. This book entitled 'The Benguela: Predicting a Large Marine Ecosystem', to be published by Elsevier Press, includes contributions from many areas of expertise. 80% of the book is already drafted and peer reviewed and it should be published by the end of 2005. A related CD will also be produced as an output from the BCLME Programme.

The evaluators were reliably informed that the State of the Environment reporting system is on track for implementation in late 2005. If this is the case then there is every possibility that such SOE reports can be available for use by resource managers by the end of the Project

MTE Assessment of Output 3: Most of the indicators related to this Output are not expected to be verified until 2007 so it difficult for the evaluators to provide an assessment of achievement at the Mid-Term stage. However, it is fair to say that significant advances have been made within this Output toward a better understanding of environmental variability and hazardous events such as HABs and LOWs. The BCLME Programme has put the three participating countries at the cutting edge of prediction and modelling in terms of LMEs and it is perfectly feasible that EWS's and Contingency Plans could be adopted by the end of the Project. It is also feasible that regionally harmonised regulations for all 3 countries relating to aquaculture and human health could be drafted and adopted also by the end of the Project. Management actions by the IBCC based on knowledge of fronts, currents and related fish stocks are also a possibility.

Output 4: Preliminary Steps toward the Maintenance of the Health of the BCLME and toward Effective Pollution Management as a safeguard for Fisheries and other Resources

Indicators

1. Co-operative agreement with SADC to implement MARPOL 73/78 by 2004.
2. Regional consultation framework for mitigating negative impacts on mining by 2005.
3. Regional marine and coastal early warning system by 2004.
4. 20 projects for marine and coastal areas elaborated by 2003.
5. List of waste quality criteria for receiving waters by 2004.
6. Oil pollution contingency plan and regional pollution policy by 2006.
7. Code of conduct for responsible mining by 2004.
8. Assessment of the status of vulnerable species and habitats by 2005.
9. Regional marine biodiversity conservation management plan by 2005.
10. Protected areas identified and measures for conservation implemented by 2006.

11. Oil pollution contingency plans within the region harmonised and implemented by IBCC including specific agreed mechanisms for sharing technology and expertise for controlling oil spills by 2005.
12. Guidelines for water quality in all three countries including (STD) index to measure levels of pollution by 2005.

Angola and South Africa are party to MARPOL 73/78 already although they may not be implementing the Convention and its Protocols in full.

The BCLME Programme is undertaking sub-projects related to Oil Spill Contingency Planning (OSCP) and to marine debris and litter from ships. This also involves the local coastal communities who are affected by pollution along the coast. The major shipping lanes are very close to the shore and, although the BCLME region has not experienced a major maritime oil spill as yet, there is a strong possibility of such an environmental disaster. Experience along the Namibian coast has shown that most maritime traffic pollution is not from tankers but from bulk carriers. Both Namibia and Angola now have OSCPs (as well as South Africa which has had one for some time). There is a concern that fast and efficient communications with Angola are difficult if not impossible which is a problem in the event of an oil spill. These communications need to be improved and a fast response agreement put in place. Currently there are no MoUs or instruments of agreement between Namibia and Angola, but Namibia and South Africa have agreements on maritime affairs. The BCLME sub-project on Contingency Planning is intended to address mutual cooperation. In Angola, the oil companies are obligated to undertake EIAs for all proposals and their activities are monitored. In the event of any problems there is close communication and dialogue between the oil companies and the Ministry. Currently they are working with the Ministry in the process of finalising and approving an OSCP.

Deterioration in water quality is being addressed through the BCLME land-based pollution sub-projects out of the Activity Centres. For example, the Activity Centre for Biodiversity, Ecosystem Health and Pollution (BEHP) has undertaken a sub-project to look at means to harmonise national environmental policies and legislation for marine mining, dredging and offshore petroleum exploration and production activities within the BCLME. The activities included 1) reviews of national policies, legislations and regulations in comparison with international best practices; 2) literature research; 3) workshops for all project team members; 4) drafting a discussion paper with provisional recommendations; 5) consultations with senior government and industry officials and other selected stakeholders to consider the draft discussion paper; and 6) the drafting of final recommendations for regional harmonisation. The sub-project was completed 1 March 2005. The recommendations address a number of needs and concerns. Full harmonisation of legislation is impractical because of different legal systems, and unnecessary because of wealth of legislation already in place. All 3 countries either have or are in process of putting safeguards in place to ensure the minimisation of unwanted impacts. Efforts should therefore be directed at harmonisation of standards as well as in-country harmonisation of individual sectoral legislation for environmental protection as there are jurisdictional overlaps as well as institutional duplication in all 3 countries. The enforcement of current legislation in all 3 countries is further hindered by lack of capacity and trained personnel, and the fact that technical expertise and competence are spread too thin across too many institutions. Further specific recommendations include:

- Need to develop emission and discharge standards and permitting
- Specification and establishment of rehabilitation and decommissioning funds
- Each country needs to ensure that its EIA systems stipulate special attention to transboundary impacts

- Namibia needs to pass its environmental Management Bill and Pollution Control and Waste Management Bill
- All 3 countries need to sign and implement the relevant Conventions and SADC Protocols

Another Activity Centre sub-project is looking at assessing the cumulative effects of discharges from onshore and near-shore diamond mining activities. These mining activities include coastal mining (behind constructed sea-walls), dredging, the use of walking jack-up rigs, and mining from vessels (dredging and drilling or deployment of remote vehicles). Impacts from these activities include increased turbulence and alterations to current regimes, scouring of marine habitats such as reefs, sediment deposition, increased suspended sediment concentrations and turbidity. Although this sub-project is not due for completion until March 2006, the interim findings indicate that the magnitudes of sediment input from natural discharges and mining operations are comparable; there is considerable sand deposition near-shore, fine sediments are being extensively redistributed along the coast and that there are probably cumulative effects (sedimentation and turbidity) as a result. The sub-project is recommending capacity building workshops for assessment and monitoring, development of an inventory of sediment inputs, an assessment of cumulative effects, and overall monitoring programme, and the development of management strategies for discharges. One concern that has been expressed by project stakeholders is the fact that there are no current policies or plans for 'set-asides' or buffers and that, in theory at least, the whole coast of the BCLME could be mined and dredged leaving no near-shore habitats intact anywhere.

The BEHP Activity Centre has also initiated sub-projects that address the baseline assessment of sources and management of land-based marine pollution in the BCLME region, and for the development of a common set of water and sediment quality guidelines for the coastal zone. The aim of these sub-projects was to:

- propose a draft management framework for land-based marine pollution (including monitoring protocols),
- undertake a desktop assessment of existing information and initiatives,
- recommend marine water and sediment quality guidelines to sustain ecosystem functions and beneficial use (including guidance on their application),
- initiate the establishment of a BCLME coastal water quality network,
- to develop an updateable web-based information system for coastal water quality management within the BCLME.

An operational policy for disposal of land-derived wastewater was developed in South Africa in 2004 (taking into account international best practices). This included a management framework that promotes an ecosystem-based approach rather than dealing with individual pollution sources. This pilot was tested in Saldanha Bay/Langebaan lagoon system and work sessions were carried out in each of the three countries to establish the applicability of the approach to the larger BCLME region. Water quality guidelines have been developed based on best available international practices and are tailored to address a) the protection of aquatic ecosystems, b) recreational waters, c) marine aquaculture, and d) industrial use. So far the sub-projects have submitted their inception reports and have prepared discussion documents. They have held work sessions in all 3 countries and have completed the desktop assessments. The final draft reports (including feedback from the work sessions) are expected in June 2005 along with the initiation of the web-based information system. Training workshops are planned for all 3 countries for August/September 2005 and the final products should be submitted to the PCU by the end of 2005.

One constraint identified to the above process is the fact that in at least one country there are two separate agencies responsible for land and sea pollution and discharges so the former is in a position to use the latter as a 'dust-bin'. This will need more careful integration at the management and policy level in the future.

These sub-projects are already identifying follow-up activities to their work which include 1) the establishment of formal local management forums (development nodes) for a water quality network, 2) the use of outputs from the sub-projects to compile training modules for wider scale capacity building, and 3) a mechanism to ensure that web-based information has an administrative bases that are responsible for updates.

The biodiversity sub-projects under the BEHP Activity Centre are looking at habitat and species mapping with a view to setting-up management zonation and identifying potential protected areas (using a gaps analysis against existing protected areas). Namibia has now finished its National Biodiversity Strategic Action Plan (NBSAP) and South Africa's is underway while Angola has just started its NBSAP and is also about to embark on a National Environment Action Plan (NEAP). There needs to be some discussion between the BCLME Programme and the relevant government departments in each country as to how these can be linked with the Programme. Angola is also keen to undertake studies to identify potential MPAs and to establish a list of endangered species and a programme to protect these. Most of these activities would be done in cooperation and partnership with the BCLME Programme.

Another set of activities under the responsibility of the BEHP Activity Centre has been contracted out as a sub-projects to WWF and is looking at the by-catch of threatened seabirds, sharks and turtles within long-line fisheries in the BCLME. The objective is to assess the mortalities from long-line fishing on non-target species (sub-project 1), and to investigate species distribution, abundance and by-catch more specifically for shark species in order to propose guidelines for protection (sub-project 2). So far these two sub-projects have provided the PCU with valuable input by way of country assessment reports for all 3 countries. Summarised information shows that foreign fleets are catching over 3,000 birds per year (for 12 million hooks set). 70% of these are albatrosses which are particularly vulnerable. Turtle catches are recorded at 570 per year (foreign fleets) while shark by-catch is recorded at 116,000 per year for foreign and 20,000 for the domestic fleets. One useful indication from the sub-projects, even in the early stages, is that mid-water trawls also appear to represent a big problem in the context of by-catch so the BCLME Project is developing a new activity sub-project to address this concern. The sub-projects are identifying mechanisms that could help to reduce the by-catches (e.g. bird-scaring devices, and mechanisms to get the line and hooks down below diving depth faster). The sub-projects are also raising awareness and training observers and skippers through stakeholder meetings. The final recommendations and proposed strategies should be ready for delivery to the PCU by April 2006.

In relation to the assessment and status of vulnerable species, an estimated 90% of the total weight of the ocean's large predators (tuna, swordfish and sharks) has disappeared in recent years. An AC sub-project that deal with sharks, specifically the Bronze Whaler, has been studying these sharks to gain knowledge on their migratory behaviour and habits. This has included a tag-and-release programme, genetic studies, identification of breeding and pupping areas, an economic investigation (recreational versus commercial fishery), and a final joint management plan. The sub-project has effectively carried out a TDA identifying major problems, root causes and proposed actions. This has then evolved into a strategic action programme. Capacity building and training has been a characteristic delivery within this sub-project. The work has also identified the importance and value of these apex predators within the LME and, most importantly, has placed a

value on this species of over US\$3 million per annum in actual foreign tourist revenues to Namibia just as a sport fish. The end-results highlight the need for transboundary MPAs and continuous capacity building and training, as well as the need to replicate these studies for other apex predators, particularly other shark species.

Sub-projects that are yet to be awarded and implemented under the BEHP Activity Centre include the Luanda Bay Ecosystem sub-project. This will be a demonstration sub-project to understand and implement measures that are critical to the integration of urban expansion into an ecosystem approach to sustainable development.

In reviewing the implementation of MARPOL and the need for a regional biodiversity management plan under this Output, it should be noted that some countries still need to sign and ratify the relevant conventions and protocols pertinent to sustainable management of the BCLME and this should be a priority for consideration and promotion by the Interim BCC with a view to meeting this as a condition for any further GEF funding and assistance. The BCLME Programme should clearly identify the relevant conventions, define the barriers or delays that are preventing ratification, and work through the IBCC to remove barriers and ensure ratification.

MTE Assessment on Output 4: The BCLME Programme has undertaken a number of sub-projects which are looking at land-based sources of pollution, harmonisation of legislation relating to mining and the oil industry, and standardising water quality control and monitoring. Much of this work now needs to be operationalised. Sub-projects have also addressed information needs regarding by-catch and vulnerable species. Again, indicators need to be reviewed by the Project at this Mid-Term stage to ensure that they can be fully addressed and verified by the end of the Project. Some of the achievement dates are overly optimistic.

Output 5: Improvements in Donor Participation and Co-Financing within and beyond Project Lifetime

Indicators (taken from original LogFrame as there are no indicators given in revised LogFrame)

1. Development of an overall plan to increase donor and country resource commitment to the Project and the long-term sustainability of the BCC.
2. Donor Conferences planned and executed.
3. Systematic procedures established to use the GEF project to leverage other donors for direct and indirect support to project activities.
4. Increased donor support for direct and indirect assistance to Project related activities and the longer term activities of the BCC.

According to the relevant section of the Project Document a Donor Conference was to be sponsored during year one of Project Implementation. This Conference should have been promoted through a joint partnership between UNDP and the World Bank (with the African Development Bank also encouraged to participate in this partnership).

This Output component of the GEF Project should not just be about donor participation and co-financing, but should focus on building real partnership initiatives, including those with other national BCLME-related work as well as trans-national and international activities. The Activity Centre mandates could be expanded to identify and capture some of these linkages and partnerships within their area of specialisation particularly partnering also with the private sector in mining, petroleum extraction and commercial fishing.

Discussions at the senior government level (Ministers and Deputy Ministers) confirmed general government support for a partnership initiative. Senior policy-makers realise that they cannot do everything relating to sustainable management and that they need working partnerships and cooperation with the private sector at the national and international level. The consensus is that policy makers would support such efforts if there is a clear strategy and funding is available (particularly for high-level attendance from the Ministries).

Certainly stakeholders are concerned about the lack of progress within this particular output. The evaluation will recommend that immediate attention is given to the requirements for improving donor and private sector participation and financing, but with the emphasis more on partnerships rather than simply donor financing.

Output 5 Assessment: In effect, this Output has not delivered much at all up until the present, and indicators will need to be revised (which did not happen during the last Logical Framework revision). Emphasis should be placed on partnerships (including with private sector) rather than donor commitments. The evaluators understand that the project has been developing good working partnerships but it is now critical to develop and formally confirm partnerships for sustainability, with real financial commitment. It is understood that the Project is just now (at the time of the Evaluation) starting to target donors to support the IBCC and BCC with some significant and positive feedback. This needs to progress with some urgency.

4.1.12 The Activity Centres and their Sub-projects

The BCLME Programme has three Activity Centres as follows:

Angola: Biodiversity, Ecosystem Health and Pollution Centre
Namibia: Living Marine Resources Centre
South Africa: Environmental Variability Centre

At the time that the Project Document was signed, the locations of the 3 Centres had already been agreed along with confirmation of supportive in-kind contributions from each host country. Associated with each Centre is an Advisory Group consisting of two representatives from each country who are specialists within the Centre's thematic area. It was noted by stakeholders that the creation of the Activity Centres and the adoption of their various sub-projects represented a capacity building exercise in itself in that it created a vehicles for less developed and poorly trained institutes with limited capacity to work more closely with regional centres of excellence like CSIR (Centre for Scientific and Industrial Research) and UCT (University of Cape Town) and to work on cutting edge projects with hard delivery targets.

The evaluators managed to visit all 3 Activity Centres which represented in-kind contributions and commitments from the countries. In brief, it appears that the locations for the Activity Centres have been carefully considered and are effective. In Namibia, the government has made a significant contribution both to the BCLME Programme and to BENEFIT, both having their furniture provided and utilities paid for by the government and both of which are housed in an impressive building in Swakopmund next to the Ministry of Fisheries own building and This creates an excellent opportunity for dialogue and cooperation between all 3 parties. In Angola, the Activity Centre also has its own building immediately adjacent to the IIM (Institute for Marine Research) offices which also provides for ease of dialogue and direct contact with the BCLME Programme National Focal Point who resides in the IIM. In South Africa, the Activity Centre is housed within the Department of Marine and Coastal Management (MCM) offices in Cape Town which again allows easy access

to scientific and technical skills and to the NFP and PSC Chairperson who is currently the Chief Director for Research and Development within MCM. This Centre was the first to be established and was used as a pilot to develop lessons and best practices for setting up the other two Centres. The process for development of the Environmental Variability Activity Centre (EVAC) is therefore used as an example in this report.

The EVAC held its first consultative stakeholder meeting in July 2002 to review the TDA and the Project Document and identify priority needs for environmental variability activities. This stakeholder group identified 4 main areas of concern 1. Large-scale variability in the environment, 2. Harmful algal blooms (HABs) 3. Low oxygen water events (LOWs), and 4. Productivity variability and retention. A Task Force was then set up for each of these priority areas of concern (4 Task Forces in total) to develop a suite of sub-projects to address the issues and to gather information and knowledge on the threats and root causes under each theme. The Centre convened another Consultative Meeting to review the inputs from the Task Forces and to advise them on amendments and further development needs for the sub-projects. The Task Forces then submitted their final input to a 3rd Consultative Meeting (sub-project titles, budgets, recommended contractual routes and modalities, etc) which gave final approval on priority activities and sub-projects for the Centre. Prior to this 3rd meeting, governments were asked to nominate two representatives per country to sit on the Centre's Advisory Group. This Advisory Group effectively represent the 'Steering' body for the Centre and its activities and has the power to vote on issues such as the selection of sub-projects. The membership of the Advisory Group was adopted at this same 3rd Consultative Meeting.

This same process was effectively used for the other two Centres. This was a valuable exercise as it took a considerable amount of time to set up and establish the first Activity Centre in South Africa but the other countries were able to learn from this and to set up their centres much more efficiently and quickly using the EVAC experience to their advantage. It would also have been difficult to set up all 3 Centres in parallel due to the fact that some of the stakeholders and representatives were involved with more than one Centre, Task Force or Advisory Group. It was noted by the evaluators that the Activity Centres worked closely with each other and promoted a high level of mutual cooperation. The Director of each Activity Centre attends the Project Steering Committee (PSC) meetings to report on the progress of the activities and any associated issues. Furthermore, the Activity Groups meet from time-to-time to review sub-project status.

Once the Activity Centres (ACs) were set up and functional, they were able to invite tenders and bids for the various sub-projects that had been identified by the Task Forces (as discussed above). Initially there was concern regarding the level of the proposed budgets associated with various bids for the AC sub-projects. These budgets were too large and would have reduced the cost-effective delivery of the Centres. During the actual call for tenders a ceiling was given for sub-project budgets. The Centres and their Advisory Groups developed evaluation criteria for the selection of sub-projects, which were approved by the Implementing and Executing Agencies. The means of selection varied and sub-projects either went to tender, directly to BENEFIT, or were given to an appropriate institution (as selected through a consultative process) through the management of the CTA. In each selection process the CTA, the Director of the relevant Centre, and the Project Task Manager in UNOPS independently reviewed the potential candidates on the basis of a criteria template (which the AC Directors considered to be a very good document) and compared their independent choices to meet a consensus agreement on the final selection of candidate. Any pre-selected institutes (on the basis of their regional expertise) had to be first approved by the Advisory Group. All final selections had to be endorsed by the PSC.

Calls for tender were placed in the national newspapers of all three countries and interested parties were referred to the website. UNOPS also placed an advert in New Scientist but with a disappointing response. It was pointed out to the evaluators that UNOPS adopted a policy that government agencies should have preference at tendering. The evaluators received feedback from UNOPS on this particular point. UNOPS consultations with UNDP GEF had confirmed that, where adequate capacity existed, government agencies should be given the opportunity to carry out sub-projects and would not be subject to tendering. UNOPS further confirmed that this approach is not specific to this project and is applied to other UNOPS-executed projects where Government lead agencies are proactive and have the capacity to carry out project activities under the framework of MoAs with UNOPS. This raises some concern as there is little justification for excluding NGOs or private sector consultants from having an equal opportunity within the bidding process if they can demonstrate equal capacity. This may be justifiable, however, where a government agency is a direct co-funding partner to a project and is using co-funds to support a sub-project.

Actual contracts followed the standard UNOPS format (Actual contract, ToR, statement of work, deliverables, budget, reporting format, etc) and were considered to be comprehensive and well-written according to feedback from the Activity Centres. Final reports from the sub-projects are required to have specific headings and sections such as Capacity Building, Training, etc. Two principal forms of contracting were used A) Memoranda of Understanding (between UNOPS and government agencies or BENEFIT) and B) Contract for Services. Where sub-projects did not fit logically under a particular Activity Centre, or were cross-cutting, they were contracted out and managed directly by the PCU (e.g. Training and Capacity Needs Assessment; International Review and Analysis for the Benguela Current Commission).

Although this process worked reasonably well with few disagreements, in hindsight a number of stakeholders directly involved in this process felt that it would avoid any friction and increase transparency if all sub-projects had gone to open tender. This would also have increased the chances of identifying and developing valuable long-term partnerships between the sub-project and outside expertise.

There were initial problems with developing and issuing contracts in Angola, and reporting has been a problem due to language differences and the lack of facilities and mechanisms within the Project to undertake such translations. The BCLME is trying to address this problem by helping Angolan stakeholders with courses in English and in report-writing.

Several stakeholders involved with AC sub-projects and the ACs themselves noted that South African scientists and institutions were getting the bulk of the contracts for the AC sub-projects. One of the selection criteria for the sub-projects was the need to involve all 3 BCLME countries and their scientific and technical staff. However, it has been alleged that in a number of cases bids named co-partners in Angola and Namibia within their submission who were not even aware of their proposed involvement and, in some cases, were never informed or involved once the bid had been won. In the opinion of the evaluators it would have been more appropriate and transparent if the conditions for tender had required Letters of Agreement from all parties. Such a non-participatory approach as has been suggested as having happened would certainly tend to undermine the trust that has otherwise been built through the Programme and its cooperative activities. Also related to this issue it was noted that some bids proposed the enrolment of Angolan or Namibian co-partners in courses at UCT or the provision for UCT staff to provide courses in the Universities in Angola and Namibia. However, there was no certainty as to whether such commitments had been met although it was pointed out to the evaluators that in at least one occasion where enrolment had been proposed, it was not possible to find a suitable student with

both the ability and the language proficiency, yet the sub-project was an important one and had to be implemented regardless. This may be an area that should be explored by the Terminal Evaluation at the end of the current GEF Project to see if this situation continues. There is evidence of at least one sub-project in which pressure had to be applied by an Activity Centre to ensure that the contractees actually went ahead and used Angolan counterparts as they had committed themselves to do. Certainly, the evaluators encountered a strong perception of inequality and unfairness from stakeholders in both Namibia and Angola with regard to what they see as South African institutions not allowing them to be involved in data analysis and development of reports. One example cited was Angolan scientific staff wanting to go to Cape Town with their data to help in a joint analyses but were informed by the South African counterparts that there was insufficient money or time for them to be involved. How accurate and fair these perceptions may be is difficult for a short evaluation process to ascertain. However, clearly these perceptions exist and that in itself is damaging and should be addressed in the interest of trust, cooperation and equality.

One noticeable omission from the selection criteria is any consideration of co-financing. As part of the selection process, sub-projects that were additionally supported by in-kind or cash contributions from the proponent should have some positive weighting for cost-effectiveness. To put this into an actual perspective, the evaluators noted that one sub-project proposed to undertake a field-related feasibility study of extending the PIRATA (Pilot Moored Array in the Tropical Atlantic). The cost of the required moorings was \$600,000 but the sub-project had a ceiling of \$200,000. Consequently the sub-project was rejected by the Advisory Group on the grounds that it was not cost-effective. Since then the Contractor has gone out and found international donor funding and is now only seeking \$70-80,000. If co-funding had been an initial requirement then this would have been addressed in the original proposal, the funding from GEF would have been acceptable and time would not have been lost. Now the earliest that the extension to the array can be deployed (due to constraints on vessel time) is 2006.

A concern was raised that the emphasis within the approved AC sub-projects always seemed to be toward fisheries and away from non-consumptive marine resource sub-projects. It has even been suggested that sub-projects may have been rejected on the grounds that they were not addressing consumptive, resource issues. Several stakeholders had noted this bias within the Project toward commercial fisheries and there does seem a need to reiterate the fact that this is an LME Programme and not a Fisheries Programme, albeit recognised that fisheries is a key concern within the LME.

The generic Terms of Reference for the three Activity Centres was included in the Project Document (as Attachment 7). The ToR identifies the location, staffing, and the relationship between the Centres, the Advisory Groups and the PCU/CTA. It provides very little in the way of detail regarding their specific functions or deliverables. In particular it does not address how the information gathered and coordinated by the Centres through the results of their thematic sub-projects would be put to use by the BCLME Programme.

The Terms of Reference for the Advisory Groups are also provided within the Project Document (as Attachment 7). In reviewing these ToRs in relation to the Activity Centres it is apparent that two of the Advisory Groups are dealing with non-Activity Centre issues i.e. Legal and Maritime Affairs and Information and Data Exchange. These are two important areas for the Project.

The first (Legal and Maritime Affairs) looks at the legal regime of the BCLME and the Programme's member countries vis-à-vis their commitments to multilateral agreements such as UNCLOS, SEAFO and SADC. This has important linkages to the development of the Interim and

full BCC. This Advisory Group is tasked with ensuring harmonisation, compatibility and consistency between national and regional legislative developments related to the BCLME Programme with existing regional and global commitments.

The second (Information and Data Exchange) has a number of clearly defined responsibilities (see Project Document Attachment 7 -Terms of Reference – Advisory Groups) including:

- Updating existing information in the BCLME on fisheries, oceanography and other natural resource related issues
- overseeing the development of an integrated regional database and a Geographic Information System (GIS).
- Compiling and updating a regional bibliography and website
- Strengthening the email network and improving internet connections for principal data centres and stakeholder government institutions.
- Developing a regional internet facility with links to pertinent institutional and global databases
- Cooperating with an NGO network in data exchange (including organising training and distance learning programmes such as IW:LEARN)

Setting up the various Activity Centres and going through the process of sub-project selection was time-consuming and caused some delay in BCLME Programme delivery which has had a knock-on effect so that some of the actual Activity Centre sub-projects have also been delayed. However, the Centres have been working hard to ensure that the thematic sub-projects will be finished before the end of the Full Project. One possibility for future consideration in similar GEF projects is to undertake the prioritisation and thematic activity selection during the PDF B and/or TDA process so that sub-project types are already agreed at the inception of the Full project. Activity Centres could then be established (and tendering could begin) as soon as the Full Project commences implementation.

Annex 2 list the Titles for all of the Sub-projects undertaken by the BCLME. Details of all 77 sub-projects (including their status, achievements and completion date) are available on the BCLME website at www.bclme.org . It is beyond the scope of this evaluation to review all of these sub-projects and would almost certainly be beyond the technical knowledge of the evaluators to be able to address each subject area. However, one concern highlighted by the evaluation is the need to take what are effectively scientific papers in most cases, and to review each one with a view to extracting and developing A) Management recommendations pertinent to the sustainable management of the BCLME,B) identifying further related work (including long-term monitoring where appropriate) which can build on these scientific and technical foundations to further strengthen the accuracy of information and improve the advice available for managers and policy makers, and C) deliver best practices and lessons learned to the appropriate stakeholders (users). To this extent, the Activity Centres and associated Advisory Groups need to be more pro-active (although this was not part of their original ToRs) in reviewing and analysing the type of information and data returns from the various sub-projects (with possible assistance from the original Task Force members and other experts if necessary) and identifying the appropriate targets (e.g. Government agencies, private sector, etc) for capturing this information into operational and management strategies and practices, and/or developing on-going monitoring programmes to build on these studies for future management input. Consideration should be given to appropriate regional stakeholder workshops to deliver pertinent information to specific groups also. For example, one sub-project (EV/HAB/02/02a – see BCLME website for further details) looked at developing a cost-effective mechanism for monitoring HABs. This mechanism could be replicated throughout the region. It would be valuable for all three countries if this mechanism were to be

explained and at a workshop so that the country representatives could see its value and importance and also receive a demonstration of how to implement it within their own context.

One very valuable end-product from these sub-projects would be a distilled and concise synopsis of concerns and issues arising from the work with direct management implications which would be targeted as a presentation to national top-level resource managers and policy-makers (including Ministers and their Permanent Secretaries). In the first instance, a regional meeting of all 3 Advisory Groups and Activity Centre Directors would be a valuable initial step to discuss this need and resolve the way forward. This would also provide an effective overall synopsis and evaluation of all these Activity Centre sub-projects which would be of great value to the terminal evaluation process if completed before the end of the Full Project.

One concern raised by all the Activity Centres and by other stakeholders was the inadequate staffing levels for the Centres. There is a strong case for having an additional person to support the Director who can deal with the technical aspects of the contracting and the Terms of Reference and thereby allow the Director to be more involved with developing project indicators, and for project monitoring and evaluation, as well as project review and identification of information targeting for management purposes. Of course, budget constraints both from the point-of-view of not having included salary for such a person coupled with the unprecedented fall in the exchange rate now makes this a very difficult proposition.

4.1.13 The Highlights Symposium

As a benchmark for the mid-term evaluation, the Project Management organised a Highlights Symposium in Cape Town on 9th-10th May. This Symposium gave an overall update on Project achievements and delivery, an excellent set of presentations by a number of diverse Activity Centre sub-projects, and provided a forum for discussion of the way forward for the BCLME Programme. This was an excellent opportunity for the evaluators to be appraised in detail on Project delivery and achievement and to have access to a large and diverse number of stakeholders in the project. This evaluation report will not attempt to record the proceedings of this Symposium as these will be drafted, finalised and placed on the website by the PCU (along with various high quality Power-point presentations given by the stakeholders and project staff). However, there are some valuable points and concerns that the evaluators captured from this process which have been discussed under the relevant Outputs above.

The quality of the presentations was, in general, excellent. Objectives and methodologies were clearly explained and the results presented scientifically leading to obvious conclusions. In most cases there were constructive recommendations arising from the conclusions which could be translated into management strategies or precautionary policies (although one or two presentations seemed to conclude with only the findings suggesting that the arrival at a greater scientific awareness was considered to be sufficient justification in itself). The overall conclusion of the evaluators was that the Activity Centre sub-projects were sensibly focussed on very pertinent transboundary issues and threats and provided a valuable foundation on which both A) further targeted studies and long-term monitoring could be planned, and B) initial management and operational strategies could be evolved. One particular aspect that came across clearly was the sharing of expertise and the transfer of capacity between scientific groups and countries. Effective capacity building and training through institutional and international cooperation has been a major development characteristic of these sub-projects.

Another valuable point that was repeated several times and has a direct bearing on this evaluation is that much of this cutting-edge research and information capture would not have been possible without the GEF Project and its associated Activity Centre sub-project funding. Valuable information has been collected on such aspects as the correlation between sea temperature fluctuations and associated climatic characteristics and variation around in the South Atlantic, promising great advances in environmental predictability within the LME. Furthermore, this funding has helped to develop and deploy instrumentation that has proved to be highly successful in monitoring outbreaks of HABs and LOWs (the Project provided much of the hardware for this development). As a consequence there has been excellent progress in the development of modelling of the BCLME and the building of associated regional capacity. It has also attracted an enormous international scientific interest which is helping to build momentum and support. This now needs to be operationalised into a monitoring and data analysis programme to support event predictability and early warning systems. The information also needs to be processed and distilled into a language that can be presented to managers and policy makers. For example, the work on environmental variability has shown that it is possible to predict HAB and LOW events 7 days in advance that will force 'walk-outs' of rock lobster into shallow and intertidal zones. The quantity of lobster that 'walk-out' and perish in one of these events can be as high as the Total Annual Catch for this commercial species. There is also a possibility for extending this to a 2-month warning system.

A brief and general summary of some of the findings from the sub-projects includes information and guidance on:

- Management and protection of shared commercial/food stocks
- Development of an EAF strategy and operational management plans
- Placing values on biodiversity and individual species
- Conservation requirements for top predators
- Detailed knowledge of human impacts on the LME through fishing practices, coastal zone degradation and pollution
- Maintenance of genetic diversity and integrity in the BCLME
- Importance of taking an interdisciplinary, integrated approach to both studies and management strategies for BCLME resources
- A greater understanding of the oceanographic regimes within the BCLME that can directly assist in fisheries management (e.g. An Activity Centre sub-project has identified the presence of seasonal oceanographic 'gates' within BCLME which almost certainly control stock movement and population migrations)
- Studies of the different contexts and legal frameworks relating to fisheries which show that harmonisation of legal and institutional arrangements will be complex (and may even prove impossible within the artisanal sector)
- Any tripartite legal instruments and associated mechanisms related to shared resources will need to be reflected as national legal instruments.

Some of the specific constraints identified in undertaking science and field-work, and in LME management generally within the BCLME region include:

- Transportation is frequently difficult (long-distances and bad roads)
- Language and communications can be a problem (between SA/Namibia and Angola)
- Scientific Data can be limited (Namibia) and even very poor (Angola) for a number of species and ecosystems, even where they are clearly of commercial value
- Surveys and field-work in Angola can be much more expensive due to cost of living

- Certain essential and time-saving technologies (e.g. satellite tagging, remote sensing, etc) can be relatively expensive compared to other parts of the world
- The three countries are in very different stages regarding the implementation of the provisions of the SADC fisheries protocol
- The three countries have very different policy positions regarding how marine resources serve national political and socio-economic goals
- Reconciling the conflicting interests and demands of different stakeholders in relation to EAF (various fisheries groups, conservation groups and tourism)
- The three countries have different capacities to address the issues of the BCLME especially human resources capacity.

Some very obvious need and requirements for the BCLME arising from the studies and research include:

- Improvements in commercial species monitoring, research and protection, especially in Namibia and Angola
- A better understanding of priority transboundary shared stocks such as deep-water hake
- Closer cooperation between the fisheries management agencies within the three countries so as to understand and manage shared stocks for everyone's benefit (including MCS)
- Establishment of transboundary management areas/reserves/MPAs
- Rapid development of a baseline for environmental variability (linked to climate change studies) followed by development of an environmental prediction and early warning system
- Further and enhanced capacity building and training for stock assessment, ecosystem assessment, etc.
- Establishment of exchange mechanisms for information and lesson-sharing
- More effective and widespread public awareness including delivery of project products to the appropriate stakeholders
- Refined and effective age studies for principal commercial species
- The need for management intervention in coastal resource and coastal livelihood development to minimise environmental impact and optimise socio-economic benefits (e.g. aquaculture)
- Greater emphasis needs to be placed on the economic and socio-economic elements of ecosystem management

There was a very good level of attendance at the Symposium in terms of numbers. Most of the people in attendance were from the technical and research level, with only a few Directors or similar senior management personnel. One Deputy Minister (Fisheries) also attended from Angola, as did the Resident Representative for the UNDP Country Office of Namibia.

It is understandable that there was little representation at the senior policy and decision-making level during the Highlights Symposium. This Highlights Symposium was focussed more specifically at presentations of a technical nature, although the session on the Interim BCC framework had a direct bearing on policy at the national and international level and the final Country Assessments of the BCLME Programme progress would also have been valuable to policy-makers. However, the evaluators are aware that Ministers, senior Ministerial staff and top executives from private sector companies have an enormous amount of demands on their time and would find it very difficult to justify attending a two-day Symposium of this nature. Nevertheless, it is important that a distillation of the messages received at the Symposium reach the relevant policy and decision-makers. The Project needs to evolve an effective mechanism for transmission of this

information in a manner that can be easily reviewed by senior management and Ministers. A number of stakeholders expressed the opinion that this is a critical and urgent requirement.

In this context, it would be very useful to summarise all of the Activity Centre sub-projects into Knowledge Products which present a one-page summary of captured knowledge and achievements

4.1.14 Threats and Root Causes – Effective Resolution by the Project

The Project Document lists 8 principal threats to the BCLME. Annex 2 list all 77 of the sub-projects under the BCLME Programme and Table 1 (below) defines how all of these sub-projects relate to the 8 principal threats.

TABLE 1: SUB-PROJECTS AND HOW THEY RELATE TO PRINCIPAL THREATS

PRINCIPAL THREATS AS LISTED IN PROJECT DOCUMENT	SUB-PROJECT NUMBER (See Annex 2)	TOTAL SUB-PROJECTS)
Habitat loss and pollution of the fragile and relatively pristine nature of the coast of the Benguela region due to uncontrolled tourism development and the ongoing expansion of rural areas	7, 45, 46, 47, 48	5
Serious degradation of coastal areas adjacent to urban centres in the southern part of the region as a result of pollution, habitat loss and the unsustainable exploitation of marine and coastal natural resources	38, 64, 65, 66, 67, 68,	6
Increasing exploitation of the marine biomass by both artisanal and industrial fishers in the absence of an agreed long-term regional strategy for the sharing of a sustainable economic yield	1, 2, 4, 5, 6, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 40, 41, 43,	18
Increasing problems of human and ecosystem health caused by introduced species, especially of algae derived from ballast water, and other ship discharges of non-indigenous species	31,	1
Ongoing mineral and petrogenic energy exploration and production both offshore and in coastal areas, with their attendant pollution and consequent habitat degradation risks	56, 57, 58, 59, 60, 61, 62, 63, 73, 74, 75, 76, 77	13
An apparent increase in the frequency of marked environmental changes in the ecosystem manifesting themselves through fluctuations in abundance and distribution of fish, birds, and mammals	23, 24, 25, 32, 33, 34, 35, 36, 42,	9
Significant losses of biomass among higher order species of the ecosystem, most notably sea-birds and turtles	21, 22, 49, 52, 53	5
An apparent opportunity for important climate change monitoring since the BCLME is both a source and a sink of carbon dioxide and a known predictor of climatic variations in the region.	27, 28, 29, 30,	4
Cross - Cutting or General BCLME Management Issues (Covering various threats) e.g. Aquaculture, Community Management of	3, 8, 9, 10, 26, 37, 39, 44, 50, 51, 54, 55, 69, 70, 71, 72,	16

Resources and Coastlines, etc.		

Whether acceptable to all stakeholders or not, fisheries represent the primary focus of the project to date (as is clear from the number of sub-projects addressing this area of threat) as far as improvements to information and understanding of threats and causes are concerned. In the context of the commercial fisheries, the Project has undertaken assessments of the state of the catch data, the potential for harmonisation of research and management approaches, the development of an ecosystem approach to fisheries for the BCLME region, and studies into the development and use of various techniques for ageing, determination of stock identities, and population life-cycles in the context of transboundary movements. With respect to artisanal fisheries, sub-projects have addressed institutional, socio-economic and legislative arrangements. In particular, the shared hake stocks are contentious for several reasons, not least of which being disagreement over the nature and extent of the transboundary migration of stocks and the location of spawning and nursery areas, all of which would have a significant contribution to the nature of stock management and the responsibility of individual countries in this management. Furthermore, there is some evidence that at least one country may be over-fishing this stock beyond its maximum sustainable yield (MSY). Somewhat related to this (certainly inasmuch as it overwhelms all other fisheries management issues) is the current political priority given to the allocation of fishing rights and the assessment of quotas for fishing groups. Previously disadvantaged groups (especially non-whites) now need to be given fairer allocation of fishing rights. This represents a potentially enormous litigation issue, especially in South Africa, and is therefore providing the focus for the attention of most fisheries policy-makers and their top fisheries management staff. Information on hake stocks and their migratory patterns has improved since the start of the Project and there is a fairly clear understanding of what further work is necessary in order to implement effective transboundary management. In the meantime, steps should be taken (within the context of the precautionary approach) to agree on some measure of management. Initial efforts in such transboundary stock management might well begin with less contentious stocks such as pilchard so as to evolve a spirit of cooperation and trust, and then move into discussions on hake.

According to the feedback from a number of stakeholders, efforts at addressing the threats and impacts from mining and pollution (land-based and maritime) have been less consistent and of limited success. Those scientists working on Ecosystem Approaches to Fisheries within the BCLME Programme are particularly concerned about the effects of mining. However, a significant number of sub-projects have been looking at the issues associated with mineral and petroleum extraction and their attendant pollution and habitat degradation risks. This includes sub-projects attempting to harmonise and define regional policies related to the mining and petroleum industry, assessments of impacts from sedimentation and scouring related to mining as well as the discharge of production water. They have also looked at the development of a framework for consultation between government and industry on monitoring and management of these harmful impacts.

Uncertainty regarding ecosystem status and yields in a highly variable environment has led to a number of sub-projects being undertaken to address this issue and to raise capacity and build knowledge on environmental variability and forecasting. Comparative ecosystem modelling, and the development of indicators of ecosystem changes and fisheries impacts, both as a part of the EAF approach, are two examples of how these threats are being addressed. Within the context of environmental changes in the ecosystem and their impact on abundance and distribution of species, a lot of effort has gone into understanding HABs (Harmful Algal Blooms) and LOWs (Low

Oxygen Water events) within the BCLME, as well as the development of long-term monitoring and report mechanisms for prediction and early response. Algal blooms release toxins which can be harmful to certain organisms (including effects on humans through such health implications as PSP - paralytic shellfish poisoning) and the large biomass of algae die, decay and turn waters anoxic producing H₂S (Hydrogen Sulphide) which kills juveniles and excludes habitats. It is not uncommon for shallow waters to become so low in oxygen that commercially important crustaceans such as rock lobster are forced into the intertidal in their attempts to breathe, and then die in their thousands. Understanding of what causes these events, how to predict them and how to be prepared for them is developing fast and contingency plans are evolving to address these concerns (rapid response to lobster 'walk-outs' to airlift them into healthier waters; fast identification of HABs and warnings related to food consumption and human health, etc). It is also now understood that HABs are likely to become more frequent as a result of climate change.

The degradation of coastal areas adjacent to urban centres has been addressed through undertaking baseline studies of land-based sources of pollution, developing proposals for demonstration and pilot sub-projects to address sewage and sanitation issues and cleaner technology, the development of regional coastal water quality guidelines, and the development of a regional and transboundary pollution monitoring programme.

The Project is addressing the issues of habitat loss and pollution due to expansion and tourism development through sub-projects that are aimed to look at the potential for more sustainable ecotourism, improved mapping of the shoreline and coastal habitats, and the development of improved conservation planning and management using GIS and promoting MPAs.

Sub-projects have also looked at the use of top predators as biological indicators of ecosystem change, general assessments of offshore productivity within the BCLME region, and investigations into the mortalities of non-target species (by-catches) as a result of fishing activities. These studies are helping to address the impacts caused by the significant loss of biomass among higher order species within the ecosystem.

Within the area of impacts related to climate change, the Project has analysed the dynamic variability of the Benguela Current, assessed the predictability of cold and warm water events, and reviewed large- scale physical variability within the ocean-atmosphere system related to the BCLME. The Project has also co-sponsored participation in a Climate Observing System workshop for the South Atlantic region, an important capacity-building initiative.

Only one sub-project has directly addressed the impact on human and ecosystem health related to introduced species from ballast water and other discharges. This concentrated on the harmonisation of regulations for microlagal toxins in relation to sanitation and mariculture.

Generally, the stakeholders interviewed were satisfied that most of the threats and root causes were being addressed at some level by the GEF BCLME Project. With regard to the relevant studies and technical reports, nearly all stakeholders were highly complimentary about the quality and the relevance of the subject areas in relation to the threats and root causes. There is undoubtedly a strong consensus that these AC sub-projects represent a massive achievement by the Project in defining the foundations for management and policy and in identifying gaps for further study and monitoring needs and requirements. However, there is a need now to review what has been addressed against outstanding needs in the context of threats and impacts, and an even more urgent need to act on information collected so far to develop management strategies and operational responses to these impacts and threats.

4.1.15 Global and National Benefits

At the global level, the BCLME Programme is clearly acting to address the goals of the WSSD relating to fisheries i.e. **To maintain or restore depleted fish stocks to levels that can produce their maximum sustainable yield on an urgent basis and where possible no later than 2015** (Chapter 4: Para. 30) and to the conservation of biodiversity i.e. **Develop and facilitate the use of diverse approaches and tools, including the ecosystem approach, the elimination of destructive fishing practices and establishment of marine protected areas... and time/area closures for the protection of nursery grounds and periods... by 2012**" (Chapter 4, paragraph 31 c) (Chapter 4: Para. 31). In particular, the WSSD targets include to **Encourage the application by 2010 of the ecosystem approach, noting the Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem and Decision 5/6 of the Conference of Parties to the Convention on Biological Diversity** (Chapter 4, paragraph 29 d).

Clearly the BCLME Programme can be seen to be addressing point 5 of the Reykjavik Declaration, which states that:

"While it is necessary to take immediate action to address particularly urgent problems on the basis of the precautionary approach, it is important to advance the scientific basis for incorporating ecosystem considerations, building on existing and future available scientific knowledge. Towards this end we will undertake to:

- a) advance the scientific basis for developing and implementing management strategies that incorporate ecosystem considerations and which will ensure sustainable yields while conserving stocks and maintaining the integrity of ecosystems and habitats on which they depend;*
- b) identify and describe the structure, components and functioning of relevant marine ecosystems, diet composition and food webs, species interactions and predator-prey relationships, the role of habitat and the biological, physical and oceanographic factors affecting ecosystem stability and resilience;*
- c) build or enhance systematic monitoring of natural variability and its relations to ecosystem productivity;*
- d) improve the monitoring of by-catch and discards in all fisheries to obtain better knowledge of the amount of fish actually taken;*
- e) support research and technology developments of fishing gear and practices to improve gear selectivity and reduce adverse impacts of fishing practices on habitat and biological diversity;*
- f) assess adverse human impacts of non-fisheries activities on the marine environment as well as the consequences of these impacts for sustainable use."*

In relation to the Millennium Development Goals, the Programme is acting at the level of **MDG 1 – To Eradicate Extreme Poverty and Hunger** (by promoting long-term sustainable fisheries at both the commercial and artisanal level), **MDG 7 – To Ensure Environmental Sustainability** (integrating principles of sustainable development into country policies and programmes; reversing the loss of environmental resources, etc), and **MDG 8 – Developing a Global Partnership for Development** (Commitment to good governance, development and poverty reduction; making available the benefits of new technologies, especially information and communication technologies).

The BCLME is also meeting targets set by the SADC Protocol on Fisheries. This constitutes a binding policy framework to improve natural resource and ecosystem management. In the context

of BCLME the particular policy commitments include I) Shared fish stock management, II) An ecosystem approach to fisheries management (EAF), and III) Data and Information sharing.

Angola, Namibia, and South Africa are also party to the South East Atlantic Fisheries Organisation (SEAFO), which further includes, UK, EU, Norway, Russia, Ukraine, USA. SEAFO's objective is the "conservation and management of straddling and high seas stocks in the SE Atlantic" and its primary legislative Instrument is the Convention on Transboundary and Highly Migratory Stocks and United Nations Implementing Agreement (UIA). Clearly the objective is in line with the aims and delivery of the BCLME Programme at the regional and global level.

In terms of national benefits that will ultimately be of advantage to the region, it was noted by several stakeholders that prior to the BCLME Programme coming into existence there was a general recognition of the need to address coastal pollution, HABs, integrated coastal management, etc. but for some 10 years or so beforehand nothing had been achieved in any concrete sense and monitoring programmes had failed to materialise. With the start of the BCLME Programme, this changed and sub-projects were designed and implemented that addressed many of these issues directly and practically. Stakeholders consider this alone to be a huge positive step and are now concerned that such an important thrust may lose momentum as the Programme reaches the end of its funding. Obviously, as in most GEF IW Projects, the national benefits directly reflect global benefit and, in reality, the two are often hard to separate logically despite the incremental cost concept.

Regionally, several stakeholders have expressed a need for the various LME projects related to Africa to coordinate and share information more closely and on a more frequent basis. This would include the Guinea Current and Benguela Current LME Projects (already under implementation) the Canary Current LME (presently going through its Project Development phase), and the Agulhas Somali Current LMEs (about to go to GEF Council for approval as a Full Project/Programme submission).

4.1.16 Stakeholder Participation and Public Involvement

Consistent feedback confirms that there has been highly satisfactory stakeholder input both in the design and the implementation of the BCLME Project. An effective SAP and TDA process received input from all relevant sectors and provided a strong foundation for Project design. Stakeholders have consistently commented that they see BCLME as a model example and as a showcase within Africa (and a demonstration to NEPAD) of how such a Programme can be developed and successfully implemented. It has also been noted that key BCLME Programme members have been active in assisting in the design of projects such as DLIST and NACOMA (the GEF-funded Namibian Coastal Management project), as well as in the development of the adjacent Agulhas Somali Current LMEs Programme.

Government representatives on the PSC are also involved in other marine, coastal, biodiversity and fisheries related projects in the country and region. Through their regular attendance and active participation in the PSC meetings they are able to provide updates in both directions (BCLME and their other initiatives). This has led to useful inputs and amendments in decision-making to replicate best lessons and practices, avoid duplication, promote complementarity, and to minimise costs and pressure on human resources (e.g. by organising sequential meetings, using joint facilities such as research vessels already in the area, etc).

In particular, those stakeholders working on the Activity Centre sub-projects and within the scientific and technical sectors noted that making contact with their counterparts in the other BCLME participant countries had proved to be very difficult until the BCLME Project came along. The Project had acted as a catalyst for the development of working relationships and partnerships between scientific institutes and personnel within and between the three countries. This process actually started with the implementation of the BENEFIT programme and this was then further improved and enhanced by the GEF Project. Now joint efforts on certain cutting edge areas such as the Ecosystem Approach to Fisheries and Environmental Variability in relation to living marine Resources, are evolving standardised operational approaches within BCLME and are attracting a significant interest from the wider international scientific community.

The BCLME Programme produces a regular newsletter called 'Current News' which is printed and circulated at regular intervals as and when there is sufficient information and updates for transmission. This carries information about BCLME staff, sub-project and associated specialists along with up-to-date information on BCLME events (workshops, symposia, etc). The Programme also has a website at www.bclme.org which explains the overall aims and objectives of the BCLME Programme, lists details of all the various sub-projects and the Activity Centres, and provides access to various reports and publications.

Three of the primary stakeholders in the BCLME Programme at the national level are the National Lead Agencies. It is difficult to ascertain what the role of these lead agencies was intended to be as there is no definition of the purpose or function of the lead agencies within the Project Document and no associated ToR within the annexes. Therefore, in this respect, it is not possible for the evaluators to determine whether the lead agencies are fulfilling their functions and responsibilities. However, at the very least we can assume that they serve to provide the national focal institution for the Project in each country (and therefore would house the National Focal Points), providing a two-way flow of information and input from country to Project and vice versa, and also between lead agencies within the three countries.

In Angola, the Lead Agency for the BCLME Programme is IIM (Instituto de Investigação Marinha - Institute of Marine Research) under the Ministry of Fisheries, and the National Focal Point is the Technical Director for IIM. The Activity Centre of Biodiversity, Ecosystem Health and Pollution sits immediately adjacent to the IIM building. Angola was the chosen location for this Activity Centre as coastal and marine biodiversity in this country is high, as is the potential for pollution from oil and mining activities. The priority in Angola is capacity building. Angolan scientists and technical staff (as well as the few managers available) need to be encouraged and involved in all aspects of the Activity Centre sub-projects for example, but there have been incidents and examples where this has not been the case (which is discussed further under **Capacity Building** below). There have also been problems and concerns with translation for Angola, as most documents require translation. However, the PCU has approved funding to pay people with technical awareness to do these translations (as professional translators do not understand how to translate the technical terminology). The PCU has also helped Angola with communications equipment to ensure that they have an equal opportunity to participate in the Programme. The Director of the Institute noted that the joint assistance from both BENEFIT and the BCLME Programme has been of enormous help to them in capacity building and in trying to integrate into the region as part of the scientific community. IIM is shortly to become INIP (Instituto Nacional de Investigação Pescado - the National Institute for Fisheries Research), which will also be responsible for freshwater as well as marine research.

In Namibia, the lead agency dealing with the BCLME Programme is the National Marine Information and Research Centre (NATMIRC). Their main task within government is to carry out research on the marine environment and on the sustainable utilisation of marine resources, including making recommendations on harvesting levels. NATMIRC has very close linkages to BENEFIT and to the LME Activity Centre (both of which are located next door). NATMIRC staff are working closely with both bodies on the BCLME Project. One concern that NATMIRC has in relation to its commitment to the long-term BCLME Programme is the lack of facilities within Namibia for environmental and resource testing (laboratories, equipment, quality assurance procedures, sterilisation capacity, etc). They have trained personnel but, without such equipment and facilities, it will be impossible for them to undertake the necessary monitoring in support of management strategies and policy development in-country. Staff associated with the BCLME Programme would like to see more institutional strengthening in support of the Programme, and the development of supportive legal frameworks. They see the need to legalise, institutionalise and operationalise the Programme. But they praise what the BCLME Programme has achieved to date in building trust and partnerships and in developing from what BENEFIT has already started. They feel that many of the initiatives implemented by the Programme would never have happened without it. The aim now should be to maintain and build on the trust and partnerships built within the scientific community and extend this through the management sector up to the political level. It should be noted that a representative from the Ministry of Environment at the Director level (Director of Environmental Affairs) also sits on the PSC and briefs the Permanent Secretary for the Ministry regarding BCLME Programme issues and concerns.

In South Africa, the lead agency is the Branch for Marine and Coastal Management (MCM) under the Department of Environment Affairs and Tourism. MCM advises the Government on the development and conservation of marine and coastal resources to ensure the sustainable utilisation of such resources, as well as to maintain marine ecosystem integrity and quality. MCM is further broken down into 3 Chief Directorates 1. Research in Antarctica and the Islands, 2. Monitoring, Control and Surveillance; and 3. Resource Management. MCM is also involved in the Agulhas Current LME. There is a concern within the lead agency that there is a need for more liaison with and interest from other government Ministries in relation to LMEs. The BCLME Activity Centre for Environmental Variability is located within the offices of the MCM providing ease of access to the NFP who is the Chief Director for Research and development within the Branch. The location also provides access to the main marine resource specialists within the government.

BENEFIT (the Benguela Environment Fisheries Interaction and Training Programme) represents a regional partnership between Namibia, Angola and South Africa focused on the fisheries and the marine resources of the Benguela Current ecosystem off southwest Africa (see website at www.benefit.org.na). BENEFIT was originally conceived in 1995, adopted by the Southern Africa Development Community (SADC) as a project in June 1996, and formally inaugurated in April 1997. To some extent BENEFIT was the precursor to the BCLME Programme. An early problem arose regarding the relationship between the BCLME Project and BENEFIT. This appears to have been the result of a lack of clarity regarding BENEFIT's role within the BCLME Programme. However, this was resolved through negotiation and agreement between the senior personnel responsible for BENEFIT and BCLME and the two initiatives are now working very closely and in coordinating within a broad and positive partnership. BENEFIT is running 15 of the AC sub-projects for the BCLME Programme and is providing separate co-funding to these sub-projects.

BENEFIT is advised by three working groups (Environment, Research and Training). It was always the intention that BENEFIT would be linked to the BCLME Programme but the degree and mechanism for this linkage was never clearly defined in the Project Document or elsewhere. No

GEF representatives were known to attend the BENEFIT workshops during the development of the BCLME Programme, and there appears to have been poor engagement of BENEFIT into the GEF Project Development process which also overflowed into misunderstandings of the mutual or separate roles of the two bodies once the BCLME Programme had started implementing its activities. This was a general early design fault within the Project and BENEFIT does not lay any responsibility for this at the PCU's door. There should have been a proper Memorandum of Understanding between BENEFIT and the BCLME Programme developed as part of the Project Document. There is a clear lesson here for future GEF project development processes.

These sources of funding for BENEFIT end in 2008 which raises an important question as to what will happen to BENEFIT after that time? Stakeholders note that BENEFIT has played an important role in the region since 1995 (including assisting with the rapid implementation of the BCLME Programme) and they do not wish to lose it as a concept. There is both a valid argument coupled with a strong stakeholder will to incorporate BENEFIT into the BCC structure. The Commission will need a scientific wing to provide technical information and to provide and review scientific data and this could be a valuable function for BENEFIT.

DLIST (Distance Learning and Information Sharing Tool) is an information sharing process focusing on the transboundary coastal zone of the Northern Cape, South Africa and Namibia. DLIST Benguela aims to assist coastal planners, managers and resource users implement effective integrated coastal zone management (ICZM) solutions. By facilitating information sharing & knowledge management, DLIST seeks to promote the sustainable use, protection and development of coastal areas for the benefit of all. The DLIST website at www.dlist.org has been designed as the key interface point for many different types of DLIST information sharing and knowledge management activities currently underway.

The need for transparent and free flowing knowledge and information was first identified by Benguela coastal stakeholders through both the Northern Cape Coastal Management Group (NCCWG), and the Namibian Integrated Coastal Zone Management Committee (ICZMC) in 1999 and 2000 respectively. Following broad-based consultation, the following ideas emerged on how DLIST should function:

- Information from a wide range of sources should flow into a central 'pool of information' to be organised and packaged in a manner accessible to a wide audience
- Information flow should be a continuous process, considering the dynamic nature of the region
- Flow of information should be a two-way process, allowing retrieval as easily as contribution
- Information content should be steered largely by the needs of users
- Information should assist planners, developers and role players optimise synergy and avoid conflict as far as possible
- Content should be supplemented with short courses on Integrated Coastal Zone Management (ICZM)

A fairly high percentage of DLIST users are from communities, schools and universities, and NGOs (these three groups making up close to 50% of the users). The average number of visitors to the website per day in 2004 was 77 and the entire number of hits recorded on the site by 2004 was 602,441. DLIST has produced a valuable study related to the GEF Project entitled "*An assessment of how coastal communities can become involved and benefit from the BCLME Programme*" (February 2005). DLIST is effectively filling a gap in the original project design by providing an

information platform that can not only be accessed by all sectors, groups and stakeholders, but which proactively targets those groups and stakeholders (e.g. coastal communities, commercial users, schools, etc.) that need to understand about the BCLME Programme and its issues and concerns. The DLIST Medium Size GEF Project has 4 primary outcomes as follows:

1. **The ICT (Information and Communication Technology) Platform:** This aims to put in place an innovative and user-friendly platform for coastal stakeholders.
2. **Course Development:** To offer coastal players a distance learning course on sustainable development in coastal areas.
3. **Knowledge Management:** To promote free access and flow of information between coastal players.
4. **Outreach:** To make the ICT platform accessible to coastal communities.

DLIST is seen to be particularly effective working with communities and especially young people. DLIST also has the potential to be an on-going partnership with the BCLME Programme for the long-term, and possibly for other LME projects/programmes within Africa currently under development (e.g. the Agulhas and Somali Current LMEs and the Canary Current LME). It can play a valuable role alongside (or even within the structure of) the Commission as a tool for demystifying information and delivering it to the appropriate targets and foci. As such it could facilitate information exchange between different programmes (especially for lesson and best practice transfer between LME initiatives). It also has a valuable function at the grass-roots level to deliver information on BCLME processes and objectives on the ground to the people who live and work in association with the LME and its resources on a daily basis. It could provide a useful link between communities and allow them to share and discuss common problems. Finally, and importantly, it can facilitate the flow of feedback in the opposite direction thereby empowering the communities with a 'voice' that can be heard by the Programme and by a future Commission. It was noted in one discussion during the May 2005 PSC that there is a need now within the BCLME Project to start to focus on simplifying information for a less scientific audience, and targeting policy makers as well as the person in the street.

Some stakeholders felt that liaison and public awareness was being promoted very well outside of the BCLME region but less so within and that this could be improved. However, it was also noted that there needs to be additional effort put into developing linkages with other LME projects. The evaluators were able to meet with the Angolan focal point for the Guinea Current LME Project (GCLME) in which Angola has just recently become a partner raising the number of partner countries in this second phase to 16 (there were only 6 countries in the first phase). Angola will be coordinating all of the fishery-related activities for the GCLME. Already they are starting to develop a dialogue with their BCLME counterparts in Angola. South Africa provides the link to the Agulhas and Somali Current LMEs GEF Programme and a number of the stakeholders to BCLME are also involved in the development of the ASCLMEs Programme.

Several stakeholders have noted the somewhat weaker role played by government stakeholders at the level of mining (e.g. diamonds) and oil exploration/extraction (although this criticism doesn't apply to every country). This comment should be balanced against the fact that it has also been noted that the private sectors in these industries have been fully supportive to the pertinent AC sub-projects. It was suggested that some of the distilled findings from the Highlights Symposium would be of interest to such private sector stakeholders such as De Beers Marine and would help to build further support from the private sector to the BCLME Programme. De Beers are seen to be an obvious partner for BCLME as they are active in all 3 countries. But there should be involvement from the oil and fishing industry also. So far there appear to have been some informal meetings with potential private sector partners but no formal agreements have been reached as yet. This

particular issue of 'overemphasis' or 'bias' highlights how different stakeholder perceive the Programme and indeed perceive the threats and root causes. Generally there was a concern that too much bias was being placed on fisheries but at least one stakeholder felt otherwise and felt that there was too much emphasis on pollution which is a minor issue relative to over-fishing and species/habitat exploitation. In the context of the overall LME all of these issues are important in the long-term and cannot be separated of course. One serious pollution event could have serious consequences for coastal habitats and specific fisheries, while chronic pollution events are probably not even being monitored as yet in some areas.

In Angola, there is a growing interest on the part of the oil industry to develop a partnership and a protocol of cooperation with IIM to undertake oil sample analyses and to organise research cruises. In fact a cruise is planned for July-August 2005 which has been organised by BP Angola's Environmental Department. Other companies are also interested in developing this same sort of cooperation. IIM is also receiving support from the International Atomic Energy Agency (IAEA), particularly by way of analysis equipment, and two scientists from IIM have been to the UK first to learn English and then to Monaco where they have been trained to use the equipment in IAEA's main offices and laboratories for analysis of oil and sediments (3-4 months training per person in total). This training was paid for by BP Angola. This stronger involvement of oil-related stakeholders may reflect the fact that the Ministry of Petroleum in Angola has a more hands-on involvement with the BCLME Programme (and sit on the PSC).

Some of the AC sub-projects were dealing with communities and their relationship to the BCLME Programme. It was noted by one of the AC staff that they were not really set up or skilled to deal with community issues and that this was far better handled by NGOs who have the experience and the time. In this context there is a need within the Programme to engage the NGOs more successfully into Programme activities.

4.1.17 Capacity Building

A training and capacity needs assessment has been carried out as part of the BCLME Project. The objectives of this study are discussed under Output 1 (above). The methodology for this needs assessment involved primarily one-to-one interviews although questionnaires were also used. Available information by way of policy documents, business plans, etc. were also reviewed. The report lists the specific needs for each country within each sector. Common concerns included:

- Shortage of staff, infrastructure and equipment, communications office space. Overall training required (even where large staff compliment exists)
- High staff turnover with unfilled posts
- Additional expertise needed at both technical and management levels
- Inadequate taxonomic expertise and CZM capacity
- Legal and institutional frameworks are often highly fragmented, and legal and statutory protection is very limited in some countries
- Regulations (EIA, pollution and waste management, etc) not yet in place
- Poor monitoring and enforcement
- Inadequate monitoring capacity and need for monitoring programmes
- General need for a more integrated and cross-sectoral approach to pollution control and management (lack of coordination between institutions and agencies)
- Need to increase human resources capacity in Angola

Specific concerns include the fact that there may be large capacity by way of staff compliments in some departments in some countries but they are inadequately trained or prepared. There is frequently a critical shortage of monitoring and enforcement capacity and staff so that, even where legislation may be powerful, it is not being applied on the ground. One important lesson learned through the Project is that training and capacity building needs will differ from country to country.

It should be noted that many of the issues addressed by this report (which is now over 1 year old) have or are being currently addressed through the efforts of the Project, the authors of this report feel that there has been a high level of success through the Project in supporting capacity building and training to addresses these issues. The following training and capacity building components are built into the Project:

- Technology and skill transfer
- Dedicated thematic workshops and conferences
- ‘Hands-on’ training i.e. field work, surveys at sea
- Information technology and management
- Specialised courses and short-term training
- University degree courses/technical diplomas

A lot of this training is organised through the Activity Centres (ACs) and is often associated with AC sub-projects. To date these AC sub-projects have undertaken training and capacity building needs in the following areas:

- Transboundary fisheries management
- Stock assessment, surveys and data management
- Ecosystem modelling
- Fisheries (including socio-economics and legislation)
- Biological, physical and chemical oceanography
- Remote sensing, forecasting and early warning systems
- Marine biodiversity, protected areas and mariculture
- Pollution, environmental impacts and monitoring
- Governance, international conventions and protocols

It is estimated that at least 10-15% of the Project funding is addressing training and capacity building, and this figure is certainly higher when considering those related components of the sub-projects. However, stakeholders have noted that although the assessment identifies training and capacity building needs, there is still no schedule or workplan, or any sort of ‘road-map’ for a strategic approach to training within the BCLME Programme. Stakeholders are still unsure about the procedures for requesting training, and this uncertainty extends into the PSC itself. This is a shortfall that should be addressed by the BCLME Programme, but one which also presents an excellent opportunity for the Programme to ‘break new ground’ on developing an innovative approach within LME projects to training needs and capacity building.

Despite this lack of a strategic approach, undoubtedly capacity building and training has improved significantly within the three countries as a result of the Project, and many targeted scientific activities related to Ecosystem Approaches to Fisheries, HABs and LOWs would not have been effective or successful without this very important Project input. However, it should be noted that as well as identifying actual needs, the Project has identified many of the capacity and training gaps also and there are insufficient people available to fill these gaps.

One very clear concern that arises from the evaluation at this stage is that Angola still seems to be the weak link in the Project in the context of capacity building. There is still an urgent need for more training within the country, while human resources are limited, and government salaries are very low. This is despite the boom in economy and the enormous wealth of natural resources within that country. Unfortunately, this significant economic growth is not being reflected within government staff salaries. This represents an ongoing constraint to capacity building and to equal input and development within the BCLME programme. One related and fairly serious problem is the lack of retention of trained staff. Previously disadvantaged groups such as Angolan African Staff are now in demand and Angolan African students that go on to higher education or who receive specialist training are usually quickly employed by the private sector. Any form of training provides an advantage to the individual. A situation has now developed in Angola where government salaries are so low that government staff in receipt of specialist training and capacity building commonly leave to work for the private sector at more attractive rates of salary. This problem of how to 'train-and-retain' is not uncommon in GEF projects and needs to be addressed within the BCLME Project. The only effective solution found to date is to impose a contractual obligation on the trainee to remain within government service for a period of time thereby gaining some period of return on the investment for training, and allowing for the skills to be transferred to junior staff. This is also discussed further under 'Risks' below.

One stakeholder noted the difference between the two processes of training and capacity building, and the need to address one before the other. There is a level of (sometimes basic) training that is needed, especially in Namibia and Angola, that will bring them up to a level of equality within the Project and raise the overall understanding of LME processes and the need for certain studies, monitoring and management. Some institutions and staff are not even familiar with basic field-work approaches, especially in areas that have historically been affected by war and conflict. This could be overcome through cooperative ventures, for example, between the Universities in Angola and in South Africa, possibly through creation of field-stations in the former which would be advantageous to the research interest of scientists from the latter.

A further area of concern that was identified in relation to capacity building was the need to train staff up to MSc level if they are to be able to tackle management issues. For some reason GEF appears to have adopted a policy over the last few years that it will not fund Master's degrees. Yet it is difficult to see how some of the capacity needs at the management level would be met by countries like Angola and Namibia unless assistance is given for them to meet this academic level. Several stakeholders considered this to be a somewhat short-sighted and inflexible policy within GEF. There is a consistent need for this mid to high-level training as part of the national capacity building priorities. Specific and targeted training is undoubtedly useful but 2-3 day workshops are insufficient to learn the overall management skills and strategies necessary to undertake resource management beyond the technical level.

However, in fairness it must be stated that the Programme has already achieved some valuable delivery by way of management capacity building. This is apparent inasmuch as one positive aspect of training and capacity building that does seem to have arisen through the BCLME Programme is the fact that several individuals associated with the Programme have been promoted (either within government departments, from government departments to senior BCLME Programme positions, or to senior positions within intergovernmental agencies which have linkages to BCLME). Just one out of many possible examples to highlight is the promotion of one of the Directors of the Activity Centres to a senior international post within SEAFO, and his replacement by another government incumbent whose background was technical but who is now moving up into the managerial ranks as a result of involvement with the BCLME Programme. These people will carry their knowledge

and support of the BCLME Programme and its activities with them as they move into more senior positions with more direct decision-making roles.

One further unforeseen benefit that was created by the Programme was the advantage that arose from international recognition. The Programme allowed the countries to engage international experts that wouldn't have otherwise been accessible. This along with effective international awareness raising, gave the Programme a high scientific profile which definitely facilitated local scientists in winning places on overseas training courses.

In Angola there is close cooperation between the University of Agostinho Neto and the Institute of Marine Research. If students choose to study in Marine Sciences arrangements can be made for them to undertake research with the Institute. Now the University is about to start an MSc course in Marine Science in which all the practical lectures will be done at the Institute. Also some of the Senior Scientists at the Institute will come to the University to lecture on the MSc course. Discussions with the Head of Department of Biology at the Faculty of Sciences focused on the language problem that Angola has in cooperating in the BCLME programme. One area where this might be resolved could be the inclusion of English Language courses into the MSc process. The University of Agostinho Neto is developing a protocol for cooperation with the University of Cape Town, especially in relation to the new MSc course. This would give an even stronger justification to placing English tuition and studies onto the curriculum. It might even be possible to extend the opportunity for learning English to staff from IIM and other relevant government departments.

The evaluation has noted that GEF funds and co-financing has allowed for increased capacity for working on many of the critical scientific and technical issues within BCLME (particularly in paying for people's time to be involved and to provide expert input). But this time commitment has not been consistent across the countries with South Africa appearing to provide more by way of scientist's time. This is almost certainly a reflection once again of the more advanced scientific progress in that country coupled with the fact that there are simply more scientists available within South Africa. The coordination therefore between the scientific communities of the different BCLME countries has been very good, but not so good 'within-country' in the case of Namibia and Angola. This needs to be addressed for the future of the Project. However, in the context of 'between-country', BCLME scientific and technical stakeholders are keen to see the development and promotion of linkages beyond BCLME to neighbouring LMEs such as Guinea Current and Agulhas-Somali Current. These other LMEs are similarly effected by climate changes and perturbations and have certain linkages to each other (especially the Agulhas and Benguela Current LMEs).

It should be noted here that a number of the preceding comments may give the perception that Namibia and Angola are in dire need of capacity improvements while South Africa is capacity rich. Although South Africa undoubtedly has more resources to address environmental management in relative terms than the other two countries, the Evaluators would wish to make it clear for the record that some of the agencies in South Africa that are directly involved in LME issues have undergone significant erosion of their capacity and are undergoing many changes and reshuffling of staff at present in order to create a more equitable balance within the work force that is more representative of the South African population. In effect, these changes have resulted in major current skill shortages that do need to be redressed in the long term.

A number of technical stakeholders commented on how important it has been for their studies and for international exposure and discussion of cutting edge issues for them to be able to attend international symposia and workshops through project assistance. This has helped BCLME

scientists to establish good working relations with top scientific personnel around the world. In this regard, BCLME is seen to have stepped in at just the right moment when scientific morale was low in all 3 countries, and provided a source of hope and an opportunity for reaching out into the wider scientific community to share problems and build lasting working relationships with other experts. This type of very valuable in-kind capacity building is often overlooked in GEF projects because of its incidental nature but it is crucial to Project sustainability. Several scientists found it difficult to identify and then make contact with their thematic counterparts in other BCLME countries. For future reference in other GEF project designs it was felt that it would have been very useful if the PCU could have played a role in identifying links between different scientific groups in each country, but this was mentioned with the understanding that it was clear that the PCU was understaffed for such a function and would have needed at least a technical support person to have been able to fulfil this function.

The evaluators noted that capacity building and training were strongly encouraged within the individual Activity Centre sub-projects through the ToRs and the selection criteria. An example of the type of capacity building being achieved through AC sub-projects can be seen with the LOW sub-projects. The first LOW sub-project focussed on reviewing existing data and knowledge and on writing a report. This was in itself seen by staff at NATMIRC as a valuable learning experience. The following LOW sub-projects which are now just starting will focus on modelling and this will provide a lot of capacity building and training to NATMIRC environmental staff who do not currently have such modelling capacity in this field.

However, one concern that was brought to the attention of the evaluators was the fact that capacity was being built, often at the cutting edge of scientific knowledge and innovative technology, through the AC sub-projects, but then was being lost again due to lack of sustainability. For example, project leaders and staff within AC sub-projects dealing with Environmental Variability have developed new modelling approaches and prediction methods. But once the sub-project is finished this expertise, which remains with the staff and project leaders, is often lost as there is no further funding either to build on the research and development, or to support the experts that have been created. The risk to the Project and to sustaining the capacity that has been built is that this new level of innovative expertise for modelling and prediction is being lost as the newly-created specialists settle into different employment or find non-related post in order to capture a salary. It would be valuable if the BCLME Programme could find a mechanism to promote the value of these people and their expertise both within the regional scientific community but also to national academic and government institutes. Furthermore, there may be a valuable role here for BCLME or BENEFIT to play in seeking extended funding to support further development of such innovative skills. This could also be a function of the Commission, to promote individual capacities and skills to government agencies and the private sector. BCLME can act as a catalyst to raise the profile of such issues as environmental variability, and to demonstrate the value of new technologies and innovative skills.

In summation, stakeholder feedback on capacity building and training achievements so far within the BCLME Programme are highly varied and range from 'very good achievement' to 'insufficient emphasis...on capacity building'. It seems that opinion depends on perspective as in who you are and what you have experienced. In the overview as seen by the evaluators there has definitely been some effective capacity built as noted above and training in certain technical skills and methodologies in particular has been very successful. However, it is also fair to say that more emphasis is needed on capacity building at the basic level (monitoring, water quality analysis, reporting) in at least one country, at and the management level (to a greater or lesser extent) in all 3 countries. One clear constraint is the level of salaries paid to marine scientists in some countries.

These are not competitive with alternative salaries being paid by the private sector (e.g. fishing, mining and petroleum industry). This means that there will be a consistent and chronic ‘brain-drain’ of the best scientific and technical management personnel out of government posts and into the private sector which will negate any efforts at capacity building. In particular, the whole question of effective and sustainable capacity building needs to be addressed urgently for Angola if the BCLME Programme is to reach sustainability. In Angola simple logistics such as poor communications, lack of boats and cars, unreliable electricity supplies, etc. continue to constrain their potential for input and improved capacity to all elements of the BCLME Programme. Generally speaking, stakeholders feel that there is a net loss of scientific staff available to the Programme and a shortage of suitably trained environment and resource managers as a result of government budget practices leading to poor salaries on offer within government, and a shortage of posts.

4.1.18 Policy and Legislative Reform and Improvement

Progress toward the definition and development of a regional organisation dealing with legislation and policy has been initially addressed under Output 1 (above).

There is a general consensus throughout the stakeholders that the Commission should start off modestly and expand as necessary, as trust and experience is built. Initially it should address the major issues. Stakeholders also feel that it needs an advisory scientific body within its structure. There is also strong and widespread support for having some form of regional legislative basis for the Commission by way of a Convention or Treaty between the three BCLME Programme member countries. It has been noted that BENEFIT was created and developed initially without donor support, and has provided a good foundation for building trust and cooperation, and indeed for the later adoption of the BCLME Programme. It is not uncommon within GEF projects to find that such trust and cooperation begins at the level of scientific collaboration.

The consultancy group which studied the feasibility and cost-effective options for an Interim and a full BCC have suggested to start negotiations on a Convention, and on the formal BCC while the Interim BCC is being formed. However there is a school of thought among leading stakeholders that it would be wise to establish the Interim BCC first and give them the negotiation of the Convention as well as the development of a mandate and ToR for a BCC as one of the Interim BCC’s primary functions. This would allow the Interim BCC to find its feet and to test certain processes on agreement and cooperation between senior policy makers in the three countries so as to establish an effective *modus operandi* for the formal BCC when it is adopted. It has further been suggested that national committees of relevant stakeholders could be established to support the Interim BCC and to specifically move the Convention and development of the BCC structure and mandate ahead.

Discussions with government Legal Advisors in the countries has identified the fact that they had already been in discussions with ENACT (the consultancy looking at the feasibility of a BCC and drafting possible international legislation to support it). Generally they see the importance of the Commission for the long-term sustainability of the BCLME. The establishment of such a Commission will require independent national processes as well as cooperative international dialogue. One of the national legal representatives had already attended meetings in Swakopmund to discuss developing and setting policy regarding HABS, the creation of standards for monitoring and control of shellfish sanitisation, and to discuss the feasibility of forming an Interim BCC and

then a full Commission. There was a general feeling that the 3 countries are keen to cooperate on harmonising legislation and management where appropriate and possible,

Overall opinion among the primary stakeholders is that an Interim BCC needs to be established as soon as possible and that the legal structure for an international Convention or Treaty should be negotiated during the period between the establishment of the IBCC and the end of the Project with a view to establishment of a full BCC at that later stage. The evaluators concur with this opinion and therefore the establishment of the full BCC should not be taken as an indicator for this phase but rather for the follow up implementation phase of the BCLME Programme.

4.1.19 Replicability

One shortfall that has been identified several times is the lack of funding for an African LME symposium whereby representatives from countries associated with the different LMEs could meet to exchange views and experiences and to transfer lessons and best practices. This would also develop linkages and dialogue between scientists and managers in the different LME regions with mutual interests. In consideration of this suggestion, it might be said that the past 2-3 years could have been too early for such a meeting. However, now that the Guinea current LME is well underway and the Canary and the Agulhas-Somali LMEs are under development, the timing is probably ideal. The evaluators understand that negotiations are currently underway to confirm the role of NEPAD as the coordination focal point for African LMEs.

4.1.20 Risks and Sustainability

Discussions with management level government stakeholders revealed a strong level of support in principal but concern that so far the Project has focussed on the technical and scientific aspects of the BCLME only. There is recognition that there is now a need to start to operationalise the information and knowledge gleaned to date through the various sub-projects undertaken through the Activity Centres, and to act on the reviews, assessment and findings of the studies into the feasibility of the BCC, the cost-effectiveness of regional management strategies, assessments of capacity and training needs, etc. At the management level there is also a strong perception that the Project has been highly instrumental in developing active partnerships between the 3 countries, especially at the scientific and institutional level. Now there is a need to look at the broad management strategies for such issues as monitoring, control and surveillance, and for shared stocks. In effect, the day-to-day Project activities are only just reaching as high as the level of the senior technical management and occasionally overlap into the Director and policy level on an individual basis. It would be good to promote some multilateral agreements between the three countries now for targeted capacity building and training (to strengthen the weakest components) and for mutual policy development. An opportunity exists here as South Africa has just commissioned new state-of-the-art Fisheries Protection vessels (4 in total). A MoA could be evolved between the 3 BCLME countries at this stage to develop joint MCS (monitoring, control and surveillance) exercises throughout the LME. The development of a mutual MCS strategy would be an excellent first step for the BCLME as a political partnership, as well as for an Interim BCC, and would begin to build the foundations for sustainability of the BCLME Programme objectives.

The Project stakeholders are consistently in agreement on the fact that the Commission needs to be established if the BCLME Programme is to be successful and sustainable in the long-term. There is

a need for policy level guidance and decisions on priority transboundary issues such as fisheries and share stocks. There is also an urgent need now to develop management structures for the BCLME based on the information and knowledge already available from both BENEFIT and the studies and research undertaken under the auspices of the Programme. In this respect a number of stakeholders expect that BENEFIT would, in some form and under some name, take on the role as the scientific advisory arm to the Commission. However, awareness of the activities and the benefits of the BCLME programme need to be raised again at the senior political level. Some Ministers are very aware and highly supportive of the Project and the proposed Commission. Others are not so aware and need to be sensitised to the issues, and the advantages of a joint LME management body.

Following the Highlights Symposium (which effectively briefed all stakeholders on the current status of the Project at the half-way point of the Mid-term Evaluation) it would be valuable to take a summarised synthesis of this information to each lead agency as a presentation to all levels (technical, managerial and political) although these might need to be dealt with slightly differently in each case due to differing priorities and levels of understanding. It would also be valuable to try to arrange Cabinet level briefings in each country to ensure that other Ministries with an interest (e.g. Economic Affairs, Foreign Affairs, Health, Agriculture, etc) are made aware of the issues and the need for sustainable cooperative management of the LME bearing in mind that the establishment of the BCC will need country level approval by policy decision makers in the first instance. Such a briefing approach would be valuable within the private sector also and the Project could initiate this awareness strategy with a view to engaging the private sector more thoroughly into the BCLME programme.

One of the biggest unforeseen risks to the satisfactory completion of this GEF Project is the unexpected and unique situation whereby local currencies have strengthened enormously against the US dollar. This is not entirely unprecedented within GEF projects but the difference in this case is very significant and very damaging. Using the South African Rand as an example, a number of the Project stakeholders maintain that when the budget for this Project was developed and finalised, the exchange rate was 1US\$:10 Rand. With the weakening of the US\$, the exchange rate dropped almost immediately upon project inception and is now down to US\$1:5.9 Rand. The reality of this is that the US\$14 million plus originally budgeted for the Project is actually now equivalent to US\$8 million plus in local currency so the Project is attempting to provide the same delivery with nearly half the funding that was requested. This has had a particular impact on Project staff morale with regard to salaries that are paid in US dollars. It should be noted here that both UNDP and UNOPS have worked hard to try and rectify and address this situation within the constraints of their financial Rules and Regulations. Posts have been re-graded where possible and other benefits have been re-assessed to try to improve salary conditions. Such a large alteration in exchange rate is a serious concern however and clearly represents a threat to any GEF project. However, the Implementing Agency maintains that, during the final stages of Project development and at Project Submission the exchange rates were actually worse for the Project than is currently the case and that therefore there are no grounds for maintaining any financial hardship as a result in exchange rate fluctuations. This needs to be reviewed by the Implementing Agency and by GEF Secretariat both in the context of the sustainability of the current BCLME Project, and with a view to identifying mechanisms to overcome this risk in future projects. This situation was discussed with the Resident Coordinator for UNDP in Namibia who was entirely sympathetic to the GEF Project staff, both national and international, and felt that this was a very unusual situation in that the differential was so marked and had happened almost exactly at the inception stage. UNDP's advice was that salaries at least should be adjusted to try and compensate and that this could be done through cost-of-living surveys which would be the standard approach for a UNDP Project of this

nature. Beyond this, however, there is a need to discuss this unique situation (which is really without precedent) with GEF and the Implementing Agency to see if there is any mutual agreeable means to resolve the concerns regarding Project Delivery. Simple put, if there is a serious shortfall in funds as a result of exchange rate fluctuations then either the BCLME Programme will need to secure more funding to achieve the agreed deliverables or it will need to reduce the expected output using the existing funds which are now nearly half what was originally expected.

It should be said that probably of more serious concern in relation to funding shortfalls within the Project is the lack of realisation of a significant amount of co-funding. This would represent a much stronger criticism of Project Management and should be rectified before the Project faces its Terminal Evaluation.

Another area of concern for the BCLME Programme within the context of sustainability is common to many GEF projects (and probably to capacity building components within any donor projects). That is the concept of 'Train-and Retain'. There is an evident need to train up more scientific and technical staff and to develop more management skills also. However, the economic and recruitment environment within the region is such that as soon as people are trained (especially traditionally under-represented groups), these same people are targeted for employment by the private sector with the promise of higher salaries and greater benefits. This is always a tricky issue within GEF projects and needs to be addressed through some forms of incentive to remain in government posts (or disincentives to leave). One option which has been considered is to fast-track these same trainees into more senior and more lucrative posts as early as possible but this often results in the person being insufficiently experienced and inadequately trained for a position, and can cause resentment with fellow workers. Another option which has worked elsewhere is the use of contractual obligations which are formally agreed and signed by the prospective trainee before training and capacity building is approved (e.g. contractual agreement to remain in government for a set period of time following training). The latter approach can help to maintain both the government's and the donor's investment for a sufficiently long enough period that will allow understudies to evolve and capture lessons and experiences from those who have been trained.

Concerns were expressed generally by stakeholders in all 3 countries regarding the overall sustainability of the objectives and aims after GEF's BCLME Programme funding is finished in 2007. There is a feeling that GEF has assisted the countries greatly in creating and improving capacity and developing effective initiatives but there is a real risk that this could collapse due to inadequate financial support after 2007. This was of particular concern to Angola which has probably made the greatest improvements in capacity and management relative to their baseline situation, but have the least potential for sustainability.

Integration and cross-sectoral management of LME Resources still needs strengthening. However, there is evidence that this is making progress. In Namibia, for instance, The Directorate of Environmental Affairs works closely with the Ministry for Mines and Energy in issuing environmental clearances for companies to obtain a mining and prospecting licence. The Director also sits on an Inter-Ministerial Committee for Mining and Prospecting, which approves exclusive prospecting licences, as well as working with the Ministry of Fisheries and Marine Resources on coastal and environmental issues. Furthermore, the Ministry of Environment and Tourism discusses any proposals for diamond prospecting and mining offshore with the Ministry of Fisheries and Marine Resources before granting any approval. The Ministry of Environment and Tourism is also working on the GEF-funded NACOMA (Namibian Coastal Management) Project which will address coastal issues and associated legislation including management and conservation through protected areas. The Directorate of Environmental Affairs coordinates cross-cutting issues and

deals with the majority of environmental Conventions and Treaties. They are also responsible for environmental education and information (and have a huge database on which they store such information). However, the Directorate sees the need for further integration as there is still uncertainties regarding Ministry of Environment and Tourism's jurisdiction and that of Ministry of Fisheries and Marine Resources. They therefore need to manage resources jointly. Tourism is an area that Namibia would wish to see developed but which is suffering at present due to the devaluation of the US dollar against the Namibian dollar. These are just a few examples from one country of the progress made but also of the need for further integration and the necessity to adopt an Interim BCC as soon as possible.

In closing this section it is, we feel, enlightening to include two useful observations which have been touched on already under stakeholder participation, but which are also very pertinent to sustainability. One comment provided by a leading stakeholder involved at the scientific and research level was that looking back to 5 years ago, in terms of regional collaboration and understanding of the overall ecosystem functions, extraordinary progress and steps forward have been achieved through the instigation of the BCLME Project, along with the development of trust and cooperation which has laid a firm foundation for the sustainability of long-term scientific collaboration within the BCLME region. Another stakeholder made the point that the Project/Programme has drawn regional scientists and managers together in an organised and workable way to form a strong core which will be more effectively able to tackle the Benguela marine resource challenges that will arise in the future. This constituency of scientists is paving the way for policy coalition into the BCC by the three countries. It is important to note that these sentiments were repeated consistently by various stakeholders from various countries.

4.2 Project Management and Implementation

4.2.7 Project Design and Planning

Continuity is frequently a problem within the GEF project cycle. Within the context of the BCLME Project, for example, there was a delay of one year between the end of the PDF B phase and the start of the Full Project. During this period staff moved off to other forms of employment. The Project Coordinator for the PDF B took a post as Project Coordinator for another GEF LME project in the Bay of Bengal, in order to continue in employment during the period of the delay, and then had to re-apply for the position of Project Coordinator for the Full Project while resigning the post with the BOBLME. This was clearly not a satisfactory state of affairs for either project.

Most stakeholders felt that the project design was optimistic and too ambitious for the time period. One stakeholder who had been involved in the process from the early days (when BENEFIT was first discussed and then later when BCLME proposed) spoke very highly of the TDA and SAP process but felt that the Project Document had let down the stakeholders after such intensive efforts. The GEF process was considered to be too lengthy. The PDF B was submitted in 1995, a TDA was finally completed in 1999, the SAP was signed in early 2000, and then the actual Project started implementation in 2002. A lot of the corporate memory was lost during this period as key players moved on or left the region.

As has been commonly found in other GEF project evaluations, the BCLME Project needed considerable time to build up momentum, especially in the context of capacity building and training. It took a long time to set up contacts and develop the requisite coordination between three countries that had a recent history of poor coordination and communication. In fact, it is only really as the Project enters its second half that there is the capacity within Namibia and Angola to carry

out many of the activities and thus realise their deliverables. Stakeholders generally feel that the Project has achieved a significant level of success, especially with regard to understanding the ecosystem-based approach to management and improving knowledge on scientific and partnership needs. But it is also a common opinion that the Project will not meet all the detailed targets set within the LogFrame and that many of these are too long-term in any case, and require significant policy changes and management structures to be realised. Some stakeholders commented that it would probably be best to prioritise and try to address the main issues properly rather than attempt to do everything within one project lifetime from the point-of-view of the threats and root causes. Nearly all stakeholders are strongly of the opinion that there is now a very strong momentum within the Project and that the Project is ready to move forward into operationalising knowledge and information through appropriate management strategies and activities. They are also in agreement that the next step is the development of a regional strategy and overarching body to direct policy. This is seen as a new phase for the Project and one that will almost certainly require further support and funding to ensure long-term sustainable policy and management implementation. The overall consensus is also that it would be enormously damaging to the countries and to the BCLME as a globally significant entity if the Project were to lose the hard-won momentum it has now achieved.

The original Logical Framework for the Project was imprecise and had no effective indicators by which the delivery of the Project could be measured and verified. A LogFrame workshop was held to review the Logical Framework and to discuss the importance of indicators with various stakeholders. The participants at the workshop agreed that the existing logical framework of the BCLME as presented in the UNDP Project Document in Annex C was incomplete. There were mismatches between the goal, purpose and output statements in the LogFrame tables and those objectives and activities as stated in the main text. Therefore, considerable further elaboration was needed to change it into a useful management tool. The Logical Framework was consequently revised and more effective and measurable indicators were added.

4.2.8 Project Management

The Evaluators experienced an overwhelming level of support and praise for the Project Coordination Unit and its staff. A number of stakeholders commented on the speed with which the management structure was put in place and the efficiency with which it operates, particularly in handling day-to-day administrative and political issues such as travel arrangements and resolving visa problems. This has encouraged early buy-in from various BCLME-related organisations and stakeholders. This should also be seen in context of the fact that a number of stakeholders were concerned that the PCU was under-staffed and trying to undertake too much with too few resources. Ideally the Project Coordinator should be delegating more work but there is no technical assistant or suitably experienced specialist to support the Coordinator. This has required the hiring an International Consultant on occasions, but this is less than satisfactory from the aspect of continuity. Inevitably the Project Coordinator needs to travel frequently within the region and externally to represent the Project. During these periods there is no position within the PCU that can deputise for him. This was a common concern among a large number of stakeholders who nevertheless always balanced this concern with statements that reiterated the excellent job done by the PCU and Activity Centre staff under the circumstances. They expressed concern that GEF makes too strong an issue of the desire to ensure that GEF funds are not too heavily targeted at the project management and staff costs. Stakeholder feeling was that this tendency toward 'political correctness' by GEF was short-sighted and that the most critical component of any project is the management structure and its effectiveness. It was a common feeling that the PCU and its management (along with the management of the Activity Centres) had succeeded in holding the

Project together and delivering significant results DESPITE this GEF policy and that this was a reflection of the dedication, professionalism and hard-work of the regional and national Project Management Teams. With regard to the Activity Centres, it was also a concern that these needed more than one technical person and that there needed to be a technically qualified assistance/ deputy to support the Directors.

The Project Steering Committee meets frequently (at least twice a year) which is quite unusual for a regional project of this nature, although this frequency of meeting should be encouraged in other projects as it pays dividends with regard to country ownership and smooth project implementation. The representatives on the PSC recognise that the meetings (2-3 per year) place a lot of demands on them but generally they agree that it is worth it. It may be possible to undertake more of the PSC work by email and multilateral communications. It was noted that all members communicate directly with the PCU as necessary. The PSC members noted that the Project Coordinator and his staff were always careful to consult with PSC members and to react quickly and effectively to their needs (e.g. assisting with visas and travel arrangements, etc). This was also noted by the Evaluation team who were given every assistance and aid in re-scheduling travel and confirming or altering critical meetings and appointments to suit the changing requirements of the evaluation process. However, there is a concern now that the representation on the PSC needs to be more political in nature and less technical. This will become more important as the Project moves toward a stronger emphasis on management and policy level issues.

The Advisory Groups represent the regional decision-making bodies on technical issues related to the Activity Centres and the membership is made up of senior technical people and Directors. The defined purpose of the Advisory Groups is to provide the PCU with the best possible advice and information on topics key to implementation of the BCLME SAP. Although the Terms of Reference for the Advisory Groups require them to identify information gaps and initiate the development of projects to capture information to fill those gaps, they do not require the Groups to review the captured information and to target this into the management process so as to make this information operational which is a shortcoming in their role.

The Activity Centre Directors seemed to have a common concern regarding their status. Although they are effectively permanent staff fulfilling a regional role, they are hired as National Consultants. Consequently they receive no UNDP benefits nor do they have the right to a Laissez-Passer diplomatic passport. If they were working for their Governments then they would have a Service Passport but they cannot be issued with such as they are considered by the Governments to be employed by UNDP. Therefore they fall between both systems and lose the potential benefits in both cases. They do, however, have access to a UN Travel Certificate, which identifies them as working for the United Nations as a means of easing their passage through immigration and customs when travelling.

4.2.9 Project Execution and Implementation

The Project was delayed in its inception so it has only really been running for two years. However, much has been achieved in that time. No concerns were noted by the evaluators regarding execution and implementation, with regard to the behaviour of the Project staff, or of those people in the executing and implementing agencies that have been directly involved in the Project. It is the overall opinion of the stakeholders that the Project has been managed in a very fair and transparent manner. Every opportunity was provided for confidential feedback to the Evaluators in this respect but no complaints were noted.

The PCU has provided assistance to each Activity Centre by way of training courses in handling of budgets and imprest accounts, and no concerns were expressed either at the level of the Activity Centres or at the level of the Executing Agency (UNOPS) regarding the handling of budgeting or imprest accounts. All of the Activity Centres felt that they needed additional staff to undertake their work more effectively and to avoid having the Directors dealing with day-to-day administrative duties.

An imbalance has been noted in the distribution of effort and resources assigned to the Project by the different countries. However, this has not been construed as a problem, but merely recognised as a reality. Inevitably South Africa has given more by way of time and human resources as befits its position as the most commercially and scientifically developed of the three countries. However, there was no apparent resentment of this from South African stakeholders and their general feeling was that it was only proper that they should be seen to be helping their neighbouring countries. In this respect, and bearing in mind the fairly recent fractious history between these three countries, it is gratifying to see that a GEF project is helping to mend old wounds and to develop strong partnerships and trust. Namibia and Angola in turn are keen to work closely with South African scientists and technical experts and to build their capacity and skills through such partnerships and joint workshops.

Clearly there is a need to be sensitive to the needs of Angola, a country that is only now recovering from decades of strife and social upheaval associated with conflicts and war. The very real manifestation of this situation however is the logistical problems associated with holding regional meetings and workshops in Angola. The BCLME Project strives hard to include Angola as an equal partner but the reality is that travel, visa arrangements and other logistics associated with such meetings are an enormous problem. Financially it is also draining Project resources as the costs of holding any such meetings in Angola is significantly higher with the general cost of living being much greater than in the other two countries. If this is balanced against the concerns identified regarding the overall shortage of Project funding as a result of the altered exchange rate, this becomes a significant concern.

Another concern that focuses on Angola's needs is that of the language difference and the requirement for translation. This has been mentioned previously in the evaluation report under Capacity Building and Training, but also has implications for effective Project Execution and Implementation. This was not addressed adequately as a need in the Project Document. The BCLME Programme has and is generating an enormous volume of valuable information but the greater amount of this is in English. Provisions should have been made to translate this into Portuguese for use within Angola. At the same time, more consideration should have been given to providing Angolan stakeholders with the opportunity to develop their skills in English so that they could communicate more effectively with both the regional and the global scientific community.

One technical issue which was raised several times as a concern during the evaluation was the definition or intent of 'Transboundary'. Quite a number of stakeholders felt that either GEF, the Implementing Agency, the Executing Agency or the PCU were placing too rigid a definition on 'transboundary' to imply that only those effects or issues that crossed from one sovereign territory into another qualified. In the opinion of the evaluators it is not just the effect but also the impact that is important. Clearly the BCLME itself is transboundary and this qualifies it for GEF IW intervention and assistance. Furthermore, any impact or concern that affects the LME is therefore eligible for GEF support even if it is a single-country issue, because it is affecting a transboundary LME, the benefits of which (and the responsibility for) are shared by three countries. Likewise, any species or habitat associated with the LME, even if endemic to only one of the three countries, is

also eligible for GEF focus if it is an integral part of a transboundary LME and should not be isolated from it on political or territorial grounds. However, after further consultation the Evaluators now understand that there was some concern raised when proposals were put forward for funding within one of the three participating countries focusing on impacts or threatened areas which, although coastal in nature, were clearly not related to, within or impacting the BCLME. This gave rise to the decision to focus primarily (although not exclusively) on impacts common to more than one country, or straddling LMRs. In future, it would probably be appropriate to define eligible areas of concern to be any threatened species or habitat or any source of impact directly related to the LME itself but NOT necessarily common to more than one country or transboundary in nature, as long as the effect is felt within the LME (which is transboundary by definition of being part of an IW project).

In considering the efficiency of the Executing Agency, there was a general agreement among stakeholders involved in the contracting process for the AC sub-projects that UNOPS had done a professional job, and had been very helpful and patient. The Implementing Agency in particular was full of praise for the excellent work performed by UNOPS New York in overcoming problems that could have significantly stalled progress, and in being accommodating and helpful in every instance. One concern that was raised by a number of stakeholders was the contracting process. Interested parties became confused because there were different approaches taken. A lot of the contracts went to UCT. This is hardly surprising as they have a wide pool of expertise in LME-related issues and know the geographical area very well. It would have been more appropriate and easier to manage and justify contracting if ALL contracts and sub-projects had been submitted for open tender. Failing that then specific institutions or organisations should have been identified in advance in the Project Document, and their contributions by way of co-financing clearly presented as a case for their pre-selection (along with their expert credentials and other justifications). However, the Evaluators recognise that this is, in itself, a somewhat idealistic and possibly simplistic statement with the advantage of hindsight. The statement stands more as a note for guidance and certainly not as a criticism in this case. The recommendation would effectively be to give very serious consideration at the Project Development stage to the process of contracting and tendering in an effort to produce a simplified and clear mechanism. Where the use of UNOPS as an EA for Project Implementation is already known during the Project Development phase, it would make considerable sense if UNOPS were consulted on those parts of the draft Project Document that relate to such matters and to the overall execution process as a standard matter of course.

Also related to the contracting process was the very deep concern about changes in the exchange rate and devaluation of the dollar against all local currencies within the BCLME Programme (as has been discussed in detail under 'Risks' above). The allocated funding dropped by nearly half and this created enormous problems for contractees both at the level of funding resources for the sub-projects and at the personal level (individual living allowances calculated under the contracts were halved also).

It has been suggested that the entire AC sub-project process could have been more effective if it had been developed through partnerships rather than individual contracts (with potential partnership groups bidding for a series of related sub-projects). An example of this was the sub-project-by-sub-project basis that contracts were developed with CSIR. Because of the nature of CSIR and the types of sub-projects they were involved with, a lot of the work was inevitably research and development of new techniques and capabilities. A lot of this was co-financed by CSIR and there is a belief that this process could have been much more cost-effective if CSIR and BCLME had developed a proper partnership arrangement (surrounding a suite of sub-projects and a set of mutually beneficial objectives) which would have made access to resources much more feasible. In this context it

would be worth remembering for any future cooperation in the sub-project that CSIR has a regional brief (not just limited to South Africa) and can address capacity building and training also as they have considerable engineering and instrumentation expertise and laboratories (along with much experience in project management). The evaluators understand that UNOPS did actually adopt a process of inviting tenders as a package at a later stage after Project Implementation was well underway.

UNDP is the Implementing Agency for this GEF Project and appears to be well represented on the Project from its Pretoria Office, along with considerable input from the Namibia Country Office. The UNDP GEF Coordinator for International Waters is very active in BCLME Programme administrative and policy issues and is in regular attendance at PSC meetings and other appropriate Programme venues. There is also frequent representation from the UNDP Office in Namibia at Programme Meetings. The UNDP Namibia office has also assisted in providing linkages to other relevant projects outside of the BCLME Programme. In this regard, a number of stakeholders commented on the exceptional service and support provided by the Namibian Office of UNDP. However, stakeholders have pointed out that there is less evidence of support from the other UNDP Country Offices (with the exception as mentioned above of the UNDP GEF representative from Pretoria) despite the fact that all 3 Country Offices do receive an implementation fee for this GEF Project. There should at least be attendance by the UNDP Programme Officers from each country office at the PSC, which provides the best summaries of Programme progress and valuable information on constraints and successes. The UNDP offices of Angola and South Africa are less frequently in attendance at PSC meetings.

4.2.10 Country Ownership/Drivenness

Concern was raised regarding the imbalance between one country (South Africa) and the other two countries. Many of the sub-projects submitted and approved through the ACs originated with, or were contracted to South African institutes or groups. Mainly because they have the highest level of expertise within the region. Several stakeholders felt that too many of the BCLME activities and workshops happened in South Africa (although it was understandable to them why this happened for ease of logistics and because so much of the expertise and knowledge is based there). Stakeholders feel that there should be a stronger emphasis on South African experts and specialist institutes providing the training and capacity building to personnel and institutions in the other countries, whereas the perception now is that South African scientists and institutions are reaping more of the benefit from the Programme than Angola or Namibia.

An over-riding concern for the Project at its current stage is the urgent need to engage stakeholders, particularly government agencies, at the highest policy level. Up until now the current Project has focussed on living resources and ecosystems and this has been both appropriate and necessary. However, there is now an urgency to address two priorities in this respect. Firstly it is now imperative that the Project places more emphasis on understanding pollution concerns (particularly land-based). Therefore it is essential that the Ministries responsible for these issues and concerns take a fully active role in the Project. So far these sectors have tended to be represented at a very junior level (although it is fair to say this is not so for every country). These are areas that are impacting the LME and may cause deleterious effects that can have serious consequences for the economic stability and quality of life in all three countries. Secondly, it is now a matter of urgency that the BCLME becomes a formal and recognised concern at the Ministerial level and is given the support and ownership necessary for policy development that targets long-term sustainability of the LME and its resources. There is sufficient knowledge available to at least develop a precautionary approach and, in some cases and in some sectors, to start instituting actual operational management

strategies and actions. It is imperative then that the considerable knowledge now available from the BCLME Programme is processed and presented to the decision-makers in a concise and distilled manner that makes it very clear what the countries stand to lose very soon by way of natural resources unless effective management mechanisms are adopted and regional policy strategies evolved for the BCLME. In real terms, millions of dollars (if not billions of dollars in the long-term) are at stake for the BCLME countries if they fail to act now to manage their renewable marine resources. This message must be interpreted correctly at the policy level and it is the BCLME Programme which is currently best positioned to present this interpretation.

The level of commitment to BCLME is reflected to some extent within the PSC attendance. Both Namibia and Angola are represented at the senior level, usually by ministerial Permanent Secretaries, but representation from South Africa is never usually higher than Departmental Director. This is a source of some embarrassment within the PSC and the Project, and the concern was expressed by many stakeholders that South Africa is probably not demonstrating the same level of political commitment to this Project as is seen from the other two countries. It is now essential that policy-makers take on the ownership of this Project and attend the PSC with the short-term view of converting this body into an Interim BCC.

In relation to country ownership and political buy-in within South Africa, there is a general concern that there needs to be a better understanding of the BCLME programme and its related operational and management needs throughout all pertinent government departments at the level of Departmental Director, especially as the information and knowledge capture components of the Programme now need to be translated into operational strategies and management practices. Furthermore, there is an equal need for more sensitisation and political support at the Ministerial level, especially in view of the now-urgent need to create an Interim BCC. Policy level concern in relation to natural resources within RSA is currently focussed specifically on long-term fishing rights, but there is a clear connection between these and the BCLME Programme which needs now to be given due consideration. Ministers from a variety of Ministries (not only those with responsibility for Environment and Fisheries, but also Ministries responsible for Mining, Economic Affairs and Foreign Affairs) will need to be engaged soon as part of the development of the BCC. Resource economics is under-represented in environmental issues in the BCLME yet this is the level at which the Programme needs to engage the politicians. The Project needs to sell the overall value of the LME, of the end results of cooperation (and the economic losses associated with the failure to cooperate), and of the new approaches and methodologies being developed through the BCLME Programme. Stakeholders have confirmed the need to engage Ministers directly through some means of communication by the Programme. One approach might be for the BCLME PCU to produce very short politically-oriented Briefs for regular circulation at the Minister and PS level with reference to the regular BCLME Newsletter (which should also accompany the Briefs) for further information. These could be sent directly to the Ministers Office (through their Advisors) with the understanding that they will keep their Ministers briefed.

It was noted by some stakeholders that the BCLME Programme was seen by a number of regional scientists as an extension of an early Benguela Ecological Programme which was based in South Africa alone. Furthermore, it was noted that several stakeholders saw the BCLME Programme as a science project and were quite surprised to learn during the Highlights Symposium that there was a requirement to operationalise the science and to create a BCC. Clearly therefore, there is also a need to explain the overall long-term policy objective of BCLME to the technical and scientific level personnel who are working on specific thematic projects (although this should have now been clarified at the Symposium and would be captured in the Report from that meeting).

The evaluators were able to meet with two Deputy-Ministers in Angola and two Ministers in Namibia. The evaluators were assured that the political will is there in Angola, and that other Ministries besides Fisheries are keen to be involved in the BCLME Programme, but again the Deputy Ministers noted that the language barrier is a problem. One Deputy Minister noted that the BCLME Programme has been instrumental in creating integration between relevant Ministries at the national level. But they also recognise the need now to move the LME approach into an operational and management phase. The Deputy Minister guaranteed that this issue and the need for support of a BCC would be raised at the Ministerial level, would go to Parliament and that the President would be briefed on the issues. The Deputy Ministers were certain that Angola is now ready to commit to an international treaty forging closer cooperation between the countries in the sustainable management of the resources associated with the BCLME. They also felt that once the political will was formally confirmed then the financial sustainability should follow, but they would need input from the private sector to make it work in the long-term.

Both the Minister of Mines and Energy and the Minister of Fisheries and Marine Resources in Namibia were strongly supportive of the BCLME Programme and were keen to develop an Interim BCC. They were in communication on this very subject during the time that the evaluators were in the country and had agreed that the Minister for Environment would provide a Cabinet Briefing on the BCLME Programme and the need for a BCC in the very near future. The Minister of Fisheries and Marine Resources in Namibia (who has been very instrumental in pushing the BCLME Programme ahead) commented that he is probably up-to-date on Programme issues and the next steps required but that other Ministers in his country and in the other countries could benefit strongly from an official update. He was of the opinion that there would be strong support from all Ministers for moving the Programme forward both operationally and policy-wise, and for commitment to a BCC, especially after an effective Briefing. He felt that the best way forward was for each country to have its own separate Cabinet Briefing and then for relevant Ministers to meet together within the structure of an international forum (such as SADC) and to agree on next steps regarding the Interim BCC. In this context of political support and ownership, it should be noted that the Minister of Fisheries and Marine Resources for Namibia made a commitment to the evaluators while they were in the country that he would request SADC to formally convene a meeting of the relevant Ministers from the 3 BCLME countries in order that they can be briefed on A) the current status of the Project, B) the need to act expeditiously in the creation of an Interim BCC, and C) to take the necessary steps to endorse a formal BCC and supportive international treaty. This formal request was made to SADC and the briefing was duly placed on the Agenda for the next Integrated Committee of Ministers scheduled for 8th-10th June in Lesotho. Annex 3 confirms that this briefing took place. Following the briefing the SADC Integrated Council of Ministers gave a full endorsement to the establishment of the BCC as follows:

The Integrated Committee of Ministers endorsed the establishment of a Benguela Current Commission to ensure an ecosystem approach to management and sustainable use of the BCLME.

This endorsement came from a political level immediately below Heads of States, and is therefore a sign of significant political support. One would normally expect a statement at this level to read more along the lines of “The ICM urges Member States to support the establishment of a BCC” however, in this case the Committee has actually given FULL endorsement to the statement at the interministerial level. The evaluators are most grateful to the Ministers for their pro-active response to the Mid-Term Evaluation and for their statement of full commitment.

In the early stages it may be prudent to identify priority areas for the IBCC to focus on such as:

- a. Shared fish stocks. Management plans should become a top priority as should cooperative MCS. These two issues represent important opportunities for the IBCC to define and evolve its functions and responsibilities.
- b. The involvement of industries such as mining, oil and gas in discussions related to the sustainable management of resources within the BCLME
- c. Shipping pollution and maritime hazards
- d. Early warning on environmental disasters and preparedness

Of course, one of the earliest functions of such an IBCC could be to review these priorities to see which concerns could be moved ahead expeditiously.

Also of critical importance to the future of the BCLME Programme and the effectiveness of any regional collaboration is the need to encompass existing agreements already signed by the countries (e.g. NEPAD, Abidjan, etc). A BCC would also need to assist in developing a greater sense of equality between the three countries in relation to the LME and also to relationships with other neighbours. Angola, for example, is a newly-emerging country with significant resources and enormous potential and should be encouraged and promoted wherever possible so that it can stand alongside other countries such as South Africa on equal terms. To a great extent this also applies to Namibia.

4.2.11 Workplan and Budget (including cost effectiveness)

The Project was signed with a GEF contribution of US\$15 million and a further in-kind contribution of US\$18 million. The BCLME Programme had expected to raise money from the private sector (such as the oil industry) to help to support some of the AC sub-projects or at least to co-fund them. However, this does not seem to have occurred although private sector industries have expressed a willingness to help. The evaluators are concerned that there is little evidence that much of the co-funding has been realised and would urge the Project and the EA and IA to give some serious attention to this matter before a Final Evaluation of the Project.

Some of the co-financing arrangements are complex and are not as generous as they may seem initially. BENEFIT is partnered with the Institute of Marine Research (IMR) in Bergen and NORAD gives money to IMR to support BENEFIT. GTZ (Germany) gives money directly to BENEFIT. IMR 'donates' ship time to BENEFIT on the research vessel Dr. Fridjof Nansen. BENEFIT also gets some ship time from German research vessels in the region, mainly for hydrographic work. However, the BCLME Programme has to pay for any such time on the research vessel (although BENEFIT has very generously donated some of its free ship time to BCLME in the past). However, it should be noted that 80% of the NORAD co-funding goes back to Norway by way of vessel time and consultancy. For example, in 2003 15 million Kroner was donated by NORAD as co-funding to BENEFIT. Of this figure 1.8 million went to the Institute of Marine Research as manpower costs, 11 million went back as vessel costs, and then there were costs removed for IMR travel and per diem. Only 2 million Kroner actually remained with BENEFIT. On the other hand, of the E817,000 donated by GTZ, E189,000 went to support the BENEFIT Secretariat, E408,000 was given to research by BENEFIT, and E220,000 went to training through BENEFIT.

4.2.12 Monitoring and Evaluation

The STAP review (as an evaluation document) noted the absence of any linkage between the proposed Project and GOOS (the Global Ocean Observing System). This linkage still appears to be

weak (as was noted during the Highlights Symposium) and the Project would do well to develop this further.

The monitoring and evaluation approach being used by the BCLME Project has been identified in the 2004 PIR as providing important lessons (even during the early stages of the Project) to future LME projects by establishing best practices. The Project is developing indicators for environmental variability and the state of the environment, as well as indicators of ecosystem health and the state of the fisheries resources, in conjunction with an integral regional forecasting mechanism. As well as these Stress Reduction and Environmental Status indicators, the Project has re-written its LogFrame to include some very specific Process Indicators for measuring project achievement, which are valuable to the overall M&E needs for the Project. Undoubtedly the original LogFrame was inadequate for effective monitoring and evaluation and needed to be revised in detail as an early requirement within the project implementation. This was done very effectively.

Individual sub-project proposals to be funded through the Activity Centre were peer reviewed either in-country, in the region or by external reviewers. Reporting for the AC sub-projects was quarterly and stakeholders felt that this was a valuable process and helped to keep the individual sub-projects on track.

Many stakeholders expressed their satisfaction with the Highlights Symposium. This was a two-day presentation of 'results so far' for the Project and was immensely valuable to all parties, including the Mid-Term Evaluators. Several stakeholders asked for such a symposium to be an annual event. From the Evaluator's point-of-view, this was such a useful exercise in receiving a 'crash-course' in project achievements that it should become a requirement of all future Evaluations.

A concern that the evaluators identified themselves which had direct implications on the evaluation process relates to the Project Implementation Review (PIR) for 2004 and the revision of the Project Logical Framework. In the opinion of the evaluators, the revision of the LogFrame and the inclusion of more appropriate and measurable indicators was essential (reflecting the original project design flaw in this respect) and was undertaken very effectively through a stakeholder workshop and endorsement by the PSC. However, the fact that the LogFrame had been altered along with some fairly critical objectives and timing, was not made apparent to the evaluators. Part of the problem here was that the section on the front page of the 2004 PIR that requests information on whether there had been any adjustments to the Project clearly stated 'No' when it should have said 'Yes' and should have drawn the readers attention to the adjustments to the LogFrame and the Indicators. The result was that the evaluators were working with the wrong set of indicators when they started the project evaluation and only picked up the mistake when comparing the response to the PIR to the original LogFrame expectations. This was significant in that the original Project Document had required the Interim BCC to be adopted and implemented immediately upon project inception with a view to 'specific progress' being made toward creation of the formal BCC by the end of the Project. The new LogFrame has more specific indicators to verify the IBCC being phased in and functional by 2006 (with no mention of a timescale for the formal BCC). In this context, the evaluators would request that clearer guidance be given in the PIR template, and ensure that any such changes are highlighted on the front page.

For the purposes of evaluating and monitoring the progress of a GEF Project it would be most valuable if future Logical Frameworks or Monitoring Plans contained both Mid-Term and Terminal Indicators. If these were realistic and clearly verifiable it would help all parties enormously in appreciating what the status of the Project was, where project delivery was most effective, and what shortfalls it was experiencing that need to be addressed. At the time of the Terminal Evaluation it is

too late usually to re-structure or realign the Project as what is done is done. In this context, indicators are possibly even more important at the MTE stage to allow evaluators to provide sound advice and guidance to all parties on amendments and improvements in line with the objectives of sustainability, country ownership, capacity building, etc.

4.3 Overall Project Impact

4.3.1 Objective Achievements

The Project is on target in the context of the overall objective to undertake an array of priority measures as identified in the Transboundary Diagnostic Analysis (TDA) and the Strategic Action Programme (SAP to bring about the integrated, sustainable management and protection of the Benguela Current Large Marine Ecosystem. In terms of the Outputs there has been a significant level of achievement with the exclusion of Output 5 (Improvements in Donor Participation and Co-financing within and beyond the Project Lifetime).

Perhaps one of the most significant achievements is the development of strong working relationships between scientists and institutes within the 3 participating countries, which is creating an environment of mutual trust and respect. These working relationships are helping to define the interactions across many sectors and thematic subject areas, and to capture foundation information necessary upon which to base operational approaches and management strategies. Furthermore, the development of these relationships provides a strong foundation for the evolution of the IBCC and eventual adoption of a long-term BCC.

4.3.2 Constraints

Obvious constraints to achieving the Project's primary objective and the delivery from its outputs include:

1. The need to translate information and knowledge into operational activities through the adoption of management tactics.
2. Related to 1. above, the need to adopt an interim Benguela Current Commission which was originally intended to have been in place in the early stages of the Project.
3. Limited capacity still within at least one and probably two countries to engage in an integrated cross-sectoral ecosystem-based approach to management, or even to be able to undertake routine monitoring and data collection in support of such a management approach.
4. Financial constraints on Project delivery resulting from changes in exchange rate and a loss in overall value of the GEF funding.
5. Inadequate manpower committed to the Project (at the PCU and Activity Centre level).
6. Lack of recognition in the Project Design of the constraints raised (regarding equity of interaction and involvement) as a result of the language differences in relation to Angola
7. The inadequate co-financing

5. Conclusions of Evaluation

The BCLME Programme has achieved significant progress in filling information gaps, expanding knowledge on linkages and variability within the ecosystem, strengthening institutional capacity and training individuals for improved monitoring and data collection, and building cooperation and

trust between the stakeholders within the three countries. The priority now must be to take the next steps towards implementing the SAP by way of operational strategies that use the captured information to make ecosystem-based and integrated management decisions. This will require the adoption of both national and regional management and decision-making structures. At the national level such structures may well exist but may need to be modified and fine-tuned to embrace an ecosystem-based approach, and to ensure an integrated cross-sectoral approach. At the regional level a structure will need to be created that can coordinate management approaches and agree on regional policies that target the LME.

One comment made to the evaluators during this evaluation process was that “The BCLME was designed by scientists for scientists”. This was followed by further comment questioning whether there was a real understanding within the project of the role of the science in providing policy makers with the tools for effective decision-making. However, it should be noted that this was the perception of one stakeholder only. The evaluators would agree that there is a strong scientific element to the BCLME so far but would point out most strongly that this is critical to building a successful foundation for effective ecosystem management and for the ecosystem approach to fisheries. There is undoubtedly a need to sensitise all sectors and levels to the function and role of the scientific process in terms of its input to management and policy development. The whole concept of governance is critical to the end-product of the BCLME Programme and, without reaching effective governance, the Programme fails. Having said that, the opportunity is there now at the mid-point of this GEF Project to capture the valuable knowledge and information generated by the BCLME Programme, and to translate this into management strategies and in-field operations that can provide real sustainable management of the LME, and which can link into the governance process through policy and legislative reforms and support.

There is a wealth of information that has been captured through the BCLME sub-projects as well as existing data at the national and regional level. This needs to be coordinated and reviewed at the thematic level while maintaining an integrated and cross-sectoral vision. This should now be the objective set for the Activity Centres and for the Advisory Groups. These bodies of experts need to review and discuss the application of the data and how it can be operationalised into management strategies. The pool of information now available needs to be seen also in the context of the TDA and the identified threats and root causes to assure that any remain gaps are addressed as well as to give direction to the Advisory Groups regarding what areas of concern need to be addressed within newly proposed management strategies (both nationally and regionally).

The Advisory Groups also need to consider the requirements for long-term monitoring in order to keep the information up-to-date, to identify any variability and changes in critical parameters, and to respond to the needs of management and policy-makers through a feedback process. Such a process needs to be dynamic in being able to respond to changes and/or new information arising from adopted management strategies. In other words, on-going monitoring and data collection has to be able to accommodate additional information requirements from resource managers and from policy-makers.

Different levels of processing, application and presentation are needed to suit the requirements and needs of different targets and audiences. Technical managers will need fairly detailed scientific data processed to deliver sound and convincing justification for such managers to be able to choose specific management actions. At the policy level, much of the detailed science will need to be ‘demystified’ and distilled into clear (but ultimately verifiable) short, sharp explanations of current status and the results of proposed actions at the ecosystem level. Thereby allowing senior decision-makers to reach accurate and justifiable conclusions and adopt related policies. This will need the

input of the Advisory Groups once again, but there is also a valuable role here for BENEFIT and DLIST, both having much experience in delivering information in a user-friendly format.

It is clear that the BCLME stakeholders and partners are hoping for a second phase to this Project. It seems equally clear that such a second phase aimed, at operationalising the ecosystem-based approach and adopting related policies and legislative instruments, was always intended as a funding consideration by the GEF (with the first phase being focused on building on the TDA/SAP process to fill gaps and to build working partnerships). A second phase would build on the hard work undertaken at the scientific and technical level, and on the partnerships that are growing between the various national institutions, and will move the three countries forward into implementing a truly regional ecosystem based management mechanism through a Commission and associated international legal agreement. A lot of effort has already gone into capacity building and training and there is still much that could be done for the remaining period of this current Project. Stakeholders feel that it would be an enormous waste of all this effort by the three countries and also a wasted investment by GEF if these successes were not capitalised on through the critical development and implementation of a regional body such as the Commission.

In the process of revising the Logical Framework for the Project it was recognised that the IBCC would need to be a negotiated step in the Project and could not simply be adopted as an initial phase immediately following Project Inception. Having said that, it is clear that there is a sense of urgency within the PSC and a strong political will to move forward now with an Interim BCC. At the its 8th meeting in Windhoek (13th May 2005) the PSC issued a statement (see Annex 4) that reaffirms the intentions and commitments of the Strategic Action Plan on which the BCLME Programme is based, makes note of the certain deficiencies in current Programme delivery along with their causes, and provides a road-map for achieving the overall objectives of the BCLME Programme with particular focus on the BCC and a supportive Convention or Treaty.

At their latest meeting (8th-10th June 2005) in Lesotho, the Integrated Committee of Ministers formally endorsed the establishment of a Benguela Current Commission to ensure an ecosystem approach to management and sustainable use of the BCLME. The way forward is now clear for the adoption of an Interim BCC and, at a later stage, a full BCC supported by a regional legal instrument.

The BCLME Programme therefore now needs a two-tier approach to evolving developing sustainable management of the LME and its resources.

1. An operational level component focusing on the technical and managerial relationship and developing cross-sectoral management approaches and mechanisms for thematic areas with an emphasis on integrated operations and strategies.
2. A high policy level component driving the adoption of an Interim BCC and the endorsement of a tripartite agreement (BCLME Convention/Treaty), and identifying the long-term strategies and structures to support a full BCC including sourcing sustainable funds.

The BCLME Programme needs to place more emphasis on delivering the message to policy makers of 'economically sound and cost-effective' cooperative, integrated management of the LME and its associated resources. The cost-benefits of the ecosystem-based approach at the regional level have been identified through the *'Economic Study and Cost-Benefit Analysis of Cooperative Research and Management for the BCLME Region'* report but this, again, needs to be distilled into concentrated and easily digested 'politician-friendly' presentations to get the point home to the national (and regional) decision-makers. The conclusions of the Study were very clear. The potential for obtaining net benefits from regional cooperative management of the BCLME were

seen to be huge, and the Study therefore recommended the establishment of an Interim Benguela Current Commission (IBCC) in support of such regional cooperation. It is now vitally important to engage industry and government in a language that they understand and to present justifications based on values and losses. This should also be presented against the backdrop of environmental variability and the need for cooperative forecasting and prediction.

The Project has clearly identified through its studies that the BCLME is naturally adapted to a highly variable environment where sustained natural events can impact on the whole system and compound any negative anthropogenic impacts. One of the innovative aspects of this GEF Project has been the focus on understanding and recording environmental variability within the BCLME as an integral 'driving force' that makes the LME what it is, and which therefore directly affects the understanding and management of its natural resources. This background understanding of environmental variability within the LME comes at a crucial time when evidence is already building that climate change is altering this process and relationship. Consequently it is imperative for the countries that depend on the BCLME (and for the sustainability of this LME as an important cell of global biodiversity) to establish an early baseline of information, improve the predictability of extreme events, and develop an environmental early warning system. The evaluators understand that both regional modelling and remote sensing capabilities are being developed with this urgency in mind and that the development of an Early Warning System (EWS) is being 'fast-tracked' by the Project.

The Project has undertaken an assessment of training and capacity building needs and identified the priorities. However, there is a need for a more focused approach to CB&T and at this Mid-Term point it would be advisable for the Project to consider developing a clear road-map for institutional and individual CB&T targets. Furthermore, there is a serious need to look at the sustainability of such CB&T approaches both from the point-of-view of the concept of 'train-and retain', as well as the need to secure project investment in having developed innovative and cutting-edge skills over the long-term. The first issue here is one of loss of individuals to more lucrative employment once they have received training and become more skilled. The Project needs to work with Governments to find ways of combating this loss either through contractual arrangements with the individuals, better salaries within the government sector, or agreements with the private sector not to 'poach' specific skilled personnel from government posts. The second issue concerns coincidental capacity building whereby individuals working with the Project on specific data gathering requirements learn very specialised skills (e.g. predictive modelling and/or forecasting) but are then effectively lost to the system when the activity and its funding ceases. The Project needs to find some means of sustaining such cutting edge skills. Both scenarios represent a risk in investment to GEF and an overall potential loss to the region. The professionalism which has been created in the PCU and the ACs needs to be maintained. Additional personnel should be recruited to assist the Project Coordinator and the AC directors and in this way ensure the sustenance and institutional memory.

The evaluators have noted the cooperative arrangements between at least one University and one government department, and the excellent benefits and advantages of such a partnership (e.g. The University of Agostinho Neto and the Institute of Marine Research in Angola). Such partnerships need to be explored and encouraged at both national and regional level and offer much to the long-term success of the BCLME management process by way of sustainability and integration.

The evaluators identified some perceived problems of cooperation and partnership between South Africa and the other two countries of the BCLME Programme. Stakeholders and partners from Namibia and Angola working on joint sub-projects with South African institutions feel that they have been discouraged from taking part fully in data analysis, the development of conclusions, and

the preparation of reports. Furthermore, there is a strong perception that an unintentional bias for support for South Africa has evolved from the BCLME Programme. This has come about as a result of the differentiation between the countries with respect to expertise, resources and facilities, and has been discussed in detail in several places in the main text of this report. South Africa is clearly far ahead in terms of scientific knowledge and available specialists whereas the other countries have a very limited pool of available scientists that can be trained. This has led to a more active involvement of South African scientists in many of the sub-projects linked to the Activity Centres. Whether all parties are in agreement regarding these concerns is, to some extent, irrelevant. As long as the perception exists there is a danger that it could damage long-term relationships and partnerships to the detriment of the BCLME Programme. However, this situation could be reformed into an opportunity rather than being seen to be a disadvantage, and South African expertise could be actively exploited by the Programme to assist in training in the other countries.

On a more positive note, sharing of experiences, transfer of skills and generally capacity building has, in many circumstances, happened almost coincidentally as a result of cooperative studies and research between institutes and individuals from the three countries. This was brought to the evaluator's attention a number of times by stakeholders who valued the benefits that have arisen from this cooperative learning and exchange of knowledge. This has extended beyond the region with cooperative arrangements that have linked national institutions and international experts. An additional benefit that has arisen from such linkages to international experts and specialist institutions has been the opportunity for scientists from the BCLME region to work and to study at such advanced scientific institutes with the enormous capacity-building advantages that this then brings back to the region. This regional and international cooperation and partnership has also helped to foster and develop standardised approaches, especially in relation to new and innovative techniques and skills such as those associated with forecasting and prediction of environmental variability. Again, this bodes well for the long-term sustainability of Programme objectives.

In the further context of achieving sustainability, there is a need to expand country ownership through the realignment of national budgets and revenue allocations to support implementation approaches for the BCLME Programme (especially in relation to cooperative, sustained and integrated management of natural resources within the LME). The future sustainability of the BCLME Programme and GEF's investment rests primarily on the need to ensure two key-stones are in place 1). The availability of adequately trained human resources working together as an interactive and integrated force both nationally and regionally, and 2). An appropriate high-level (Ministry-driven) regional management and policy-making body, adopted and supported by all relevant stakeholders.

Although stakeholder involvement in this Project has been good, there is a general feeling that it has tended to focus on fisheries-related stakeholders and there is a need now to involve more specialists, managers and policy-makers from other sectors such as mining and petroleum, pollution control agencies (maritime and land-based) and other evolving sectors and industries such as mariculture and tourism. The emphasis on fisheries may be a reflection of the Programme's origins from BENEFIT, which is a more fisheries-oriented organisation. Now it is clear that non-fisheries stakeholders (including the private sector) have a critical role to play in the future of the BCLME Programme.

In relation to fisheries within the BCLME, resource specialist have noted that there is as great a need to ensure effective national management of regional fish stocks as there is to expand this to transboundary management. There is a clear necessity for more emphasis on capacity building in

this particular area. There is also an urgent need to address the current disconnect between transboundary fisheries research and management processes. The linkages between the scientific working groups on fisheries (at the national level) and the BCLME Programme (at the transboundary level) are currently poor. These groups should be playing a primary role in setting fisheries management research priorities for BCLME. Adequate collection of fundamental data such as catch, effort, length and age information for the catch should also be a higher priority. There is some justifiable concern that over-emphasis is being given (at least in these earlier stages of the BCLME Programme) toward understanding of cycles and fluctuations at the expense of basic information needs such as the development of feedback systems allowing an appropriate response (in terms of management measures such as TAC amendments) to effects and deviations that may be detected through resource monitoring data. Certainly the Project has demonstrated so far that the co-management of shared resources could be a very real possibility for these 3 countries if the above constraints at the resource management level could be overcome.

Only one stakeholder had any specifically negative comments to make about the overall BCLME Programme output and delivery. This person felt that the Project had clearly been designed 'by scientists for scientists', that there was a lack of a management framework, and that the Project needs a serious facelift in terms of the way in which it is to be sold to the politicians and senior advisors. To some extent these statements are not unreasonable and much of this has been discussed above with some clear directions given on how to resolve these issues. Generally, however, the vast majority of the stakeholders who expressed their opinions to the evaluators had a more positive perspective in terms of what the Project had actually achieved. They felt that the Programme has initiated a much more holistic approach within the region with more information on changing boundary processes that affect national priorities and concerns. The Programme has encouraged better integration of a multidisciplinary approach to the ecosystem effects of fishing and the relationship between fisheries and the ecosystem itself. The presence and support from the Programme has assisted in retaining much expertise within the region, has had a positive effect on capacity building and training (even if this is sometimes identifying gaps and shortcomings) and has undoubtedly promoted regional cooperation between institutes. Capacity building has proved to be so effective in some cases that a number of project-associated personnel have been promoted from technical levels up to senior management positions both nationally and within regional organisations.

Stakeholders also noted that the presence of the GEF Project has promoted and encouraged more studies into non-commercial species outside of the fisheries sector, as well as more data collection on the species that constitute the fishery by-catch, and how their removal may influence the ecosystem as a whole. There was an overall consensus of opinion that much of the work related to cutting edge techniques such as predictive modelling and environmental variability studies would not have happened without the support and encouragement of the GEF Project. Prior to the BCLME programme being implemented there was a general recognition of the need for monitoring and environmental assessment, as well as the integrated management of coastal and marine resources. However, nothing ever materialised as other day-to-day priorities took precedence. With the start of the BCLME Programme priorities were realigned and the importance of taking a cooperative and integrated ecosystem-based management approach became clearer. The GEF Project provided missing resources, capacity building, training and incentive to address these newly realigned priorities. In this context, the BCLME Programme is welcomed by all 3 countries as being a very necessary and positive initiative that has grown out of direct country involvement and has real national support. There is no perception at all that the Programme or the GEF activities have been forced on the stakeholders. This therefore represents a truly country-driven GEF support initiative with strong country ownership at the scientific level and, gradually, at the political level.

Certain constraints were highlighted which have affected the performance of the Project and its delivery. These include the problems experienced with the massive fall in the exchange rate from the US\$ to local currency almost immediately after project implementation. This has had a serious effect of what the Project can now realistically achieve. Project Management, the EA and IA, and indeed GEF need to give some urgent and serious consideration to the options available or they will undoubtedly come under fairly heavy criticism in the Terminal Evaluation. There are really only two options that need considering here. Either the Project budget has to be increased to reflect what has been lost through the exchange rate, or the Project outputs and deliveries have to be reconsidered and amended to be more pragmatic and reasonable within the context of available funding. In this context it must be stated that the Project is meeting its outputs and objectives remarkably well considering the financial constraints that this situation has imposed.

It seems that the difficulties that the Project has experienced working in Angola were underestimated or even ignored in the original Project Design. For example, Angola has some specific problems that need to be addressed in relation to human resources and language constraints. There is a particularly urgent need in this country (although this is probably also true to a lesser extent of Namibia) to identify individuals for training at both the basic level (field surveys, laboratory practices, etc) and at the more advanced level (advanced scientific specialisation as well as management skills). In the context of advanced specialisation it is a concern that GEF appears to have altered its policy on supporting the higher education needs within a country. There is a definite requirement here for Masters level capacity building in order to create a 'seed' of management skills allied with scientific knowledge. In Angola's particular case, there is also a need to address the language problem and individuals do need improved language skills before they can realistically attempt further training or higher education. The Project needs to work closely in this respect with academic institutes in all 3 countries, but especially with the University of Agostinho Neto. The government has already developed a working partnership with this academic institute in relation to an MSc course in Marine Science and it would seem reasonable to suppose that this arrangement could be extended to include opportunities for language improvement. Certainly discussions between the evaluators and the University's senior administration revealed no barriers or constraints to the development of such an arrangement.

6. Recommendations

The following recommendations address firstly the BCLME Programme itself. These have been grouped under specific thematic headings for ease of appraisal and action. Further recommendations address other LME Project development, and then general GEF Project Development and Management

6.1 The BCLME Programme

6.1.1 The Benguela Current Commission

A. In view of the political will and commitment that has been demonstrated by the 3 countries, an Interim BCC should be established as soon as possible. Terms of Reference including membership and policy guidelines should be developed through the Project to get such an Interim body established with the understanding (clearly defined in the ToR) that the IBCC will be charged with A) developing and adopting a formal multilateral agreement between the three countries, and B). Evolving into a full BCC based on endorsement of such a multilateral agreement before the end of the current GEF BCLME Project.

B. In acknowledgment of the Senior policy role that an IBCC and later a BCC will play in relation to the BCLME, the GEF Project will also need to revise the responsibilities and ToR of the PSC so that the latter takes on a stewardship role at the technical/managerial level and continues to steer the Project within the policy context laid down by the IBCC/BCC. Meetings of the Interim BCC should be dove-tailed where possible into existing formal gatherings such as SADC meetings to make them more cost-effective and to allow the Commission to get a feel for the frequency necessary for such meetings in the long-term.

C. Both the initial ToR for the IBCC and negotiations regarding the multilateral agreement, will need to be discussed and endorsed at the national level prior to being agreed regionally. This will require concise briefings at the Ministerial level and eventually at the Cabinet level. **National Stakeholder Committees** presented with clear guidelines and background would probably represent the most appropriate vehicle to move this process forward in the first instance.

D. The ToR and mandate for the IBCC should be linked wherever feasible to national and regional targets relating to social needs, economic development, poverty alleviation, etc (with particular reference to the Millennium Development Goals). Linkages to other LME initiatives (such as GCLME and ASCLMEs) should be adopted and driven at the Commission level also, wherever practicable (with a view to replicating such Commissions after successful demonstration by BCLME).

6.1.2 Ecosystem-Based Management Approaches and Needs

A. The results and conclusions from the various studies undertaken by way of the BCLME Programme Sub-Projects need to be coordinated with other existing data and knowledge to develop pragmatic and applicable management strategies for the marine resources within the LME. This should be undertaken initially by the Advisory Groups under the direction and coordination of the Activity Centres, with input from selected national and international specialists (probably through a carefully orchestrated series of workshops). However, the draft management strategies should be circulated to all relevant stakeholders for review and input. Emphasis should be on strategies and mechanisms which are both integrated (cross-sectoral) and are realistically applicable.

B. Information from the sub-projects, coordinated with previously existing or on-going national and regional data and knowledge, should be refined and distilled into suitable presentations for resource managers, Permanent Secretaries and Ministers that make a concise point regarding the value and necessity of taking a regionally integrated ecosystem-based management approach to the LME and to transboundary resources, impacts and threats.

C. Need to link National Environmental Action Plans and National Biodiversity Strategic Action Programmes into the regional ecosystem-based approach. This should be taken into account by the National Stakeholder Committees during their deliberations on the Commission and its associated multilateral agreement to ensure complementarity between these national initiatives and the overall LME management approach.

D. The BCLME Programme needs to re-think the regional approach to fisheries in light of the existing (and weak) national approaches, and to develop a road-map for Ecosystem-based Approach to Fisheries which integrates national and regional fisheries management. Specifically, there is a critical need to improve capacity building and training. Particular emphasis needs to be placed on embracing the concept of Operational Management Procedures into both the management and policy level of the individual governments. This may require targeted workshops (at the technical-management level) followed by internal briefings up to the policy level and this applies not only to the public sector but also to the private, commercial sector. At the regional level there is also a very urgent need to address ageing techniques, which has been clearly identified as a weak link in the EAF management strategy. The BCLME Project should give further and serious thought to developing a regional institutional capacity for otolith analyses.

6.1.3 Further Monitoring and Surveillance

A. Closely associated with 6.1.2. above is the need to develop effective long-term monitoring programmes focusing on a regional ecosystem-based approach but recognising the need for national activities and data collection. Wherever possible data collection methods and analytical techniques should be standardised, as long as this doesn't interfere with the compatibility of time-series data within an individual country. Such monitoring should also focus on any remaining information gaps, and should be dynamically linked to feedback from decision-makers so that data needs can be addressed as they arise. Without such long-term monitoring strategies there can be no effective coordinated and cooperative management of the LME, and no rational and justifiable regional level policy development.

B. As part of a regional monitoring strategy, countries need to develop an Early Warning System and follow-on Contingency Plans for hazardous events such as HABs, LOWs and toxic spills from shipping or land-based industry. Predictive modelling needs to define its data needs and frequency so that this can be built into national and regional monitoring strategies.

C. Data needs to be accessible and centralised if at all possible. The BCLME Programme should look at mechanisms for data centralisation such as a regional BCLME clearing house mechanism. This would also assist in monitoring standardised techniques for data collection and analyses. It would also provide a focal point from where linkages to GOOS, Regional Seas Programmes, etc could be developed and maintained.

6.1.4 Capacity Building and Training

A. The BCLME Programme needs to develop a clear and strategic 'Road-Map' for capacity building and training. This strategic approach should define what the national needs are in order to effect a cooperative ecosystem-based management approach (see also 6.1.4C below), which institutes and positions need to be strengthened and provided with CB&T, what CB&T is required, how this CB&T will be achieved and by whom, and a workplan which shows how the CB&T would be scheduled.

B. In parallel with activities under 6.1.4A above, the Programme needs to identify mechanisms for securing any CB&T in the long-term to ensure sustainability. Trained personnel would need to be contractually obligated to remain in their positions (or to take new posts as offered by their employees) for a set period of time following training. A strategy of counterparting should be adopted whereby newly trained people are assigned a

trainee themselves so they can pass on their knowledge. This would help to replicate skills cost-effectively as well as ‘fixing’ the skills more clearly in the mind of newly-trained staff.

C. The BCLME Programme should explore the need for basic training as well as more specialised capacity building. There is evidence that there may be a need for fairly basic training in field-craft and laboratory techniques, data collection and analysis, basic concepts of integrated coastal management, etc. This could be part of the ‘Road-Map’ that would be developed under 6.4.A above.

D. The BCLME Programme also needs to recognise that higher level education is essential to create resource managers and potential policy makers. In this context the Programme needs to promote higher education to at least MSc level. Funding to support such higher education should be sought as part of developing the strategic road-map.

E. Angola represents a special situation within the 3 BCLME countries and needs specific and urgent attention. The two main barriers to Angola’s effective involvement in the BCLME Programme and in cooperative management of the LME are language and serious human resource constraints. The University of Agostinho Neto is about to embark on MSc course in Marine Science. MSc students should be encouraged to take English Language courses in parallel with this MSc. The programme should also develop a partnership with this MSc course to ensure that LME concepts and the ecosystem-based approach are included within the curriculum.

F. The Sub-projects undertaken under the BCLME Programme have created a number of new specialists with innovative and cutting edge skills. It is important that these persons and their skills are not lost to the long-term BCLME management concept. The Project needs to look at mechanisms for retaining these people in the region to work within the same areas of expertise.

G. The BCLME Programme should attempt to identify funds to engage a CB&T Coordinator for the second half of the Project in order to address the important needs and requirement as discussed in 6.1.4A-F above. These recommendations have identified a lot of work and effort necessary to ensure sustainable CB&T for a cooperative ecosystem-based approach to LME management. Bearing in mind the already short-staffed and overstretched nature of the PCU, this will require a dedicated individual with a clear ToR. Such a position should have close linkages to BENEFIT, IW:LEARN and DLIST. One suggestion may be for BENEFIT to host this position on behalf of the Programme.

6.1.5 Further GEF Assistance – Next Phase

A. The BCLME Programme needs to be developing a Concept Paper for a Phase Two funding request from GEF right now. There appears to be a positive intent on the part of GEF to support an Implementation Phase that would consolidate and fix a sustainable Commission in place within the BCLME region linked to long-term strategies and mechanisms for monitoring and resource management. It would be advisable now for the Project to identify i). what needs to be achieved before the need of the first phase in order to ensure GEF ‘buy-in’ (i.e. to demonstrate political will and country/regional ownership), and ii) what would be the objectives of a second phase in terms on ensuring long-term sustainability for a BCLME Commission and a cooperative ecosystem-based management approach to the LME. Development of such a Concept Paper at this stage would provide a

clear way forward for all stakeholders as well as a conditional commitment from GEF, with the conditions for completion of the current Project clearly agreed. It would also provide other interested partners and co-funders with a clear sign of commitment upon which to base their decisions for future funding.

B. A clear priority for completion within the current Project (and upon which any Implementation Phase GEF funding would be conditional) would need to be the creation of an Interim BCC with significant progress having been made toward adoption of a multilateral agreement (Convention or Treaty). The Implementation Phase could then have the adoption of a full BCC and associated multilateral agreement as one of its primary objectives (using the experience gained from running the Interim BCC to provide fine-tuning to the structure and responsibilities/mandate of the full BCC).

C. Another priority which should also act as a condition for a second phase is the demonstration of how captured information can be operationally applied as working management strategies related to the LME. There should be some clear evidence of this 'operationalisation' of knowledge and information arising from the BCLME Programme into management activities by the end of the current Project phase.

D. GEF is unlikely to approve an Implementation phase unless it can see successful and outstanding delivery from the current phase. In this context, the Project should review all of the indicators for each Output (as per the Revised Logical Framework) and develop a strategy under each Output to ensure that these indicators of success can be verified through the Terminal Evaluation at the end of the Project. In particular, attention needs to be given to Output 5 where delivery has been delayed beyond the original workplan. If the level of delivery anticipated within the original Project Document and its LogFrame cannot be demonstrated within the next 12 months then this needs to be revised in the light of a potential second Implementation Phase and new sets of indicators established, otherwise there is a real risk that this Output will have been deemed to have failed by the Terminal Evaluation.

6.1.6 Other Project Requirements

A. One shortfall in the Programme is the lack of support to the identification and adoption of marine protected areas and reserves. The Project needs to address the need for coastal zoning for resource management and protection, as well as identifying critical areas of biodiversity concern that need more stringent conservation measures (e.g. MPAs). One sub-project (**BEHP/BAC/03/01: Conservation planning and management**) is assessing the need for protected areas (what and where). Information from this sub-project should be used to develop a strategy for the national adoption of zones and protected areas to support LME management and sustainability.

B. The Implementing Agency, Executing Agency and GEF need to discuss the unusual and unique situation whereby the fall in the value of the US dollar against the local currencies has left the Project with a little more than only half of the expected financial support. A decision has to be made either to 'top-up' the budget to meet the shortfall, or to reduce the expected outputs and deliveries in relation to the available funding if indeed the current situation does not reflect the status of the US Dollar against the Rand during Project Development and around the time that the Project Document was signed. However, according to the Implementing Agency, there does seem to be a justifiable argument that the

current exchange rate may in fact be more favourable to the Project than at the time the Project Document was submitted. The Evaluators would suggest that the IA define the actual status of the funding required at the time of the Project Development (particularly when the budget was defined) in comparison to the current exchange rate and discuss this with the Project management to reach a satisfactory conclusion. It would certainly not be in the interest of any participants in the final Terminal Evaluation were to reach the conclusion that the original budget no longer related to the available funds. In this context there is an equal concern that much of the co-funding has not been realised and the Evaluators would urge the Project to consider that this may be a stronger financial constraint on Project delivery and should also be resolved before a Terminal Evaluation takes place.

C. The PSC needs to review the need for strengthened technical support for the PCU and for the Activity Centres, especially as the number of sub-projects escalates and their technical reports start to flow. The additional technical support to the PCU and ACS will also ensure sustainability and institutional memory. The Activity Centres need to compare the existing sub-projects against priority issues to identify where the urgent information gaps still exist and to take action to fill these gaps. Furthermore, the need to capture all this information and to review it for content and applicability (as per 6.1.2.A & B above) will place considerable strain on both administrative structures without such technical support. Recommendations on possible staffing and budget requirements should be submitted by the PCU to the EA and IA. Attention is drawn to the following list of needs and requirements, which should be given early consideration:

- Improvements in commercial species monitoring, research and protection, especially in Namibia and Angola
- A better understanding of priority transboundary shared stocks such as deep-water hake
- Closer cooperation between the fisheries management agencies within the three countries so as to understand and manage shared stocks for everyone's benefit (including MCS)
- Establishment of transboundary management areas/reserves/MPAs
- Rapid development of a baseline for environmental variability (linked to climate change studies) followed by development of an environmental prediction and early warning system
- Further and enhanced capacity building and training for stock assessment, ecosystem assessment, etc.
- Establishment of exchange mechanisms for information and lesson-sharing
- More effective and widespread public awareness
- Refined and effective age studies for principal commercial species
- The need for management intervention in coastal resource and coastal livelihood development to minimise environmental impact and optimise socio-economic benefits (e.g. aquaculture)
- Greater emphasis needs to be placed on the economic and socio-economic elements of ecosystem management

6.2 LESSONS AND BEST PRACTICES FOR OTHER LME PROJECTS

This section of the recommendations capture some of the lessons and best practices from BCLME Programme that should be transferred to the development and implementation of other LME Projects.

- A. In setting-up regional centres at the national level (e.g. as in the Activity Centres used in the BCLME Programme) it is advisable to use one country as a pilot model first. This allows for mistakes to be made once without replicating them, and helps to generate best practices in institutional structure, staffing, partnerships with other agencies and bodies, etc. The model can then be refined and replicated in the other countries.
- B. Sub-projects such as those associated with the BCLME Activity Centres should all go to open tender and bidding unless otherwise specified in the ProDoc by identifying the intended contractor. Bids can be grouped so that one institution may bid on several related projects as a 'suite'.
- C. Bids that identify partnerships between the tendering institution or body, and some other institution or body should append Letters of Agreement signed by the second party confirming the arrangements of such a partnership.
- D. Where a GEF Project under development intends to use a specific EA for the Full Project Implementation (such as UNOPS) then such a body or agency should be directly involved in reviewing and developing those areas of the document pertaining to their responsibilities (especially contracting, tendering and hiring).
- E. The presence of confirmed co-financing should be a conditional requirement for the selection criteria of tenders.
- F. Wherever possible it would be advisable to prioritise the thematic activities selected for such sub-projects during the PDF B process. This would speed up the tendering and selection process during the early stages of the Full Project plus these priorities would then be effectively formally endorsed upon submission and approval of the Full Project Document.
- G. NGOs usually have considerable experience in dealing with communities and their issues. This experience should be used to full advantage by an LME Project and NGOs should be considered for sub-contracting in relation to community-related activities.
- H. In the early implementation stages of a Full Project, the PCU should help to identify and develop the linkages between different groups and institutions in different countries. This can dynamically shorten the lead-in time for such partnerships.
- I. Information captured within an LME Project needs to be distilled and refined into concise but effective presentations for senior management and policy makers within both the public and private sector. This needs to be a discrete and focused activity within an LME-related Project. The need for this translation should be clearly factored into the Project Document.

J. GEF LME Projects should recognise the need for very basic training in the earliest stages of Project Implementation in order that all countries and their stakeholders can take part in Project activities on an equal basis. Frequently, scientific and technical stakeholders may need training in scientific technique and understanding. Other stakeholders may need to understand the ecosystem-based approach, what constitutes an LME, why cooperative regional management can be nationally cost-effective and of greater economic value, etc.

6.3 RECOMMENDATIONS TO GEF ON PROJECT DESIGN AND MANAGEMENT

These recommendations constitute general advice to guide GEF Project Design and Management based on lessons arising from the BCLME Project.

A. Any changes made to substantive areas of a Project Document during its lifetime should be CLEARLY identified in the Project Implementation Review. E.G. the Logical Framework and associated indicators were substantially changed in the early stages of the BCLME Programme but this was NOT made clear in the PIR leading to confusion and wasted time during the evaluation process.

B. GEF needs to adopt a less politically sensitive and more flexible approach to the amount of project effort and funding allocated to project administration, especially in relation to the PCU. This is particularly important with Projects that have a diagnostic and knowledge capture phase to be followed later by an implementation phase. Effective management and administration of such projects is absolutely essential for long-term sustainability and cooperation as well as building trust. Inadequate staffing or restrictive administrative funding can severely constrain such a project and damage its effectiveness in the early stages where strong administrative management is so crucial. In the final analysis it is usually the strength of the PCU and the efficiency of its staff which makes or breaks a project of this nature.

C. Language issues and constraints such as have been experienced in the BCLME Programme need to be identified under 'Risks' within the Project Document and a strategy/mechanism proposed for dealing with them.

D. Project Documents should include Mid-Term indicators as well as end-of-project indicators so that Mid-Term Reviews can assess the status and delivery of a Project more accurately and quantitatively.

E. A Mid-Term Project Status Symposium (similar to the BCLME Highlights Symposium) should be an integral part of the implementation of all GEF Projects. This serves two valuable purposes in that i) it allows all stakeholders to see what the current status and remaining needs of the Project are and to discuss any lessons captured and improvements required, and ii) It provides a very useful and valuable summary of achievements to assist the mid-term project evaluation/review process.

F. GEF should reconsider its policy toward supporting higher education, at least in the context of Master's Degrees. Such qualifications and the attendant discipline and scientific knowledge are essential to the creation of effective resource managers and future policy

makers. This should be seen as an integral and essential part of CB&T in order to address effective ecosystem-based management needs in the long-term

7. List of Annexes

Annex 1 – Project Logical Framework (Revised)

Annex 2 –List of all Sub-Projects approved by the BCLME Programme

Annex 3 – Integrated Committee of Ministers (SADC) Statement on the BCC

Annex 4 - PSC Statement on the BCC

ANNEX 1: LOGICAL FRAMEWORK FOR BCLME

Project title: Integrated Management of the Benguela Current Large Marine Ecosystem (BCLME) Country: Angola, Namibia, South Africa Revised on 18th June 2003 Project no.: RAF/00/G32/A/1G/31			
Estimated project period: 2002 – 2007 Prepared on: 8 May 2003 in Windhoek			
Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Assumptions
Development Goal: The ecological integrity of the Benguela Current Large Marine Ecosystem is sustained through integrated transboundary ecosystem management.	1. Reduction in presence, location, number of alien invasives. 2. Early Warning System for monitoring outbreaks of harmful algal blooms (HAB) and associated mortalities 3. Increase in productivity and carrying capacity. 4. Regional status of threatened species improved 5. Fisheries management objectives included in marine protected areas by 2007 6. Yield of fish and its composition in the Benguela Current increased and diversified 7. Mining leases issued with pro-active environmental management programmes by 2007	1. State of the environment indices. 2. Seabirds, turtles, pelagic sharks, linefish species (population status). 3. Proportion of habitats protected from exploitation. 4. Change in trophic level ("Fisheries-in-Balance" index, size spectrum, etc.). 5. Environmental audit and monitoring programmes	
Project Purpose: Participating countries and their institutions sharing the Benguela Current Large Marine Ecosystem have the understanding and capacity to utilise a more comprehensive ecosystem approach and to implement sustainable measures to address collaboratively transboundary ecosystem related environmental concerns.	1. Harmonisation of national legal and regulatory frameworks at regional level by 2007 2. Co-ordinated enforcement of agreed regulatory instruments by 2007 3. Implementation of SADC Fisheries Protocols by 2007 4. Capacity to deal with ecosystem management by 2007 5. Introduction of an ecosystem based approach to at least two fish species by 2007	1. Legislation enacted on fisheries, mariculture, and mining. 2. Number of successful prosecutions. 3. Dedicated regional committees (IBCC). 4. Staff structure in terms of filled posts have some TOR's for ecosystem management as part of job description 5. Operational management procedures include multiple components specifications.	Socio-economic cost/benefit calculus favours strongly transboundary management. Economic benefits induce participating Governments to continue the BCLME programme beyond 2007.

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Assumptions
<p>Output 1: Operational and effective intra and inter programme co-ordination and support is established.</p>	<ol style="list-style-type: none"> 1. Three Activity Centres and Six Advisory Groups created by end of 2003 2. PSC and Advisory Groups meet at least two times per year 3. Regional strategic plan for capacity strengthening and maintenance by 2004 4. Collaborative study on human capacity and training and infrastructure needs for addressing priority transboundary issues by 2005. 5. Agency document on phasing in of IBCC signed by mid 2005. 6. IBCC phased in and functional by 2006. 7. IBCC to secure funding for core activities by 2006 	<ol style="list-style-type: none"> 1. Meeting agendas and minutes of PSC, PCU, Advisory Groups, Activity Centres, progress reports, workshop plans, workshop reports 2. Minutes of PSC and Advisory 3. Copy of agreed regional strategic plan for capacity building 4. Copy on collaborative study on capacity building. 5. Co-operative Agreements 6. MoU, structure of IBCC 7. Intergovernmental agreements, agreements with donors, budget allocations of participating governments, financial or in-kind contributions by industry, donors, conference proceedings 	<ul style="list-style-type: none"> • Participating countries and implementing and executing agencies will promptly designate and appoint competent officers. • Participating countries will realise quickly the benefits accruing from co-ordinated and co-operative activities. • PSC will be able to hire CTA without delay. • Participating countries demonstrate continued commitment towards co-ordinated and collaborative activities. • Broader LME interests will not be in competition with the pursuit of national interest. • Results of the BCLME programme will convince participating countries to buy into the BCLME concept. • Regional training capacities have the required technical know-how. • Governments may be reluctant to release scarce and limited professional personnel for training.

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Assumptions
<p>Output 2: Sustainable management and utilisation of transboundary marine resources are enhanced.</p>	<ol style="list-style-type: none"> 1. Annual state of the BCLME Ecosystem reports by 2004 and six monthly by 2006 2. Annual state of the shared commercial fish stocks available by 2004 and by 2006 every six months. 3. Joint surveys and assessments of shared stocks of key species by the end of 2005. 4. Regional working group on conservation and management measures of shared stocks established by 2005 5. The decline in shared stocks has been arrested by 2005 6. Responsible regional mariculture policy by December 2006 7. 50 % of the shared stocks have been rebuild to optimal level by 2007. 8. Quality and sanitary standards for aquaculture products being used in the region meet international standards 9. All transboundary stocks are being managed by agreed operational management plans (OMP) by 2007. 	<ol style="list-style-type: none"> 1. Reports (annual and six monthly) 2. Regional state of the stock report (annual and six monthly) 3. Joint surveys cruise reports 4. Meeting reports, recommendations on conservation and management measures 5. Reports and documents 6. Agendas, minutes, reports, agreements, policy papers 7. State of the stock reports, annual state of BCLME ecosystem reports 8. Guidelines, submissions to Governments 9. Agreed Operational Management Procedures (OMP) and MOU's 	<ul style="list-style-type: none"> • Participating countries are willing to make national legislative and regulatory changes and/or accept regional approaches • Broader LME interests will not be in competition with the pursuit of national interests.
<p>Output 3: Environmental variability, its ecosystem impacts are assessed, and predictability is improved for enhancing the management of living marine resources.</p>	<ol style="list-style-type: none"> 1. Living marine resource managers in the three countries will utilise regional state of the environment (SOE) reports (with attended forecasts in formal decision making) by 2007. To be reflected in TACs and operational fishing.. 2. Monitoring and EWS of HABs regionally in place including contingency plans and draft regulations (in support of aquaculture and human health warning /needs) by 2007. 3. Environmental baseline against which all future changes in variability will be measured by 2007. 	<p>Agendas, minutes of PCU, PSC, IBCC. Country reports, synthesis reports, records of Advisory Groups.</p> <ol style="list-style-type: none"> 1. State of the environment reports, forecasts with respect to Ninos, LOW impact. IBCC policy in place which incorporates environmental factors in regional decision making. 2. Regulations (recommendations not yet in place) and contingency plans. 	<ul style="list-style-type: none"> • Efficient linkages and co-operation with relevant institutions can be established and maintained.

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Assumptions
	<p>4. Management actions by IBCC is based on knowledge of :- a) environmental control factors in the Orange cone/Luderitz area which apparently separates the pelagic fish stocks of Namibia and South Africa and b) the permeability of this barrier which might enable the restocking of pelagic resources between the countries and serve as a conduit for inter-country transfer of deep water hake. By 2007</p> <p>5. Management action by IBCC based on knowledge of the shifts in the configuration and position of the Angolan/Benguela Front which separate Namibian and Angolan fish stocks and control the geographic ranges of these stocks. By 2007</p>	<p>Aqua products comply with EU regulations.</p> <p>3. Definite environmental baseline accepted by IBCC.</p> <p>4. Documented IBCC decisions on management of Namibian and South African fish stocks as shared or as discrete entities.</p> <p>5. Documented IBCC decisions on management of fish stocks in Southern Angola and Northern Namibia.</p>	
<p>Output 4: Preliminary steps to maintain Benguela Current Large Marine Ecosystem health and to enhance effective pollution management are initiated to safeguard fisheries and other resources.</p>	<ol style="list-style-type: none"> 1. Co-operative agreement with SADC to implement MARPOL 73/78 by 2004. 2. Regional consultation framework for mitigating negative impacts on mining by 2005. 3. Regional marine and coastal early warning system by 2004. 4. 20 projects for marine and coastal areas elaborated by 2003. 5. List of waste quality criteria for receiving waters by 2004. 6. Oil pollution contingency plan and regional pollution policy by 2006. 7. Code of conduct for responsible mining by 2004. 8. Assessment of the status of vulnerable species and habitats by 2005. 9. Regional marine biodiversity conservation management plan by 2005. 	<ol style="list-style-type: none"> 1. Agendas minutes of PCU, PSC, IBCC. 2. Peer reviewed documents and publications. 3. Copy of agreed list on waste quality criteria. 4. Policy submissions on harmonisation of existing policies/strategies. 5. Policy drafts on regional pollution criteria. 6. Reports on habitat losses. 7. Policy document and agreed action to measure the cumulative impacts of seabed mining. 	<ul style="list-style-type: none"> • Governments will initiate support to joint action to implement the strategic action plan (SAP). • Perceived benefits are strong enough to maintain commitment. • Regional and international experts will fully participate in programme implementation. • Programme aims and objectives may not conflict with national interests.

Strategy	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Assumptions
	<p>10. Protected areas identified and measures for conservation implemented by 2006.</p> <p>11. Oil pollution contingency plans within the region harmonised and implemented by IBCC including specific agreed mechanisms for sharing technology and expertise for controlling oil spills by 2005.</p> <p>12. Guidelines for water quality in all three countries including (STD) index to measure levels of pollution by 2005.</p>	8. Plan of operation of IBCC.	
<p>Output 5: Donor participation and co-financing are increased throughout the life of the programme and beyond.</p>			<ul style="list-style-type: none"> • Conducive levels of co-operation between all participating stakeholders can be established and maintained. • Attendance of high level Government officials at donor conference can be secured. • Continuous donor interest in an ecosystem management approach will be maintain. • Broader LME interests will not be in competition with the present national interests.

ANNEX 2: LIST OF BCLME SUB-PROJECTS

N.B. LMR=Living Marine Resources; EV = Environmental Variability; BEHP = Biodiversity, Ecosystem Health and Pollution. These are the 3 primary thematic areas related to the Activity Centres.

1. **LMR/CF/03/02:** An assessment of the state of commercial fisheries catch data in the BCLME region;
2. **LMR/CF/03/10:** Development and harmonization of research and management on transboundary pilchard stocks between Angola and Namibia;
3. **LMR/SE/03/01:** Socio-economic baseline surveys of coastal communities in the BCLME region;
4. **LMR/SE/03/03:** An analysis of rights-based microeconomic systems and governance of the important commercial fisheries in the BCLME countries;
5. **LMR/AF/03/01:** A review and audit of the institutional arrangements that impact on the artisanal fisheries sector in the BCLME region;
6. **LMR/AF/03/03:** Overview and analysis of social, economic and fisheries information to promote artisanal fisheries management in the BCLME region;
7. **LMR/NC/03/01:** An assessment of the potential of the BCLME for sustainable nature based tourism;
8. **LMR/MC/03/01:** Policy for responsible development of aquaculture;.
9. **LMR/COM/03/01:** An assessment of means of involving coastal communities in the BCLME Programme;
10. **LMR/COM/03/02:** Introducing the BCLME Programme to the wider audience within the coastal communities;
11. **LMR/EAF/03/01:** Development of an ecosystem approaches for fisheries (EAF) management in the BCLME region;
12. **LMR/CF/03/01:** Feasibility study into the establishment of a permanent regional fish-ageing centre in one of the BCLME countries;
13. **LMR/CF/03/04:** Feasibility study into the application of genetic techniques for determining fish stock identity of transboundary populations in the BCLME region;
14. **LMR/CF/03/08:** Assessment of an ecological importance of mesopelagic fish and gobies in the functioning of the Benguela Current Large Marine Ecosystem;
15. **LMR/CF/03/09:** Investigation of the pelagic fish stock resources in the Orange River region in relation to transboundary management;
16. **LMR/CF/03/11:** Assessment of variability of the pelagic fish stocks in the waters of northern Angola;

17. **LMR/CF/03/12:** A review of the Sardinella fisheries (*Sardinella aurita*) in the Angolan waters with emphasis on recent decline in these transboundary stocks;
18. **LMR/CF/03/13:** Review of fisheries and biology of snoek *Thyrsites atun* in the Benguela Current Large Marine Ecosystem with recommendations for future transboundary management;
19. **LMR/CF/03/14:** Development and improvements of acoustic and trawl survey methods in BCLME for sustainable transboundary fisheries management;
20. **LMR/CF/03/15:** Comparison of hake trawl selectivity devices in Namibia;
21. **LMR/CF/03/16:** Development of a management plan for bronze whaler shark resources in the BCLME region
22. **LMR/EAF/03/02** A Regional Ecosystem Monitoring Programme: Top Predators as Biological Indicators of Ecosystem Change in the BCLME;
23. **EV/LOW/02/01:** Critical Review of the Biophysical Processes and Variability that characterize the Low Oxygen Water (LOW) Variability and an improved monthly State of the Environment (SOE) Reporting on Low Oxygen in the BCLME (*Summary of information on the distribution and mechanisms affecting Low Oxygen Water*);
24. **EV/LOW/02/03:** Assessment of Key Transboundary Processes and Measurement Scales in respect of Low Oxygen Water (LOW) Variability: Preliminary Implementation and Examination of the Role of Large Scale and Transboundary Hydrodynamic Control of LOW Variability *i.e movement of Low Oxygen Water from Angola Dome to Namibia and South Africa*);
25. **EV/LOW/02/04:** Assessment of Key Transboundary Processes and Measurement Scale in respect to Low Oxygen Water (LOW) Variability: Implement the LOW Generation Areas Simulation that provide Inputs to Transboundary Models in LOW Project EV/LOW/02/03. (Linking local events with *outbreaks of LOW further south*);
26. **EV/LS/02/01:** Assessment of Needs/Requirements of Integrated Multi-Sectoral Management for Marine Environmental Information on Angola, and the Development of a Viable Strategy to Address these Needs, inter alia through Capacity Strengthening, One or More Demonstration Projects, Leverage of Finance and Cost-Effective Monitoring which is Sustainable. (*Assessment stage*); *Please note that this projects will be changed at a later date to EV/ANGOLA/03/01, EV/ANGOLA/03/02, etc... and BCLME/BOUNDARY/03/02*
27. **EV/LS/02/02:** Feasibility study of the south east extension of PIRATA (*Pilot moored array in the tropical Atlantic waters from Brazil to Gulf of Guinea and south*);
28. **EV/LS/02/03:** Analysis of Benguela Dynamical Variability and Assessment of the Predictability of Warm and Cold Events in the BCLME. (*Links between tropics and the Benguela system as warm water moves south*);
29. **EV/LS/02/04:** BCLME co-sponsorship and participation in a South Atlantic Climate (CLIVAR) workshop on Climate Observing System (SACOS) Angra dos Reis, J.R., Brazil), February 06- 08, 2003. (*Important capacity-building initiative*);

- 30. EV/LS/02/05:** Critical Scientific Review of the BCLME Large Scale Physical Variability;
- 31. EV/HAB/02/01:** Harmonization of Regulations for Microalgal Toxins for Application in Countries Bordering the BCLME. (*Export of mariculture products are dependent on approved sanitation program*);
- 32. EV/HAB/02/02a:** Development of an Operational Capacity for Monitoring of Harmful Algal Blooms in Countries Bordering the Northern Part of the BCLME;
- 33. EV/HAB/02/03:** Investigation into the Diversity and Distribution of Cysts of Harmful Algal Blooms within the BCLME region (*Allows for the assessment of the likelihood of HABs, based on nesting stages in the sediment*);
- 34. EV/HAB/02/04:** Establishment of a Central Culture Collection and a Facility for the Identification of Harmful Algal Blooms in the BCLME region (*A regional centre of culture and taxonomic expertise as identification of species is critical*);
- 35. EV/HAB/02/05:** Development of an Operational Capacity for Real-time Observation and Forecasting of Harmful Algal Blooms in the BCLME region: Detection of Harmful Algal Blooms through Deployment of Bio-optical Moorings (*Important for early warning system and prediction*);
- 36. EV/HAB/02/06:** Development of an Operational Capacity for Real-time Observation and Forecasting of Harmful Algal Blooms in the BCLME region: Utility of Models in Forecasting Harmful Algal Bloom Events (*Essential for prediction and activating contingency plans*);
- 37. EV/PROVARE/02/01:** Feasibility Assessment for use of a Towed Undulating Oceanographic Recorder in the Benguela Current Large Marine Ecosystem (*Longshore snapshots of subsurface chl "a" temperature and zooplankton, not suitable from satellite images*); *Note: Above project to be changed to EV/ANGOLA/03/01, EV/ANGOLA/03/02 and BCLME/BOUNDARY/03/02.*
- 38. EV/PROVARE/02/02a:** Assessment of the Structure and Functioning of the Luederitz/Orange River Cone Area and its Implication for Sustainable Resource Management in the BCLME Phase One - Initial Study (*Processes at Luederitz*);
- 39. EV/PROVARE/02/02b:** Assessment of the Structure and Functioning of the Angolan/Benguela Front Area and its Implication for Sustainable Resource Management in the BCLME Phase One - Initial Study (*Processes at the Angolan/Benguela Front*); *Note: This project has been changed to BCLME/BOUNDARY/03/01*
- 40. EV/PROVARE/02/03:** Development of Productivity Indices in the BCLME region and Assessment of their Applicability to Operational Fisheries Management (*Satellite imagery, transects, fishing surveys and models*);
- 41. EV/PROVARE/02/04:** Characterizing the spawning behaviour (temporal and spatial) of harvested species from transboundary ichthyoplankton surveys using CUFES and net sampling (CUFE) (*Continuous Underwater Fish Egg Samplings*);
- 42. EV/PROVARE/02/05:** Retrospective Analysis of Plankton Community Structure in the BCLME to provide an Index of Long-term Changes in the Ecosystem;

- 43. EV/PROVARE/02/06:** Establishment of a Regional Ichthyoplankton Sorting Centre (RISC) for the BCLME and the Provision of a Centralized Service to Angola, Namibia and South Africa in respect of Routine Analysis of Ichthyoplankton Samples collected in the BCLME;
- 44. BEHP/BAC/03/01:** Conservation planning and management (GIS/MPA's)
- 45. BEHP/BAC/03/02:** Mapping of the BCLME shoreline, shallow water and estuarine habitats
- 46. BEHP/BAC/03/03:** Baseline surveying of species, biotopes and communities along the BCLME shoreline habitats and in the shallow subtidal
- 47. BEHP/BAC/03/04:** Baseline surveying of species and biodiversity in estuaries habitats
- 48. BEHP/BAC/03/05:** Mapping the offshore habitats of the BCLME
- 49. BEHP/BAC/03/06:** Assessment of offshore biodiversity in the BCLME region
- 50. BEHP/CD/03/01:** Capacity Development;
- 51. BEHP/CC/03/01:** Development of pilot projects with coastal community involvement
- 52. BEHP/EEF/03/01:** Investigations on the mortalities of non-targeted species by hake long-line fishing in BCLME (albatrosses, etc.);
- 53. BEHP/EEF/03/02:** Assessment of by-catches of pelagic sharks by tuna long-line fishing vessels in the BCLME and establishing conservation measures;
- 54. BEHP/IA/03/01:** A comparative review of legislation on biodiversity including bio-prospecting;
- 55. BEHP/IA/03/02:** Assessment of current status of institutional structures in Angola, Namibia, South Africa for managing biodiversity;
- 56. BEHP/IA/03/03** Policy harmonization (re: environmental elements of the national mining and petroleum exploration and production)
- 57. BEHP/CEA/03/01:** Desk top study of baseline information on offshore petroleum and production activities, impacts and gap analyses BCLME
- 58. BEHP/CEA/03/02:** Desk top study of baseline information, marine diamond mining activities, impacts and gap analyses in the BCLME
- 59. BEHP/CEA/03/03:** Assessment of the cumulative effects of sediment discharge from near shore diamond mining on the BCLME
- 60. BEHP/CEA/03/04:** Assessment of the cumulative impacts of scouring of subtidal areas and kelp cutting by diamond mining in coastal waters of the BCLME

- 61. BEHP/CEA/03/05** Assessment of the cumulative effects of discharge of production water on the BCLME
- 62. BEHP/EC/03/01** Development of a framework for enhanced consultations between government and industry on environmental impacts of marine mining and offshore petroleum exploration and production
- 63. BEHP/EC/03/02:** Harmonization of environmental management policies in relation to diamond mining and the off-shore oil industry in BCLME countries;
- 64. BEHP/LBMP/03/01:** Base-line assessment of sources of land based marine pollution;
- 65. BEHP/LBMP/03/02:** Development of proposals for demonstration projects (clean technology, sewage, sanitation) Luanda Bay;
- 66. BEHP/LBMP/03/03:**Assessment and evaluation of legal framework and institutional structures in relation to land based sources of marine pollution;
- 67. BEHP/LBMP/03/04:** Development of regional coastal water quality guidelines;
- 68. BEHP/LBMP/03/05:** Development of a regional and transboundary pollution monitoring programme;
- 69. BEHP/LBMP/03/06:** Training and capacity needs assessment project;
- 70. BEHP/ML/03/01:** Assessment and evaluation of legislation in relation to marine litter in the BCLME Region;
- 71. BEHP/ML/03/02:** Development of a community out-reach programme for addressing the problem of marine litter in the BCLME Region;
- 72. BEHP/ML/03/03:** Development and implementation of legal recommendations to control marine litter in the BCLME Region;
- 73. BEHP/OSCP/03/01:** A review of the national and regional legislation in relation to oil pollution;
- 74. BEHP/OSCP/03/02:** Development of a regional oil-spill contingency plan;
- 75. BEHP/OSCP/03/03:** Development of a regional data base for emergency and oil spill response equipment;
- 76. BEHP/OSCP/03-04:** Development of a regional training programme in oil spill response;
- 77. BEHP/WRF/03/01:** Development of a regional plan for management of ship and port waste reception facilities.

ANNEX 3: STATEMENT FROM THE 8TH MEETING OF THE INTEGRATED COUNCIL OF MINISTERS – LESOTHO 8TH-10TH JUNE

4.3.2.8.1.3 THE BENGUELA CURRENT LARGE MARINE ECOSYSTEM PROGRAMME (BCLME)

ICM noted that Angola, Namibia and South Africa are working together through the BCLME programme to manage their shared marine resources in an integrated and sustainable way. The programme, funded by the Global Environment Facility is engaged in 10 projects focused on the sustainability of marine living resources in collaboration with the fishing industry 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, one of the key commercial species;
- Develop a responsible aquaculture policy for the BCLME region; and
- Improve knowledge and understanding of the artisanal fisheries of the Benguela region.

ICM also noted that significant progress has been made in all these areas through studies, workshops and policy development to improve the sustainable management of the resources. To date an institutional study on the establishment of a Benguela Current Commission (BCC), and a study on the economic aspects of such a Commission have been made. The results indicated that the establishment of a BCC could be justified on several grounds:

- the need for an appropriate institutional mechanism to implement the ecosystem approach;
- To fulfil existing international obligations and undertakings of the three BCLME countries, and 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 shared fish stocks.

ICM endorsed the establishment of a Benguela Current Commission to ensure an ecosystem approach to management and sustainable use of the BCLME.

ANNEX 4: STATEMENT AND PLAN OF ACTION FROM THE 8TH BCLME PROGRAMME STEERING COMMITTEE MEETING

Statement from 8th Project Steering Committee on future GEF project strategy

A. The Programme Steering Committee (PSC) recognises the following requirements from the BCLME SAP and the supportive GEF Project Document:

- 1) An Interim Benguela Current Commission shall be established to strengthen regional cooperation. The Interim BCC should become a fully functional Benguela Current Commission (BCC) with a supporting Secretariat within a period of five years after formal commencement of the BCLME Programme. (*Article 19 – BCLME Strategic Action Programme*)
- 2) The SAP contains lists of specific issues that the countries will address in specific ways based on advice they will be receiving from the Interim BCC, the creation of which is a specific activity of the GEF funded project. (*Para 12. BCLME GEF Project Document*)

B. The PSC further notes the existence of the draft document “Draft Agreement for the Establishment of an Interim Benguela Current Commission” as prepared for consideration by the PSC, with a view to advising the relevant Ministers in each of the three BCLME Programme countries, and with a view to formally implementing the Interim BCC upon agreement and signature by said Ministers.

C. The PSC also recognises that the GEF BCLME Project has made significant and valuable progress within those Project Components and Activities that address improved understanding of natural processes (including training and capacity building) at the scientific and technical level.

D. The PSC feels that it is now appropriate that the GEF BCLME Project, during the second half of its lifetime, should start to focus on the operationalisation of management strategies and processes (at the national and regional level) based on the advances made and knowledge gathered within the scientific and technical specialisations.

E. The PSC therefore identifies the Interim Benguela Current Commission as the appropriate regional entity within the GEF Project and the BCLME Programme through which to promote and encourage such operational measures and management strategies appropriate to the LME, and further recognises the value of this Interim process in defining and testing the most appropriate working strategy and mandate for a long-term BCC supported by formal agreement between the three BCLME countries.

F. In consideration of this, the PSC urges the Project Coordinating Unit, acting in cooperation with the Implementing Agency (UNDP) and the Executing Agency (UNOPS) to negotiate and confirm the attached Plan of Action (including with the GEF Secretariat, and other donors and partners) for on-going GEF support to the BCLME Programme and associated Interim BCC.

Windhoek, 13th May 2005.

Plan of Action for GEF support to the long-term BCLME Programme and the evolution of the Benguela Current Commission through an Interim BCC.

1. Rationalise the Workplan of present BCLME Project

A. The current project will concentrate on processing and use of the scientific and technical knowledge captured to date, and feeding that information into the development of LME-related management strategies and actual operational plans.

B. In parallel and in direct support to 1.A., the Programme will adopt an Interim BCC with ToRs and Mandate approved by the relevant SAP-signatory Ministers. The primary functions and aims of this Interim BCC will be to:

- Define the immediate LME-related priorities for transboundary cooperation between the 3 countries (taken into consideration the environmental priorities identified in the TDA/SAP process, national and regional policy level priorities, and economic priorities).
- Define management plans and operational strategies that can be developed (through the assistance of the PCU) in the context of the LME and the newly defined priorities (see above), and identify the responsible parties for their development and operationalisation.
- Define the relationship between the Interim BCC and other pertinent and complementary agencies, treaties and initiatives (e.g. NEPAD, Abidjan Convention, SADC, SEAFO and other various fisheries agreements, etc.)
- Implement a process for the long-term institutionalisation and sustainability for the scientific assessment and monitoring process already successfully initiated through the current Programme.
- Evolve an effective role and mandate for a more formal agreement supporting a long-term BCC for the LME
- In coordination with the PCU, develop an Implementation Phase Programme for the adoption and operation of a full BCC and supportive agreement.

C. The current project should be extended for approximately 6 months to the end of 2007 so as to take into account start-up delays, delays in contracting and the need to develop and evolve the Interim IBCC along with LME associated management and operational plans.

2. Objectives for a proposed Commission Implementation phase (2008-2011)

A. The PSC recognises that GEF cannot commit funds in advance. However, the PSC strongly urges GEF to support in-principle an Implementation Phase for a full Benguela Current Commission with associated formal agreement which would come into effect following the successful completion of the current GEF

BCLME Programme (end of 2007) and assuming that such a phase was supported and justified by a GEF Independent Terminal Evaluation.

- B. Review the objectives and commitments of the original SAP (such a review already being a requirement of the SAP document itself) in order to realign it with the requirements of a negotiated BCC and supportive legislation, to review the LME related priority issues (across the environment, policy and socio-economic sectors) and in order to reaffirm the commitment of the countries and the relevant Ministries.

The aforementioned Plan of Action will allow the Project to deliver crucial global benefits through operationalised management plans built on GEF-funded and supported activities. It will allow the BCC to evolve at a realistic speed from a position of trust and cooperation that will grow from practices developed through the Interim BCC. It will rationalise and improve on the original GEF Project Document. It will also provide a necessary reaffirmation of an updated SAP which was signed by Ministers some 6 years ago.

The current BCLME Programme has, in the opinion of the PSC and many of the project stakeholders, achieved an extraordinary level of success and cooperation between the 3 countries in relation to the gathering and sharing of LME related scientific and technical information and knowledge. The PSC is concerned that, due to project design constraints and unavoidable inception delays, the GEF stands to lose its investment unless an environment of sustainable and integrated management of LME resources can be carefully crafted and captured through the aforementioned Plan of Action.

In making this statement, the PSC wishes to reflect the gratitude of all BCLME stakeholders to GEF for the opportunity to have developed the already existing high level of cooperation and expanded knowledge made possible through GEF support.

ANNEX 5: DOCUMENTS REVIEWED DURING THE MID-TERM EVALUATION

Although not exhaustive, the following is a list of the principal documents referenced and reviewed by the Evaluation. The Reports and Meetings of the various Task Forces and Advisory Groups as well as the quarterly and six-monthly reports from the PCU are too numerous to list individually below and are therefore cited as VARIOUS. A number of related websites were also visited and the primary ones are cited in the main text.

- Strategic Action Programme for the Integrated Management, Sustainable Development and Protection of the Benguela Current Large Marine Ecosystem (BCLME). November 1999.
- UNDP GEF Project Document RAF/00/G32/A/1G/31. November 2001 (Plus Annexes)
- 2004 BCLME Annual Project Report (APR) to UNPD and GEF.
- Minutes of meetings of the BCLME Programme's Task Groups for Biodiversity, Ecosystem Health and Pollution, Environmental Variability, and Living Marine Resource – VARIOUS
- Minutes of meetings of the BCLME Programme's Advisory Groups on Biodiversity, Ecosystem Health and Pollution, Environmental Variability, and Living Marine Resource - VARIOUS
- BCLME Activity Centre Progress Reports – VARIOUS
- Programme Coordination Unit Quarterly Reports – VARIOUS
- Programme Coordination Unit Six-Monthly Reports to the Programme Steering Committee - VARIOUS
- Minutes of the Meetings (1-8) of the BCLME Programme Steering Committee - VARIOUS
- DLIST Final Report. November 2002
- Minutes of the BCLME Satellite Remote Sensing Workshop, 20th May 2003. Marine and Coastal Management Division, Cape Town.
- Minutes of the Consultative Meeting on Information and Data Exchange (EVAG) at the Breakwater Lodge, Cape Town - 22 July 2003
- Minutes of Annual Review Meeting for the Benguela Current Large Marine Ecosystem (BCLME) Programme. 6th November 2003. Safari Court Hotel, Windhoek.
- Minutes of the Consultative Meeting on the Formation of a Benguela Current Commission. March 2005, Swakopmund, Namibia.
- EnAct Final Report on the Institutional Study Regarding the Establishment of a Regional Organisation to Promote Integrated Management and Sustainable use of the BCLME. March 2005.

- Benguela Current Commission (BCC) Economic Study. 6th March 2005. Prepared by the Fisheries Economics Research Unit, Fisheries Centre, University of British Columbia, Vancouver, B.C., V6T 1Z4 Canada

ANNEX 6: QUESTIONNAIRE FOR THE GEF MID-TERM EVALUATION OF THE INTEGRATED MANAGEMENT OF THE BENGUELA CURRENT LARGE MARINE ECOSYSTEM

GUIDANCE: Please answer the questions briefly but feel free to add extra comments to explain your responses. Not all of the questions may be appropriate to your involvement in the project or may be outside of your experience in which case please ignore those particular questions. Sections written in **black** explain the aim of the question and provide some background. The Sections in **blue** are the actual questions

A. OVERALL OBJECTIVE

The long-term objective of the project is to undertake the array of priority measures as identified in the Transboundary Diagnostic Analysis and the Strategic Action Programme, in conjunction with the on-going efforts of the participating countries, donors, regional organizations, industry, NGOs and other affected interests, to bring about the integrated, sustainable management and protection of the Benguela Current Large Marine Ecosystem.

Is the Project achieving its aims in delivering its primary objective to:

- A.1 To address the issues and concerns relating to the BCLME and the three countries as identified in the TDA and SAP?
- A.2 To develop an integrated and sustainable approach to management and protection of the BCLME?
- A.3 To achieve these objectives in conjunction with other national and regional on-going initiatives and interests (coordinating with appropriate stakeholders)?

B. THREATS AND CAUSES

- B.1 Is the project making a significantly contribution to developing an integrated Management Approach for the BCLME? Is it working to remove barriers preventing mitigation of the main transboundary concerns affecting the LME and the three target countries? In particular is it developing and/or demonstrating effective and acceptable solutions in relation to the following transboundary issues:
 - **A decline in BCLME commercial fish stocks and non-optimal harvesting of living resources;**
 - **Uncertainty regarding ecosystem status and yields in a highly variable environment;**
 - **Deterioration in water quality – chronic and catastrophic;**
 - **Habitat destruction and alteration, including *inter alia* modifications and seabed and coastal zone and degradation of coastscapes;**
 - **Loss of biotic integrity and threat to biodiversity;**
 - **Inadequate capacity to assess ecosystem health;**
 - **Harmful algal blooms**
- B.2 Can any resolutions or improvements to the above transboundary concerns be specifically identified, measured and quantified?

C. OUTPUTS AND INDICATORS– (Indicators provided by the Project Document Logical Framework)

Output 1: Effective Intra and Inter Project Coordination and Support

Indicators

- Project Coordination Unit staffed and functioning effectively
- Project Steering Committee functioning effectively and meeting at least annually
- Country-Specific Interministerial Committees established and steering project at national level
- National Lead agencies and lead officials designated and active
- IBCC Commissioners appointed and active
- Formal Plan adopted for interaction with other related initiatives (national and regional)
- Active Inter-Project cooperation and collaboration
- Increased level of government participation in related regional and international fora (as well as project participation)
- Regional (BCLME countries) positions being presented at global fora
- Progress reports on SAP implementation
- Progress toward empowering IBCC to adopt functions of PCU in taking responsibility for overall objective of BCLME project

C.1 In your opinion, is the Project likely to meet its Indicators for Success under Output 1? If not what are the likely reasons and what could be done to improve the chances of success within this Output?

Output 2: Creation of the necessary mechanisms for, and steps undertaken to develop real-time management capability to better sustain and utilize the resources of the BCLME.

Indicators

- Production of Annual State-of the Ecosystem reports
- Specific Recommendations and agreements on harvesting levels of specific species
- Improved forecasting techniques and associated inherent national benefits
- Regional strategies and agreements on resource exploitation (esp. mining, oil exploration and extraction)
- BCLME regional socio-economic assessment for mariculture feasibility and associated strategy for development
- Harmonised regional methodologies for Environmental Impact Studies
- Regional approaches to post-mining and resource exploitation activities in BCLME waters
- Measure taken to promote protection of vulnerable species (including agreements on joint approaches)
- Assessment of non-harvested species and their role in the BCLME ecosystem

2:1 In your opinion, is the Project likely to meet its Indicators for Success under Output 2? If not what are the likely reasons and what could be done to improve the chances of success within this Output?

Output 3: Improved understanding of BCLME environmental variability, ecosystem impacts created by environmental variability, and thus improve predictability as a means of strengthening the management of fish-stocks.

Indicators

- Evolve and promote effective management decisions by improving predictability and decreasing uncertainty regarding fisheries within the BCLME.
- A regional early warning system to predict and respond to extreme events
- An overall strategy for capacity building and targeted training (aimed at enhancing regional as well as national capacity) with existence of targeted training programmes
- Strengthened capacity in relevant national and regional institutions
- Development of a Harmful Algal Bloom regional reporting system and contingency plans
- Improvements in capacity to monitor HABs

3:1 In your opinion, is the Project likely to meet its Indicators for Success under Output 3? If not what are the likely reasons and what could be done to improve the chances of success within this Output?

Output 4: Undertake preliminary steps to maintain BCLME ecosystem health manage pollution as a means to safeguard fishery and other resources.

Indicators

- Improvements in understanding of environmental variability in BCLME
- Regional pollution contingency plans
- Development of regional protocols, conventions and agreements related to pollution
- Provisions made to link BCLME project into other relevant GEF projects
- Regional workshops to address regional pollution concerns related to BCLME
- 3 pilot demonstration projects addressing pollution hotspots
- Jointly developed water quality criteria (by 2002)
- Process underway for regional standardisation of national policies related to BCLME
- Positive efforts to increase level of enforcement related to BCLME issues
- Pilot project in Angola for seafarer education related to pollution prevention
- Comprehensive report on status of habitat loss in BCLME region
- Development of regional early warning system for habitat loss
- Amendments to existing national environmental criteria to realign as regional pollution criteria

4:1 In your opinion, is the Project likely to meet its Indicators for Success under Output 4? If not what are the likely reasons and what could be done to improve the chances of success within this Output?

Output 5: Recruitment of additional donors and increase the level of co-finance during project implementation.

Indicators

- Development of plan to increase donor and country resources committed to project objectives and their long-term sustainability
- Donor Conferences planned and/or executed as per project timetable
- Procedure adopted to use GEF BCLME project to leverage direct and indirect support for project activities and objectives from other donors
- Increased donor support to project and for post-project long-term requirements of BCLME integrated sustainable management.

5:1 In your opinion, is the Project likely to meet its Indicators for Success under Output 5? If not what are the likely reasons and what could be done to improve the chances of success within this Output?

D. GLOBAL AND NATIONAL BENEFITS

D.1. Operational Programme

D.1.1. Does the project address the aims and objectives of the GEF OP8 (waterbody-based operational programme) both in its design and in its implementation?

D.2. Conventions

Statements from Convention

D.2.1 Does the project address the requirements and priorities of any regional or international Conventions?

D.3. National Priorities

D.3.1 Were the national priorities and their linkage to GEF's global aims within this project clearly defined in the Project Document?

D.3.2 Is the project addressing national priorities for integrated sustainable resource management and pollution reduction?

E. PROJECT MANAGEMENT AND IMPLEMENTATION

E.1 Has the Executing Agency (UNOPS) fulfilled its responsibilities effectively within the project implementation to date?

E.2 Has the Implementing Agency (UNDP) fulfilled its role effectively within the project implementation to date?

E.3 Has the PCU/Project Management Unit functioned effectively in its management role?

- E.4 Have the channels of communication between the PCU, the EA and the IA worked effectively and has response to requests for assistance from the PCU to the other agencies etc. been forthcoming and timely?**
- E.5 Has the Project Management networked effectively with other project stakeholders (e.g. national focal points, advisory groups, national activity centres, responsible government agencies, relevant NGOs)?**
- E.6 Are there any improvements which could be made to Project Management and Implementation which would be worth capturing both for the remainder of this project and for future projects of this nature?**

F. WORKPLAN AND BUDGET

- F.1 Has the project followed the workplan so far (taking into account any amendments made by the Project Steering Committee)?**
- F.2 Is the Workplan realistic in terms of delivery and timing?**
- F.3 Has the budget proved to be an accurate assessment of the project's financial needs?**
- F.4 Have there been any problems in disbursement?**
- F.5 Based on experiences from the project so far are there any recommendations regarding workplan delivery and budget disbursement which would improve efficiency for the remainder of the project or in further projects?**

G. MONITORING AND EVALUATION

- G.1 Were adequate Monitoring and Evaluation procedures (Indicators, criteria for measuring performance, results, impacts, etc) built into the project design?**
- G.2 Have these M&E procedures been followed and implemented? (reporting, PIR, Tripartite Review, etc?) If so please define what procedures?**
- G.3 Have any concerns or recommendations arising for the M&E process been acted on to improve project performance (e.g. comments or recommendations within a PIR or quarterly reporting)?**
- G.4 Have all stakeholders been transparently engaged in the M&E process (Steering Committee, national lead agencies, Project Implementation Review, etc) during project implementation?**
- G.5 How could the M&E process be improved?**

H. STAKEHOLDER PARTICIPATION

- H.1 Were appropriate stakeholders involved in the Project Development?**
- H.2 Were adequate provisions/arrangements made within the original Project Document to allow for comprehensive and fair stakeholder involvement and input to the project?**
- H.3 Has stakeholder input and involvement to date been adequate? If not, why not?**
- H.4 Have any principal stakeholders not been included in this process so far? If so, how has this have affected the project's delivery and what could be the long-term affects?**

- H.5 Have relevant stakeholders (e.g. National/regional experts and specialists, NGOs, community groups, other Government Departments, etc) been involved directly in executing specific activities?
- H.6 How could stakeholder participation be improved in the project?

I. CAPACITY BUILDING

- I.1 Does the Project Document accurately identify the required capacity building and institutional strengthening (both national and regional)?
- I.2 What capacity building and institutional strengthening has been achieved so far?
- I.3 What training has been achieved?
- I.4 Has the project provided any equipment and has this been used effectively?
- I.5 Has any of the capacity building and institutional strengthening focused on NGOs or community groups? If yes, how effective has this been?
- I.6 Will the capacity building and institutional strengthening that has been provided and is being planned before the end of the project be sufficient and be sustainable?

J. POLICY AND LEGISLATIVE REFORMS/IMPROVEMENTS

- J.1 Were any policy reforms or legislative amendments identified as project requirements? If not, should they have been and has their absence affected project performance?
- J.2 If policy reforms and legislative amendments were identified as project requirements, how effective has the project been at delivering these reforms and amendments so far, and what is the likelihood of completing these activities as scheduled before the end of the project?

K. REPLICABILITY

- K.1 How replicable within the project region are the lessons and practices that are being developed through this project?
- K.2 How replicable would they be in other areas throughout the world?
- K.3 Does the project have a mechanism for replication and transfer of lessons and best practices (within project system boundary, and beyond at global level)
- K.4 Is this mechanism proving to be effective or is it likely to be effective by the time that the project activities are completed?

L. SUSTAINABILITY

- L.1 Are the project activities (undertaken so far and as planned) and their outcomes and deliverables sustainable in the long-term (both politically and financially)?
- L.2 Are the overall objectives of the project likely to be sustainable beyond the project lifetime and for the foreseeable future?
- L.3 What could need to be done to improve the chances of sustainability?

L.4 The Benguela Current Commission is a primary output from this project and is essential to the long-term sustainability of the project's objectives. Do you see an effective development of such a Commission and associated personnel/membership, and will it be ready in time to take on the responsibilities of the PCU and the Project Steering Committee?

M. OVERALL IMPACT OF PROJECT

(List any positive and negative impacts)

- M.1** Natural/Environment. What improvements and benefits (or negative, harmful effects) has the project had on the natural environment within the three target countries and the BCLME?
- M.2** Political: Has the project affected political thinking and policy. Is it seen as a good or a bad thing by national politicians and by other stakeholders (including the private sector)?
- M.3** Economic: Has the project had a positive or negative economic effect either within or outside of the project system boundary?
- M.4** Social: Has the project created noticeable and measurable improvements, or notable problems within associated or affected communities?

N. FEASIBLE IMPROVEMENTS TO PROJECT

- N.1** Overall, what improvements could be made to the project?

O. FURTHER REQUIREMENTS

- O.1** Based on achievements and lessons learned so far from this project, are there any logical parallel or follow-up activities or initiatives which could be considered which would build on the investment made during this project's lifetime?

P. GENERAL QUESTIONS

- P.1** Has there been a fair, transparent and equitable involvement and input from all 3 participating countries?
- P.2** Has there been effective and transparent involvement of and communication between the 3 project countries?
- P.3** Has the project had any identifiable (with specific reference) effect on general awareness and understanding of the BCLME issues (as identified within the TDA and SAP) within the coastal communities and the general regional population?
- P.4** Are there any mechanisms in place for long-term monitoring of the achievements of the project and to ensure that the improvements made and knowledge generated are maintained after project closure (Is there any mechanism for post-project evaluation)?

Q. DO YOU HAVE ANY OTHER COMMENTS OR CONCERNS WHICH HAVE NOT BEEN ADDRESSED IN PREVIOUS QUESTIONS?

LIST OF STAKEHOLDERS TO CONSULT

PROJECT

Project Staff
National Focal Points
5 Technical Advisory Groups
Heads of Activity Centres
Stakeholder Consultative Committee
BENEFIT

INTERNATIONAL

UNDP (Namibia and Pretoria)
UNEP
World Bank
UNOPS
SADC
SEAFO
FAO
ENVIFISH
VIBES

NATIONAL/LOCAL

Representatives of Lead Ministries as well as Ministries dealing with Foreign Affairs and Economy
Any relevant NGOs
Any relevant community groups

CO-FUNDING BODIES

Any sources of non-national government co-financing who have originally endorsed a financial commitment to the project should be given the opportunity to comment through the questionnaire (or in person if feasible)