



FINAL EVALUATION

OF THE PROJECT

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

DRAFT / FINAL REPORT

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Acronyms (to be completed)

Abidjan Convention	Abidjan Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment
ABF	Angola-Benguela Front
AC	Activity Centre (of the BCLME programme)
BCC	Benguela Current Commission
ASCLME	Agulhas and Somali Currents Large Marine Ecosystem
BCLME	Benguela Current Large Marine Ecosystem
BEHP	Biodiversity, Ecosystem Health and Pollution
BENEFIT	Benguela Environment and Fisheries Interaction and Training Programme
CSIR	Council for Scientific and Industrial Research
CTA	Chief Technical Adviser
DLIST	Distance Learning and Information Sharing Tool
EAF	Ecosystem Approach to Fisheries
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EV	Environmental Variability
EWS	Early Warning System
ExA	Executing Agency
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
GCLME	Guinea Current LME
GEF	Global Environment Facility
GISP	Global Invasive Species Programme
Glo-Ballast II	Global Ballast Water project – Phase 2 (GEF-UNDP-IMO)
GOOS	Global Ocean Observation System
GOOS-Africa	Global Ocean Observation System - African Region
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HAB	Harmful Algal Bloom
IA	Implementing Agency
IBCC	Interim Benguela Current Commission
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICZM	Integrated Coastal Zone Management
IMO	International Maritime Organisation
INIP	Instituto Nacional de Investigação de Pesca, Luanda, Angola
IOC-UNESCO	Intergovernmental Oceanographic Commission of UNESCO
LBS	Land Based Sources (of Pollution)
LME	Large Marine Ecosystem
LOW	Low Oxygen Water
M&E	Monitoring and Evaluation
MARPOL	International Convention for the Control of Pollution by Ships
MDG	Millennium Development Goals
MCS	Monitoring, Control & Surveillance
MLR	Marine Living Resources
MoU	Memorandum of Understanding
MPA	Marine Protected Areas
NATMIRC	National Marine Information and Research Center, Namibia
NEPAD	New Partnership for Africa's Development
NGO	Non Governmental Organisation
NOAA	National Oceanographic and Atmospheric Administration
NORAD	Norwegian Agency for Development Cooperation
OMP	Operational Management Plan
PCU	Programme Coordination Unit
PDF-B	Project Development Facility (Block B)
PIR	Programme Implementation Review
PIRATA	Pilot Research Moored Array in the Tropical Atlantic

PSC	Project Steering Committee
Ramsar	The Ramsar Convention on Wetlands, 1971
RCU	Regional Coordination Unit
SADC	Southern African Development Community
SAP	Strategic Action Plan/Programme
SEAFO	South East Atlantic Fisheries Organisation
SEIS	
TDA	Trans-boundary Diagnostic Analysis
UCT	University of Cape Town
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNOPS	United Nations Operational Services Programme
WWF	World Wide Fund for Nature
WSSD	World Summit on Sustainable Development

EXECUTIVE SUMMARY

Brief description of project

The BCLME programme is one of 18 Large Marine Ecosystem (LME) Programmes supported by the GEF and one of the largest within its International Waters Portfolio (GEF contribution of about \$US 15 million). The Benguela Current Large Marine Ecosystem extends from the Agulhas Bank to the Angola front at the latitude of the Congo River with a zone of upwelling extending from the Cape of Good Hope to the Angola/Benguela Front (ABF). The BCLME has been severely impacted by a long history of industrial fishing and recently by marine diamond mining and offshore petroleum exploitation. It is one of the most dynamic, variable and unpredictable of the eastern boundary current LMEs, subject to Benguela Niños, Low Oxygen Water (LOW) events and Harmful Algal Blooms (HABs). The BCLME is of capital socioeconomic importance to the coastal states sharing this trans-boundary water body (Angola, Namibia & South Africa).

The purpose of the BCLME project is that participating countries and their institutions sharing the BCLME should have the understanding & capacity to utilise a more comprehensive ecosystem approach and to implement sustainable measures to address collaboratively trans-boundary ecosystem related environmental concerns, achieved through five strategic outputs (“outcomes”), namely:

Output 1 – Operational and effective intra and inter programme coordination and support is established

Output 2 – Sustainable management and utilisation of trans-boundary marine resources are enhanced.

Output 3 – Environmental variability, its ecosystem impacts are assessed, and predictability is improved for enhancing the management of living marine resources.

Output 4 – Preliminary steps to maintain BCLME health and to enhance effective pollution management are initiated to safeguard fisheries and other resources

Output 5 – Donor participation and co-financing are increased throughout the life of the programme and beyond

Context and purpose of evaluation

The final evaluation of the BCLME will be the first final evaluation of an LME project to be undertaken since the World Summit on Sustainable Development (WSSD) in 2002 at which LMEs gained prominence as a model approach for addressing sustainable development in relation to the marine environment. The BCLME evaluation is of particular significance to addressing marine environmental problems world wide and to the achievement of the Millennium Development Goals (in particular MDG8) in Africa. BCLME is considered to be the “flagship” of LME projects and of particular interest for the experience it has gathered and the lessons learned.

The evaluation of the BCLME project provides an opportunity for the project countries to assess the relevance and success of the cooperative trans-boundary approach taken by the BCLME programme and to guide future action. The BCLME project evaluation also provides an opportunity for GEF IW, the “LME community”, UNDP, FAO and other programme partners to assess the effectiveness of the GEF IW/LME approach and derive lessons learned and best practices.

Main findings

Relevance

The project and its activities were highly relevant not only to national and regional concerns, but also to international concerns relating to sustainable development and good governance in the marine environment in relation to economic activities such as fisheries, mining and petroleum exploitation.

The relevance of the project was ensured by the process used to determine its objectives and approach, namely the TDA/SAP process. The BCLME project responded to the Trans-boundary Diagnostic Analysis (TDA) and aimed to help countries implement the objectives of the Strategic Action Programme (SAP) signed by ministers of project countries during the project preparation phase. Project activities, many of them designed and undertaken as subprojects, aimed to collect knowledge, develop policies, strengthen capacity and set up governance structures for addressing the trans-boundary issues.

Project conceptualisation and design

The idea for the BCLME project arose in about 1995 at a time when Norway was considering a regional programme to support capacity of the Benguela countries and when GEF was considering a series of LME projects to support the sustainable management of African and other LMEs, using the 5 modular LME approach developed by NOAA. The concept was for a pair of complimentary projects, one focussing on developing scientific capacity (to become BENEFIT) and another focusing on assessment, management and governance of the LME (to become BCLME). A project preparation document was prepared and submitted to GEF for funding.

The defining moment in the design of the BCLME project was a workshop in Cape Town in July 1998 which introduced the TDA/SAP process and the trans-boundary approach to stakeholders. Following this workshop, a series of trans-boundary assessments were prepared which were used to inform a Trans-boundary Diagnostic Analysis (TDA) conducted by national stakeholders and experts and subsequently a Strategic Action Programme (SAP) signed by ministers of the project countries. Following the TDA and SAP, a project document was prepared whose objective, as originally stated, was to implement the actions defined in the SAP. The project document was finally endorsed by GEF on 20 November 2001, 6 years after the first draft PDF-B document.

Project design was based on a combination of the GEF IW TDA/SAP process and the LME-modular approach. Exceptionally, both a TDA and a SAP were achieved during the PDF-B phase of the project. Resulting from the TDA, there was a strong focus on environmental variability and trans-boundary concerns and on a SAP (and project) which was science driven and primarily concerned with knowledge gathering for management and governance. Capacity building was included as a sub-component of Output 1 and envisaged the development of a strategic capacity building plan.

At the activities level, the SAP and project document identified policy action areas but did not specify the particular activities to be undertaken. Following inception, the precise activities to be undertaken were identified with the assistance of the Advisory Groups which assisted with the selection of subprojects and their allocation to open tender or to particular institutions (e.g. BENEFIT).

The strong points of the design process were the strong scientific foundation and country participation and the fact that the TDA/SAP process was undertaken during the preparation phase. The main weakness was the fact that project design did not fully address the activities level, resulting in a large number of subprojects whose linkage to the project design was not always explicit.

Achievement / Success (performance)

The overall rating of the project achievement, based on an average across all components, was “Highly Satisfactory”. Components 1, 3 and 5 were rated as highly satisfactory, while components 2 and 4 were rated as satisfactory. The highest ratings were achieved in relation to component 1 (coordination and support).

The main achievements of the project at the level of project purpose were:

- Early Warning System is almost in place
- Regional status of certain threatened species has been improved (seabirds, bronze whaler)
- Fisheries management objectives are now included in some MPAs
- Mining leases are now issued with pro-active environmental management plans
- The capacity of countries to deal with ecosystem management has increased

At the level of project outputs, operational and effective coordination (including establishment of the BCC) was achieved, the sustainable management and use of MLRs has been enhanced, environmental variability has been assessed and its predictability improved, preliminary steps have been taken to maintain BCLME health and donor participation and co-finance have been increased.

According to stakeholders the main benefits of the project have been establishment of regional cooperation and understanding, bringing Angola into a regional cooperative framework, generation of a very substantial body of useful information, greatly improved understanding of the ecosystem, bridging the gap between science and management in some sectors and countries, improving capacity substantially and many significant achievements at the sub-project level (SEIS, top-predators project, bronze whaler conservation, progress towards EAF, identification of MPAs, mariculture policy and regulations etc.).

The main shortcomings at the level of project goal and purpose were:

- Integrated trans-boundary management was not yet operational at project end;
- There has been no conduct of any survey on alien invasive species;
- The intended Early Warning System is still not fully operational;
- Mining leases with environmental action plans are not yet universal.
- The intended coordinated enforcement between countries, such as on MCS, did not occur;
- The SADC fisheries protocol was not fully implemented.

The main shortcomings in relation to implied outcomes were:

- The SAP was not updated and remains preliminary in nature;
- “Real time” trans-boundary management of resources is not yet in place;
- An integrated regional biodiversity and habitats conservation plan is not yet in place.

The main factors in successes of the project were the enthusiastic attitude and support of project stakeholders, excellent coordination and team work, good quality stakeholder involvement, favourable timing and the valuable foundation provided by the BENEFIT programme. Other important factors were the small number of countries, the undertaking of a first iteration of the TDA/SAP process during the PDF-B phase, the choice of project implementation structure (notably the Activity Centres) and the high quality outputs of contributing consultants and contractors.

The main factors in the shortcomings were a lack of an overall strategic plan or vision for the BCLME, delay in addressing the key governance issues (notably the BCC), the very broad project scope and excessive number of subprojects, too much focus on science at the expense of management, the limited role played by government institutions in project activities, weak donor coordination, insufficient linkages between science and management and the obstacles to Angolan participation.

Early signs of potential impact

The BCLME project can already claim some improvement in the status of threatened species, notably for seabirds affected by industrial long line fishing and the bronze whaler shark. The improvement for seabirds is limited to the areas frequented by the South African industrial fleet, which has installed seabird scarers. The status of the bronze whaler shark has improved in Namibia and southern Angola as a result of game fishermen voluntarily adopting catch and release.

In Namibia, recent mining leases have been issued with pro-active environmental management plans. Linked to this, the overall management plan for allocation of mining concessions has taken account of the spatial and temporal patterns of impact, resulting in an overall reduction in environmental impact by the Namibian marine mining industry.

Certain results at the output level are likely to result in environmental impacts in the near future, in particular the following:

- Mariculture – will soon provide alternatives to increasing fishing effort in Namibia;
- Plans to extend 200 mile limit in Namibia to 300 miles – should have a beneficial effect on marine resources of the outer BCLME and also spread pressure within Namibia's EEZ;
- Including fisheries management objectives in MPAs should have beneficial effects in the near to medium term;
- Marine protected areas have now been declared in Namibia around islands many of which fall within existing mining leases and therefore will result in environmental improvements:

On the socio-economic side, many individuals benefited professionally, educationally, financially and socially from the project. The development of an early warning system for HABs should help avoid the socio-economic losses arising as a result of unexpected harmful algal blooms, which can result in economic hardship within fisheries. Improved ecosystem forecasting should have far reaching economic implications. National inter-ministry coordination has socio-economic implications through improved efficiency of government. Improved mariculture policy and the adoption of international quality and sanitary methods would have a major socio-economic benefit, particularly for Namibia.

Sustainability of results

Overall, the benefits of the project are considered “Likely” to be sustainable (“L”). The assessment is that the benefits of outcomes 1 (programme coordination, capacity building and BCC establishment), 3 (environmental variability and prediction) and 5 (donor and country support) are likely to be sustainable (rating “L”), whereas the benefits achieved under Outcomes 2 (marine living resources) and 4 (pollution and ecosystem health) are only moderately likely to be sustainable.

BCLME has been very successful in achieving a measure of institutional sustainability (through establishment of the BCC) and medium term financial sustainability to ensure continued development of the programme over the next five (5) years (GEF support to SAPIMP, support of Norway and Iceland to the science plan and capacity building)

The principal risk to sustainability is that the recent closure of the BCLME programme, and particularly closure of the PCU and Activity Centres which have been so important in driving the programme, will result in a substantial slow-down of momentum across all outcomes. Whether this happens will depend on the country governments, key government staff and the individuals selected for key posts in the BCC. Another significant risk is the rapid turnover in national personnel as government staff seek private sector employment.

Contribution to capacity development

There is no doubt that the foundations have been laid for the development of an integrated ecosystem approach to the management of the BCLME. Capacity has been developed towards the implementation of an early warning system (EWS) for HABs and in relation to environmental management of mining impacts. Capacity has also been strengthened to deal with ecosystem management and the use of an ecosystem approach. Some actions of the project have directly addressed management capacity, including the EAF.

The project has had a large impact on those involved in project activities, increasing their skills, understanding and confidence. Numerous students and researchers have benefited from scientific training. Incorporation of capacity building within the subprojects was generally seen as positive and

effective. Capacity improvements are, however, threatened by loss of staff to private sector, a problem already being addressed by Namibia and which needs to be addressed by the SAPIMP project.

Achievement of global environmental goals and objectives

The BCLME project has contributed substantially to global environmental goals and objectives. In laying the foundations for maintaining the integrity of the Benguela Current Large Marine Ecosystem, the project has contributed to the conservation of one of the world's most productive and important marine environments. The project has contributed to international environmental goals such as those of Chapter 17 of Agenda 21, the WSSD Plan of Action of 2002 and the objectives of the UN Convention on the Law of the Sea (UNCLOS).

Cross reference to MTE report

The Mid-Term Evaluators made a series of recommendations on the themes of:

- Establishment of the Benguela Current Commission (BCC)
- Establishing trans-boundary fisheries management
- Monitoring and surveillance of the BCLME
- Capacity building and training
- Preparing to secure GEF support for the next programme phase

Assessment of achievements since the MTE indicates that the project took explicit steps to address the MTE recommendations on all the above themes. Project responses to the MTE recommendations ranged between Highly Satisfactory (HS) to Moderately Unsatisfactory (MU) with an average rating of Moderately Satisfactory (MS). The principal reason for this appears to be the fact that the PCU and ACs were already overloaded with ensuring completion of all sub-projects. Most importantly, the project responded well to the MTE's recommendation for urgent progress on establishment of the BCC, resulting in establishment of the BCC through an interim agreement.

Implementation review

The overall implementation approach followed that of GEF IW projects, beginning with a Block B preparation phase (PDF-B) which lasted approximately 3 years (1997 to 2000). The project was implemented by UNDP and executed by UNOPS. The project was innovative in integrating all sectors in the Project Steering Committee and employing thematic "Activity Centres" in each country. The major feature of implementation was the use of multiple subprojects to conduct activities which had both advantages and disadvantages.

The rating of project implementation approach was "Satisfactory". While project coordination was excellent, the full effectiveness of project implementation was compromised by the approach involving numerous subprojects which were designed only after project inception, which were not systematically linked to specific indicators and which imposed a major burden on project coordination.

Project management was efficient, effective and responsive. Management by the PCU and UNOPS received particular praise. There were issues with regard to timeliness, however. Few project targets were achieved by the dates originally anticipated and the subprojects, in particular, were criticised for late delivery. Financial planning and management appear to have been effective and prudent, with no instances of serious overspend and a project that had the necessary resources for a 6 month extension without additional cost. The caveat here is that most of the project activities were not defined or budgeted in detail until after project inception.

Partner cooperation was limited in scope, with BENEFIT being the major partner. While there were issues of possible duplication initially, the cooperation with BENEFIT eventually developed into a successful and complimentary partnership which was one of the factors underlying success of the

programme. The project also partnered successfully with, and contributed finance to, the *Nansen* programme in the conduct of trans-boundary fish and marine environmental surveys.

Stakeholder participation

Stakeholder participation is intrinsic to the TDA/SAP process of GEF IW projects. The quality of stakeholder participation was consistently of high quality but patchy since fisheries, mining and petroleum sectors were not consistently involved and the management level in government was not always well represented. The establishment of the BCC will be important in cementing broad stakeholder participation.

Stakeholder participation was rated as “Highly Satisfactory”. While there was some criticism that the project did not involve industry fully enough, the project nevertheless enjoyed support of key industrial operators and the quality of participation was consistently high. Project communications were excellent, which enhanced participation generally. The partnership with BENEFIT reinforced participation of national stakeholders. Stakeholder participation therefore merits a rating of highly satisfactory overall.

Lessons learned

Positive lessons learned included the following:

- The stepwise establishment of a Large Marine Ecosystem Commission for the governance and management of an LME is a promising institutional approach, but has yet to be fully tested;
- A science-based approach to a fundamental understanding of the ecosystem is essential but should be complimented by management-orientated demonstration actions;
- The Ecosystem Approach to Fisheries (EAF) adds a valuable compliment to LME projects and the systematic integration of EAF in LME projects is recommended;
- A TDA/SAP cycle during the PDF-B phase can be highly beneficial but should be considered as preliminary and should be reiterated during project implementation;
- A preliminary SAP is beneficial but it should include EcoQOs and a Vision Statement and should be updated during project implementation;
- The integration of all sectors in the PSC if feasible is highly beneficial but is not a substitute for national level integration through National Inter-ministry Committees;
- The use of thematic Activity Centres at the country level can be highly beneficial to project implementation but should not compromise participation of national institutions;
- The use of a multiple subproject approach can be beneficial to implementation and output quality but subprojects should be explicitly linked to project logical framework, limited to a manageable number and the results fully synthesised before project end;
- A tendering process based on specific requirements developed by technical teams is generally preferable to a more open “call for proposals” approach;
- Integration of capacity building into subprojects is an effective way to improve capacity;
- Partnerships with other programmes and cooperation between donors are highly beneficial but should be proactively pursued and formalised from the start;
- Industry stakeholder participation is essential and should be actively promoted from the start of the project design process;
- LME projects should have an active communications programme and make use of “branding” to promote a sense of regional identity with the ecosystem.

Negative lessons learned included:

- The time lag between project conception and full project implementation via the PDF-B process is excessive and must be reduced substantially;

- Management changes are difficult to achieve in a first project phase – any such targets should be realistic and not included if in doubt;
- 1st iteration LME projects should endeavour to produce a full set of ecosystem state indicators to pass on to the subsequent operational phase;
- LME programmes should avoid excessively numerous subprojects, focussing instead on a smaller number of concrete demonstration actions;
- Where making use of the multiple subproject approach, care should be taken to ensure transparent and equitable allocation of projects and contracts should include penalty clauses for late delivery;
- The feasibility of subprojects should be carefully assessed and any assumptions (such as the need for sharing of information) addressed in advance through protocols or other suitable agreements;
- Capacity building and the achievement of concrete outputs cannot be effectively combined without a very well integrated capacity building strategy;
- Capacity building needs a strategic plan which should be undertaken at the TDA/SAP stage rather than await the project implementation stage;
- Any capacity building strategy needs to be designed in such a way as to encourage national staff to stay in the system;
- Projects should ensure that hiring of consultants does not undermine the capacity of the very institutions the project is supposed to support;
- Potential obstacles to project implementation, such as the language barrier or administrative or logistical issues, should not be underestimated or ignored and should be actively addressed in project design;
- Where countries are unequal participants the project must include intensive measures to “level the playing field”;
- Substantial logical framework revision should be avoided unless accompanied by revision of the project document itself; the linkages to any existing TDA or SAP should remain explicit;
- The project logical framework should truly reflect what the project designers and managers intended, using indicators that are realistically achievable;
- Indicators conditional upon the successful performance of other projects should only be included where the arrangements for collaboration are very solid;
- Harmonisation of law and policies between countries is not a realistic or useful objective in the context of LME projects which should focus on actual cooperation through operational plans;
- Where ships surveys are involved in an LME project, an additional staff member or consultant dedicated to ships’ coordination should be recruited.

Recommendations

In the short term:

- Undertake a proper synthesis of BCLME subprojects - the BCC should complete the synthesis of all the sub-projects linking them to indicators in the BCLME logical framework and the SAP.
- Develop a set of BCLME Ecosystem state indicators - convene a meeting of BCLME experts and national focal points to define a provisional set of ecosystem state indicators for the BCLME, as a legacy to pass on to the BCC to test and refine over the coming years.
- Maintain a working group on SEIS and operational ecosystem monitoring systems – as has been observed, the BCLME project got very close to establishing operational monitoring systems for HABs, LOWs and Benguela El Niños, while SEIS needs effort to ensure that data are uploaded as soon as possible.

- Working group to update the TDA and SAP – the evaluation has found that the updating of the TDA and SAP, while not explicit in the logical framework, would have been beneficial and which now urgently need to be updated.

In the medium term:

- Update the TDA & SAP - In order to bring BCLME into line with best GEF IW practices it is now necessary to update the TDA and develop an updated SAP with modern features including a clear vision statement and EcoQOs and to put financial “mechanisms” in place.
- Perfect the operational monitoring systems – the BCLME project has got very close to operational monitoring systems for HABs, LOWs and BCLME El Niños – every effort should be made to perfect these systems such that they become fully operational.
- Apply knowledge in management approaches and mechanisms, focusing on trans-boundary resource management across the LME. It is very important that the BCC, through the science plan and the support of SAPIMP, makes deliberate use of the knowledge gathered by BCLME in developing trans-boundary management approaches and mechanisms.
- More focused approach to capacity building and training (CB&T) – given the rather diffuse capacity impact of BCLME it is especially important that the BCC with SAPIMP support works towards a truly strategic and planned approach to capacity building, including developing a clear road-map for institutional and individual CB&T targets.
- Ensure effective national management of regional fish stocks and to expand this to trans-boundary management - there is a need for the BCC to work with governments at both the national and regional level, with a particular emphasis on building capacity in each country for fisheries management.

INTRODUCTION

Terms and definitions

Project or Programme?

The Strategic Action Programme (SAP) document signed by ministers of the three BCLME countries announced the establishment of a BCLME “programme”. This term is useful to denote the broad array of activities conducted under the SAP (including some activities of projects such as BENEFIT) whereas the term “project” is useful to denote the specific GEF IW project to support the BCLME programme and which is evaluated here. References to “project” and “programme” are used accordingly throughout this evaluation report.

Brief description of BCLME project / programme

The BCLME programme is one of 18 Large Marine Ecosystem (LME) Programmes supported by the GEF within its International Waters Portfolio. While the PDF-B phase of the programme was supported by GEF 2, the full sized project (FSP) to support the BCLME programme was supported by Phase 3 of the implementation of GEF (2002-2007). The BCLME FSP has been one of the largest projects in GEF IW portfolio, with a GEF contribution totalling \$US15 million. It is one of several LME projects for which the UNDP has been responsible for all or part of project implementation. In common with all GEF IW LME projects, it takes inspiration from the 5-modular LME template described by NOAA which defines five facets to the assessment, management and monitoring of LMEs - 1) ecosystem productivity; 2) fish and fisheries; 3) pollution & ecosystem health; 4) socio-economics and 5) governance. BCLME is a member of a growing global constituency of LME programs which aim to help developing countries address the priority environmental concerns of their shared trans-boundary water bodies.

The geographical focus of the project is the Benguela Current Large Marine Ecosystem which extends from the Agulhas Bank to the Angola front at the latitude of the Congo River, extending westwards to the limits of EEZs of the participating countries, South Africa, Namibia and Angola. The Benguela is one of the world's most productive eastern boundary current marine ecosystems, with a quasi-permanent zone of upwelling extending from the Cape of Good Hope to the Angola/Benguela Front (ABF).

The BCLME supports a variety of fisheries which are important for the food security and economic development of Angola, Namibia and South Africa, and provides the supporting environment for marine mining, offshore oil and gas production, marine transportation and other economic activities. The BCLME is considered to be severely impacted by a long history of unrestrained industrial fishing and more recently by marine diamond mining and offshore petroleum exploitation. It is also known to be one of the most dynamic, variable and unpredictable of the eastern boundary current LMEs, subject to Benguela Niños, Low Oxygen Water (LOW) events and Harmful Algal Blooms (HABs). These features combine to make the BCLME one of the most challenging of the LMEs to predict and to manage human activities accordingly.

The purpose of the BCLME project, similar to that of all other LME projects supported through the GEF IW portfolio, is:

- *Participating countries and their institutions sharing the BCLME have the understanding & capacity to utilise a more comprehensive ecosystem approach and to implement sustainable measures to address collaboratively trans-boundary ecosystem related environmental concerns.*

To achieve this purpose, the BCLME project design constituency selected 5 strategic outputs (more precisely, “outcomes”) as an effective means for contributing to meeting the challenge, namely:

- *Output 1 – Operational and effective intra and inter programme coordination and support is established*
- *Output 2 – Sustainable management and utilisation of trans-boundary marine resources are enhanced.*
- *Output 3 – Environmental variability, its ecosystem impacts are assessed, and predictability is improved for enhancing the management of living marine resources.*
- *Output 4 – Preliminary steps to maintain BCLME health and to enhance effective pollution management are initiated to safeguard fisheries and other resources*
- *Output 5 – Donor participation and co-financing are increased throughout the life of the programme and beyond*

Outputs 1 and 5 can be regarded as external support to the core objectives 2, 3 and 4 which correspond to LME modules 2, 1 and 3 respectively (‘fish & fisheries’, ‘productivity’ and ‘pollution & ecosystem health’). In short, the BCLME project aimed to help improve 1. trans-boundary fisheries management according to an ecosystem approach; 2. prediction of the ecosystem & forecasting extreme events and 3. conservation of biodiversity (including species and habitats) and management of pollution. This would be achieved through effective coordination and donor support and the establishment of a suitable governance structure (the Benguela Current Commission or BCC).

Context and significance of the BCLME evaluation

LME projects are among the major international initiatives addressing global concerns about the marine environment, such as overfishing, habitat loss, pollution and climate change. The BCLME project addresses the problems of an African LME that poses particular challenges with regard to predicting ecosystem behaviour, managing fish stocks and addressing industrial pollution. The BCLME evaluation is thus of particular significance to addressing marine environmental problems world wide and to the achievement of the Millennium Development Goals (in particular MDG8) in Africa. It also provides a case study that can be used for other LMEs globally.

As three countries with a strong dependence on marine economic activities, the BCLME programme is the largest trans-boundary cooperative initiative of Angola, Namibia and South Africa to date to address problems affecting their shared marine ecosystems. The evaluation of the BCLME project thus provides an opportunity for these countries to assess the relevance and success of the cooperative trans-boundary approach taken by the BCLME programme and to guide future action.

As global promoters of the LME approach, the BCLME project evaluation provides a valuable opportunity for GEF IW, the “LME community”, UNDP as the implementing agency, FAO and other programme partners, to assess the effectiveness of the GEF IW/LME approach and derive lessons learned and best practices for the future.

Finally, the BCLME evaluation is unusual in that, on the basis of the highly encouraging results of the project, the GEF has already been able to approve in principle finance to the follow-on “SAP Implementation Project” (SAPIMP) to develop and reinforce the capacity of the newly established Benguela Current Commission (BCC) before termination of the originating programme. The final

evaluation has therefore provided an opportunity to identify key priorities for the transition to a fully operational BCC as well as guidance to improve implementation of SAPIMP.

Purpose of the evaluation

In accordance with the Terms of Reference, the principal purpose of the final evaluation is to assess the results and impacts of the BCLME project as required by the UNDP/GEF monitoring and evaluation policy. The UNDP/GEF M&E policy has four objectives:

- Monitor and evaluate the results and impacts
- Provide a basis for decision making on amendments and improvements
- Promote accountability for resource use
- Document, provide feedback on and disseminate lessons learned

In the case of a final evaluation, the particular objectives are to assess:

- Relevance, performance and success of the project
- Early signs of potential impact and sustainability of results
- Contribution to capacity development
- Achievement of global environmental goals and objectives
- Identify and document lessons learned
- Make recommendation to improve the design of other UNDP/GEF projects

In addition, because of the particular significance of the BCLME project and the opportunities presented by the evaluation, account will also be taken of criteria of interest to other stakeholders, including GEF International Waters, the global LME constituency and the broader community concerned with implementation of the WSSD Plan of Action and Millennium Development Goals (MDGs).

Ultimately, the evaluation aims to reach the best value judgment possible on how well the project was designed, implemented and how well its results were achieved and disseminated, while extracting lessons learned and best practices useful for other projects.

The target constituency for the present evaluation thus includes: 1) the countries themselves, the newly established Benguela Current Commission (BCC) and all other beneficiary stakeholders of the BCLME programme; 2) UNDP, UNDP/GEF and UNOPS; 3) GEF, in particular the International Waters portfolio managers; 4) the managers of the Benguela LME SAP Implementation Project and related initiatives and 5) the global LME constituency. The evaluation is of potential interest to the broader global constituency concerned with sustainable development in the marine environment.

Key issues addressed by the present evaluation

While providing a comprehensive evaluation that meets all the requirements of UNDP and the target constituencies, the evaluation places particular emphasis on assessment of the fundamental objectives of the project as follows:

Project Development Goal - Has the project laid the foundations for sustaining the integrity of the BCLME through integrated trans-boundary ecosystem management?

Project Purpose – Do the participating countries have the understanding and capacity to use a more comprehensive ecosystem approach and to implement sustainable measures to address collaboratively trans-boundary ecosystem related environmental concerns?

Objective 1 – Coordination - Were intra- and extra- project coordination and project support operational and effective? In particular, were all project structures established and operational? Was the capacity strengthening component of the project effectively planned and implemented based on identified needs? Is the Benguela Current Commission (originally planned as an Interim BCC) established and functional? Have the resources been secured to ensure BCC core activities?

Objective 2 – Sustainable management – Have the sustainable management and use of trans-boundary marine resources been effectively enhanced? In particular, is effective annual (or at least periodic) reporting of the state of the BCLME and its fishery resources in place? Has cooperation been materialised in the form of joint surveys, working groups and operational management plans? Have new mariculture policies been put in place and do the regulations meet international standards? Has there been any improvement or restoration of shared stocks?

Objective 3 – Environmental variability – Have environmental variability and its impacts been assessed? Has predictability been improved so as to enhance the management of marine living resources? In particular, are resource managers using state of the environment reports and forecasts in decision making? Is monitoring and early warning of Harmful Algal Blooms in place? Is there an environmental baseline against which ecosystem changes can be measured? Are management decisions of the BCC actually based on the improved scientific knowledge of the key features of the BCLME (e.g. Orange cone/Luderitz barrier; Angola/Benguela front)?

Objective 4 – Preliminary steps to maintain BCLME health – Have preliminary steps been taken to maintain BCLME ecosystem health and to enhance pollution management so as to safeguard fisheries and other resources? In particular, has there been agreement with SADC to implement MARPOL? Are regional frameworks, systems, plans or codes in place for mitigating mining impacts, providing early warning of ecosystem changes or tackling oil pollution events? Have waste water quality criteria been listed? Have land-based sources of pollution been identified? What has been achieved with regard to management of ballast water and control of alien invasive species? Has the status of vulnerable species been assessed and improved? Is regional biodiversity conservation planning (including the identification of MPAs) in place?

Objective 5 – Donor participation and co-financing - has donor participation and co-finance been increased throughout the programme? Is it set to continue beyond the programme? In particular, has there been any organised plan to increase donor commitment? Were donor conferences held? Were procedures developed to leverage support from other donors?

In relation to each element (output or outcome) as required by UNDP, the evaluation will consider the *relevance, implementation performance* and *success* of the project. “Success” in this context is taken to mean “attainment”. While addressing these questions, the evaluation will consider whether the objectives, outputs or outcomes remain meaningful today with the advantage of hindsight, bearing in mind that the BCLME has been a trail blazer among LME projects, charting unknown territory. Do the questions remain a fair basis today for evaluation of the project? If not, how should the original outcomes be interpreted to provide a fair basis for assessment?

In relation to each project output / outcome and its separate indicators the evaluation will assess and attempt to rate its sustainability (on a scale from unsatisfactory to highly satisfactory). In relation to the project as a whole the evaluation will assess implementation approach, stakeholder participation and Monitoring & Evaluation using the same scale.

GEF IW Results Template – the expected common set of outcomes for GEF IW (including LME) projects has evolved considerably since formulation and inception of the BCLME project and is

currently represented by the GEF IW Results Template issued in December 2006. Some of the 'standard' indicators are clearly anticipated in the BCLME logical framework, others not. Assessment of the BCLME in relation to these common indicators will provide a measure of how well BCLME matches up to the latest GEF IW standards for LME projects, in particular the following questions:

- Is there effective inter-ministry coordination? - this question is of interest because BCLME did not set up National Inter-ministerial Committees as such but instead integrated the concerned ministries in the PSC (and of course the BCC)
- Is there multi-country agreement on regional legal mechanisms for the waterbody? (this question is an opportunity to examine how far the BCC really goes as an agreement on "regional legal mechanisms")
- Has there been broad stakeholder involvement in priority setting and planning? (this is of interest because of comments that the project was biased towards fisheries and science, that the fishing industry and coastal stakeholders were not sufficiently involved etc.)
- Are trans-boundary concerns mainstreamed into national assistance programs? (this will help to gauge the true level of national commitment to trans-boundary concerns)
- Are financial mechanisms in place to support SAP implementation? (while the BCC is in place and the project has been successful in leveraging additional GEF and bilateral finance, the question remains whether mechanisms are in place to sustain sufficient cash flow).

Project impacts (early signs), effects and their sustainability - In addition, the evaluation will consider the early signs of project impact, including environmental impacts (both global and local environmental benefits), socio-economic impacts and contributions to capacity development. It will also consider a range of effects, including replication effects, co-finance / leverage effects, effects on national management practice and governance and detectable attitudinal shifts among stakeholders. Finally, the evaluation will examine in a broad (to compliment the specific) sense the *sustainability* of project outcomes, impacts and effects.

A table of project outcomes and their evaluation is provided in Annex 1. This constitutes the tabular summary of the results of the evaluation in relation to explicit outputs or outcomes of the project. Early signs of impact and effects were addressed in stakeholder interviews and are the subject of qualitative analysis later in this report (see section on 'Early signs of impact and effects of the project').

In addition to the above, mostly generic, questions, the BCLME experience has given rise to some issues of particular interest for countries, agencies and practitioners involved in LME programs, including the following:

- Should fully formal LME governance structures be established early in the programme, or approached on a step by step basis?
- What are the realistic time scales for the achievement of management and governance changes in LME programs?
- Should LME programs be primarily science/knowledge driven or governance/management driven? How much time and resources is it reasonable to allocate to knowledge gathering before proceeding to implementation of management changes?
- How can the bridge between science and management best be built?
- Can LME programmes adequately address environmental variability, fisheries, habitat conservation and pollution within a single programme?
- Can capacity building and the achievement of concrete outputs be effectively combined?
- Should LME projects establish parallel implementation structures or work through national institutions?
- How should LME project activities be distributed or contracted out?

- How effective was the BCLME approach of undertaking numerous sub-projects compared to the more usual approach of a smaller number of demonstration projects now advocated by the GEF?
- While the early and rapid production of the TDA and SAP during the PDF-B phase is often cited as beneficial to project implementation, was it ultimately beneficial in terms of impact and sustainability?
- What strategies can be adopted to promote sustainability of LME programme outcomes?
- What were the consequences of substantially altering the logical framework at the early inception stage in relation to the objectives and activities as presented in the project document?
- As a trail blazing project, how reasonable is it to judge BCLME success on the basis of the original indicators, some of which, in hindsight, were clearly over-optimistic?

The evaluation will touch on such questions and endeavour to contribute usefully to debate on these issues.

Particular challenges posed by the BCLME evaluation

The BCLME terminal evaluation has posed several challenges. Greatest of these was the fact that the vast majority of project activities were conducted through over 100 sub-projects. These sub-projects were only precisely formulated after the project began and are not described in the SAP, project document or listed in the project logical framework.

Evaluation of the sub-projects also posed specific problems:

- Analysing and evaluating all 100 projects was impossible within the time and resources allocated to the evaluation;
- While subprojects were grouped thematically, their linkage to specific project outputs and indicators was not always explicit;
- The project M&E process, in particular the annual PIR reports, did not systematically evaluate sub-projects or link them to specific outputs and indicators;
- While the project produced a collection of executive summaries of the sub-projects, this did not amount to a synthesis and did not link projects to outcomes and indicators;
- The sub-project selection process was not fully transparent, and no report was prepared describing the project design and selection process and relating this to trans-boundary concerns;
- A great many stakeholders were involved in the sub-projects – consulting all of those stakeholders would have been impossible within the time and resources available.

Further challenges for this evaluation have been:

- The project logical framework was substantially revised upon inception of the project without also revising the project document, thus making it difficult to trace back from an indicator to supporting text in the project document;
- The project document lacks a detailed description of the intended project activities, confining itself to objectives and outputs. While this may have facilitated an adaptive approach to implementation, it limits fine grained evaluation of relevance, implementation performance and success of the project;
- The terminal evaluation has been contracted to a single evaluator – while this has advantages in terms of consistency and depth of analysis, it limits the scope and quantity of information that can be assimilated for the purposes of the evaluation. It also limits the opportunity to

discuss and exchange ideas and thereby to reinforce, refine or reject conclusions and findings. The findings are thus primarily individual to the evaluator rather than those of a multi-disciplinary team. To compensate, the evaluation has placed strong emphasis on the stakeholder survey presented in Annex 2 and which constitutes the foundation of the present evaluation.

METHOD OF THE EVALUATION

Approach

UNDP/UNOPS has chosen to conduct the evaluation using a single evaluator with particular experience of LME projects (ASCLME, CCLME) allowing a total of 45 working days. Such an approach, while ensuring coherence, necessitates avoiding excessive detail and focusing on the key issues. For this reason, the evaluation chose to rely upon stakeholder consultations as the primary source of information and insights, complimented by objective analysis. The expectation is that such an approach will have resulted in a fresh and accessible set of qualitative findings, but which will necessarily lack the fine grained detail that could have been generated by a multi-disciplinary team with more time and resources at its disposal.

Stakeholder survey

The categories of stakeholders to be consulted (Annex 4) included personnel from the responsible project implementation and execution agencies, the project coordination unit, the activity centres, key project consultants, project mid-term evaluators, project steering committee members, national ministries and institutions, key ministry leaders, national focal points, resource managers, resource users (including the fishing, mining and petroleum industries), civil society organisations concerned with the issues, project partners, project contractors, other LME programs and independent external experts. The evaluator was able to consult with representatives of most categories.

The results of the stakeholder survey are presented in Annex 2. Over 60 individuals were interviewed, with interviews lasting on average about one hour. A full list of the individuals interviewed is provided in Annex 5. The spread between stakeholders from the three countries was well balanced. Interviews were guided by a simple structure provided at the start of each interview (included in Annex 2), ensuring that interviewees had the opportunity to anticipate questions as the interview proceeded. The interview structure was specifically designed to elicit information responding to the ToR, UNDP/GEF M&E policy and to the criteria of interest to other members of the target constituency (GEF/IW etc.). Several interviewees expressed satisfaction with the interview structure which generally resulted in a naturally flowing discussion around the key issues.

A longer results sheet was also prepared for use specifically with the CTA and Activity Centre Coordinators following the structure of the revised project logical framework, supplemented by additional outcomes not listed in the logical framework and the current standard set of GEF IW outcomes. The results sheet was then adapted to serve as a progress summary and a final table to present the results of the evaluation (Annex 1).

To compliment the interview programme, the evaluator was invited to participate at the final joint symposium of the BCLME and BENEIFT programs in Swakopmund, 19th - 21st November 2007, which provided a valuable overview of the entire programme and allowed time for interviews with remaining project stakeholders.

In addition, it is anticipated that the evaluator will also participate at the inception workshop of the follow-on SAPIMP project during 2008 in order to conduct a final run through of the findings of the evaluation and make any necessary adjustments to the final report.

Structure of the evaluation

The evaluation was structured according to phases as indicated in Table 1 below:

Table 1 – Structure of review

Phase	Title	Description
1	Preparation and planning	Reading ToR, planning missions, reading project documentation administrative aspects
2	Mission 1	Mission to BCLME region to interview broad range of project stakeholders
3	Initial analysis	Writing up results of 1 st mission, further reading, preparation of 2nd mission
4	Mission 2	Participation at BCLME / BENEFIT joint symposium; Completing interviews with stakeholders
5	Analysis and reporting	Analysis of results, write up and circulate stakeholder survey, preparing draft final evaluation report
6	Mission 3 (to be determined)	Final mission to review results of evaluation and contribute to orientation of SAPIMP
7	Wrap up	Finalise report, complete all administrative matters

An important element of the evaluation was the conduct of a stakeholder survey (presented in full in Annex 2) which provided the launch pad for subsequent, objective, analysis. The stakeholder survey served also as an interim report which was circulated shortly before the Project Steering Committee meeting in February 2008.

The present report adopts and adapts as necessary the sample structure provided in the terms of reference.

Activities summary

The itineraries of Mission 1 and Mission 2 are provided in Annex 3. In all, the evaluator allocated 20 days to the field missions, mainly spent on interviewing stakeholders, and about 35 days to data compilation and analysis and report writing (or a total of 55 days up to the submission of the draft final evaluation report).

RESULTS OF THE EVALUATION

Programme start and its duration

It is generally accepted that the idea for the BCLME project arose in 1995 (see later in this report on the historical origins of BCLME and BENEFIT). An embryonic GEF-PDF Block B grant application was prepared in 1995 and then refined with the support of GEF/UNDP personnel for submission in 1997 and acceptance for funding in early 1998, with a grant of \$US 344,000. In July 1998 the BCLME

regional launch workshop was held in Cape Town, attended by representatives of the governments of the three countries and supporting consultants. Many commentators have remarked that the Cape Town workshop was the defining moment in the genesis of the BCLME programme.

Following the inception workshop, the principal activities of the PDF-B phase were to undertake a series of thematic reviews of trans-boundary issues followed by a workshop to prepare a Trans-boundary Diagnostic Analysis (TDA) and draft Strategic Action Plan (SAP). Following preparation of the TDA and SAP, the necessary arrangements were made to ensure signature of the SAP by the concerned ministers from the three countries. As a final step of the PDF-B phase, the final BCLME project document was prepared and submitted to the GEF council in March 2000 and approved by GEF council in April 2000. After STAP review and other processes, the final version of the project document was finally endorsed by the GEF CEO on 20 November 2001, 6 years after the first draft PDF-B document. This long preparation time is not unusual for GEF IW projects. One of the contributing factors to this delay, which also applied to the BCLME, is the fact that PDF-B budgets do not permit retention of key personnel while awaiting the outcome of the application process.

From CEO endorsement, the project proceeded rapidly to become operational, with the recruitment of the CTA (who had also been the PDF-B coordinator) taking up duties on 1st May 2002. The project benefited from a no-cost extension until April 2008, a total duration of 6 years for the full project, which therefore terminated almost exactly 10 years after inception of the PDF-B preparation phase.

Commentators have criticised the long delay between the first project concept in 1995 and the beginning of the project itself in 2002, some 7 years later, whereas BENEFIT went from the drawing board to being operational in 2 years. Without doubt the complexity and the discontinuous nature (between PDF-B and full project) of the GEF project preparation process was the principal factor in the long gestation period. However, it should be noted that this gestation period included a 2-year preparation project which was remarkable in generating a TDA and multi-country Strategic Action Programme (SAP). This is unique for GEF IW projects, which generally defer the TDA and SAP to full project implementation.

This assessment must be tempered by the fact that a SAP, in the sense generally understood within GEF IW projects, is conceived as a blueprint for multi-country management actions to address the trans-boundary problems identified in the TDA. In the case of the BCLME however, many of the “actions” undertaken within the framework of the SAP and the project could be described as “knowledge gathering”. This has led some commentators to criticise the BCLME project for failing to deliver real time changes in resource management, while others consider that enhancing the information base was in itself a major achievement and that it would have been unrealistic, or even inappropriate, to expect the project to result in real time management changes in just 5 or 6 years.

Which of these views is right is a central question of the present evaluation. Based on the views of stakeholders (Annex 2) the consensus appears to be that 1) the BCLME preparation phase was too long and that 2) the project should have aimed for a better balance between knowledge gathering and concrete management changes. This issue will be further discussed elsewhere in this report.

Problems that the BCLME programme seeks to address

Ultimately the BCLME project is concerned with addressing the global problem of the declining goods and services provided by marine ecosystems in the face of human impacts such as fishing, habitat degradation, pollution and, more recently, climate change. The BCLME is special, however, in seeking particularly a better understanding of the variability and unpredictability of the large marine ecosystem, something which has serious socio-economic consequences for the countries of the region in the form of Benguela El Niños, Low Oxygen Water (LOW) events, Harmful Algal Blooms (HABs) and unexplained fish stock crashes or ecosystem regime shifts. This feature distinguishes BCLME

from other LMEs where ecosystem variability and unpredictability are not such major concerns. This feature of the BCLME project is important, since it helps to explain why the BCLME project might have invested so much effort in knowledge gathering before embarking on real time management actions that might have proven futile in the face of macro-ecosystemic phenomena.

More specifically, the BCLME project set out to address the trans-boundary problems identified in the Trans-boundary Diagnostic Analysis (TDA) by implementing the “array” of priority actions defined in the Strategic Action Programme (SAP) document. This was explicit in the original project document and logical framework and has remained the operational logic of the programme. The key problems identified in the TDA were:

- Decline in commercial fish stocks
- Uncertainty regarding ecosystem status
- Deterioration in water quality (chronic and catastrophic)
- Habitat alteration and destruction
- Loss of biotic integrity and threat to biodiversity
- Inadequate capacity to assess ecosystem health
- Harmful algal blooms (HABs)

To address these generic trans-boundary problems, the TDA recommended action in three broad areas:

- Sustainable management and utilisation of resources
- Assessment of environmental variability, its ecosystem impacts and improvement of predictability
- Maintenance of ecosystem health and management of pollution...

These three areas of intervention were re-presented in the SAP which identified the following six areas of ‘Policy Actions’:

- A. Sustainable Management and Utilisation of Living Marine Resources
- B. Management of Mining and Drilling Activities
- C. Assessment of Environmental Variability, Ecosystem Impacts and Improvement of Predictability
- D. Management of pollution
- E. Maintenance of Ecosystem Health and Protection of Biological Diversity
- F. Capacity strengthening

The above policy actions were further recombined via the project document itself to focus on three core components of the project – sustainable management of MLRs, understanding variability and managing ecosystem health and pollution. In this final formulation, areas B, D and E were lumped under a single project output (“Biodiversity, Ecosystem Health and Pollution” or BEHP) while “Sustainable Management and Utilisation of Marine Living Resources” and “Environmental Variability, Ecosystem Impacts and Improvement of Predictability” remained as dedicated components, reflecting their perceived importance. The core components were supported by Output 1 (effective coordination) and Output 5 (securing additional co-finance). Capacity strengthening became a cross cutting theme. Output 1 (coordination) included the establishment of the Interim Benguela Current Commission (IBCC), anticipated to become the full Benguela Current Commission (BCC) during or after the life of the project. Output 1 also contained the development of a regional capacity building plan as a specific output (this is important to note because the issue of capacity building has been a source of controversy in the BCLME programme).

It needs to be added that the project outputs went through one final adjustment when the project logical framework was revised (see below).

Development and immediate objectives of the programme

The longer term development goal of the BCLME project is:

The ecological integrity of the BCLME is sustained through integrated trans-boundary ecosystem management.

This development objective is similar to those adopted for other LME projects and is wholly consistent with international policies and pronouncements such as UNCED, Agenda 21, WSSD and Millennium Development Goals and the Convention on Biological Diversity. The objective is undoubtedly relevant to global, regional and national concerns and reflects precisely what the GEF IW and LME approaches are intended to achieve.

The immediate project objectives (“outputs” or “outcomes”) are:

1. Effective intra and inter project coordination and support
2. Sustainable management and utilisation of trans-boundary marine resources are enhanced
3. Environmental variability, its ecosystem impacts are assessed, and predictability is improved for enhancing the management of marine living resources
4. Preliminary steps to maintain BCLME health and to enhance effective pollution management are initiated to safeguard fisheries and other resources
5. Donor participation and co-financing are increased throughout the life of the programme and beyond

The above objectives are explored in greater detail elsewhere in this evaluation.

Revision of project logical framework

At an early stage of project implementation, the project logical framework was revised. The main revisions were:

- Revision of the original long term objective which was originally to “implement the array of policy actions in the SAP” to the revised and broader development goal of “maintaining integrity of the BCLME through integrated trans-boundary ecosystem management”;
- Addition of a series of indicators of the development goal (reduced invasive species, early warning of HABs, increased productivity/carrying capacity of BCLME, improved regional status of threatened species, MPAs include fisheries management objectives, fish yields increased and diversified, environmental management plans in mining leases);
- Revision of project purpose from the original triple purpose (1. assist countries to better understand the ecosystem; 2. improve capacity of countries; 3. implement management measures) to a new combined purpose (countries have understanding and capacity to use more comprehensive ecosystem approach and to implement sustainable measures...) with a clear set of indicators (harmonisation of legal frameworks, coordinated enforcement of regulations, implementation of SADC protocols, capacity for ecosystem management, introduction of ecosystem approach);
- Revision of the project outputs and sub-outputs (output indicators) – these revisions were extensive and require tabular presentation to be fully appreciated (Annex 3). The revisions may be characterised as :

Output 1 - Eliminating establishment of National Intermnisterial Committees, fixing a single lead agency for each country and revision of the SAP in year 4, while introducing the “Activity Centres” and “Advisory Groups”;

Output 2 – Revising ‘creation of mechanisms’ and ‘steps undertaken to develop real time management capability’ to ‘enhancement of sustainable management and utilisation of resources’, omitting specific references to mining and drilling impacts, conservation of species and habitats and non-target species (shifted to Output 4) while adding a series of specific (and challenging) targets for the management of MLRs;

Output 3 – General sense retained while omitting specific references to ‘targeted training’ and a ‘programme to mitigate’ the effects of HABs;

Output 4 – General purpose retained, omitting reference to development of specific measures to address oil spills, deteriorating water quality and habitat destruction while adding a series of specific targets regarding MARPOL, mining impacts, EWS, a series of mini-projects, vulnerable species assessment, biodiversity conservation plans etc.;

Output 5 – Expansion from donor recruitment to increase co-finance adding reference to an overall plan to increase donor and country resource commitment.

The most significant revisions were to introduce the Activity Centres and Advisory Groups which brought a new operational logic to the project structure, resulting in the clearer allocation of activities between marine living resources, ecosystem variability and biodiversity, ecosystem health and pollution. The revisions also brought greater clarity to the logical framework and defined clear output indicators which undoubtedly helped to guide project coordination unit with implementation and reporting. However, the new logical framework still did not identify specific project activities (subprojects) or link them to particular indicators.

The revisions to Output 2 substantially “raised the game” for marine living resources by introducing very ambitious (indeed unrealistic) targets for fisheries but at the same time appeared to downplay the development of concrete management measures, thereby creating a mismatch between activities and targets.

The revised logical framework, while its structure may have been improved, gave fewer clues than the original version to the actual *activities* to be undertaken in the project. The original and revised logical frameworks would both be criticised today for not listing the specific activities to be undertaken. Such listing would have been impossible, however, because the numerous sub-projects to be undertaken, and which constituted the bulk of the project activities, were not defined at that stage.

The revisions may also be criticised for the heterogeneous nature of the indicators of the project development goal. Some of these were quite specific and achievable within project lifetime (e.g. early warning system for HABs, mining leases issued with environmental action plans) while others bore little relation to the activities of the project (“reduction in presence, location, number of alien invasive species”) or were unrealistic or even scientifically questionable (“increase in productivity and carrying capacity”; “yields of fish and its composition in the Benguela increased and diversified”). While posing some difficulties in evaluation, these imperfections have had no detectable negative impact on the implementation of project activities.

Main stakeholders

The BCLME project document identifies the project stakeholders as including the concerned ministries of the governments of Angola, Namibia and South Africa responsible for environment, marine resources, mines, energy, tourism, science, technology and transport, representatives of industry sectors (fisheries (including artisanal fishing), education (universities, research establishments) as the principal stakeholders involved in the preparation phase, along with supporting experts. The project document also identifies the Ministry of Fisheries and Marine Resources in

Namibia, the Ministries of Fisheries and Environment in Angola, and the Department of Environmental Affairs and Tourism as the “lead stakeholders”. The Advisory Groups were highlighted as an important forum for stakeholder participation. In practice, NGOs (e.g. WWF) also became important stakeholders. An estimated total of \$US325,000 was allocated to the public involvement plan of the project, although no specific Public Involvement Plan or table of stakeholders was included in the project document as is now mandatory. It is thus difficult to judge from the project document exactly who were considered stakeholders and what the project strategy was for engaging them.

As stated by the project coordinator, Dr. Mick O’Toole, “the BCLME Programme was always seen as an Ocean Science and Management programme primarily addressing trans-boundary fisheries driven by the fisheries and environment ministries. The activities by other Ministries e.g. mining and oil and gas were linked in only in so far as [concerned] their impacts on the marine environment in relation to marine fisheries and ways to mitigate these effects.”

The GEF IW mission to visit the BCLME project in 2000 noted that involvement and stakeholder buy in had been strong at the multi-country and inter-ministerial national governmental levels but that sub-national and community mobilisation had not been strong, and should be improved during project implementation (project document, annex M, page 100).

The mid-term evaluation confirmed that a particular strength of BCLME was the high quality of stakeholder participation in BCLME project design and implementation. The present evaluation supports the finding of high quality but criticises the *breadth* of consultation and the lower quality of participation of certain categories of stakeholders (fishing, mining and petroleum industries and management levels within the governments), to be discussed in more detail below.

Outcomes/ Results expected

The expected “outcomes” or results of the project comprise the indicators of the development goal, the project purpose and the “outputs” of the project enumerated above, and the results indicators for those outputs.

In addition, the project document provides various indications of expected outcomes and results, both in the text and the original logical framework, which do not specifically feature in the revised logical framework but which aid its interpretation. The following merit particular attention:

- Updated SAP – the project document mentions in several places, including in the description of Output 1, that the SAP will be updated (this is important because the evaluation demonstrates that the BCLME SAP, which was generated remarkably quickly, should be regarded as the first iteration of a work in progress and should be updated);
- Development of real-time management capability to sustain and use marine living resources (MLRs) (important because this aspect was perhaps downplayed in the final formulation of Output 2, but is clearly an expectation if you read the project document);
- Regional integrated management plans – the project document mentions regional integrated plans in several places and this comes out as an expected outcome or result from the project document, even if not explicit in the revised logical framework.

At the time of the BCLME project design, a “standard set” of objectives for LME programs had not emerged and BCLME was, as often has been the case, charting new territory. The chosen goals were stakeholder and country driven and it is therefore instructive to note the findings of the stakeholder survey (see Annex 2 for more detail). The main stakeholder expectations were:

- Improved regional cooperation with a shift towards the ecosystem approach
- Establishment of a Benguela Ecosystem Commission
- Establishment of an effective Early Warning System (EWS) for phenomena such as HABs, LOWs and Benguela El Niños
- Significant capacity building impacts

In addition, stakeholders had specific expectations in relation to policy actions of the SAP in their own areas of interest, such as mariculture regulations and policy, marine conservation plans etc. However, it is important to note that expectations evolved as the project proceeded, becoming more realistic and less ambitious with time. At the time of the survey, stakeholders were ready to accept with hindsight that several of the original project targets now appear over-optimistic.

Most stakeholders appear not to have expected concrete changes in management during the life of the project (or at least quickly abandoned such expectations once the scale of the tasks they had set themselves became clear).

It is worth noting the expectations of stakeholders as interpreted by the GEF IW mission to BCLME in 2000 (Annex M to the project document), where the GEF representatives stated: “Several individuals originally associated with the science community proposed during the establishment of BENEFIT that a management-related multi-country programme was also needed to translate the information provided by the science into the sectoral actions of each country” (project brief, page 96) and “Ensuring that management is the focus of BCLME rather than science will be important to establish as implementation begins” (project brief, page 99).

Apart from the explicit objectives of the project and stakeholder expectations, it is instructive to compare the BCLME objectives with the standard minimum set of outcomes for GEF IW projects issued by the GEF in 2006. The BCLME logical framework compares quite favourably with the current GEF IW results template but lacks certain aspects (highlighted below with underlining):

- Multi-country agreement on regional legal mechanisms for waterbody
- National legislation or policy reformed to address trans-boundary problems
- Broad stakeholder involvement in priority setting and strategic planning
- Newly established or strengthened trans-boundary waters institutions
- Regional environmental monitoring mechanism established
- Financial and institutional sustainability of trans-boundary waters institutions
- Trans-boundary concerns mainstreamed into country assistance programs

The importance of some of the “missing” outcomes is borne out by the present evaluation, especially as regards the breadth of stakeholder participation (criticised for weak involvement of industry and management levels of government). The revised BCLME operational structure, which eliminated National Inter-ministerial Committees and included all the sectors in the PSC (and BCC), clearly broadened national participation in the project and probably also enhanced the prospects for national mainstreaming, but this aim (if indeed it was one) was not explicit in the logical framework. In any event, no examples of such mainstreaming have been reported in project documents to date.

Project design

The BCLME project was designed according to a process typical of GEF IW projects and LME projects in particular, and was based on a combination of the TDA/SAP process and application of the 5 LME modules (productivity; fish and fisheries; pollution and ecosystem health, socio-economics and governance). The design process began with a regional stakeholder workshop in which GEF consultants presented the TDA/SAP process. As noted above, many stakeholders recall the meeting as a “defining moment” in the genesis of the BCLME project.

The July 1998 Cape Town meeting defined the main categories of trans-boundary environmental concern to the countries. The BCLME was unusual in identifying environmental variability as a trans-boundary concern reflecting the very dynamic and unpredictable nature of the BCLME.¹ The identification of variability as an issue in itself had fundamental implications for the entire project design. Other issue areas identified were fisheries, pollution/water quality and loss of habitat.

Following the first meeting, working groups made up of national experts and consultants were assigned the task of preparing thematic reports on trans-boundary issues that had been identified. For each issue area, the reports defined the trans-boundary environmental concern, identified immediate and underlying causes and then optimal solutions for addressing the underlying causes. A TDA workshop was then convened to prepare the TDA based on the thematic reports. This was already a “modern style” TDA process in that the clear focus was on trans-boundary concerns and the reports themselves were trans-boundary (TDAs in some earlier projects had begun with a series of country reports, thus resulting in confusion between national and trans-boundary issues). In the case of BCLME, the trans-boundary requirement was quite strictly applied, thereby excluding purely national concerns.

The TDA methodology of the BCLME was supported by academics and experts at the cutting edge of GEF IW project practice and corresponds closely with recently issued TDA/SAP training courses developed for IWLEARN. The TDA was a rigorous but not maximally detailed process which did not include all of the steps conducted in a full contemporary TDA process, such as cross cutting economic and governance analyses. The TDA therefore focused more on the direct causes of trans-boundary problems than, for example, on the more remote economic drivers to resource depletion, with the result that the proposed solutions were also centred in the scientific and resource management domains. The importance of economic analysis emerged later in a costs-benefits analysis done as part of a feasibility assessment of the future BCC, but the lesser focus on economics at the TDA stage may be one of several factors contributing to a relatively science-driven project.

In a subsequent step, a Strategic Action Plan (SAP) was elaborated to address trans-boundary issues based on the solutions suggested in the TDA. This was another defining moment in the BCLME process since the SAP contained many activities that could be described as “knowledge building”. This was unusual, since knowledge building is more commonly done as part of an extended TDA while the SAP is usually confined to concrete management actions to address the trans-boundary issues that have been analysed.

Another feature of the SAP which is recommended a good practice today but lacking in the BCLME SAP is the articulation of a clear vision statement and the definition of Ecosystem Quality Objectives (EcoQOs). The project has been criticised by some stakeholders for lacking a clear vision or end-goal (see Annex 2) and this can be traced back to the SAP itself. The lack of a vision statement and EcoQOs in the SAP may also have been a factor in imperfect country compliance with the SAP.

Capacity building was not broadly addressed in the TDA, SAP or project design processes. In the TDA, lack of capacity was specifically addressed only in relation to the capacity to assess and monitor environmental variability while noting that the need for capacity reinforcement was a “high, if not the highest priority for the region”. In the original project logical framework capacity building was listed under Output 3 (environmental variability) and then transferred to Output 1 in the revised logical framework. Despite this “promotion” the project has not generated a capacity building strategy document, although has produced a capacity needs assessment. The capacity needs assessment, with hindsight, is considered to have amounted to a wish list without strategic guidance and it was only at a

¹ It is of interest that in the preparation phase of the Canary Current LME, which like BCLME is an eastern boundary current upwelling system, stakeholders carefully considered and rejected the notion that variability was a trans-boundary concern for the countries of the region. This may be related to the greater predictability and the less severe consequences of ecosystem change within the CCLME.

late stage of project implementation that cooperation with BENEFIT led to the establishment of a training programme. The joint training programme has been beneficial but has necessitated departure from normal GEF policy (which normally disallows funding university training) and has been focused on training scientists rather than managers. The weaknesses in relation to capacity building can thus be traced back to the TDA and SAP.

A prominent feature of BCLME project implementation approach has been the large array of sub-projects intended to implement the SAP. This is unusual for GEF IW foundation projects which typically 1) focus on a full TDA/SAP process and 2) propose a relatively small number of concrete demonstration actions intended to achieve stress reduction on the ecosystem and demonstrate a way of doing trans-boundary business. Implementation of the SAP is then left to a subsequent investment or 'strategic partnership' phase. BCLME made no explicit use of this approach, and considered only two sub-projects (and these in hindsight) to be demonstration actions in the GEF IW sense – namely the "top predators" project demonstrating reduced by catch of sea birds and other top predators and the related FAO-executed demonstration project on EAF (Ecosystem Approach to Fisheries). Had the BCLME sub-projects been more explicitly conceived as demonstrations greater emphasis might have been placed on applying science to management, rather than on information collection.

A further unusual feature of the subproject approach is that the subprojects were defined in detail only after project inception, and are not specifically identified in the original or revised project logical framework. This poses a difficulty for project monitoring and evaluation since proper assessment of the achievement of the project indicators requires a full, synthetic knowledge of all the sub-projects and their linkages to outputs and indicators.

Recommendation – the project should complete the synthesis of all the sub-projects linking them to indicators in the logical framework. This would be best done by someone very familiar with the project, such as the former CTA. The same document would also be very useful for the BCC and the countries monitoring SAP implementation.

Stakeholders were asked what they thought of the project design process (see Annex 2) and their views may be summarised as follows:

- TDA/SAP process was transparent, rigorous and inspiring (if a little cumbersome)
- GEF restrictions on funding research were considered by some to be unhelpful
- LME modular framework was useful, although tended to fragment the holistic approach
- The project design was weighted towards fisheries, science and southern concerns
- The capacity building component of the project was inadequately designed
- Not enough consideration was given to obstacles to Angolan participation
- Fishing and mining industries were not sufficiently involved
- The process for designing and selecting sub-projects was not fully transparent

The stakeholder views confirm and compliment the independent assessment. The stakeholders' most strongly voiced concerns were the inadequate design of the capacity building component, the insufficient preparation for Angolan participation and the insufficient involvement of the fishing industry.

Project achievements

Main achievements in relation to expectations

Annex 1 summarises project achievements in relation to the stated objectives of the logical framework. The greatest achievements may be supposed to be those realised at the level of the indicators for development goal, project purpose and principal outputs, namely:

- Early Warning System (almost) in place
- Regional status of certain threatened species improved (sea birds, bronze whaler shark)
- Fisheries management objectives included in some MPAs
- Mining leases issued with pro-active environmental management plans
- Capacity to deal with ecosystem management increased
- Output 1 - Operational and effective coordination (including establishment of the BCC)
- Output 2 – Sustainable management and use of MLRs enhanced
- Output 3 – Environmental variability assessed and predictability improved
- Output 4 – Preliminary steps taken to maintain BCLME health
- Output 5 – donor participation and co-finance increased

Achievement of the main outputs, allowing for exclusion of unrealistic indicators and downward adjustment of those that were over-optimistic, was rated as ‘Satisfactory’ or ‘Highly Satisfactory’ (despite the existence of a few items rated as only ‘Moderately Satisfactory’).

Stakeholders were consulted for their views on the main achievements of the project (see Annex 2) which may be summarised as:

- Establishment of the BCC
- Establishment of regional cooperation and understanding
- Bringing Angola into a regional cooperative framework
- Enormous body of useful information collated
- Greatly improved understanding of the ecosystem
- Bridging the gap between science and management (in some sectors and countries)
- Substantial capacity improvement
- Early Environmental Warning System (EEWS) almost operational
- Achievements at the sub-project level (SEIS, regional conservation plan, top-predators project, bronze whaler conservation, progress towards EAF, identification of MPAs, mariculture policy and regulations etc.)

There is both overlap and distinction between the assessment of project achievements against the logical framework and the views of stakeholders. Stakeholders placed particular emphasis on qualitative achievements such as “improved regional cooperation and understanding”, “bringing Angola successfully into a regional arrangement” and on “greatly improved understanding of the ecosystem” than on specific indicators.

Attainment of goal, outcomes and outputs

[**Note:** A tabular summary of the status of objectives, outcomes and outputs is appended in Annex 1. The table serves as a supporting reference tool to the following text.]

Project Development Goal

The project development goal is formulated as:

“The ecological integrity of the BCLME is sustained through integrated trans-boundary ecosystem management.”

This is a bimodal goal linking desired ecosystem state (“the ecological integrity of the BCLME is sustained”) to a proposed response (“through integrated trans-boundary ecosystem management”).

Accordingly, the indicators for this goal contain a mix of long term environmental state indicators (e.g. reduction of alien invasive species, increased productivity and carrying capacity, regional status of threatened species improved), mostly not achievable in a single project cycle, a series of management response indicators (e.g. Early Warning System, fisheries management objectives in MPA plans, mining leases with environmental management plans) which are mostly achievable within a project cycle and one hybrid indicator (fisheries yields increased and diversified) containing a mix of the achievable and the unachievable.

The achievable indicators would have been more appropriately listed at the level of project outputs. The non-achievable indicators, some of which are in themselves of questionable validity (e.g. fisheries yields increased and diversified) are better suited to the level of development goal. The hybrid indicator (fisheries yield and composition increased and diversified) would have been better omitted (see analysis below).

The inconsistent use of indicators renders problematic evaluation of the goal in relation to the specific indicators, whereas qualitative assessment at the level of the development goal is possible and meaningful.

The evaluation concludes that undoubted progress has been made towards the project development goal while sustained ecological integrity and the actual implementation of integrated management will mostly only become measurable in subsequent phases. In particular, it is clear that, in response to the key questions for this evaluation posed above, the project has laid the foundations for sustaining the integrity of the BCLME through integrated trans-boundary ecosystem management.

While the project has had no or only minor impacts on the integrity of the ecosystem so far, substantial progress has been made towards establishing trans-boundary ecosystem management, even though actual management systems are not yet in place. Progress towards establishing management systems is more fully assessed at the level of project outputs.

The assessment in relation to the project goal and its indicators is “n/a” (projects are not rated in relation to project goal).

Assessment of specific indicators of the development goal

Reduction in presence, location, number of alien invasives

In the TDA, SAP and project document, alien invasive species were identified as a threat to ecological integrity of the BCLME, justifying the inclusion of this indicator. However, at the time, no baseline assessments had been conducted and the actual status or impact of alien invasive species on the BCLME was almost entirely unknown.

The proposed solutions were to coordinate with existing GEF initiatives in the region on ballast water and to collaborate with those projects on the development of a regional policy on ballast water and training. The specific activities of BCLME on this topic included developing a strategy for ballast water management activities in Angola (Project BEHP/SWB/08/01) and undertaking a regional assessment and management plan for port waste reception facilities in accordance with MARPOL. In addition, joint training sessions were held with the GISP project. Thus, steps have been made towards achievement of the indicator.

Baseline surveys (such as at Walvis Bay and Luanda bay) were not included as activities under BCLME since these were seen as national issues to do with local port authorities. Partly as a result, the

impacts of invasive species are still not well understood and a regional policy has not yet been developed. To continue the work, a small project is planned in the SAPIMP phase to develop port surveys which would assess the introduction of invasive species. The new GEF/IMO GLOBALLAST project on ballast water control is also expected to make considerable progress on the issue in the region. South Africa has already undertaken invasive species surveys at Saldanha Bay under tranche 1 of Globallast funding.

As noted, there has been no change in the presence, location or number of invasive species to date. However, this should not be considered a shortfall since 1) this is an indicator at the level of the development goal; 2) it was unrealistic to expect progress on the issue particularly because BCLME made no substantial investment to address the issue. The outputs achieved (Angola ballast water strategy, regional port facilities survey) may be considered as additional outputs to those listed in the logical framework.

Early warning system for monitoring outbreaks of harmful algal blooms (HAB) and associated mortalities

In contrast to alien invasive species, the development of an early warning system for HABs has been the focus of considerable investment in the BCLME project, and the subject of specific activities under Output 3 of the project (environmental variability). This is due to the important economic impact of HABs on seafood, aquaculture, local public health, water quality and coastal tourism.

This indicator implies an ecosystem-wide EWS as a component of the system for integrated trans-boundary ecosystem management. While not fully operational regionally, most of the elements of EWS for HABs are in place. The African Centre for Climate and Earth System Science (ACCESS) has adopted the work based on the EWS project of BCLME and plans a more comprehensive implementation of models related to predictability (HAB, LOW etc.). This commitment by the ACCESS project will help to ensure sustainability of the outcome achieved by the project.

In Namibia and South Africa national HAB monitoring systems are already in place. Four separate phytoplankton monitoring programs are in place in Angola, including a marine bio-toxins programme. Assuming the Angolan programmes can be networked to provide national HAB monitoring, the three national programs could then be linked up to provide a regional monitoring system for HABs.

The stakeholder survey identified “near-operational EWS” as one of the project’s main achievements, and found that improved knowledge of HABs resulting from the BCLME project would have major beneficial impact on mariculture development, especially in Namibia.

The assessment is that there has been some shortfall against project targets (and stakeholder expectations) although progress has been substantial and achievement of targets is very close and probably achievable during the first half of SAPIMP implementation. Every effort should therefore be made within the BCC and the SAPIMP project to complete the few missing elements.

Increase in productivity and carrying capacity

Similarly as with reduced alien invasive species, an increase in productivity and carrying capacity is an indicator of the long term development goal, and was clearly not attainable during the first project cycle. Indeed, there has been no reported change in productivity or carrying capacity of the BCLME; nor has any comprehensive baseline been established from which to measure productivity or carrying capacity.

Furthermore, based on the improved understanding of the ecosystem provided by the BCLME project, the utility of the indicator and the concept of “ecosystem integrity of the BCLME” must be questioned. The spectacular spatio-temporal variability of the BCLME demonstrated by the project highlights the difficulty of defining a single set of conditions that characterise the BCLME or measure

the ecosystem's "carrying capacity". In reality the BCLME might be more accurately portrayed as comprising two distinct ecosystem types (southern sub-tropical upwelling system, northern tropical warm water system) and the zone of interaction between them, whose carrying capacity responds in a complex manner to local and remote forcing.

For the purposes of the evaluation, the indicator may be criticised in hindsight for lack of relevance while the project may be commended for advances made in scientific understanding permitting refinement of the original indicators useful for the BCC and other LME projects.

A minor criticism is that the BCLME project should have done more during its implementation to examine the issue of ecosystem-state indicators in order to pass on to the BCC a set of parameters (with initial baseline values) best describing the state of the BCLME and its sub-regions. Much of the information necessary for this exercise has been gathered but this has not yet been synthesised into a set of ecosystem state indicators. A number of factors may be related to this slight shortfall:

- During SAP formulation, the project did not benefit from subsequent GEF IW guidance on the utility of formulating "ecosystem quality objectives" (EcoQOs);
- During project formulation, the project did not benefit from the subsequently issued GEF IW standard results template which stipulates the development of a "regional ecosystem monitoring system" (Standard GEF IW outcomes, indicator no. 8)
- The project did not achieve the intended objective of having annual "state of BCLME ecosystem reports" (Output 2 Indicator 1) (it did, however, achieve the first of a series of "state of shared commercial fish stocks" reports)
- While the SEIS is in place, this does not yet fully provide the intended "environmental baseline against which all future changes will be measured" (Output 3 Indicator 3, evaluated in more detail below).

Recommendation - It is recommended, if possible with remaining time and funds, to convene a meeting of BCLME experts to define a provisional set of ecosystem state indicators for the BCLME, as a legacy to pass on to the BCC to test and refine over the coming years.

Regional status of threatened species improved

While an indicator of the long term development goal, and therefore not necessarily achievable in the first phase, the BCLME project can already claim some improvement in the status of threatened species during the project, notably for birds affected by industrial long line fishing and the bronze whaler shark. The improvement for sea birds is limited to the areas frequented by the South African industrial fleet, which has installed seabird scarers. The status of the bronze whaler shark has improved in Namibia and southern Angola as a result of game fishermen voluntarily adopting catch and release.

In addition to the above status improvements, the project has improved prospects for sharks in the ICCAT region through a well-received presentation to ICCAT. The announcement by Namibia that bird scarers will be made obligatory for Namibian longline improves the prospects for seabirds (petrels, albatrosses) in Namibian waters at least. Experts consider that major reductions in sea bird mortality will be achieved once these measures are in place.

While hope for sharks in general has improved since the presentation made to ICCAT, no means have been identified as yet for reducing the mortality of pelagic sharks in industrial longline fisheries – this remains a global as well as regional problem to be addressed by BCC.

Stakeholders in general did not expect significant impact on threatened species during the project but were very satisfied with the outcomes in relation to seabirds and the bronze whaler shark.

The key question to be asked is whether the progress on threatened species has been enough to contribute to the foundations for sustaining integrity of the BCLME. With the status of two species groups already improved, the answer is “yes”.

Fisheries management objectives included in marine protected areas by 2007

As an indicator of the development goal, the integration of fisheries management into MPAs was apparently seen by the project designers as a major element of “integrated trans-boundary ecosystem management” but also as achievable within a single project cycle.

In practice, fisheries management objectives have not yet been systematically included in marine protected areas in the BCLME, but awareness for the need of such measures has clearly been established and specific steps in this direction have been taken for certain MPAs in South Africa, Namibia and Angola. Progress has perhaps been most significant in Namibia where a recent submission has been made to the Minister of Fisheries and to Cabinet for approval to declare MPAs around all the Namibian offshore islands in 2008, confirming a clear link between fisheries management and conservation. Angola has also taken the significant step of planning the extension of one trans-boundary area to include an MPA offshore.

Stakeholders did not refer to integration of fisheries management into MPA management plans among the major achievements of the project, although there were many indications suggesting that the need for such integration was now well understood.

The assessment is that the project has not fully achieved but has made significant progress towards this indicator of the project development goal. The prognosis is for gradual but generalised assimilation of fisheries management into MPAs. Thus, probability of full attainment in the next few years is high.

Yields of fish and its composition in the Benguela increased and diversified

Prima facie, increased yield and diversity of catch composition are indicators of a healthy productive ecosystem and good stewardship (spreading extractive fishing effort across and between trophic levels or spatially within the ecosystem). However, improved scientific understanding and experience gained during the project show that increased yields and diversified catch composition are not necessarily indicators of improved ecosystem integrity or of effective integrated trans-boundary management.

During the project yields of certain small pelagic fish have increased and then declined dramatically (sardines and anchovies), while demersal species (notably hake) have continued to decline. Neither trend is a consequence of the BCLME programme. There has been some increased diversity in catch composition in Namibia, but this has been due to a national experimental licensing policy allowing industrial trawl fisheries to diversify to other species to compensate for the declining hake catch. What is more, demersal sharks were among the replacement species targeted, for which fisheries are notoriously unsustainable.

Most stakeholders did not expect improvements in yields or an increase in catch composition during the life of the project, although a few expressed disappointment that there had been no improvement in the management of hake stocks. Some considered the identification of future MPAs to be a significant achievement and by implication of ultimate benefit to maintenance of the ecosystem.

The conclusion, with the benefit of hindsight, is that the indicator is unsuitable as a measure of ecosystem integrity or of integrated management, or as a basis for evaluating the project. The conclusion highlights the need to develop a package of ecosystem state indicators.

Mining leases issued with pro-active environmental management plans by 2007.

Marine mining, particularly diamond dredging, was highlighted in the TDA, SAP as a potentially important threat to integrity of the BCLME ecosystem. The choice of this indicator confirms the importance attached by the project designers to the mitigation of the impacts of mining through the use of environmental management plans (EMPs) attached to mining leases.

The BCLME project undertook several activities to achieve this result:

- An evaluation of the cumulative effects of sediment discharge from on-shore and offshore diamond mining on the marine environment.
- Preparation of guidelines for responsible mining practices.

The evaluation found that mining impacts were actually quite localised and that habitat recovery was relatively rapid (Project BEHP/CEA/03/03), providing for the first time a sound scientific basis for improved management of mining impacts.

The results of these activities have been as follows:

- Improved planning of marine mining permitting in Namibia so as to reduce impacts
- Appraisal of sea bed mining guidelines (PCU/RSM/07/01) and subsequent validation
- Use of responsible mining guidelines by marine mining companies in Namibia
- Issue of mining leases in Namibia with environmental management plans
- Changes in mining regulations and management in Angola

An additional reported effect of the BCLME project has been to accelerate adoption in Namibia of the Environmental Management Act 2008 which includes provisions relating to mining requiring environmental management plans in mining leases. In addition, marine protected areas have been declared in Namibia around islands many which fall within existing mining leases. This may be considered to have ‘environmentalised’ the affected leases.

Several stakeholders mentioned the importance of the studies on the impacts of marine mining to improved environmental management of marine mining, and some comfort that the recovery of the sea bed after mining activities was relatively rapid.

Based in the above, the indicator has been fulfilled, fully in Namibia and partially in Angola. To date, there has been no reported change to mining practices in South Africa, which may be related to difficulties securing the participation of the South African mining ministry in the BCLME project, for reasons beyond the influence of the project.

The prognosis is that EMPs will become systematically adopted in Angola over the next few years, whereas it remains unclear whether EMPs will be included in mining leases in South Africa. The recommendation is that efforts be continued to bring about complete adoption of EMPs in mining leases in Angola and that renewed efforts be made to encourage South Africa to adopt similar measures.

Findings in relation to progress towards the project development goal

Undoubted progress has been made towards the project development goal. Measurable progress has already been achieved in relation to the following highest level indicators:

- Early warning system (EWS) for monitoring outbreaks of harmful algal blooms (HABs)
- Improved status of seabirds and the bronze whaler shark
- Including fisheries management objectives in marine protected areas in Namibia and Angola
- Incorporating environmental management plans in mining leases

In relation to the remaining high level indicators, some progress has been made in relation to 1) reducing alien species (training course) and 2) fisheries management objectives included in marine protected areas by 2007. As regards the remaining high level indicator (increase in productivity and carrying capacity), knowledge and experience gained by the project has shown that indicator is not a reliable measure of improved ecosystem integrity or integrated management.

Most stakeholders considered that the project had been very successful and that major progress towards the development goal had been made. Progress towards EWS, conservation of threatened species and an environmental approach to mining had been particularly important achievements.

As proposed at the start of this report, the key question to ask is: Has the project laid the foundations for sustaining the integrity of the BCLME through integrated trans-boundary ecosystem management? As a fuller analysis of project purpose and outputs will show below, the answer is undoubtedly “yes”.

Rating on project goal: n/a (progress towards project goal is not rated at this stage)

Project Purpose (outcomes level)

The project purpose in the revised logical framework is formulated as:

“Participating countries and their institutions sharing the BCLME have the understanding & capacity to utilise a more comprehensive ecosystem approach and to implement sustainable measures to address collaboratively trans-boundary ecosystem related environmental concerns”.

It is instructive to consider the project purpose in the original logical framework which comprised three elements:

- Assist countries to better understand environmental concerns of shared international waters and collaboratively address them
- Build capacity of existing institutions or through newly created institutions to utilise a more comprehensive approach for addressing trans-boundary, water related concerns
- Implement sustainable measures that address priority trans-boundary environmental concerns

The revised project purpose excludes the actual *implementation* of sustainable measures that address priority trans-boundary, water related concerns, reflecting more accurately the contents of the SAP, which placed an emphasis on knowledge gathering, capacity building and policy actions, and the project document itself, which did not specify ‘implementation’ measures in the usual sense (e.g. implementation of trans-boundary stock management plans).

The striking difference between the BCLME and more recent model for GEF IW projects is the omission of *demonstration actions* delivering stress reduction measures in relation to trans-boundary issues. In practice, two of the subprojects delivered stress reduction outcomes – 1) the bronze whaler shark project and 2) the top predators project promoting the use of bird scarers on industrial fishing vessels while, according to the CTA, the EAF project was considered to be the principal *demonstration* project of BCLME in the GEF IW sense.

The project purpose is the desired scenario that the project sought to achieve. The reasoning of the project, derived from the TDA and SAP, and also advocated by GEF IW, is that improved *understanding* and *capacity* underpin all progress towards the development goal of improved ecosystem state through integrated management.

Stakeholders were virtually unanimous that very substantial progress had been made in understanding of the ecosystem and that capacity impacts had also been substantial, implying a view that the project purpose had been very well achieved.

The evaluation concludes that the project purpose has been substantially achieved (rating HS overall). In particular, the countries' understanding has been much developed while capacity has also been increased. The extent of capacity development will become clearer when the implementation of sustainable management measures begins.

Rating (project purpose): HS

Assessment of specific outcome indicators of the project purpose

The project purpose refers to increased understanding and capacity to use a more comprehensive ecosystem approach and take actions to address trans-boundary concerns. Several of the project indicators do not reflect very well the project purpose, were unrealistic in hindsight (e.g. legal harmonisation) or repetitive (two similar indicators on capacity for ecosystem-based management). Verifiable indicators of increased “understanding” and “capacity” are notably lacking. Proper assessment of achievement of the project purpose requires consideration of the project as a whole.

Harmonisation of national legal and regulatory frameworks at regional level by 2007

The harmonisation of national legal frameworks at the regional level has proven to be an unrealistic target. While harmonisation of policy objectives has definitely occurred, this has not led to revision of national texts. In the case of oil spill contingency legislation, harmonisation has proven impossible, at least for Angola (because of differing legal systems) but cooperation agreements have been successfully developed. In the case of regulations for aquaculture, this has also proved very complicated to harmonise, although again some general policy harmonisation is possible.

Most stakeholders did not highlight harmonisation of legal and regulatory frameworks as a major achievement of the project. At least one commented it was unrealistic while much progress had been made towards policy harmonisation.

To conclude, harmonisation of legal frameworks was an unrealistic objective and should be revised down to the level of policy harmonisation and cooperation agreements, for which the project has been successful. The prognosis is for increased cooperation and gradual convergence of policy during SAPIMP and beyond.

Rating: S

Coordinated enforcement of agreed regulatory instruments by 2007

This indicator follows from the previous indicator and pre-supposes the prior agreement on regulatory instruments. While no such regulatory instruments have been agreed, there has been shift towards coordinated enforcement, notably in the area of MCS (fisheries surveillance) through intergovernmental agreements (Namibia-Angola; Namibia-South Africa). Once again, the indicator does not provide a direct measure of the achievement of project purpose.

Stakeholders did not highlight coordinated enforcement as a particular achievement of the project. However, the regional cooperation agreement on oil spills was considered a success.

The assessment is that there has been satisfactory progress towards coordinated enforcement of regulatory instruments.

Rating: S

Implementation of SADC fisheries protocol by 2007

The SADC fisheries protocol provides a blue-print for implementing responsible fisheries in the SADC region. In practice, the protocol is already embedded in the national fisheries legislation of the BCLME countries. However, the SADC has during the period of the project lacked personnel to promote application of the protocol. Improvement can nonetheless be expected during SAPIMP.

Stakeholders did not highlight the importance of the SADC protocol but some commented on the weakness of SADC during the life of the project.

The assessment is that the indicator is not a direct measure of achievement of project purpose and that the target was not of particular importance and should not affect the overall result of the evaluation.

Rating: n/a

Capacity to deal with ecosystem management by 2007

While this indicator does at least address directly project purpose, it is very imprecise and not objectively verifiable. The BCLME project has, however, improved capacity for ecosystem management in numerous respects. In the first place, the greatly improved understanding generated by the project is the foundation for ecosystem management and has thus improved capacity to “deal with ecosystem management”. In addition to improved understanding, some actions of the project have directly addressed management capacity, including the EAF demonstration project, resulting in a series of EAF-based fisheries management plans in Namibia.

A concern expressed by many observers is the loss of skilled staff from fisheries departments to the private sector. This has been particularly acute in Namibia. One stakeholder went so far as to say that capacity for ecosystem management was actually less at the end of the BCLME project than at the beginning. However, this ignores the clearly improved capacity of those remaining who will be able to impart that capacity to newly recruited staff. Thus, the legacy of improved capacity to deal with ecosystem management is at risk but not entirely lost.

In Namibia, MFMR is in the process of recruiting biologists into vacancies and some will be dedicated to EAF work. One senior scientist is already fully dedicated towards developing the ecosystem work.

In general, stakeholders were highly satisfied with the achievements of the project in developing capacity for ecosystem-based management although there were concerns that the bridge between science and management had not been fully bridged.

The assessment is that, while the indicator has not been a fully achieved as intended, the project has had lasting impact and continued improvement can be expected during the phase of SAPIMP implementation.

Rating: S

Introduction of an ecosystem approach for at least 2 species by 2007

This is a more precise and meaningful indicator although does not specify, as would have been expected, that the ecosystem approach was applied by two or more countries to a trans-boundary species.

To date, the main examples of introducing an ecosystem approach are in Namibia, which introduced a wave of new ecosystem-based management plans for commercial species towards the end of 2007. The ecosystem approach has not yet been introduced in either Angola or South Africa. South Africa is however progressing towards ecosystem-based plans for hake. To date, no species is subject to a truly regional, ecosystem-based, plan.

Stakeholders generally considered that substantial progress had been made towards introduction of an ecosystem approach, some highlighting the EAF project as especially promising.

The assessment is that the ecosystem approach has clearly been introduced to at least two species in Namibia, with significant progress for one species in South Africa, but no regional-level plans as yet.

Rating: HS

Overall assessment of project purpose

Consideration of the above indicators has not been particularly helpful as a means for assessing achievement of the project purpose. The stakeholder survey, based on perceptions rather than indicators has, however, been emphatic that the countries undoubtedly possess strongly increased understanding to use a more comprehensive ecosystem approach and also some of the capacity to implement sustainable measures to address trans-boundary concerns. The prognosis is that capacity to manage according to a more comprehensive approach will continue to develop during the SAPIMP phase.

Stakeholders considered that progress towards understanding and capacity for ecosystem management had been substantial, particularly as regards understanding, and that this provided the basis to move forward.

As proposed above, the key question to ask is: Do the participating countries have the understanding and capacity to use a more comprehensive ecosystem approach and to implement sustainable measures to address collaboratively trans-boundary ecosystem related environmental concerns? The answer is certainly “yes”.

Rating (project purpose): HS

Assessment of other project outcomes implied in project document

The relative weakness of the indicators identified in relation to project purpose is justification for the search for other, more telling, indicators within the project document. However, the project will not be rated on these additional, non-specified indicators.

Updated SAP

There are several references in the project document to updating the SAP, although this was not included in the original or revised logical frameworks. Such an outcome would have been appropriate given the preliminary nature of the existing SAP which, as a result of project achievements, is in need of updating. Updating the SAP would also have addressed the criticism from some quarters that the SAP and BCLME programme lacked a clear overall vision. Nevertheless, some steps towards updating the SAP are in place:

- The new support project to BCC (SAPIMP) has been defined, approved, financed and is about to be initiated
- A new science plan for the BCC has been prepared, approved and financed

Ideally, the SAP would have been updated towards the end of the project, as a means for developing a clear vision of the countries for the next phase. It is recognised, however, that project personnel were fully committed in delivering on the ambitious programme of sub-projects and that updating the SAP would have been impossible without additional investment in personnel within the project and within the governments.

Stakeholders did not expect the SAP to be updated during the project. While most were highly satisfied with the SAP process, some did consider that the SAP did not provide enough of a vision and, by implication, that it needed strengthening.

It is strongly recommended that the SAP should be updated within the early part of SAPIMP, incorporating the approved BCC Science Plan and additional inputs from workshops.

Rating: n/a

Development of real-time management capability to sustain & use MLRs

The pledge in the project document to develop real-time management capability to sustain and use MLRs is a clear expression of intent but which does not appear in the logical framework. It implies that managers will possess the necessary real-time information (through web-based ecosystem monitoring systems developed under Output 3) and the capacity (under Output 2) to manage MLRs in a continuous and adaptive manner. It links Output 2 to Output 3 and captures a modern vision of science-based management.

Stakeholders expected the basis for real-time management to be developed but that actual management would not be achieved within the first project cycle. They expressed satisfaction with the progress that had been made.

The assessment is that considerable progress has been made towards developing real-time management capacity to sustain and use MLRs. The foundation of understanding is in place, with specific data available for most commercial stocks. The first “State of Trans-boundary Fish Stocks” report has been issued and comprehensive data sets on key species including marine mammals have been incorporated into the SEIS metadata base.

Rating: n/a

Improved ecosystem forecasting

Another pledge in the project document was for improved ecosystem forecasting. Significant progress has been made in numerous respects, but project personnel and stakeholders were agreed that full forecasting is not yet in place.

At the level of productivity, there is already some capability to forecast primary productivity changes in the BCLME. Major advances have been achieved in insights about ecosystem function and change. The following expert view is illustrative:

“The LOW project discovered (for the Namibian system) two long term trends consistent with global warming: 1) a 16 year increase in the lag between seasonal warming at Cape Frio and the following upwelling peak at the Luderitz upwelling cell and 2) 23 year warming at the Angola-Beguella Front (ABF). Both contribute to the intensification of seasonal hypoxia (LOWs). If there is a decline of wind stress at Luderitz, scientists predict long-term decline in ecosystem functions supporting fisheries. This would mark the end of the highly productive BCLME ecosystem as we know it. Monitoring must continue as part of EEWS.”

Considerable investment was also made in developing satellite remote sensing products for use in forecasting and real-time monitoring.

Most stakeholders expected that improved forecasting of the ecosystem would be achieved during project lifetime, and were very satisfied with the progress that had been made.

The foundations have been laid and it is therefore now for the BCC through SAPIMP and the new science programme to capitalise on these achievements to achieve full ecosystem forecasting in the next few years.

Rating: n/a

Policy harmonisation in BCLME countries

As noted above, the original target of harmonised legislation proved to be unrealistic, and that policy harmonisation would have been a more appropriate target. Harmonisation at the policy level is specifically mentioned in the project document and was an implied objective.

The extent of policy harmonisation between BCLME countries is complex to assess. Stakeholders noted that the BCLME has influenced the development of fisheries legislation in Angola and environmental legislation in Namibia, indicating underlying policy convergence. The establishment of the BCC provides the framework for ongoing policy harmonisation. The suite of socio-economic sub-projects undertaken by BCLME contain many recommendations for policy harmonisation, and are a resource to be capitalised during the SAPIMP phase. To conclude, BCLME clearly deserves credit for its impact on policy harmonisation, even though not covered by indicators in the logical framework.

Rating: n/a

Regional integrated environmental plans

A further project purpose level outcome implied by the project document was the development of regional environmental management plans. It has been noted that the BCLME has not yet reached the stage of regional fisheries management plans, but BCLME has got closer to a regional plan for biodiversity conservation, with a draft plan close to completion and to be completed by the BCC. The original idea for regional oil pollution contingency plans was not pursued, but a regional cooperation plan on oil pollution is at an advanced stage.

Stakeholders were generally satisfied with progress to regional management but acknowledged that not concrete examples were yet in place.

The assessment is that there has been satisfactory progress towards regional integrated environmental plans.

Rating: n/a

Assessment of GEF IW standard outcomes

The BCLME project has been a trail-blazer among LME projects and has been responsible for various innovations in LME projects, including the development of the world's first large marine ecosystem commission (the BCC), use of a multi-sector project steering committee, establishment of "activity centres" in participating countries, identifying ecosystem variability as a trans-boundary issue, developing an early warning system (EWS) for harmful ecosystem events (HABs, LOWs), aiming for "state of the ecosystem" reporting and promoting marine aquaculture as a means of addressing trans-boundary concerns. BCLME has undoubtedly helped to advance the art of large scale ecosystem management projects but it did not use all the best practices now considered beneficial in GEF IW projects in general, and LME projects in particular. It is therefore instructive to evaluate BCLME in relation to the most recent set of GEF IW project standard outcome indicators (issued in 2006), which are:

- National inter-ministry coordination

- Multi-country agreement on regional legal mechanism for waterbody
- National legislation or policy reformed to address trans-boundary problems
- Broad stakeholder involvement in priority setting and strategic planning
- Newly established or strengthened trans-boundary waters institutions
- Financial and institutional sustainability of joint trans-boundary waters institutions
- Trans-boundary concerns mainstreamed into country assistance programs
- Regional environmental monitoring mechanism established
- Financial mechanisms in place to support SAP implementation

Questions of particular interest include:

- Is there effective inter-ministry coordination? - this question is of interest because BCLME did not set up National Inter-ministerial Committees as such but instead integrated the concerned ministries in the PSC (and of course the BCC)
- Is there multi-country agreement on regional legal mechanisms for the waterbody? (this question is an opportunity to examine how far the BCC really goes as an agreement on “regional legal mechanisms”)
- Has there been broad stakeholder involvement in priority setting and planning? (this is of interest because of comments that the project was biased towards fisheries and science, that the fishing industry and coastal stakeholders were not sufficiently involved etc.)
- Are trans-boundary concerns mainstreamed into national assistance programs? (this will help to gauge the true level of national commitment to trans-boundary concerns)
- Are financial mechanisms in place to support SAP implementation? (while the BCC is in place and the project has been successful in leveraging additional GEF and bilateral finance, the question remains whether mechanisms are in place to sustain sufficient cash flow).

It should be emphasised, however, that while “shadow ratings” are given, the following exercise do not influence the “ratings” assigned to the BCLME in this final evaluation. The exercise serves only to appraise the BCLME in relation to the most recent guidelines.

Overall shadow rating (GEF IW standard indicators): S

National inter-ministry coordination

GEF IW project experience has confirmed the importance of coordination between sectors to achieve the integrated ecosystem approach. BCLME has been innovative in this respect by building this integration into the project steering committee (PSC) and the BCC, rather than relying upon single representatives from each country to secure such integration “second hand” at the national level through National Inter-ministerial Committees (NICs), the more usual approach advocated by the GEF IW guidelines. While integration at the highest level has undoubtedly been effective for BCLME, it must be recognised that the small number of countries in the BCLME and the ample funding enjoyed by the project made this possible. However, it also needs to be noted that the lack of NICs at the national level may deprive countries of the opportunity of discussing issues between themselves outside a regional forum where they may feel themselves less free to express their national interests in a unified manner. No such concern was expressed by BCLME stakeholders, most of whom considered that national-level integration had been promoted by the project.

While NICs were not established by BCLME, certain NICs exist independently which have benefited from the influence of BCLME, including national committees on ICZM and marine pollution in Angola and inter-ministerial committees on aquaculture and marine biodiversity (NACOMA) in Namibia. Both Namibia and South Africa have various other inter-ministerial committees concerned with marine ecosystems benefiting more or less from BCLME influence.

Stakeholders generally considered that BCLME had had a major beneficial impact on inter-ministry coordination.

The assessment is that BCLME has been very effective in promoting inter-ministry coordination, with the slight word of caution that the BCLME approach may not be optimal or feasible for all other LMEs.

Shadow Rating: HS

Multi-country agreement on regional legal mechanism for water body

All GEF IW projects aim to achieve multi-country agreement on a regional legal mechanism for the water body. BCLME was exceptional in achieving such agreement during the PDF-B phase, as part of the SAP. BCLME was innovative in identifying the creation of a Large Marine Ecosystem Commission for this purpose and continued to innovate by conducting institutional studies and cost-benefit analysis of the alternative options against having no such structure. The conclusion was that the benefits of such a commission would far outweigh the costs. Originally the plan had been to create an Interim BCC, backed up by a full treaty, but this was later abandoned for a more step-wise process in which an interim agreement was negotiated between the countries with the view to creating a full commission at a later stage during a second phase of intervention by the GEF SAPIMP Project.

While the result is an *agreement to create* a full commission, rather than a fully constituted commission with legal personality and status as an international body, it has enabled the “commission’s” establishment to go forward rapidly and smoothly to the stage of recruiting personnel and beginning its operations. Legal analysis suggests that the agreement to create the commission, signed by the relevant ministers, does indeed constitute a treaty between the countries under the principles of international law while the BCC’s lack of legal personality provides some administrative challenges (e.g. it cannot enter in contracts or own property).

The BCC’s creation has nevertheless been a major achievement. The first Ministerial Conference of BCC was held in July 2007 followed by the 1st Management Board meeting. A second meeting of Management Board was held in Cape Town in August 2007 and rules of procedure were adopted. The Science Plan for 2008-2011 was subsequently adopted in early 2008 and the BCC has recently completed recruitment of the Executive Secretary and Ecosystem Coordinator. Thus, whatever its precise legal status, the BCC is real enough and clearly accepted by the countries as being in existence.

Stakeholders were mostly very satisfied with the creation of the BCC, considering it the project’s most important achievement.

The assessment is that BCLME project has fully satisfied and exceeded this GEF IW indicator.

Shadow Rating: HS

National legislation or policy reformed to address trans-boundary problems

The GEF IW indicators require countries to go beyond mere agreement on trans-boundary problems, but to take the additional step of legislating at the national level to address trans-boundary problems.

BCLME has achieved this to some extent. While there is no national legislation specifically linked to the trans-boundary issues identified in the TDA and SAP processes, some countries have taken account of trans-boundary concerns in their legislation, notably Namibia (fisheries legislation specifically addresses trans-boundary issues e.g. pilchard and horse mackerel) and Angola (the new fisheries law integrates the ecosystem approach and the need to consider the trans-boundary effect of fishing activities). Finally, the BCC was approved by the three national governments at cabinet level

and is now mandated specifically to address trans-boundary issues. This could be considered as a reform of national policy to address issues at a trans-boundary level.

Stakeholders did not have particular expectations of changes in national legislation to address trans-boundary issues, evidently placing actual cooperation before any legislative changes.

The assessment is that promising progress has been made in the reform of national legislation but that this is not an indicator of major importance and therefore should not have a major impact on the overall evaluation.

Shadow Rating: S

Broad stakeholder involvement in priority setting and strategic planning

At the TDA-SAP stage, the GEF IW mission to visit the BCLME project in 2000 reported that stakeholder involvement and buy in had been strong at the multi-country and inter-ministerial national governmental levels but that sub-national and community mobilisation had not been strong.

The BCLME project document identified as “key stakeholders” the countries and the ministries concerned in each country with the identified trans-boundary issues – environment, marine resources, mines, energy, tourism, science, technology and transport, representatives of industry sectors (fisheries (including artisanal fishing), education (universities, research establishments).

In response to concerns about community mobilisation, the BCLME project developed subprojects to address the issue of coastal community mobilisation including baseline surveys of coastal populations in all three countries and assessments of how coastal communities can become involved in and benefit from the BCLME programme. The BCLME also partnered with the DLIST project which developed distant learning and information sharing opportunities for coastal communities of the BCLME through a series of nodes along the coast.

The mid-term evaluation confirmed the high *quality* of stakeholder participation in BCLME project design and implementation (which this evaluation and the stakeholder survey confirm), but suggested that participation of management levels and of the private sector industries had been less evident.

Even though industry representatives were less often represented, some senior members of industry still followed and supported the BCLME initiative, as shown by the following quotes from a BCLME published brochure:

- *“The fishing industry is supportive of the BCLME Programme’s objectives of facilitating the sustainable and integrated management of resources across the Benguela region”....Sylvanus Kathindi, Chairperson of the Namibian Hake Association*
- *“The pelagic fishing industry has embraced the BCLME Programme’s ecosystem approach to fisheries management project and they agree with its objectives” – Awie Badenhorst, Scientific Advisor to South African pelagic fisheries association.*
- *“As the major diamond miner in Namibia, Namdeb fully supports the BCLME projects. They will enhance our understanding of the environmental issues and associated management actions that are required to secure a sustainable future for Namibia” – Rob Smart, general manager, Namdeb.*
- *“Chevron Texaco Southern African Strategic Business Unit, headquarters in Luanda, Angola is very supportive of the efforts being made by the BCLME Programme and hopes to continue working with the BCLME for the protection of the Benguela Current Ecosystem” – Manuel Graças de Deus, Manager, Health, Environment and Safety- Chevron Texaco.*

Against this, it should be observed that a senior representative of the Namibian fishing industry, and already involved in the Marine Stewardship Council (MSC), stated at the final BCLME-BENEFIT

symposium that he had not personally been aware of the BCLME initiative, suggesting that industry participation was patchy.

As regards implication of the management level, it should be borne in mind that the BCLME project did not aim at developing management *per se*, but it was primarily designed by marine scientists and managers to improve the knowledge base of fisheries and oceanographic science so that resources could be managed sustainably. The formation of the Benguela Current Commission was the primary governance goal and much of the implementation of findings were to be carried forward into a second phase.

The EAF and top-predators projects (which were completed after the MTE) included consultations with industry who participated in the stakeholders' workshops in each of the three countries. These projects had high levels of funding and much training was also accomplished. Resource managers were involved in these projects which were strongly backed by the government institutions. Industry could have been involved more but they were sceptical about the new approach.

In developing the BCC, the BCLME project has sought to further reinforce the breadth and depth of stakeholder participation through the following:

- Industry (fishing, mining, oil and gas) participates on the advisory council of BCC;
- The follow-on SAPIMP project has been developed with a focus on management and governance;
- In Namibia, the fishing industry is now involved in strategic planning through a MFMR forum and serves on the Fisheries Advisory Council of the MFMR.

The assessment is that broad stakeholder involvement in priority setting and strategic planning has been highly satisfactory.

Shadow Rating: HS

Newly established or strengthened trans-boundary waters institutions

The GEF IW indicators require either the creation of new, or the strengthening of existing, trans-boundary waters institutions. There is an overlap between this indicator and the indicator "Multi-country agreement on regional legal mechanism for water body" already considered above.

The BCLME project decided at an early stage that the appropriate institution would be a large marine ecosystem commission, to be known as the Benguela Current Commission (BCC), initially to be established as an Interim BCC. While GEF IW encourages the strengthening of existing institutions where possible, the BCLME region lacked existing trans-boundary waters institutions, the SEAFO being limited to the high seas. Therefore, the decision to create a new institution appears fully justified.

As the project proceeded, the target was modified to the establishment of "an interim agreement to create the Benguela Current Commission" instead of the legal creation of the IBCC. On one interpretation this was a considerable downscaling of the target to a mere agreement, itself interim in nature, to create a commission, which committed the countries no further than the original SAP. On another interpretation, however, the interim agreement was signed by seven ministers from the three countries representing fisheries, mining, petroleum and environment and was a strong affirmation of the countries' intent to proceed to a full commission without an interim stage. The latter interpretation is borne out by the physical reality of a BCC which now has both premises and staff, and which has already conducted a ministerial conference and two management board meetings.

However, it must be noted that the "shadow-BCC" as it might be described, has only advisory and no executive powers, and no legal personality. Some might argue that it is not an "institution" in the sense

of the GEF IW term. On the positive side, the legal expert assisting the project considered that the BCC agreement is a true “treaty” under international law and that the countries are legally bound to create a “true commission” which to all intents and purposes is already in existence, again borne out by the steps that have already been taken:

The assessment is that the BCC is indeed a newly-established trans-boundary waters institution, with the caveat that its status needs to be rendered fully legal, while its effectiveness and influence remain to be tested.

Shadow Rating: S

Financial and institutional sustainability of joint trans-boundary waters institutions

The GEF IW indicators require that the new or reinforced trans-boundary waters institutions should be financially and institutionally sustainable.

This requirement must be qualified by the assessment of the preceding indicator – we are dealing with a provisional institution that remains to be perfected. Be that as it may, steps towards financial and institutional sustainability have been taken, including the following:

- The countries have entered into a legally binding treaty to establish the BCC
- The BCC is already functioning as an institution, complete with premises, staff, science plan, science committee and established advisory groups
- The financial needs of the BCC have been secured for the coming 5 years through a combination of GEF funding, donor support and partnerships and country contributions
- In addition, other donors have agreed to support financing of the BCC science plan
- The SAPIMP project aims to strengthen institutional capacity and develop the legal basis of the BCC as well as to implement a comprehensive training plan originally started by BCLME and BENEFIT.

Stakeholders generally did not expect full financial sustainability in the first project cycle and were satisfied with the interim institutional and financial status of the BCC. They were concerned, however, about the brain drain as a threat to sustainability and that this could apply to the BCC as well as to national institutions.

The assessment is that the institutional and financial sustainability of the BCC is secured for the coming 5 years, with a reasonable expectation that country contributions will continue thereafter. The full test will come at the end of the SAPIMP project after which the BCC will need to be fully sustainable. Overall, the result is considered highly satisfactory.

Shadow Rating: HS

Trans-boundary concerns mainstreamed into country assistance programs

This GEF IW indicator is intended to test whether countries are giving commitment and priority to addressing trans-boundary concerns of the larger ecosystem, for example by requesting support from their own development partners to address trans-boundary issues, independently of regional-level donors such as GEF.

Since the countries of the BCLME have already been successful in securing finance for the follow-on SAPIMP project and the science programme of the BCC, they have not been under particular pressure to identify country-level sources of financing at this stage. Their own contributions to the BCC in cash and kind are thus the best indicator of their commitment at this stage.

Project personnel have observed that the *Nansen* programme has mainstreamed trans-boundary concerns at the national as well as regional levels, constituting a first example of mainstreaming into country assistance programs. As an example, the pilchard (sardine) survey extended into the Angolan area. South Africa and Namibia research trans-boundary hake stocks in cross-boarder activities. This interpretation should be tempered by the observation that the *Nansen* is essentially a trans-boundary programme, even though it also delivers support through national bilateral agreements with individual countries.

Perhaps the greatest stimulus for mainstreaming trans-boundary issues into national assistance programs is the establishment of the BCC, which will begin to identify specific investment needs at the national level to address trans-boundary issues. We can thus expect to see mainstreaming to develop during the next few years.

The assessment is that there has been little mainstreaming of trans-boundary concerns into country assistance programs but that this can be expected to develop over the next few years. This is a satisfactory result given that BCC has only just been established.

Shadow Rating: S

Regional environmental monitoring mechanism established

This GEF IW indicator expects an ecosystem-wide monitoring mechanism to be in place by project end, although is unspecific as to its nature. The establishment of a monitoring system implies both technical development of the system and the necessary institutional framework to support it. Either of these two aspects is a substantial undertaking. Furthermore, the LME approach implies monitoring in the principal LME modules (productivity, fish and fisheries, pollution and ecosystem health, socio-economics and governance).

In the case of the BCLME, a large amount of work has been dedicated towards putting in place an operational early warning and monitoring system. The following technical achievements may be highlighted:

- SEIS in place;
- EWS for HABs and LOWs close to becoming operational;
- The key elements of operational ecosystem prediction clearly identified (e.g. in the book 'Benguela – Predicting a Large Marine Ecosystem') - a large amount of knowledge has been generated and capacity built in this and other areas which are very significant achievements;
- First state of the BCLME trans-boundary commercial fish stocks published;
- One tide gauge deployed in South Africa, two to be deployed in Namibia in April 2008, two more to be deployed in Angola;
- In Namibia and S Africa national monitoring systems are already in place;
- Four different phytoplankton monitoring programs are in place in Angola, including a marine biotoxin programme.

In relation to governance, the BCC is to take over the development and operation of the regional monitoring system, working with the necessary national institutes. Transfer of the SEIS system is already effective, with other aspects to follow. There is a proposal that the HABs and LOW work will be continued and extended by ACCESS, the new climate change centre.

Stakeholders considered the establishment of SEIS and the near-finished state of the EWS to be the major achievements in relation to system monitoring.

The assessment is that the main elements of a regional monitoring system have been developed technically, that any outstanding elements will be perfected through the BCC science plan and that the

institutional mechanisms for the regional monitoring system are in place. This result may be considered highly satisfactory.

Shadow Rating: HS

Financial mechanisms in place to support SAP implementation

This indicator requires that adequate financial mechanisms should be established for SAP implementation. This use of the term “mechanisms” implies something more than simply adequate funding, but also an arrangement to ensure delivery.

The BCLME programme was unusual in having achieved a SAP during the PDF-B stage, although the focus of activities on knowledge gathering suggests that the SAP should be considered as preliminary. In any event, the project was successful in securing GEF funding to implement the activities identified in the SAP (the goal of the BCLME project, as originally articulated, was to implement the SAP).

The BCLME project has also been successful in securing funding for the follow-on SAPIMP project itself and for the activities of the BCC science plan, and the necessary country commitment to see these activities through. Strong donor support has been secured for BCC over period 2008 to 2011. Over US\$10 million has been pledged by Norway and Iceland and governments are to contribute US\$300,000 per year cash. The SAPIMP Project itself has raised US \$5.13 million from UNDP-GEF. Finally, the countries themselves have also agreed upon substantial contributions.

As noted above, an objective implied in the project document, but absent from the logical framework, was that the SAP would be updated. This has not been done, yet most of the activities in the first SAP have now been implemented. The follow on project goes by the name of the SAP Implementation Project (SAPIMP), yet there is no updated SAP to implement. While the SAPIMP project focuses on developing the BCC institutionally, development of the SAP will be addressed by the BCC science plan, under funding by Norway.

The relevance of these observations is that there is not yet in place an updated SAP or what could be described as a “financial mechanism” to support its implementation. The BCLME has therefore not satisfied this particular GEF IW indicator.

Recommendation: In order to bring BCLME into line with best GEF IW practices it is now necessary to develop an updated SAP with modern features including a clear vision and EcoQOs and to put financial “mechanisms” in place.

Finally, a legal review was undertaken of interim financial management arrangements for the BCC. This review was undertaken to determine the best financial management mechanism to use in implementation of the BCC Science Plan given that the BCC is not a legal entity. The UNDP Country Office in Namibia was recommended to serve as the legal entity on behalf of the BCC. The overall assessment of this indicator is satisfactory.

Shadow Rating: S

Other outcomes

Coordination with other LMEs

One additional outcome implied by the project document and also encouraged by GEF IW and pursued by BCLME is coordination with other LME projects.

BCLME's coordination with other LMEs has included direct collaboration with other LME projects, providing technical advice and orientation, organising federating events and finally providing guidance as a keynote presenter at international forums.

BCLME has collaborated directly with GCLME on fishery surveys and joint training cruises, participation at workshops and hosting exchange visits between the projects. Technical orientation has included contributing to the opening regional workshop of the Canary Current LME project and inviting both GCLME and CCLME to BCLME symposiums. BCLME and BENEFIT have held joint workshops with the Humboldt Current LME.

An important federating activity was to organise and host two Pan-African LME summits (the second at Cape Town in 2007) attended by representatives of GCLME, CCLME and ASCLME. At the international level, BCLME has been a keynote presenter at GEF IW congresses and the annual LME Consultative Committee meetings hosted by NOAA and UNSECO, has attended and given keynote presentations at the Global Ocean, Islands and Coasts Forum (meetings in Paris and Hanoi) and has also addressed the UN General Assembly on the EAF implementation through UN Law of the Sea Forum.

The assessment is that BCLME has coordinated effectively with other LMEs and has played a leadership and federating role for African LMEs and LMEs globally. Additionally, BCLME has contributed to the development of ocean governance globally. This result may be considered as highly satisfactory.

Shadow Rating: HS

Project outputs (results level)

Objective 1 – Coordination

Output 1 is formulated as “Operational and effective intra and inter programme coordination and support is established”.

Consideration of the indicators for this output reveals three aspects to coordination and support:

- Project coordination (PCU, Activity Centres, PSC...);
- Capacity building and planning therefore;
- Establishment of the (Interim) Benguela Current Commission.

Key questions to ask in relation to this output are:

1. Were intra- and extra- project coordination and project support operational and effective? In particular, were all project structures established and operational?
2. Was the capacity strengthening component of the project effectively planned and implemented based on identified needs?
3. Is the Benguela Current Commission (originally planned as an Interim BCC) established and functional? Have the resources been secured to ensure BCC core activities?

Intra- and extra project coordination and support

All the indications are that intra and inter project coordination and support were highly effective. All the proposed project structures were established and became operational. The PCU and the Activity Centres provided continuous support to the project activities. Stakeholders were almost unanimous in

considering project coordination and support had been excellent, from both the PCU and Activity Centres.

Rating of sub-component: HS

Capacity strengthening planning and implementation

The indications for planning and implementation of the capacity strengthening have been more mixed. While most stakeholders considered that capacity strengthening overall had been substantial, the planning of capacity building was considered less strong. In particular, a comprehensive capacity building plan was never formally developed and a few considered that capacity building had been disappointing. The weakness of planning for capacity building was highlighted in the mid-term evaluation.

In assessing capacity building, consideration should be given to its various forms. In addition to specific individual training are hands-on learning, institutional strengthening and material capacity reinforcement. As regards training, it should be borne in mind that UNDP/GEF has strict guidelines about the types of training that are allowable. For example, resource managers not surprisingly requested to do MBAs whereas this is not permitted under UNDP/GEF rules. Hands-on learning is undoubtedly valuable but difficult to plan or evaluate precisely. Institutional strengthening can likewise be somewhat difficult to define. Capital reinforcement is readily measurable but the benefits of new equipment or material can be diverse. This complexity made it difficult to formulate a coherent capacity building programme responding to stakeholder demand, and resulted in 2 to 3 year period during which training and capacity building were conducted on an *ad hoc* basis.

A needs assessment was undertaken early on in the programme and a draft capacity development strategy was proposed, but not formally adopted. Numerous training courses were held, but not strictly according to a pre-established framework. Towards the end of the programme special efforts were made to support MSc and PhD training (2 Namibians, 2 Angolans) despite the usual GEF policy not to support post-graduate training. Special training courses were organised at the University of Angola. One Angolan is undertaking a PhD on oceanography at the University of Cape Town. Late in the project agreement was reached with BENEFIT to jointly fund the cost of a training officer who developed a training programme.

A valuable measure taken by the BCLME project to mitigate the problem was to insist that capacity building, typically as hands-on training, be integrated into every sub-project. Stakeholders have confirmed the success of this approach.

Capital reinforcement included the purchase of two fully equipped ski-boats for inshore environmental sampling for INIP and MatMIRC, the funding of US\$45,000.00 to the cost of a new inshore vessel for MCM, the re-fitting of the R.V. Tombua (Angola) costing US\$100,000.00 making it fully operational as a research vessel, the purchase of a fish egg sampler for use at NATMIRC, the purchase of a tide gauge for use in Angola and the restoration of telephone links between INIP's regional and central offices and new computers for INIP.

Taking into account the various capital improvements as well as specific and hands-on training, about 15% of the total BCLME budget was invested in capacity building, and there is a long list of persons who have benefited from training funded by BCLME. (Note: The budgetary term "training" under UN procedures includes project workshops – the true investment in training will have been closer to 10%).

For the next phase, there is now a clear work plan and strategy for training and capacity building developed for SAPIMP (one of the outputs of the development phase) and Iceland (ICEIDA) is to fully support the cost of a full time training officer for BCC over 4 years to implement his plan.

The overall assessment of this sub-component is that it has been satisfactory (S).

Rating of sub-output: S

Benguela Current Commission

The indications for the Benguela Current Commission are generally favourable. Despite the technical debate presented above about whether the BCC is truly a commission, the other indicators are consistently positive.

Rating of sub-output: HS

The overall assessment of this output is that programme coordination and support has been highly satisfactory.

Rating of Output 1 overall: HS

Objective 2 – Sustainable management of Marine Living Resources (MLRs)

The full title of the output is: Sustainable management and utilisation of trans-boundary marine resources are enhanced.

Consideration of the indicators to this output reveals three aspects:

- Periodic reporting - overall ecosystem, fish stocks;
- Management of shared stocks - Surveys, MLRs advisory group, stock status improvements, restoration and operational management plans (OMPs);
- Responsible mariculture – regional policy, sanitary regulations.

The key questions addressed in relation to this output should be:

- Have the sustainable management and use of trans-boundary marine resources been effectively enhanced?
- In particular, is effective annual (or at least periodic) reporting of the state of the BCLME and its fishery resources in place?
- Has cooperation been materialised in the form of joint surveys, working groups, operational management plans, improvement and restoration of shared stocks?
- Have new mariculture policies been put in place and do the regulations meet international standards?

Periodic reporting (whole ecosystem and fish stocks)

There is a link between this sub-output and Output 3 as a whole, which is concerned with variability of the ecosystem and ecosystem forecasting. The project designers, however, decided to place periodic reporting on the state of the ecosystem and the state of marine living resources (MLRs) as a sub-component of Output 2.

Annual state of BCLME ecosystem reports by 2004 and 6 monthly by 2006 – to date there has been no periodic report on the overall state of the BCLME, although the regional environmental information system (SEIS) is in place and partially functional and various reports document aspects of the state ecosystem. The SEIS website will be populated with the latest batch of State of Environment indices from the three countries. The objective for annual reports now seems over optimistic in hindsight. The prognosis is for 1st LME report during early part of SAPIMP assuming BCC maintains this target.

Annual state of the shared commercial fish stocks available by 2004 and by 2006 every 6 months -

The situation with regard to fish stocks is better. The first State of Stocks review 2007 has been completed and updated to early 2008. The related consultancy provides for the fisheries data and SOS report to feed into the SEIS website, soon to be completed. In hindsight the target for regular fish stock reports was not realisable in the time frame envisaged. The prognosis is for periodic reports during SAPIMP but at best annually.

Allowing for the fact that these targets were in hindsight unrealistic and that achievements have nevertheless been substantial, the sub-output is rated as “satisfactory”.

Sub-output rating: S

Management of shared stocks

This sub-output groups management targets (joint surveys, regional advisory group, operational management plans - OMPs) and stock state targets (arresting stock declines, rebuilding stocks). It is thus similar to the project purpose, which comprises a mix of management response and ecosystem state indicators. As with the project purpose, the ecosystem state indicators were clearly unrealistic in hindsight. Indeed, the ecosystem state indicators under Output 2 appear even more ambitious than those under the project purpose and are misplaced and not to be regarded in the assessment of this sub-output.

Joint surveys and assessment of shared stocks of key species by the end of 2005 – The management process begins with surveys. In collaboration with the Nansen programme, the BCLME project achieved joint surveys on hake. There were also joint surveys between Namibia and Angola on small pelagics. As an outcome of the trans-boundary small pelagics and midwater resources workshop, Namibia and Angola will consider and plan to extend national surveys across their borders. While, according to some observers, opportunities for other joint surveys have been missed, progress has still been substantial and the prognosis is for further surveys during SAPIMP.

Regional working group on conservation and management measures of shared stocks established by 2005 – The regional working group(s) are in place, although they are not yet fully regional and not formalised. However, it has been agreed that the groups will continue working under coordination of the ecosystem committee of BCC, which they are ready to do. The prognosis is thus good for full operation and formalisation under the BCC during SAPIMP.

All trans-boundary stocks are being managed by agreed operational management plans (OMP) by 2007 – To date there are no operational management plans at the regional level, but OMPs have recently been introduced for several trans-boundary species in Namibia and the prognosis is good for extending such plans to the regional – or at least bilateral – level during the next project cycle. In hindsight the target was a little ambitious but an alternative indicator cannot be suggested.

The decline in shared stocks has been arrested by 2005 – To date there has been no demonstrated halt to the decline in shared stocks, several of which have worsened considerably during the project period. The possible exception is horse mackerel in Angola, for which fishing was recently banned. Nevertheless, reduced total allowable catches (TACs) recently applied in Namibia may have a measurable effect during the next project cycle and several bilateral stock recovery plans are under development, notably between Namibia and Angola. In hindsight the target was optimistic but there is prognosis for slowed or halted declines of some stocks during the next phase of operations.

50% of the shared stocks have been rebuilt to optimal level by 2007 – This objective was clearly ambitious at the time of project formulation and would be better placed at the level of the project development goal. There is however, already some prospect of rebuilding stocks through a number of management plans through bilateral agreements where scientist of countries are collaborating and cross boundary management efforts are underway (e.g. for pilchard, horse mackerel and deep sea crab

between Angola and Namibia). There is therefore some prospect for rebuilding 50% of stocks during SAPIMP.

The sub-output is rated as satisfactory.

Sub-output rating: S

Responsible mariculture

This sub-output comprises two indicators – a regional responsible mariculture policy and meeting international standards in quality and sanitary methods.

Responsible regional mariculture policy by December 2006 – Substantial progress has been made in Namibia, and some progress in Angola. South Africa already has a mariculture policy in place. Nevertheless, there is no formally adopted regional policy and mariculture remains primarily a national concern. The BCC is aware of the potentially serious impacts of mariculture and will be pursuing a regional policy on the issue. Angolan participation in a regional policy may be unrealistic because Angola's priority is fresh water aquaculture. The prognosis is thus essentially for a regional policy linking Namibia and South Africa during SAPIMP.

Quality and sanitary methods for aquaculture products being used in the region meet international standards – Major progress has been made in Namibia (although the standards are awaiting verification). Angola is also underway, but a long process will be required to meet international standards in that country. The prognosis is for further progress in Namibia during SAPIMP while Angola may not pursue if fresh water aquaculture continues to be a priority. The sub-output is rated as satisfactory.

Sub-output rating: S

Assessment of whole output

At the level of the whole output, there has been undoubted progress towards enhanced management and utilisation of marine resources, while few concrete management systems are yet in place. The prognosis is to arrive at periodic ecosystem and stock reporting, operational plans for MLRs and a regional policy on mariculture during SAPIMP

Overall Rating of Output 2: S

Objective 3 – Environmental variability

The full title of the output is: Environmental variability, its ecosystem impacts are assessed, and predictability is improved for enhancing the management of living marine resources.

Consideration of the indicators for this output reveal the following aspects:

- Management of marine living resources to be based on knowledge of ecosystem variability
- Early warning system for HABs;
- Establishing a baseline to measure changes.

The key questions to be addressed are:

- Have environmental variability and its impacts been assessed? Has predictability been improved so as to enhance the management of marine living resources? In particular, are

resource managers using state of the environment reports (with attendant forecasts) in decision making?

- Are management decisions of the BCC actually based on the improved scientific knowledge of the key features of the BCLME (e.g. Orange cone/Luderitz barrier; Angola/Benguela front)?
- Is monitoring and early warning of Harmful Algal Blooms in place?
- Is there an environmental baseline against which ecosystem changes can be measured?

Management of marine living resources to be based on ecosystem knowledge

There is a link between this sub-output and Output 2, which provides for ecosystem monitoring and SOE reports. Under component 3, we are particularly concerned with use of knowledge of ecosystem variability.

Living marine resource managers in the 3 countries will utilise regional state of the environment (SOE) reports (with attended (sic)² forecasts in formal decision making) by 2007. To be reflected in TACs and operational fishing – Managers in the BCLME are reportedly beginning to use the findings of the project, the SEIS and the fish stocks report for management purposes, while SOE reports have not yet been issued (SEIS consists of web based information and reports on environmental indicator; fisheries reports have been established and will be incorporated into SEIS including publishing of annual State of Stocks report). The elements of an SOE have, however, been identified as abundance of stocks, Benguela El Niños, LOWs, HABs and sea states, which elements should be in place relatively soon. The original target in hindsight appears a little over optimistic. The prognosis is, however, for achieving the target during BCC science plan within SAPIMP time frame.

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 (by 2007)*
- 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)*
- c) 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)*

The project has substantially advanced knowledge about the Orange cone / Luderitz area and the Angolan/Benguela front (e.g. as evidenced in the book ‘Benguela – Predicting a Large Marine Ecosystem’). Several workshops have been held on the Angolan / Benguela front alone. Managers in Namibia have already been using environmental information including indicators from the Angola/Benguela front to provide their Minister with SOE reports for use in decision making with regard to allocation of total allowable catches (TACs) - this has been a major achievement which is supported the minister. The prognosis is that such knowledge will increasingly be used by managers during the next project cycle. Overall, progress under this sub-component is considered highly satisfactory in the circumstances.

Rating of sub-output: HS

Early warning system for HABs

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 – Most elements are now in place for an EWS for HABs. At the national level, human health warning plans are in place and HAB

² The word “attended” should presumably have been “attendant”.

monitoring are in operation in Namibia and four Phytoplankton and biotoxin monitoring programs are ongoing in Angola. A HAB monitoring buoy has been developed and is in place off Cape Town which will contribute to the baseline against which to measure change (see next paragraph) and which may be extended to other key areas of BCLME during the BCC/SAPIMP phase subject to funding availability. The prognosis is that The African Centre for Climate and Earth System Science (ACCESS) will take ownership of follow up and more comprehensive implementation of models related to predictability (including HAB, LOW etc). However, the EWS for HABs is not yet fully operational regionally. The new book on the BCLME provides guidance on what an EWS for HABs would comprise. The target was realistic. The prognosis is for perfecting EWS for HABs through the BCC science plan during the life of SAPIMP. The sub-output is rated as satisfactory.

Rating of sub-output: S

Establishing a baseline to measure changes

Environmental baseline against which all future changes in variability will be measured by 2007 - The establishment of a baseline against which to measure change has been a major challenge given the extreme variability of the BCLME. The project has collected a vast amount of baseline ecosystem information and has identified the key parameters that best define ecosystem state, as noted above (abundance of stocks, Benguela El Niños, LOWs, HABs and sea states). The collection of baseline environmental information has been paramount to the success of understanding variability in the BCLME and these data will form the baseline data for SEIS on productivity, wind, temperature, etc. time series against which to measure scales of change and variability. The SEIS is also in place, able to provide information on these parameters. A considerable investment has also been made in models e.g. for LOW and warm and cold events. The result appears highly satisfactory.

Rating of sub-output: HS

Overall assessment of the output

In general, there has been undoubted major progress in assessment of environmental variability and its impacts; predictability also vastly improved even if not yet fully operational. The key components of Output 3 were:

- Management of marine living resources to be based on knowledge of ecosystem variability – this is certainly now becoming rapidly established;
- Early warning system for HABs – this is virtually in place;
- Establishing a baseline to measure changes – an extensive baseline has been established and key parameters are being identified.

The prognosis is for achieving full predictability of extreme events through the BCC science plan during life of SAPIMP. The overall assessment of the output is highly satisfactory.

Overall Rating of Output 3: HS

Objective 4 – Ecosystem health and pollution

The full title of this output is: Preliminary steps to maintain BCLME health and to enhance effective pollution management are initiated to safeguard fisheries and other resources.

Consideration of the somewhat heterogeneous series of indicators for this output reveals the following key themes:

- Managing marine and land-based sources of pollution (oil and gas, shipping, land sources)
- Managing the impacts of coastal mining

- Marine and coastal biodiversity conservation planning
- Setting waste and water quality standards
- Land based sources of pollution
- Alien invasive species
- Ballast water management

The output also mentions the development of an Early Warning System (which repeats part of Output 3 and therefore will not be reassessed here) and the intention to develop at least 20 sub-projects under this output (the other outputs lack such an indicator although the implementation of numerous subprojects was common to all outputs – this aspect does not require specific assessment other than to note that more than 20 projects (in fact 24) were undertaken under this output).

Key questions to address under this component are:

- Have preliminary steps been taken to maintain BCLME ecosystem health and to enhance pollution management so as to safeguard fisheries and other resources? In particular:
- Marine pollution - Has there been agreement with SADC to implement MARPOL? Have regional oil spill pollution contingency plans been developed? Have oil spill contingency plans in the region been harmonised and mechanisms established for sharing oil spill technology?
- Marine mining - Is a regional consultation framework for mitigating mining impacts in place? Is a code of conduct for marine mining in place?
- Conservation planning - Has the status of vulnerable species and habitats been assessed? Is a regional marine biodiversity conservation plan in place? Have protected areas been identified and measures for conservation been implemented?
- Waste and water guidelines - Have waste quality criteria for receiving waters been listed? Have water quality guidelines been issued in all countries?

Managing sources of marine pollution

Cooperative agreement with SADC to implement MARPOL 73/78 by 2004 - A small review project was conducted on MARPOL. In any event, all countries have ratified the convention and in the end no specific agreement with SADC was necessary. Implementation of MARPOL has begun in the countries.

Oil pollution contingency plan and regional pollution policy by 2006 – The development of a common plan and policy proved impracticable after several attempts, but a regional cooperation plan is now at an advanced stage of elaboration. There have been some constraints on Angolan side (language, administrative differences, confidentiality issues). The document includes policy aspects and therefore promotes policy harmonisation. An assessment of a Regional Oil Spill contingency plan has also been prepared and complements the existing national oil spill contingency plans. The prognosis is for completing a more general cooperation plan early during SAPIMP and progressive policy harmonisation.

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 - National plans have been elaborated and a regional cooperation agreement is at an advanced stage. A Regional Oil Spill Contingency project has also been finalised and recommendations have been made to be carried forward to the BCC/SAPIMP phase. The prognosis is for finalisation of a cooperation agreement early during SAPIMP.

The assessment of the sub-output is that substantial progress has been made towards regional cooperation while the precise targets envisaged proved to be impracticable. The result is considered satisfactory.

Rating of sub-output: S

Mitigating impacts of marine mining

Regional consultation framework for mitigating negative impacts on mining by 2005 – A substantial study of marine mining impacts was conducted demonstrating that mining impacts were spatially and temporarily limited, proving extremely helpful to managers and making it possible to manage the impacts over time (see earlier in this document under project development goal indicators).

Code of conduct for responsible mining by 2004 – In fact, several codes already exist e.g. guidelines for offshore mining. Specific guidelines for responsible seabed mining and impact assessment have also been completed. The prognosis is for a final and definitive code early during SAPIMP, assisted by the much improved understanding of mining impacts due to the assessment undertaken by BCLME.

The combination of the above results is considered highly satisfactory.

Rating of sub-output: HS

Marine conservation planning

Assessment of the status of vulnerable species and habitats by 2005 – A major project of MCM has undertaken the assessment of vulnerable species and habitats. In particular, the critical mapping component of this project (physical and biological) has been completed and the report is almost completed.

Regional marine biodiversity conservation management plan by 2005 - Due to difficulties in logistics and timing, this project will be completed by the BCC as part of its Science Plan.

Protected areas identified and measures for conservation implemented by 2006 - Sites of future MPAs have been identified in all three countries (BENEFIT was responsible for the reports). A Strategic Environmental Assessment report has been conducted for Namibia by a Danish firm. There have been several Environmental Assessments in the region that contribute to this objective. Plans have been advanced for fisheries and MPAs at Orange River and Cunene River. Closed areas for fisheries have been identified and recommended for some MPAs in Angola. S Africa completed its own MPAs plan some years ago (before the BCLME project). MPAs have been identified (and legislated) around Namibia's offshore islands and will contribute to conservation offish stocks as well as marine biodiversity and habitats in general. The prognosis is for progressive implementation of conservation measures during SAPIMP.

The assessment is that progress under the above indicators constitutes a satisfactory result.

Rating of this sub-output: S

Setting waste and water quality guidelines

List of waste quality criteria for receiving waters by 2004 - A specific project addressed this (report issued by CSIR).

Guidelines for water quality in all three countries including (STD) index to measure levels of pollution by 2005 - National water quality guidelines are in place in Namibia and S Africa. A common set of guidelines has been drawn up and are recommended to be followed by the three governments. The prognosis is that Angola will have guidelines in place during SAPIMP.

Identifying land-based sources of pollution into the BCLME – while not mentioned in the logical framework, the BCLME supported a survey by CSIR of land-based sources of pollution in the BCLME.

The overall rating of this sub-output is satisfactory.

Rating of sub-output: S

Overall assessment of the output

Preliminary steps to maintain BCLME health and enhance effective pollution management have definitely been initiated, even if not all in the manner exactly as had been envisaged. The result under this output is considered satisfactory.

Overall Rating of Output 4: S

Objective 5 – Donor participation and co-financing

The full title of this output is: Donor participation and co-financing are increased throughout the life of the programme and beyond.

The indicator under this output implies the following elements:

- Overall plan to increase donor support;
- Donor conferences planned and executed;
- Systematic procedures to use GEF funding to leverage other donor funding.

In addition, a specific indicator of increased donor support is included, which in effect repeats the output indicator.

Key questions to be asked under this output include:

- Has donor participation and co-finance been increased throughout the programme? Is it set to continue beyond the programme? In particular:
- Has there been any organised plan to increase donor commitment?
- Were donor conferences held?
- Were procedures developed to leverage support from other donors?

Overall plan to increase donor support – there was no specific written plan but a consistent approach was applied.

Donor conferences planned and executed – Donors were consistently invited to project conferences and symposiums, most notably at the time of the final BCLME-BENEFIT symposium in November 2007 when a special donor conference was held to secure funding for implementation of the BCC Science Plan. Several other donors were also approached for in-kind support through international cooperation and participation in future projects.

Systematic procedures to use GEF funding to leverage other donor funding - Efforts were systematically made to leverage funds from other donors. UNDP-GEF funds for SAPIMP project were used to leverage funds from Norway and Iceland.

Overall assessment of this output

While slow to start with, the project has ultimately been highly successful in securing increased donor participation and co-financing, particularly for the next phase. Ministers recently agreed to increase the countries' annual cash contributions to the BCC, equivalent to an increase of up to 25% in relation to the country contributions to BENEFIT while it was still running. The result is highly satisfactory.

Overall Rating of Output 5: HS

Other significant outputs not listed in logical framework

The BCLME project underwent considerable evolution as it proceeded, and there have been several significant outputs never envisaged in the original formulation, particularly in the area of communication materials and publications, federating events, BCC science plan (co-produced with BENEFIT) and ballast water plan. The following outputs merit particular mention:

BCLME communication materials and publications

- BCLME book – “Benguela - Predicting an LME” – The book documents scientific progress towards understanding the BCLME ecosystem and the basis for predicting ecosystem variability. It delivers on several of the specific outputs in relation to forecasting and environmental variability which are internationally peer reviewed.
- BCLME book “Benguela – Current of Plenty” – The book is a joint effort by BCLME/BENEFIT and it details the history of both programmes and international cooperation in marine science as well as awareness of issues of trans-boundary management of fisheries and the implementation of EAF. The book on the BCLME has promoted general awareness of the ecosystem and of trans-boundary concerns.
- BCLME newsletters, brochures and booklets - The newsletter was considered by many to be the most useful of the project communication tools. The project also issued special booklets on the TDA, the SAP, numerous press articles and bulletins, the agreement to create the BCC and on a decade of collaboration with BENEFIT.
- Booklet on the Benguela Current Commission Interim Agreement
- BCLME CD 20 minute promotional film “Current of Plenty” - The documentary film has been useful for various international events. This CD was also used at GEF global events and widely used in the BCLME region both at schools, on local TV channels and to show to Ministers.
- BCLME website www.bclme.org - The BCLME provides a valuable source of information including copies of all reports and publications and has much potential for increased use in the future.
- BCLME final reports 140 with copies on CDs distributed to stakeholders - The many BCLME reports and their capture on CD and the BCLME website provide a guarantee that the information will not be lost and will provide the information base for future management.

BCLME Federating events

As the acknowledged leader of the African LME programs, BCLME hosted two Summits for African LMEs, inviting senior government officials and ministers. These are considered to have had considerable positive influence on political support for the BCLME and other African LME projects.

BCC science plan

The BCC science plan, a joint output by BCLME and BENEFIT, is funded by the Norwegian government; it is part of the foundation for the new BCC and a compliment to the SAPIMP project which focuses on governance.

Ballast water strategy

A strategy for developing ballast water management activities in Angola - The Angolan strategy on ballast water will contribute to the regional programme on this issue and contribute to Output 4.

Regional assessment and management plan for port waste reception facilities - The regional assessment of port waste reception facilities has contributed to the preliminary steps to protect BCLME ecosystem health (Output 4). The sum of the above supplementary results is considered highly satisfactory.

Shadow Rating for other significant outputs: HS

Early signs of project impact

Environmental impacts

As stated by Al Duda (2002), “in trans-boundary waters projects, years may go by before a sufficient number of countries have implemented a sufficient number of stress reduction measures to enable a change to be detected in the trans-boundary water environment”. Thus, environmental impact in the context of GEF IW projects should not be limited to measurable changes in the environment, but should consider progress further up the chain of events that will eventually lead to environmental benefits. This is particularly so for first cycle projects such as the BCLME whose purpose is primarily to develop the necessary knowledge, capacity and governance frameworks to deliver stress reduction measures and, thereafter, environmental improvements. The present evaluation will therefore focus on the “advancing front” of measures, highlighting those that show promise of achieving breakthrough and pointing out the areas showing less promise.

Evaluation of progress in relation to the project goal, purpose and outputs has identified the following environmental impacts to date. It is noteworthy that most environmental impacts, or anticipated impacts, are in the Namibian sector of the BCLME, with some impacts in both South African and Angolan waters.

Environmental impacts at the level of project goal

The project goal includes several long-term environmental impact targets which, as has been shown above, are not expected to be achieved in a first project cycle, such as on alien invasive species, increased productivity and carrying capacity, fisheries yields and composition increased and diversified. However, impacts have already been achieved in relation to threatened species and environmental plans in mining leases.

Regional status of threatened species improved

While an indicator of the long term development goal, and therefore not necessarily achievable in the first phase, the BCLME project can already claim some improvement in the status of threatened

species, notably for seabirds affected by industrial long line fishing and the bronze whaler shark. The improvement for seabirds is limited to the areas frequented by the South African industrial fleet, which has installed seabird scarers. The status of the bronze whaler shark has improved in Namibia and southern Angola as a result of game fishermen voluntarily adopting catch and release.

In addition to the above status improvements, the project has improved prospects for sharks in the ICCAT region through a well-received presentation to ICCAT. The announcement by Namibia that bird scarers will be made obligatory for Namibian long line fleets to reduce by catch of seabirds (mainly petrels and albatrosses) improves the prospects for seabirds in Namibian waters at least. Experts consider that major reductions in sea bird mortality will be achieved once these measures are in place.

While hope for sharks in general has improved since the presentation made to ICCAT, no means have been identified as yet for reducing the mortality of pelagic sharks in industrial long line fisheries – this remains a global as well as regional problem to be addressed by BCC. However, mortality of the bronze whaler shark has definitely been reduced in Namibia and Southern Angola, and the development of an NPOA for sharks for Namibia improves prospects for other sharks in Namibia.

Mining leases issued with pro-active environmental management plans

In Namibia, recent mining leases have been issued with pro-active environmental management plans. Linked to this, the overall management plan for allocation of mining concessions has taken account of the spatial and temporal patterns of impact, resulting in an overall reduction in environmental impact by the Namibian marine mining industry. However, it is not possible to quantify the environmental improvements due to the absence of systematic baseline studies.

Environmental impacts at the level of project purpose

The project purpose focuses on knowledge, capacity and governance rather than on specific stress reduction measures. However, one of these, introduction of EAF to at least two species, is likely to deliver environmental benefits in the near future in relation to commercial fish stocks in Namibia, which has just introduced EAF-based management plans for most commercial stocks. This is likely to lead to decisions on reduced catches for certain stock e.g. hake in the coming year. It is understood that the Total Allowable Catch (TAC) for horse mackerel in Namibia has already been reduced. The recent ban on horse mackerel fishing in Angola should be having an impact.

Environmental impacts at the level of project outputs

Project outputs, like the project purpose, are primarily concerned with knowledge, capacity and governance rather than specific stress reduction measures. However, certain results at the output level are likely to result in environmental impacts in the near future, in particular the following:

- Mariculture – will soon provide alternatives to increasing fishing effort in Namibia;
- Plans to extend 200 mile limit in Namibia to 300 miles – should have a beneficial effect on marine resources of the outer BCLME and also spread pressure within Namibia's EEZ;
- Including fisheries management objectives in MPAs should have beneficial effects in the near to medium term;
- Marine protected areas have now been declared in Namibia around islands many of which fall within existing mining leases and therefore will result in environmental improvements:

At the level of the following two impact indicators under Output 2:

- *The decline in shared stocks has been arrested by 2005*
- *50% of the shared stocks have been rebuilt to optimal level by 2007*

As observed above, to date there has been no demonstrated halt to the decline in shared stocks, several of which have worsened considerably during the project period. However, reduced allowable catches recently applied in Namibia may soon have a measurable effect, and bilateral plans are being developed between Namibia and Angola to rebuild depleted stocks. Progress may therefore be made on the above indicators during the next phase of operations.

Improved environmental safeguards under Output 4

Part of the project, particularly Output 4, has been concerned with improving environmental safeguards. Such actions do not deliver direct environmental impacts but may avert impacts that would otherwise have occurred. The following are of particular significance:

- List of waste quality criteria for receiving waters developed – A regional list has been prepared and guidelines have been set for water quality in all three countries.
- Regional consultation framework for mitigating negative impacts on mining – a substantial study on the impacts of mining has paved the way for improved management of mining impacts and is already delivering benefits.
- Oil pollution contingency plan and regional pollution policy – a regional cooperation plan is now well advanced and the principle of cooperation well established. National plans are also elaborated and in place.
- Code of conduct for responsible mining – several codes exist but the essential point is that mining is becoming more responsible, particularly in Namibia. In addition, marine protected areas have been declared in Namibia around islands many which fall within existing mining leases.
- Protected areas identified and measures for conservation implemented – sites for MPAs have been identified, including plans for linking fisheries management and MPAs in the Orange river and Cunene river areas. Namibia has identified MPAs in mining areas, as noted above.

Stakeholder views on environmental impacts

Most stakeholders thought that it was too early to demonstrate specific environmental impacts, with some exceptions. According to fisheries stakeholders, there was better compliance on by-catch within the South African fishing industry, voluntary use of bird scarer lines in Namibia and more frequent release of seabirds and turtles in Angola. In the mining sector, policy changes have already led to some impact reduction in Namibian waters. Pressure on the bronze whaler shark had also been reduced in Namibia through the introduction of a catch and release scheme.

Socio-economic impacts

GEF IW projects do not have specific socio-economic targets. The supposition is that the alternative scenario aimed for by the project will be more socially and economically beneficial than the predicted scenario in the event of 'no action'. Nevertheless, projects often generate socio-economic benefits, intended or otherwise, expected or unexpected, short term or long term, and these benefits can be a

significant factor in project success and sustainability. Although never intended, projects may also have negative socio-economic impacts, which must also be considered.

At the very broadest level, the BCLME project has invested mainly in people. As the stakeholder survey has shown, many individuals benefited professionally, educationally, financially and socially from the project. The real and perceived well-being derived by many from the project has undoubtedly contributed to the project's technical success and the prospects for sustainability; through the knowledge, enthusiasm, friendship, networking, capacity and collective will developed within the BCLME constituency. Probably on this basis alone, the project was worthwhile.

The introduction of environmental management, while creating a new cost for those benefiting from the extraction of resources, also creates new opportunities for environmental managers and to a better spread of the benefits from extractive resource use. The greater spread of the benefit will serve to encourage sustainable approaches as opposed to 'resource mining' and will promote social justice.

In addition, as the following analysis will show, there have been some specific socio-economic benefits deriving from the results of the project.

Socio-economic impacts at the level of the project goal

At the level of the indicators of the project goal, the following stand out as generating socio-economic benefits:

- *Early warning system (EWS) for monitoring outbreaks of harmful algal blooms (HAB) and associated mortalities*
- *Regional status of threatened species improved*
- *Mining leases issued with pro-active environmental management plans by 2007*

The development of an early warning system for HABs is intended to avoid the socio-economic losses arising as a result of unexpected harmful algal blooms, which can result in economic hardship within fisheries. HABs also threaten the development of mariculture, since farms can be ruined by the advent of a HAB. The project has done much to improve understanding of the HAB phenomenon and therefore the ability of managers to plan to minimise or avoid socio-economic shocks and losses due to HABs. While HAB forecasting is not yet fully operational, it soon will be and the benefits are expected to be immense.

The improved status of certain threatened species (bronze whaler shark and seabirds) will bring a range of socio-economic benefits. The improved status of the bronze whaler will help guarantee a future for the coastal angling industry which depends on it. This may seem minor in relation to the big ecosystem picture but will be significant in relation to the investment actually made by the project in this work and of appreciable benefit to those involved in the industry. The reduced capture of seabirds is likely to benefit the fishing companies participating in the scheme and complying with any regulations introduced.

The issue of mining leases with environmental management plans will help to promote a more stable and better regulated mining industry, likely to be of benefit to both operators and managers.

Socio-economic impacts at the level of the project purpose

At the level of indicators of the project purpose, the following results stand out as promising to deliver specific socio-economic benefits:

- *Introduction of an ecosystem approach for at least 2 species by 2007*
- *Improved ecosystem forecasting*
- *National inter-ministry coordination*
- *Regional environmental monitoring mechanism established*

The ecosystem approach to fisheries (EAF) is much more than just a system of management that is ecologically sustainable. EAF is defined as: “An ecosystem approach to fisheries strives to balance diverse societal objectives, by taking account of the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries.” At the end of 2007, Namibia had developed and was planning to implement EAF-based plans for most commercial stocks.

During the evaluation, several commentators commented that improved ecosystem forecasting would have far reaching economic implications, since the ability to forecast ecosystem changes will help avoid costly mistakes and unnecessary management actions.

National inter-ministry coordination, which developed well as a result of the BCLME project, has socio-economic implications through improved efficiency of government.

Regional environmental monitoring (an implied outcome at project purpose level), linked to ecosystem forecasting, offers socio-economic benefits through avoiding mistaken investment in fishing and other operations where knowledge of ecosystem conditions would indicate an alternative course of action.

Socio-economic impacts at the level of the project outputs

It was an objective of the project that the BCC would secure financing for its core activities, something that was indeed achieved through securing finance from Norway, Iceland and Germany and which can be viewed as socio-economic benefit of the project.

The annual state of commercial fish stocks report, issued at the end of 2007 and soon to be renewed, will be useful to fisheries managers and operators alike, and should result in improved decision making; with consequential socio-economic benefits.

Several commentators considered that improved mariculture policy and the adoption of international quality and sanitary methods would have a major socio-economic benefit, particularly for Namibia.

As noted above, the monitoring and early warning of HABs offers considerable socio-economic benefits for fisheries and mariculture. Regulations supporting aquaculture and human health warnings offer additional benefits.

Finally, at the level of project outputs, increased donor support and indirect assistance to project related activities and BCC activities fostered by the project, can be seen as direct socio-economic benefits of the project.

Stakeholder views on socio-economic impacts

Stakeholders cited several socio-economic impacts. Aquaculture regulations and improved knowledge of HABs and LOWs are expected to have a substantial beneficial impact on mariculture development in Namibia and will provide a model for Angola to follow (although impact may be minor since Angola's priority is continental aquaculture). Angola has started to implement BCLME socio-economic recommendations on artisanal fisheries which should be beneficial. There have been

positive impacts on recreational anglers and Namibia and Angola targeting the bronze whaler. The SEIS and EWS systems should have substantial socio-economic impacts once they are in place. In general, the improved understanding of what can and cannot be managed should avoid wasted effort on futile management measures and thus have a positive socio-economic impact.

Capacity building, regional and national development

Capacity building

The project purpose was that participating countries and their institutions should have the necessary understanding and capacity to use a more comprehensive ecosystem approach and implement measures to address trans-boundary issues. Capacity building was thus central to the project purpose.

As noted above, capacity building includes specific training, hands-on experience, institutional strengthening and capital reinforcement (purchase of equipment etc.). While the project suffered a lack of capacity building strategy in the first two to three years, mitigating measures included integrating capacity building into each of the sub-projects and partnering with BENEFIT in the second half of the project to develop a science training programme. BCLME capital investments (two ski boats for inshore environmental monitoring (*Noctiluca* (Namibia), *Ambiente* (Angola), refit of RV *Tombua* (Angola), fish egg sampler (NATMIRC), HAB monitoring buoy, tidal gauge (Angola) etc.) should have an enduring effect on capacity. Overall, BCLME invested about 15% of its budget in capacity building and most commentators considered capacity building had been substantial overall. (Note: “Training” under UN budgetary rules includes workshops – the true contribution to training will have been closer to 10%).

Capacity building at the level of project goal

In general, foundations have been laid for the development of an integrated ecosystem approach to the management of the BCLME. At the level of project goal indicators there has been some training on the issue of invasive species. Capacity has been developed towards the implementation of an early warning system (EWS) for HABs. Namibia at least has acquired capacity in relation to environmental management of mining impacts.

Capacity building at the level of project purpose

In a general sense, capacity has been strengthened to deal with ecosystem management and the use of an ecosystem approach. The greatly improved understanding generated by the project is the foundation for ecosystem management and has thus improved capacity to “deal with ecosystem management”. In addition to improved understanding, some actions of the project have directly addressed management capacity, including the EAF demonstration project, resulting in a series of EAF-based fisheries management plans in Namibia.

Capacity building at the level of project outputs

One of the intended outputs of the project was a “Regional strategic plan for capacity strengthening and maintenance” which was not fully elaborated during the first part of the project, despite the fact that there had been a “collaborative study on human capacity and training and infrastructure needs for assessing priority trans-boundary issues by 2005”.

Numerous training courses were held, but not strictly according to a pre-established framework. A total of 19 students were sponsored by BCLME through BTech, BSc and MSc courses, plus one PhD and one PostDoc position during the life of the project. Special training courses were organised at the University of Agostinho Neto, Angola. One Angolan is undertaking a PhD on oceanography at the University of Cape Town. Late in the project (during 2006) agreement was reached with BENEFIT to jointly fund the cost of a training officer who developed and coordinated a training programme.

Capacity building in sub projects

A positive response to the capacity issue was the decision to include in the sub-projects a requirement to integrate national counterparts into all projects with the necessary on-the-job training to develop their capacity. The precise impact of such capacity building efforts is difficult to assess without detailed review of all project reports and interviewing the beneficiaries, for which insufficient time was allocated. However, based on the sample interviewed, the incorporation of capacity building within the subprojects was generally seen as positive and effective.

Stakeholder views on capacity building

Most stakeholders reported significant capacity improvements, noting that there had been a “huge impact” on those personally involved. The confidence and experience of Angolan and Namibian scientists in particular was thought to have increased substantially. In Namibia management now places more confidence in scientists. Younger scientists were considered to have particularly benefited in Namibia. Some commented that project management skills had improved. Institutional capacity in these countries, however, is threatened by the brain drain, with one stakeholder suggesting that institutional capacity may even be less today than at the start of the project (see also under “Sustainability”). In Angola the petroleum industry has taken much capacity from national institutions but is reported to be looking to compensate by promoting a regional environmental programme. There were still doubts, however, whether the various institutions have the capacity to use all the information that has been collected by BCLME.

A concern expressed by many observers is the loss of skilled staff from fisheries departments to the private sector. This has been particularly acute in Namibia. One stakeholder went so far as to say that capacity for ecosystem management was actually less at the end of the BCLME project than at the beginning. However, this ignores the clearly improved capacity of those remaining able to impart that capacity to newly recruited staff. Thus, the legacy of improved capacity to deal with ecosystem management is at risk but not entirely lost.

Conclusion on capacity building

To conclude, capacity building has been substantial, particularly for individual government scientists, but has had limited effect on institutions and been dispersed without any particular strategy, making precise assessment difficult. Capacity building efforts have had little impact on resource managers, other than improved understanding. Some of the capacity has found its way into the structures of the BCC. During SAPIMP it will be very important for the BCC to design and implement an adequate capacity building strategy focusing more on the management level and on the national institutions before the individual capacity is dissipated.

Regional and national development

GEF IW projects generally do not contain specific economic development objectives. The supposition is that improved understanding, capacity and governance/management of trans-boundary water bodies will help to provide the conditions for sustainable national and regional development.

In the case of the BCLME, this is largely true. Based on the improved understanding, capacity and governance mechanisms developed, there is a reasonable expectation that fisheries management will shift towards sustainability and that mining and petroleum impacts will be mitigated, resulting in a healthy and more productive BCLME in the long term, thus providing a greater absolute benefit overall. While no one is pretending that the BCLME will become more productive in absolute terms as a result of the project, there is some expectation that better stewardship will enable human populations to extract greater absolute benefits than hitherto while maintaining ecosystem integrity. This expectation, nevertheless, awaits realisation.

In the case of the BCLME, there have been other benefits to national and regional development that merit mention. BCLME intervened at a time when the region was emerging from a long period of war, which naturally impeded national development and prevented regional development. BCLME has been one of relatively few regional projects linking Angola, Namibia and South Africa and has undoubtedly helped to promote peaceful cooperative relations between these countries. Through the TDA/SAP process and the BCC the project has come to the attention of politicians and the creation of the BCC is a significant political as well as technical development. The BCC is one of the first inter-government structures set up by the three countries whose existence and operation will serve to promote regional cooperation in the broader sense.

In addition to these political benefits, the BCLME exhibits at least one concrete contribution to national and regional economic development, which is in the realm of aquaculture. The BCLME SAP includes an objective to promote mariculture as a means of reducing pressure on fish stocks and as a contributor to national and regional economic development. The objective comprised two elements:

- Responsible regional mariculture policy by December 2006;
- Quality and sanitary methods for aquaculture products being used in the region meet international standards.

To date, no regional mariculture policy is in place although South Africa and Namibia both have policies. Progress is expected during SAPIMP on this. More important for economic development, the design of quality standards for aquaculture was the subject of a subproject that was won after a bidding process by NATMIRC and partners. As the country most motivated to develop a mariculture industry, it was fortunate that the bid was won by NATMIRC. This subproject has developed mariculture standards in Namibia which in November 2007 were awaiting verification. Should the standards be accepted, the way will be open for the mariculture industry to develop in Namibia, which is expected to have a substantial development impact, at least in Namibia. Impact is likely to be less in Angola which is expected to prioritise continental aquaculture in the interests of food security and small-scale investments rather than mariculture, which requires large corporate investments and a high degree of technical expertise.

Stakeholder views on national development impacts

Stakeholders were questioned on socio-economic impacts but not directly on impacts on national and regional development. Several confirmed the view that mariculture regulations would have a substantial beneficial impact on mariculture development in Namibia. Several mentioned that policy improvements for artisanal fisheries in Angola would have a positive development impact. Several considered that the better understanding of the ecosystem in itself would improve development decision making and have far reaching impacts.

Replication and other effects

Replication effects

The BCLME project has had various replication and other effects, both internationally and within the BCLME region itself.

At the international level, BCLME has become a global example for LME projects and many aspects of its approach are or will be reproduced in other LME programs. Perhaps most significant of these is the concept of an LME Commission. This has been directly adopted in the GCLME, whereas on the case of CCLME and ASCLME it has been considered and remains a possible eventual outcome of those projects.

In relation to international conventions, BCLME has helped to promote EAF as a tool for implementing UNCLOS objectives, and has provided leadership in promoting the role of LMEs under the Regional Seas Convention (specifically the Abidjan Convention).

Another important aspect of BCLME likely to be replicated internationally is the strongly developed research component. BCLME has demonstrated effectively, to project constituents; governments and the international community, that a proper understanding of how the ecosystem functions is the foundation for management. This does not necessarily mean that ecosystem variability, which was the main focus for the science work in the case of the BCLME, will always be adopted as a trans-boundary concern for LMEs since there is good evidence to suppose that BCLME is particularly subject to extreme events such as HABs, LOWs and fluctuations in primary productivity. (The evaluator can confirm, for example, that in the case of CCLME, country stakeholders concluded that while variability in the CCLME was significant, it was not a trans-boundary concern *per se*.) But it is likely that the effect of BCLME has been to highlight the importance of obtaining a fundamental understanding of ecosystem function as a foundation for any management action.

BCLME's communication approach is also being replicated internationally. The BCLME "branding" has been adopted by all the African LMEs, which all now have logos and a corporate communication style. The BCLME style newsletter, posters and potentially the BCLME book are candidates for future replication. The creation of a BCLME brand and identity has undoubtedly been a factor in its success in promoting the "whole system" approach.

At the level of demonstration actions, the EAF project is also having international replication effects. Support to the EAF has enabled FAO to refine its template for the EAF process which will be used in other regions of the world. FAO has called the BCLME project a "flagship" for EAF and that it is "at the cutting edge globally". Based on the EAF experience in BCLME, WWF has developed a training programme on EAF for application in other regions. Namibia is already developing EAF-based management plans for commercial stocks.

At the level of the sub-projects, the top predators' project has led to a global seabird-fisheries project to be funded by UNDP-GEF. Other international replication effects from BCLME include the use of satellite tracking for shark species (based on experience with the bronze whaler shark in BCLME). The aquaculture model developed in BCLME is also applicable elsewhere.

Stakeholder views on replication effects

Stakeholders identified various international and regional replication effects of the project. BCLME has engendered replication effects as a result of exposure in international forums (GEF IW meetings, LME congresses etc.). BCLME ideas and approaches have been taken up by other African LME

programs (GCLME, CCLME; ASCLME). BCLME work on the bronze whaler shark was said to have promoted development of the Namibian National Plan of Action for sharks and was said to have influenced approaches to shark conservation internationally. As regards EAF, WWF is now replicating a training course on EAF based on the BCLME experience and has made a presentation to ICCAT to encourage adoption of bird scarers in the ICCAT convention sea area.

Impacts on national management practice and governance

National management practice

BCLME has had impact on national management practice in the spheres of fisheries and marine and coastal environmental management. The impacts have been substantial in Namibia, significant in Angola but minor in South Africa.

The impacts in management in Namibia include the following:

- Development of a series of EAF-based fisheries management plans in Namibia;
- Decision to make bird scarers obligatory for Namibian longline fleets to reduce by catch of petrels and albatrosses;
- Submission to the Minister of Fisheries and to Cabinet for approval to declare MPAs around all the Namibian offshore islands in 2008, confirming a clear link between fisheries management and conservation;
- Accelerated adoption in Namibia of the Environmental Management Act 2008 which includes provisions relating to mining requiring environmental management plans in mining leases;
- Improved environmental management of marine mining in Namibia as a result of the BCLME assessment of marine mining impacts.

In Angola, the BCLME project has resulted in:

- Management improvements in the artisanal fishery;
- Planning the extension of one trans-boundary area to include an MPA offshore.

In South Africa, there has been a reported improvement in compliance by industrial fishing vessels in the use of bird scarers, but limited reported impact on the way the concerned government ministries have been doing business.

Impacts on national governance

BCLME has had a marked impact on promoting the integrated approach, particularly in Namibia and Angola, but less so in South Africa (which has already benefited from a substantial ICZM policy initiative during the period 1997-1999). The integration of several sectors at the level of the Project Steering Committee has been especially beneficial in promoting greater integration at the national as well as regional level and has helped the affected departments to pursue an integrated approach on domestic as well as regional issues. In the case of Angola, the existence of BCLME had a beneficial influence on the development of the national fisheries law of 2004, which specifically includes the ecosystem approach.

Stakeholder views on national management and governance impacts

Stakeholders reported relatively few concrete changes in management to date. In fisheries, there had been no change in fishing quotas anywhere in the BCLME as a result of the project³ and industry representatives considered that some management decisions appeared still to be politically motivated rather than based on ecosystem considerations. In the case of Angola, concerns were raised about the recent issue of permits for trawling and the use of gill nets in the Cunene estuary, identified by BCLME as critical habitat. One stakeholder reported that a proposed framework for land based sources of pollution had been beneficial to management, although its implementation would depend on the availability of data. Nevertheless, stakeholders were almost unanimous that BCLME had brought about a major change in thinking towards an integrated, ecosystem-based approach and that this would have lasting influence on management.

In relation to governance, stakeholders generally considered that BCLME had a major beneficial impact on inter-ministry coordination within BCLME countries. BCLME has been noteworthy for the integration of different sectors at the level of the project steering committee (PSC) although did not, as is generally done for GEF IW projects, establish national inter-ministerial committees (NICs). While the BCLME approach of multi-sector representation on the PSC has undoubtedly been positive, it will be less easy to support in projects involving a larger number of countries where the less costly option would be to have a single representative on the PSC in combination with NICs (whose costs would normally be covered by national budgets).

Attitudinal shifts

The BCLME programme has generated significant attitudinal shifts in various constituencies concerned with this large marine ecosystem.

At the international level, the BCLME project has demonstrated the value of science-based understanding of an LME as the necessary foundation for action. In particular, the BCLME project has shown that the large-scale dynamics of ecosystem change are beyond the influence of management while rational management of human activities in the ecosystem depends upon an understanding of those dynamics. While much of the international community was already convinced of this, the BCLME has definitely shifted attitudes towards recognising the need for science and the large marine ecosystem approach. Even among those most convinced, the BCLME has had a detectable impact on perceptions and has served to reinforce confidence in the ecosystem approach.

At the regional level, the agreement to establish the BCC signifies a major shift in attitudes from a group of countries which a short while before were still at war to a group of countries actively cooperating in the management of their shared trans-boundary water body. This cooperation extends from the senior political levels all the way through to junior technical levels and is evidence of attitudinal shifts at all these levels. The increased recognition of the importance of science in order to understand the ecosystem is also apparent in the structure of the BCC (which includes an ecosystem committee) and the approval and funding of its science programme.

At the national level, there has been a marked positive impact on inter-sector cooperation. The BCLME has helped to develop a spontaneous shift towards the integrated approach and recognition that inter-sector cooperation brings added value. Firm linkages have been developed between ministries (fisheries, environment, mining) that rarely previously collaborated. Attitudinal shifts are also evident at the level of specific government departments and institutes.

Within the private sector some attitudinal shifts are also detectable. In the fishing industry, in particular, the industry has come to realise that the old form of management based on a compromise between the conflicting views of scientists (who were generally for reduced quotas) and industry (who always sought the maximum) is of no help to either party in the event of ecosystem decline. While

³ This appears to be incorrect since according to other sources some TACs had been reduced in Namibia

industry may still hold its own views about the state of stocks, it at least recognises the importance of a science-based approach for sustainability. The uptake of bird scarers by the industrial fishery in South Africa also illustrates a positive change in attitude towards conservation of the environment. Attitudinal shifts were also detectable in the diamond mining sector, where the ecosystem approach and need for environmental impact management have been accepted by mining companies. In the petroleum sector, companies have for some time been in the environmental spotlight and there was no indication that BCLME had any particular influence.

Views of stakeholders on attitudinal shifts

Stakeholders considered that attitudes had shifted in various ways due to the BCLME. Fishing industry representatives, confirmed by national personnel, considered that there had been an increased sense of responsibility and stewardship within the industry, with shifts reported in the industries of all three countries. There have also been shifts within government, with Namibia and Angola reporting the greatest shifts in management attitude. According to Angolan national personnel, the Angolan administration holds up BCLME as an example of regional and inter-sector cooperation to be followed and the existence of BCLME has led to collaboration between fisheries and environment on the TOUMBA project. Cross sector cooperation has also improved strongly in Angola. The partner project DLIST reportedly contributed to attitude shifts in target stakeholder groups.

Other effects

The BCLME has had various other effects not covered in the preceding assessment of impacts. These are presented below:

- The BCLME made a significant impact at the WSSD meeting in 2002, helping to define the WSSD vision and plan of implementation for marine ecosystems;
- The BCLME is the primary reason for adoption of LMEs at the most recent African summit of environment ministers (AMCEN);
- BCLME has helped promote the SADC fisheries protocol;
- BCLME has helped to reinforce the Abidjan convention.

The BCLME has been a “flagship” LME programme, and part of the representation for the LME approach at the WSSD in Johannesburg, 2002. At the WSSD meeting various literature items on LMEs was circulated and the LME constituency, supported by the BCLME example, was influential in shaping the targets in the area of marine environment, particularly as regards the ecosystem approach and the restoration of fish stocks.

At the African Conference of Ministers’ for the Environment (AMCEN) at Brazzaville in 2006, the LME community was again represented and was influential, based on the experience of BCLME and GCLME, in securing ministers’ adoption of the LME approach for African marine ecosystems.

The implementation of the SADC protocol on fisheries was listed as an indicator of project purpose. During most of the life of the BCLME project, a situation which prevailed at the beginning of the present evaluation, SADC had lacked personnel and resources to push forward the implementation of the SADC fisheries protocol. However, at the joint symposium of BENEFIT and BCLME the SADC fisheries represented stated that BCLME and BENEFIT had helped “bring to life” the SADC protocol.

BCLME and the other African LMEs have had a positive effect on the Abidjan Convention. As one of the weaker Regional Seas conventions covering the entire west coast of Africa, the Abidjan Convention has benefited from support from BCLME in promoting application of the convention by

the BCLME countries (while GCLME and CCLME have promoted its application in GCLME and CCLME countries).

Co-finance / leverage effects

The project document stated that the total cost of the project would be \$US 39 million of which \$US 15.5 million would be provided by the GEF and \$US 23.5 million would come from co-finance, listing the main contributors as national governments (\$US 16 million including about \$US 230,000 via SADC), BENEFIT (\$US 6.3 million), private industry (\$US 800,000), Port Authorities (about \$US 470,000) and DANCED (\$US 40,000). (NB these figures are rounded for easier assimilation). Whether such co-finance was accurately estimated or actually achieved is difficult to confirm since the project document did not present the co-finance calculations and project M&E did not include periodic monitoring of delivery on co-finance requirements (as would now be required under new GEF rules). However, it can be confirmed that country contributions were substantial (especially given the active involvement of two or three ministries and several institutions in each country, the considerable volume of project work in the countries and the numerous meetings that were held internationally) and that the BENEFIT contribution (which included ship-based surveys using the *RV Nansen*) was also substantial (see stakeholder estimates below which indicate that the BENEFIT co-finance exceeded the projected \$US 6.3 million).

With co-finance at about 55% of the total, the BCLME was comfortably within the GEF IW target at the time for IW foundation projects of at least a 2:1 ratio of project cost to GEF contribution. Nevertheless, since the project was presented as a “SAP implementation project” for which the target co-finance ratio at the time would have been 3:1, the project included as an objective the leverage of additional co-finance, mentioning partnership with the World Bank and the African Development Bank. In practice, the project was implemented using the existing funding and co-finance leverage efforts were focused on the follow-on project (SAPIMP = SAP Implementation Project) and funding for the BCC science programme.

While noting that additional co-finance raised towards programme activities was limited, particularly as regards leveraging development finance, the BCLME project has nevertheless been successful in raising funds for the SAPIMP project (from GEF and other sources) and for the BCC science programme (Iceland and Norway), foundations for the next programme phase. It has also leveraged considerable co-finance during its lifetime, including the following:

- Ministers recently agreed to increase the countries’ annual cash contributions to the BCC, equivalent to an increase of up to 25% in relation to the country contributions to BENEFIT while it was still running;
- Co-finance for the production of the book entitled “Benguela – Predicting a Large Marine Ecosystem”, estimated at about US\$1 million if one includes all the voluntary time of expert contributors as well as the production costs.

Stakeholder views on co-finance and leverage effects

Stakeholders reported several cases of the BCLME project leveraging co-finance. BCLME has helped create favourable conditions for the establishment of ACCESS (Southern African Climate Change Centre) and has leveraged around 50 million Norwegian Kroner (about \$US10 million at today’s rates) from the *Nansen* programme and over \$US2 million from Germany over the duration of the BCLME programme. There have also been leverage benefits to HABs training and LOW work, and most recently funding for the BCC science programme (over \$US10 million). The BCLME book alone

(*Benguela – Predicting a Large Marine Ecosystem*) has leveraged an estimated \$US1 million in cash and in kind.

Sustainability beyond project cycle

Independent sustainability assessment

The GEF M&E policy of 2006 requires at a minimum an assessment of the “likelihood of sustainability” of project outcomes, giving special attention to risks and the influence of contextual factors on sustainability. Four dimensions of sustainability must be addressed – ‘financial resources’, ‘sociopolitical’, ‘institutional framework and governance’ and ‘environmental’. For each dimension, ratings must be assigned as ‘Likely’, ‘Moderately likely’, ‘Moderately unlikely’ and ‘Unlikely’.

As has been noted above, the BCLME logical framework was significantly revised after project inception. Furthermore, experience has shown that certain projected outcomes were unrealistic and it is considered that the project should not be evaluated on an over-literal interpretation of the outcomes, but on the basis of an outcome that is reasonable and realistic in hindsight. This implies several analytical steps to arrive at a fair and meaningful assessment of project sustainability, as follows:

- What outcome was originally envisaged?
- What outcome was actually achieved? (broken down to components as appropriate)
- What are the risks and contextual factors influencing sustainability of the achieved outcome?
- How likely is sustainability of each of the four dimensions of the outcome? (financial, socio-political, institutional, environmental)
- What is the overall assessment of sustainability?

These steps and the assessment for each output are set out in Table 2. The assessment is that the benefits of outcomes 1 (programme coordination, capacity building and BCC establishment), 3 (environmental variability and prediction) and 5 (donor and country support) are likely to be sustainable (rating “L”), whereas the benefits achieved under Outcomes 2 (marine living resources) and 4 (pollution and ecosystem health), while still positive, appear moderately likely to be sustainable, reflecting slightly less solid progress by the project in these areas. Overall, the benefits of the project are considered “likely” to be sustainable (“L”).

The analysis is necessarily qualitative and somewhat subjective, and of uncertain reliability for the long term. It would appear, however, that BCLME has been very successful in achieving a measure of institutional sustainability (through establishment of the BCC) and medium term financial sustainability to ensure continued development of the programme over the next five (5) years (GEF support to SAPIMP, support of Norway and Iceland to the science plan and capacity building). The core message of the project – namely the importance of science and understanding variability in the system, mainly (but not only) carried by component 3 – has been convincingly established which explains the higher rating for sustainability under component 3. The sustainability assessment for components 2 and 4 is nevertheless positive.

The principal risk to sustainability is that the recent closure of the BCLME programme, and particularly closure of the PCU and Activity Centres which have been so important in driving the programme, will result in a substantial slow-down of momentum across all outcomes. Whether this happens will depend on the country governments, key government staff and the individuals selected for key posts in the BCC. The expectation is that the great enthusiasm generated within the BCLME constituency and the proven dedication of those selected for key posts in the BCC will strongly favour sustainability.

Other risks to sustainability include the lower level of financing post-project (as noted elsewhere, the BCLME was particularly well funded which may have been a contributing factor to the high level of enthusiasm among programme constituents), the somewhat diffuse nature of capacity reinforcement, the incomplete consolidation and accessibility of the information gathered by the sub-projects and other outputs, the relatively weak integration of the management level in the programme, the “brain drain” (through loss of personnel to the private sector and retirement of key scientists) and the risk that countries will not fully adopt all the project’s recommendations.

The key contextual factors affecting sustainability are the political and financial commitment of the project countries to building upon the outcomes achieved by the project. Variability in the environment may be a factor, as a disincentive to undertake management measures which might prove to be futile in the face of large scale environmental change. The prospects appear good, however, given the very clear commitment to the BCC and the recent agreement of countries to increase their contributions to the BCC. However, political fashions and development priorities may change, in which case commitments to regional cooperation tend to be more vulnerable than national commitments. There is also a concern that politico-cultural factors, in particular the importance assigned by politicians to science and environment, may shift under the pressure of immediate priorities such as reducing poverty, towards more socio-political and short-term economics-based approaches to development.

Stakeholder views on sustainability

Stakeholders raised a wide range of concerns about sustainability. The single most commonly expressed concern was the loss of key personnel to the private sector, particularly in Angola and Namibia but also in South Africa. Not only did this reduce available human resources, but it also led to loss of the valuable personal networks of institutional contacts that had been developed by the departing staff members, requiring new relationships to be established. Namibia is already taking action to address the issue.

Other external factors were identified as important, including political culture (in the case of South Africa this was felt not to be science friendly), the attitude of the fishing industry and persistent poverty (particularly a factor in Angola). In Angola the national policy is pro-environment but the government clearly lacks resources to implement all the BCLME recommendations without assistance.

Several stakeholders observed that the establishment of the BCC demonstrated political commitment to the process while others expressed concern that the BCC had come too late and was too weak as yet to guarantee such commitment. Its lack of legal personality might also be an obstacle on issues of information ownership, since BCC cannot yet own and therefore determine the use of information. On the specific matter of EAF, BCC was also thought to lack sufficient structure to implement EAF, which is a highly structured process.

Stakeholders doubted whether senior managers had fully taken up ownership of the BCLME process. Namibian stakeholders appeared to be the most assured of the political commitment of their own leaders and managers. There was concern that the management level still lacks direction and that it will not necessarily know how to proceed to the application of desirable measures, such as by-catch reduction.

Most stakeholders appear to have assumed that sustainability could not have been achieved in just one project cycle and had expected the continued support of GEF and other donors to be necessary for a further 5 to 10 years. GEF funding of SAPIMP was seen as a critical element in eventual sustainability and that other financing would also be needed to support continuing scientific effort. The fact that

SAPIMP project aims to conserve and develop the BCLME information base was seen as reassuring by some stakeholders.

Concern was expressed that the amount of consultation with management levels in government may not have been sufficient to ensure that the body of information collected by BCLME would actually be used. Some thought that the capacity to use the information was not fully developed and that in a worst case scenario there would be “a room full of fantastic information but no real client, no real institution and no capacity to use the data”.

Scientific stakeholders considered that the foundation to sustainability was the science-based approach and that improved understanding of the ecosystem would help drive the process forward. But a major job remained to be done synthesising and archiving the information. The SEIS would assist in this regard and would support the transition between BCLME and BCC. The project had chosen at an early stage to prioritise outputs over capacity building and this in itself threatens sustainability – special effort is now needed to ensure that the information gathered is not lost and that capacity is developed to use the information.

At the level of specific activities, risks to sustainability were thought to be greatest with the sub-projects that had not made the connection with management – those that made the connection should have lasting impact. Equipment purchase projects were expected to have sustainable benefits, such as the fish egg sampler purchased by the project for use at NATMIRC and the telephone system at a marine laboratory in southern Angola (there are other examples which are not listed here). Doubt was expressed, however, about the refitting of the Angolan research vessel since it was not clear that the government had the resources to run the ship after the refit. The LOW monitoring system in Namibia has been integrated into the government budget and therefore should be sustainable.

Overall, however, stakeholders mostly appeared optimistic about the future and to believe that the benefits achieved by BCLME would be sustained.

Overall Sustainability rating: L

Table 2 – Sustainability assessment of BCLME project outcomes

Outcome envisaged	Actual outcome (made up of outputs)	Risks to persistence of outcomes / outputs	Important contextual factors affecting sustainability	Rating by dimension		Likelihood of sustainability in view of risks and factors Average ratings
EXPRESS OUTCOMES	Outputs achieved (see results table for full descriptions)			Overall rating for project:		L
Operational and effective intra and inter programme coordination and support is established	<u>Coordination:</u> PCU 3 activity centres (to become Focal Points) 6 advisory groups PSC&AGs >2x/yr <u>Capacity building:</u> Needs assessment Training courses Training officer BCC training plan <u>BCC establishment:</u> BCC document BCC establishment BCC core finance	Programme and AGs may lose momentum with cessation of PCU, ACs and PSC, and reduced finance.	Political and individual commitment; relations between countries.	Financial	L	L
				Sociopolitical	L	
				Institutional	L	
				Environmental	n/a	
		Capacity building and training may lose resources and momentum on project closure.	Brain drain (affects all countries).	Financial	L	
				Sociopolitical	L	
				Institutional	L	
				Environmental	n/a	
		Governments may not sustain momentum and funding of BCC	Dispersal of training beneficiaries.	Financial	L	
				Sociopolitical	L	
				Institutional	L	
				Environmental	n/a	
Sustainable management and utilisation of trans-boundary marine resources are enhanced	SEIS in place (to be maintained by BCC) 1 st Fish stocks report Joint surveys and stock assessments done Working groups operational (to be integrated into BCC) Some reduced TACs in place	SEIS may not be user friendly to managers Countries may not fund more surveys Working groups may lose momentum Reduced TACs may not be observed or effective	Managers' commitment to use tools such as SEIS and EAF Countries' commitment to reduced catches Operator compliance	Financial	ML	ML
				Sociopolitical	ML	
				Institutional	ML	
				Environmental	ML	

	in Namibia Mariculture policy in place in Namibia Sanitary standards proposed for Namibia National EAF plans	Angola will focus on freshwater aquaculture Namibian sanitary standards may not be approved EAF plans may be too difficult to implement	Major environmental change or variability may affect resolve to act			
Environmental variability, its ecosystem impacts are assessed, and predictability is improved for enhancing the management of living marine resources	Managers starting to use BCLME knowledge, SEIS and stocks report BCLME prediction book published SEIS established and being transferred to BCC EWS and HABs elements in place Health warning system in Namibia Plankton monitoring in Angola ACCESS to reinforce EWS, HABs etc. Environmental baseline (SEIS) <u>Knowledge established of:</u> Orange Cone / Luderitz area environmental control factors; permeability of Orange Cone / Luderitz barrier; Angola / Benguela front	Managers may be replaced BCLME information flow may slow down or stop BCC may be unable to render SEIS fully operational EWS and HABs development may lose momentum Systems may remain national ACCESS may fail or be delayed Knowledge may not be rendered fully usable or be used by managers Retirement of key scientists driving the process may lead to loss of momentum	Economic drivers of brain drain reinforced Insufficient government commitment to BCC Countries' and donors' commitment Management culture may not match up to science-based approach Environmental change affecting incentives	Financial	L	L
				Sociopolitical	L	
				Institutional	L	
				Environmental	L	
Preliminary steps to maintain BCLME health and to enhance effective pollution management are initiated to safeguard fisheries and other resources	MARPOL review and ratification by all 3 states Negative impacts of mining well understood EWS virtually in place (tide gauges in place, ACCESS project initiated) A range of project studies documented BCLME ecosystem health issues Waste quality criteria proposed	Poorer states may have difficulty implementing MARPOL BCC may not succeed in completing EWS ACCESS may fail to secure funding Project studies may not be fully accessible or utilised Waste water criteria may not be applied Regional plan may not be	Insufficient national budgets (especially Angola, Namibia) Weak enforcement / compliance Political commitment to BCC National priorities may affect progress on pollution standards	Financial	ML	ML
				Sociopolitical	ML	
				Institutional	ML	
				Environmental	ML	

	<p>Regional cooperation plan for oil spills advanced</p> <p>Various marine mining codes and guidelines issued</p> <p>Mapping of habitats and species by CSIR</p> <p>Land-based sources of degradation identified</p> <p>Regional biodiversity plan drafted, to be completed by BCC</p> <p>Water and sediment quality guidelines written and under consideration</p>	<p>formally adopted</p> <p>Regional mining code may not be adopted</p> <p>BCC may be unable to complete mapping and assessment work</p> <p>Information on land based sources may not reach managers, policy makers</p> <p>BCC may be unable to complete regional biodiversity plan</p> <p>Countries may not adopt water and sediment guidelines</p>				
<p>Donor participation and co-financing are increased throughout the life of the programme and beyond</p>	<p>Donor and country commitment to the BCC secured and country contributions increased by 25%</p> <p>Donor conferences planned and held with successful results (Norway, Iceland)</p> <p>GEF funds used to leverage of additional funding (SAPIMP funding helped to leverage additional funds from Norway and Iceland)</p> <p>Increased donor assistance to longer term activities of the BCC (Iceland and Norway)</p>	<p>Risk of donor and country contribution shortfall (considered minor)</p>	<p>Political commitment to BCC and regional cooperation</p>	Financial	L	<p>L</p>
				Socio-political	L	
				Institutional	L	
				Environmental	n/a	

Compliance with Mid-Term Evaluation (MTE)

Situation at the MTE

Evaluators' assessment

The mid-term evaluators concluded that significant progress had been achieved at the mid-term point by the BCLME programme. Progress had been primarily focused on filling data gaps and capturing knowledge and information useful for the development of an integrated, ecosystem-based, cooperative management approach for the BCLME. The project had also made advances in capacity building and training and the development of cooperation and trust between the various national scientific stakeholders. The project had captured the attention of the international scientific community and was already regarded as a “model” demonstration of LME project development and implementation, both within sub-Saharan Africa and internationally.

The evaluators noted that there was an urgent need to move on from completing studies and improving knowledge to applying such knowledge in management approaches and mechanisms, focusing on trans-boundary resource management across the LME. Resource managers (public and private) needed to be engaged in this process and policy makers needed to be made aware of the economic benefits of the ecosystem-based approach.

The mid-term evaluators noted a wealth of information captured through the BCLME sub-projects which needed to be consolidated and reviewed at the thematic level while maintaining an integrated and cross-sectoral vision, and the need for the perfection of operational monitoring systems. They suggested that this work of consolidation should become the key focus for the Activity Centres and Advisory Groups.

The mid-term evaluators also noted the urgency to establish an Interim Benguela Current Commission (IBCC) and that the project should move swiftly towards the establishment of the IBCC.

The mid term evaluators recommended a two-tier approach comprising:

- An operational level component focusing on the technical and managerial relationship and developing cross-sectoral management approaches (including realignment of national budgets);
- A high policy level component driving the agreement and establishment of an Interim BCC and identifying the strategies, structures and sustainable financing mechanisms needed for a full BCC.

The evaluators identified a need for a more focused approach to capacity building and training (CB&T) and advised the project to consider developing a clear road-map for institutional and individual CB&T targets.

The evaluators noted promising benefits from cooperation between universities and institutes (e.g. between the University of Agostinho Neto and INIP in Angola) and encouraged the development of further such partnerships.

The evaluators identified problems and inequities in the cooperation between South African institutions and institutions of Namibia and Angola, as well as an unintentional bias towards the stronger South African institutions. (Nonetheless, the evaluators identified many positive examples of

experience sharing, skills transfer and capacity building resulting from cooperative studies and research between institutes and individuals from the three countries).

While stakeholder involvement had been good, it had tended to focus on fisheries-related stakeholders and there was a need to broaden stakeholder involvement to include specialists, managers and policy-makers from other sectors such as mining and petroleum, pollution control and other evolving sectors and industries such as mariculture and tourism.

There was a need to ensure effective national management of regional fish stocks and to expand this to trans-boundary management, with a particular emphasis on building capacity for fisheries management, addressing the disconnect between trans-boundary fisheries research and management and reinforcing the linkages between the scientific working groups on fisheries (at the national level) and the BCLME programme (at the trans-boundary level).

Stakeholder views of the situation at the time of the MTE

Generally, the vast majority of the stakeholders at the time of the MTE had a positive view of what the BCLME project had achieved so far, and that the project had:

- initiated a much more holistic approach within the region, with more information on changing boundary processes that affect national priorities and concerns;
- encouraged better integration of a multidisciplinary approach to the ecosystem effects of fishing and the relationship between fisheries and the ecosystem itself;
- assisted in retaining much expertise within the region which has had a positive effect on capacity building and training; and
- promoted regional cooperation between institutes.

There was consensus that much of the work relating to cutting edge techniques such as predictive modelling and environmental variability studies would not have happened without the support and encouragement of the BCLME Project. There was no perception that the programme had been forced on the stakeholders, suggesting strong country ownership at the scientific level and increasingly (according to the evaluators) at the political level.

Stakeholders considered that the difficulties of working in Angola had been underestimated or even ignored in the original project design (such as human resources and language constraints), confirming the findings of this final review. There was an urgent need to identify individuals for training in Angola (and to a lesser extent Namibia) for training at both basic and advanced levels, including language training in Angola. The need was highlighted particularly to work with the University of Agostinho Neto in Angola.

Stakeholders reported that the strengthening of the local currency against the US dollar almost immediately after project implementation had had a serious effect of what the project could realistically achieve.

The above stakeholder views resonate strongly with the stakeholder assessment made for the purposes of the final evaluation (see Annex 2).

MTE recommendations and project response

The Mid-Term Evaluators made a series of recommendations on the themes of:

- Establishment of the Benguela Current Commission (BCC)

- Establishing trans-boundary fisheries management
- Monitoring and surveillance of the BCLME
- Capacity building and training
- Preparing to secure GEF support for the next programme phase

Assessment of achievements since the MTE indicates that the project took explicit steps to address the MTE recommendations on all the above themes. Table 3 presents the evaluators' recommendations (in relation to Output 1 only) with the actions taken by the project and the results as at the end of 2007. Project responses to the MTE recommendations ranged between Highly Satisfactory (HS) to Moderately Unsatisfactory (MU) with an average rating of Moderately Satisfactory (MS). The principal reason for this appears to be the fact that the PCU and ACs were already overloaded with ensuring completion of all sub-projects, leaving little time to address all of the issues raised by the evaluators. However, the performance in relation to Output 1 (establishment of the BCC) and Output 5 (securing the necessary funding) was highly satisfactory (HS), indicating that the project successfully addressed the most critical issues.

Specifically, the MTE recommendations focused on the following issues, with the guidance indicated in each case:

Apply knowledge gathered in management approaches and mechanisms, focusing on trans-boundary management – The MTE evaluators advised that following collection of information, the project should make every effort to promote application of the knowledge in practice in management approaches and mechanisms. While the project did not achieve the development of trans-boundary management plans (which appears to be the sense intended by the evaluators), knowledge was nonetheless applied to advance management in the following respects:

- Development of national monitoring systems (including early warning systems and biotoxin monitoring at the national level)
- Knowledge of HABs and LOWs has fed into the near-complete development of a regional early warning system (EWS) and in the development of mariculture policy and planning 'especially in Namibia)
- Knowledge of the bronze whaler shark has fed into the national plan of action (NPOA) on sharks for Namibia, and into establishing catch and release schemes
- Knowledge of sea bird distribution has directly assisted in implementation of the bird scarer scheme in industrial fisheries
- Knowledge of the broader ecosystem and fisheries impacts has encouraged the development of MPAs around Namibia's offshore islands and Angola's planned investment in a trans-boundary MPA
- Knowledge of the impacts of marine mining has been translated into improved impact management procedures in Namibia
- Knowledge of the ecosystem has resulted in creating new fisheries management posts in Namibia, is expected to have a marked impact on management approach and has contributed to the elaboration of ecosystem-based management plans (in Namibia)
- Information generated has been fed into development of the SEIS and the state of stocks report
- Knowledge gathered has been used to inform the EAF planning process, particularly the series of national workshops in Angola, Namibia and South Africa which undertook risk assessments using knowledge gained through the BCLME programme
- Fisheries surveys results on small pelagics and mid-water resources have led to plans for further surveys
- Knowledge of the state of stocks has led to reduced TACs and contributed to EAF-style management plans in Namibia.

Engage resource managers in process / technical-managerial relationship

At the time of the MTE there was a sense that the project had successfully collected scientific information but had interacted little with the management level. Consideration of the reports issued after the MTE date indicates that a number of reports and workshops aimed at management were completed after the MTE, on themes such as:

Output 2 – Management of marine living resources

- Determination of optimal harvesting strategies for the hake trawl and long-line fisheries in Namibia and South Africa (Project LMR/CF/03/07)
- Ecosystem approach to Fisheries (EAF) management in the BCLME: Report of the second regional workshop, Luanda, Angola: 20-24 March 2006 (Project:LMR/EAF/03/01)
- Ecosystem approach to fisheries (EAF) management in the BCLME: Report of the third regional workshop, Cape Town, South Africa: 30 October – 3 November 2006 (Project:LMR/EAF/03/01)
- Results and conclusions of the project “ecosystem approaches for fisheries management in the Benguela Current Large Marine Ecosystem – (Project LMR/EAF/03/01)
- The Benguela Current large Marine Ecosystem - State of Stocks Review 2007 (Project: PCU/SSR/07/02)

Fisheries managers participated at the EAF workshops which were the major activity engaging management subsequent to the MTE in relation to Component 2 of the project (marine living resources).

Under Component 3, the following review reports or workshops had relevance to resource management and were either addressed to managers or intended to synthesise information for managers:

- Diagnosis of large scale South Atlantic modes that impact on the trans-boundary Benguela Current Large Marine Ecosystem: Investigating the potential for improved predictability and sustainable management (Project: EV/LS/02/06)
- The changing state of the Benguela Current Large Marine Ecosystem: Expert workshop on climate change and variability and impacts thereof in the BCLME region: Workshop report, Kirstenbosch Research Centre, Cape Town 15-16 May, 2007
- Assessment of the structure and functioning of the Angola Front (AF) Zone and associated natural resource exploitation issues: Workshop Report, Talatona Convention centre, Luanda, Angola, 2-3 October 2006
- Developing of and making operational, a viable and integrative environmental early warning system (EEWS) for the BCLME (Project: BCLME/EEWS/05/01)
- An interim report on the status of shellfish sanitation programmes in Namibia and Angola: Development of an operational capacity for a shellfish sanitation monitoring programme in countries bordering the northern part of the Benguela Current Large Marine Ecosystem; Phase 11 – Implementation: (Project: EV/HAB/06/01)
- Development of an operational capacity for a shellfish sanitation monitoring programme in countries bordering the northern part of the BCLME: Phase 11 – Implementation – (Project: EV/HAB/06/01)

Under component 4, the following reports or workshops were addressed to managers:

- Appraisal of environmental management guidelines in the seabed mining industry. (Project: PCU/RSM/07/01).
- A strategy for developing ballast water management activities in Angola (Project BEHP/SWB/08/01)/
- A regional assessment and management plan for port waste reception facilities in the BCLME region in accordance with MARPOL/73/78

Engage policy makers on economic benefits of ecosystem-based approach

At the time of the MTE the project had recently undertaken an assessment of the costs and benefits of adopting the trans-boundary ecosystem approach, in connection with the establishment of the BCC, which was addressed to policy makers. This evaluation did not identify any additional measures following the MTE, other than the extensive advocacy work that helped secure the countries' agreement to the BCC. While a detailed reconstruction of the engagement of policy makers following the MTE is beyond the scope of this evaluation, it appears that this was at least sufficient to secure the BCC agreement, which is a satisfactory result.

Consolidate and review information generated by sub-projects

Considerable effort was made following the MTE to collect and review information generated by the BCLME subprojects, through the following actions:

- *Compilation of subproject summaries* – this document is a useful collection of the objectives and recommendations of most of the sub-projects which provides a useful introduction to the breadth of the activities undertaken by the BCLME, their cost and the identity of the principal protagonists. While the subprojects are grouped by project output, they are not related to particular objectives of the SAP or to outcome indicators in the project's logical framework with the result that the document has limited utility for monitoring and evaluation purposes. The project summaries also do not mention the specific capacity building benefits generated. The document will nevertheless be useful as a guide for managers and the BCC as an aide to identify relevant information in the future.
- *Identification of decision making tools* – following the mid-term evaluation a table of decision-making tools was prepared by the PCU listing priority activities, outputs (tools for decision making) and policy actions to be undertaken to make use of or develop the tools. Tools identified included items such as:
 - Joint management plans
 - Preliminary EAF management plans
 - Monitoring manuals
 - Assessment and survey reports
 - Strategy for trans-boundary management of small pelagic stocks
 - Socio-economic analyses (various)
 - Forecasting models
 - Guidelines (e.g. for water quality)
 - Species identification manuals
 - Coastal sensitivity maps
 - DLIST education and outreach (DLIST = distance learning tool)
 - Annual state of the stocks report

While the document remained a draft, it provides a useful provisional framework for activities under SAPIMP which will help consolidate and use information collected during BCLME.

- *CD ROM of all BCLME subproject reports* (issued at the final Project Steering Committee meeting in March 2008) – an indispensable collection of the complete set of subproject reports which will be a valuable resource for years to come.

Consolidation and review of information collected by the BCLME project is considered satisfactory. Full synthesis and exploitation of the subproject information will be one of the activities of the follow-on SAPIMP project.

Perfect operational monitoring systems

Following the MTE, the project made a major effort to achieve operational monitoring systems for the BCLME, in particular the SEIS and an Early Warning System (EWS) for HABs and LOWs.

As has already been noted, the project did not achieve fully operational EWS, but did get very close to this objective. Fully operational EWS can be anticipated during SAPIMP. The SEIS may be considered as already operational, although there is scope for perfecting the SEIS and in particular uploading more existing data into the system. The SAPIMP project aims to achieve fully operational monitoring systems and will continue the work of uploading data into the SEIS.

While the result is not yet perfect, the project's response to the MTE recommendation is considered to have been satisfactory.

Move forward to establishing the BCC

The project was quick to respond to the recommendation to urgently pursue establishment of the interim BCC, as reflected in the PIRs for 2005 and 2006. Initially the original goal of a full Interim Commission was maintained, but a key shift in approach occurred when it was decided to develop an "interim agreement for the establishment of the full commission". The relative merits of this approach have been debated elsewhere, but it certainly seems to have facilitated faster progress towards a verifiable output and may eventually prove a faster route to a full commission. On this MTE recommendation the project response can be considered highly satisfactory.

More focused approach to capacity building

As noted elsewhere, the absence of a clear capacity building strategy for the BCLME has been criticised, and this was already identified as an issue at the time of the MTE. As observed by several commentators, the achievement of outputs and capacity building are partly conflicting objectives and the BCLME strategy up to the time of the MTE had been simply to require capacity building as part of each sub-project, a strategy which was partially successful but not focused or strategic. BENEFIT, in contrast, was specifically established as a capacity building project and it is perhaps not surprising that the solution eventually identified was to partner with BENEFIT in the development of a training programme. The focus, however, was on scientific capacity building with the result that BCLME has still not been able to develop capacity at the management level. Project response can be considered satisfactory.

Encourage cooperation between universities and institutes

This recommendation seems to have been made with Angola particularly in mind, reflecting a particular need to widen the capacity base in that country beyond the institutes themselves, given the shortage of human resources. This is perhaps less of an issue in South Africa, where several institutes exist, where cooperation between academic departments and institutions, such as MCM, is already well established and where the human resources base is much larger. Namibia would represent an intermediate case, although the evaluator did not come across any examples of cooperation between NATMIRC and universities. Furthermore, the evaluator did not note any action by the project to develop cooperation between universities and institutes, suggesting this recommendation was not taken up.

Resolve inequities between South African institutions and Angolan and Namibian institutions

The MTE noted that South African institutions gained a much larger share of the subprojects than Angolan and Namibian institutions. While this remained a major issue for stakeholders at the time of the final evaluation, the project did make efforts to address this imbalance in the following respects:

- Focusing training effort on personnel from Angolan and Namibian institutions;

- Development of subprojects primarily for the benefit of Angola or Namibia (e.g. Angolan research ship re-fit; ballast water treatment strategy for Angola).

The issue of “inequity” merits further examination. The decision to out-source so many subprojects inevitably required the use of contracting organisations such as institutes or consultancy firms which are far more numerous and experienced in South Africa than in Namibia or Angola. As a result, South African organisations took the greater share of the subprojects. This was a necessary consequence of the project approach to focus on delivering results more than on developing capacity. Greater equity would have been served by focusing more on capacity development. However, to switch the entire focus of the project to capacity building, given the many subprojects that remained uncompleted, would have been very difficult or even impossible at the MTE stage.

Need for realignment of national budgets towards implementation approaches

Related to the assessment that the BCLME project had not yet used information for management was the perception that the countries themselves had not yet prepared for the costs of implementation. It was beyond the scope of the present evaluation to assess whether, and if so how, countries had realigned their budgets towards implementation in response to BCLME. However, there are some indications of realignment including:

- Namibia earmarking funds for shellfish sanitation (decision to fund the construction of laboratories for microbiology, phytoplankton and biotoxins in 2006);
- Namibia setting aside budget for LOW monitoring;
- Development by Namibia of a series of EAF-style fisheries management plans;
- Recent agreement of countries to increase their contributions to the BCC by 25%;
- Country approval of the SAPIMP project including national co-finance contributions and commitments to implementation approaches.

There is no evidence that the BCLME project directly encouraged realignment of national budgets, but this was implied in the efforts to establish the BCC, EAF and other implementation approaches. Project response is considered to have been satisfactory in the circumstances.

Need to broaden stakeholder participation beyond fisheries to include managers and policy-makers from other sectors (mining, petroleum, mariculture, tourism)

At the time of the MTE, stakeholder participation was found to be of high quality but mainly limited to fisheries and science stakeholders. A similar finding is made by the present evaluation. While stakeholder participation continued to be of high quality, and the existing involvement of stakeholders from the mining, petroleum and mariculture sectors was maintained, no significant extension of the stakeholder base was achieved after the MTE. A likely reason for this is that the PCU and activity centres were already fully occupied completing the ambitious programme of subprojects.

Reinforce national and trans-boundary management

This is related to the earlier recommendations that the focus should shift from knowledge gathering to supporting management. While reinforcement of management is desirable, the BCLME project was primarily conceived as an information gathering project and the ambitious programme of subprojects related to this precluded any major shift or extension following the MTE to reinforcing national and trans-boundary management during the life of the project.

Strengthen links between fisheries working groups and the BCLME programme

Following the MTE, links between the fisheries working groups and the BCLME programme were promoted through the following activities which involved the working groups:

- EAF project workshops in Angola, Namibia and South Africa;
- Determining optimal harvesting strategies for hake trawl and long line fisheries in Namibia and South Africa;
- Report on potential shared hake stocks – research planning meeting between Namibia and South Africa;
- BCLME Status of Stocks Review 2007;
- Integration of fisheries working groups in the structure of the BCC and the implementation of the science plan.

The response of the project is considered satisfactory.

Table 3 – MTE recommendations in relation to Output 1 and actions taken by the project to address them

Outcome envisaged	MTE evaluator recommendation	Actions taken to address recommendation	Status of outcome at end of 2007	Assessment
Operational and effective intra and inter programme coordination and support is established	Address the shortfall due to drop in US dollar against the local currencies (budget replenishment or activities reduction, secure missing co-funding)	No action since a) project was sufficiently funded despite fall in US dollar (proof: 3 month no-cost extension was possible) and b) additional funding not available.	Average rating:	MS
	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.	This was considered but teams were not reinforced since additional funding was not available – AC staff reported very substantial workload completing all sub-projects.	<u>Coordination:</u>	n/a
	Activity Centres 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.	In practice, AC leaders did not have time for this exercise – sub-projects were already designed in relation to priority issues.	PCU 3 activity centres (to become Focal Points) 6 advisory groups PSC&AGs >2x/yr	MS
	Develop a clear and strategic ‘road-map’ with work plan for capacity building and training.	The road map was not developed but needs were reassessed and a new training programme was devised and implemented.	<u>Capacity building:</u>	MS
	Identify mechanisms for securing CB&T in the long-term (e.g. trained personnel to be obliged to remain in post for set period after training; trainees to train other staff etc.)	This was not achieved during BCLME project but a CB&T programme was designed for the BCC with mechanisms for securing capacity; Namibia is addressing the brain drain.	Needs assessment Training courses Training officer BCC training plan	S
	Explore the need for basic training as well as more specialised capacity building.	The new training programme included basic training.		S
	Recognise need for higher level education and promote higher education to at least MSc level.	The programme also added support for MSc and even PHD training.		S
	Give urgent attention to Angola’s specific needs (language barriers, human resource constraints)	The project ramped up English training and ensured capacity building of Angolan’s in sub-projects.		MS

	Look at mechanisms for retaining sub-project trainees with special skills	The brain drain emerged as key concern although specific mechanisms will be left to the BCC.		MS
	Identify funds to engage a Capacity Building & Training Coordinator for second half of the project	BCLME and BENEFIT combined resources to pay for training programme officer.		HS
	Establish Interim BCC as soon as possible (IBCC to develop formal multilateral agreement)	The decision was made to go for an “interim-multilateral agreement to establish the BCC” thus meeting both requirements.	<u>BCC establishment:</u>	HS
	Link IBCC mandate to national and regional targets including MDGs	According to the Interim Agreement the purpose of the BCC is to implement the SAP, which makes no reference to MDGs or to national or regional targets.	BCC document	MS
			BCC establishment	
			BCC core finance	
	Revise responsibilities and ToR of the PSC to steer project within the policy context laid down by the IBCC/BCC	The ToR of the PSC were not revised since the BCC had not yet “laid down the policy context”.		MS
	Enhance capacity building and training for stock assessment, ecosystem assessment, etc.	During the second part of the BCLME		MS
	Establish exchange mechanisms for information and lesson-sharing	The project successfully established the SEIS and issued a first “state of stocks” report for the BCLME.		S
	Undertake more effective and widespread public awareness	Communication by BCLME continued without specifically focusing on widespread public awareness which has nevertheless grown.		MS
	Increase emphasis on the economic and socio-economic elements of ecosystem management	The EAF project helped to demonstrate such benefits.		MS

Shortcomings of the project

Independent assessment of shortcomings

“Shortcomings” for the purposes of the independent assessment component of this terminal evaluation are taken to be shortfalls in relation to project objectives - project goal, project purpose, project outcomes (termed “outputs” in the case of the BCLME) and indicators of those outcomes. Shortcomings in project implementation, management etc. are dealt with in the appropriate sections of this report.

Time and resources permitting, it would have been useful to extend the assessment of shortcomings to the project activity level (i.e. at the level of individual subprojects). However, this was impracticable for the following reasons:

- The majority of project activities (i.e. the 100+ subprojects) were not explicitly anticipated in the SAP or described in the project document, logical framework or project implementation reviews (PIRs);
- The subproject summaries prepared by the PCU describe objectives and recommendations of each project but not the outputs or results.

The current assessment is thus limited to shortfalls above the activity level, the results of which are presented in detail in Annex 1 and in the supporting text of this report. Below is a summary of the shortcomings at the levels of project goal, purpose and outputs.

Shortcomings at level of project goal

At the level of project goal the main shortcomings were:

- Integrated trans-boundary management was not yet operational at project end;
- There has been no conduct of any survey on alien invasive species;
- The intended Early Warning System is still not fully operational;
- Mining leases with environmental action plans are not yet universal.

Detailed appraisals of each shortcoming have been given above in the assessment of project performance. The essential finding (except in the case of the assessment of alien invasive species) was that the project got very close to full achievement of these key targets and that these are likely to be achieved during SAPIMP. In relation to alien invasive species, the shortfall resulted from the fact that a related project was not implemented as expected, and was outside the control of the BCLME.

Shortcomings at the level of project purpose

The main shortcomings of the project at the level of project purpose were:

- The intended coordinated enforcement between countries, such as on MCS, did not occur;
- The SADC fisheries protocol was not fully implemented.

The shortfall in coordinated enforcement between the countries may be related to the fact that no activity of the project directly attempted to promote coordinated enforcement. The shortfall in relation to SADC was related to a shortage of human resources within SADC, outside the control of BCLME. With the establishment of the BCC and with the support of the SAPIMP project, there are good

prospects for more coordinated MCS during the lifetime of the SAPIMP project. The recent upturn within the SADC fisheries department is basis for hope that countries will progress faster towards full implementation of the SADC protocol.

Shortcomings at the level of implied outcomes

The main shortcomings of the project at the level of implied outcomes were:

- The SAP was not updated and remains preliminary in nature;
- “Real time” trans-boundary management of resources is not yet in place;
- An integrated regional biodiversity and habitats conservation plan not in place.

The non-updating of the SAP may be linked to the fact that, despite being described as a “key process indicator” in the project document, it never found its way into the logical framework and was thus given less priority than explicit indicators. With the establishment of the BCC and the SAPIMP project and the extensive information base developed by the BCLME project, there are good prospects for updating the SAP during the lifetime of SAPIMP.

While “real time” management is not yet in place, the necessary elements for such real time management, such as an early warning system (EWS), SEIS and state of fish stocks report are now in place or close to being so, and there are good prospects for achieving real-time management during the lifetime of SAPIMP.

The absence of an integrated regional biodiversity and habitats conservation plan is a definite shortcoming, and has been taken up as a priority objective by the BCC. The shortfall was due in part to the decision of the Angolan petroleum industry not to disclose marine biodiversity data for oil production areas (this should not be taken as a criticism of Angola or the companies concerned, who had reasons for not handing over data). However, data from the other two countries were provided and much of the work to design the conservation plan has been done. With the establishment of the BCC, there are good prospects for achieving an integrated regional biodiversity and habitats conservation plan during SAPIMP.

Shortcomings at the level of project outputs

Output 1 – Coordination

The main shortcoming under Output 1 was the lack of a formal regional strategic plan on capacity building. In part this reflects an inherent conflict in project design which prioritised the delivery of many outputs (under the subprojects) over capacity building. The shortcoming was partly mitigated by requiring integration of capacity building into every subproject and the late establishment of a joint BCLME/BENEFIT training programme but remains a recognised deficiency under Output 1 to be addressed by SAPIMP. It is noteworthy that the BENEFIT mid-term review reported a similar defect, even though that project was primarily a research and capacity building project. This would suggest that developing strategic plans for capacity building is particularly difficult, although the reasons why this should be so were not identified.

Output 2 – Marine living resources

The main shortcomings under Output 2 were:

- No trans-boundary management arrangements were yet in place by the end of the project;
- No annual state of ecosystem reports were achieved (although the state of BCLME fish stocks report is a contribution to this);
- The fisheries working group was not fully operational;

- There has been no halting of fish stock declines as projected;
- A mariculture policy is not yet in place in Angola;
- No fish stock rebuilding has yet been undertaken;
- Angola has not yet adopted quality and sanitary methods for mariculture;
- No Operational Management plans (OMPs) for fisheries are yet in place at the trans-boundary scale.

The above shortcomings reflect in part unrealistic expectations by project design stakeholders (halting of fish stock declines, stock rebuilding) and some mismatch with country priorities (Angola's main interest is in continental aquaculture rather than mariculture), but the lack of established management arrangements for shared stocks, lack of state of ecosystem reports, working groups not fully operational, absence of trans-boundary OMPs) are all shortfalls against achievable objectives. In relation to most of these (trans-boundary management arrangements, annual state of ecosystem reports, fully operational working groups and trans-boundary OMPs) there are good prospects for attainment during the early part of SAPIMP. The remaining objectives (halting of stock declines, fish stock rebuilding) appear to have been unrealistic during the lifetime of the project and even appear ambitious targets for the lifetime of SAPIMP.

Output 3 – Environmental variability

The main shortcomings under output 3 were:

- The capacity for prediction of the ecosystem is still limited;
- Resource managers are not yet using SOE reports or attendant forecasts in 2008;
- EWS for HABs is not yet operational regionally;
- Knowledge of the key components to the BCLME ecosystem (Orange Cone / Luderitz area; permeability of Orange/Luderitz barrier; Angola/Benguela front) is now in place but has not yet been applied in management.

The above shortcomings are real but relatively minor if one regards the major advances that have been made in relation to assessment of environmental variability and improved predictability and that the project was very close to achieving the relevant indicators. The prospects are good for attaining the relevant targets during the life of SAPIMP.

Output 4 – Pollution and ecosystem health

The main shortcomings under Output 4 have been:

- No regional environmental management measures are in place to date;
- There is no specific agreement with SADC on MARPOL;
- EWS is not yet fully operational;
- No regional oil pollution contingency plan or regional pollution policy is yet in place;
- A regional code for responsible mining code is not yet finalised and adopted;
- The report on vulnerable species has been delayed (although there have been major advances in relation to the bronze whaler shark and seabirds/fisheries interactions);
- A regional marine conservation plan has been prepared but not yet formally adopted;
- Sites for MPAs have been identified but measures for conservation are not fully implemented;
- No harmonised regional oil spill contingency plan is in place;
- Guidelines for water quality are not in place in Angola.

The above shortcomings reflect in part inappropriate or unnecessary targets (agreement with SADC on MARPOL, harmonised oil spill contingency plans) but most represent slight shortfalls compared with what have nevertheless been substantial advances over the baseline and which should be made up during the early part of SAPIMP.

Output 5 – Donor participation and co-finance

The main shortcoming under Output 5 was the lack of systematic procedures to secure additional funding and co-financing and the lateness of approaches to donors. However, this was compensated for by the success of the project in raising funds at a late stage, based on the evident achievements of the project.

Factors influencing shortcomings

The factor most influencing shortcomings has been the highly ambitious scale of the BCLME programme of subprojects, which has stretched BCLME project personnel and national counterparts to the limit, leaving limited time to fully satisfy all project indicators. Additional factors have included poor synergy with BENEFIT in the early stages (which delayed capacity building efforts), environmental factors (which have contributed to continuing decline of certain stocks) and the obstacles which have reduced Angolan participation in the project.

Stakeholder views on shortcomings

A few stakeholders could not identify any shortcomings, but most had at least some reservations. At the programme level, several stakeholders thought that the BCC was established too late and that it lacked the necessary powers (advisory only, no diplomatic status, no legal personality) while others thought it could not have been done any more quickly and indeed that moving too far too fast might have been detrimental. The lack of communication to stakeholders about the BCC was criticised - one fisheries industry representative said the industry would have been more supportive had it been aware that BCC would only be advisory in its first incarnation. Despite the BCC, several stakeholders thought that government ownership and integrated management were still not fully developed and that there remained some disconnection between science and management. Some thought that the fishing industry had been insufficiently engaged and that joint management by scientists, government and industry was still some way off. The EAF project had made important progress towards these linkages but it had come too late in the programme yet to have had a major impact. In Angola, it was felt that more should have been done to engage rural coastal communities.

On the issue of science stakeholders were divided – some thought there had been too little and that the importance of science was still not fully appreciated while others thought there had been too much science for science's sake, that science had sometimes dominated to the extent of “hoodwinking” government stakeholders, that some science had been unproductive and that some had been incomplete (especially on fisheries). Some were disappointed that certain key trans-boundary concerns, such as trans-boundary hake stocks, had still not been adequately tackled scientifically. One expressed dismay and disappointment that an important trans-boundary hake workshop had been ‘sabotaged’ by industry and scientific groups antagonistic to the trans-boundary approach. Several thought that the scientific information generated by the project was not in a form that was accessible to the non-scientific community.

At the closing symposium, it was confirmed that there had been few concrete changes in trans-boundary management, with many issues still to solve, and that linkages between science, socioeconomics and management were still weak.

Some considered capacity building to be disappointing, particularly in environmental management (e.g. oil pollution control), specialist areas (e.g. modelling) and management, or that it had been scattered and not always delivered in the right places. The capacity needs assessments early on in BCLME appeared helpful at the time but in hindsight proved to be little more than a wish list which

did not provide a strategic framework. Several stakeholders considered that there had been no strategic vision or plan for capacity building. Training activities had been considerably enhanced through the recent collaboration with BENEFIT but this came late in the programme and the impact will necessarily be limited.

On the issue of country participation, many stakeholders commented on the uneven benefits capture by the three countries, most considering that Angola had been less able to benefit from the project than the other countries and that probably Namibia had benefited most. The particular case of Angola has given rise to much stakeholder commentary which will be presented below under 'Factors in Shortcomings'.

On the issue of project scope and content, several thought that there had been too many sub-projects and not enough synthesis of the information they had generated, that some projects overlapped and that they had been unevenly distributed across thematic areas and between the countries.

At the closing symposium, the Angolan representation stated that the Angolan science community would have liked to have been involved in more publications,

Factors in shortcomings according to stakeholders

At the level of the overall programme, some felt there was a lack of overall strategic plan or vision and that big issues (such as establishment of the BCC) were not addressed until a late stage, compromising project impact and sustainability. The programme was considered by several to be too broad and ambitious with too many sub-projects, particularly on the theme of environmental variability. Government compliance with the SAP was considered by some to have been less than full, citing examples such as the decision of the Angolan government not to release marine biodiversity data for oil production areas (a formal agreement on information sharing might have averted this problem). Some felt that the project coordination had not done enough to push government compliance or to develop government ownership and involve or support the management level within governments. Some thought that government institutions did not have a sufficient role in project management and that the project was inconsistent in the way it interacted with the national institutions. One thought that the dominant role of consultants in the programme sometimes made the Activity Centres seem superfluous and more political than effective. Cooperation between donor agencies was also thought to be weak, especially between UNDP/GEF and Norway, and that this had led to some unnecessary parallelism between BENEFIT and BCLME in the early stages (which was later resolved).

Concerning the criticisms that the project was too science-based and insufficiently focused on management, it was suggested that science itself had not yet made the transition to a more modern, applied approach and that managers did not yet know what they wanted - as a result, the scientists had it too much their own way and management was not fully engaged. One commentator summarised that there was now "too much information to absorb and no management systems in place".

At an operational level, stakeholders identified various factors that impacted project success. Several thought that the project had been too rushed and ambitious and that the shortage of time had compromised the quality of project outcomes, especially capacity building. The rush was said to be one of the factors in the decision of the Angolan government not to release data on marine biodiversity in oil production areas. Many of the projects were not completed on time and several commentators considered that there should have been penalty clauses in the contracts (although one stakeholder considered that late delivery of some outputs had not significantly compromised the overall project outcome). Some criticised the high UN subsistence allowances (DSAs), noting that the DSA for a three day meeting would be the equivalent of a month's salary for a Namibian fisheries scientist. DSAs were high in comparison with BENEFIT (which some considered already ample) and were thought to have encouraged inappropriate incentives for participation in BCLME meetings (Note: these observations apparently relate to 1st year of project only since DSA rates and seagoing

allowances were harmonised after year 1). Changes in personnel, particularly the directorship of the Activity Centre in Namibia, were considered detrimental. The project also experienced technical problems of communication, particularly in Angola, at various times.

The special obstacles to Angolan participation

Almost all stakeholders commented on the obstacles to Angolan participation as a factor in the project's shortcomings. Most, however, felt that Angola had made enormous progress over the last 10 years and that the factor was becoming less important. The language barrier was the obstacle most often cited, and it was suggested that this had almost doubled the amount of work per output. Other factors cited included a relatively top down administrative system, shortage of qualified personnel, lack of field work experience, limited access to information, the "brain drain" to the petroleum and other industries (although this was thought to be even worse in Namibia), high operating costs and infrastructure problems. Some expressed the view that project management did not do enough to facilitate project expeditions to Angola and some disappointment that the Angolan administration itself offered no special treatment for project personnel needing visas, which was always a laborious process.

SAPIMP objectives in relation to BCLME shortcomings

Consideration of SAPIMP objectives provides additional corroboration and insight in relation to the shortcomings or inherent limitations of the BCLME project. The SAPIMP project is structured around four main components and 10 subcomponents as follows:

Benguela Current Commission and Treaty	Permanent BCC established and delivering regional guidelines on reforms reflecting trans-boundary ecosystem management approach
	Regional LME treaty secured and ratified by the end of project
National Policy and Management reforms	National structures operational and coordinating reforms to policy, legislation and management
	Policy and management realigned in each country to reflect trans-boundary ecosystem approach to fisheries
Sustainable capacity for LME management	Significantly increased capacity and skills developed and being maintained for managing the trans-boundary ecosystem approach to fisheries
	BCC and associated structure has sustainable funding and support beyond project lifetime
	Formal partnerships established and operational between stakeholders
	Stakeholders fully participatory in BCC/LME management process
Capture & networking of knowledge and best practices	L&BP captured within the BCC/LME legislation, management and policy reforms
	African and Global/LME fisheries networking mechanisms full operational

The SAPIMP component structure reflects the inherent limitations or actual shortcomings of the BCLME project in the following respects:

- The need for a full Benguela Commission and Treaty reflects the fact that these were not fully achieved by the BCLME project. The BCC as presently constituted is not yet a full commission and, while the BCC interim agreement may be considered a treaty according to principles of international law, it does not have all the characteristics of the full treaty that had originally been planned for the Interim Benguela Current Commission, ratified formally by national legislatures. The reference to a "permanent" BCC delivering guidelines and reforms on the trans-boundary ecosystem approach confirms that the construct created by the BCC interim agreement is not permanent and not yet able to deliver such guidelines and reforms.

- The need for national and policy management reforms reflects the fact that, as normally required for GEF IW projects, the BCLME did not get as far as mainstreaming trans-boundary management into national policies and management. BCLME did not establish National Inter-ministerial Committees (NICs) but relied upon integration at the level of the PSC (something it was able to do because of the small number of countries and robust funding) and did not, as originally intended by the SAP, develop national action plans (NAPs) for SAP implementation. BCLME also did not result in systemic changes to legislation at the national level (with the possible exception of the Angolan fisheries law, which recognised the ecosystem / trans-boundary approach).
- The need for sustainable capacity for LME management reflects the fact that BCLME focused primarily on knowledge gathering at the scientific level and that it did not develop sustainable capacity for LME management at the managerial level. The reference to skills development for trans-boundary management also tends to confirm the limitations of the BCLME project in developing management capacity and that it did not establish trans-boundary management at the national level. The reference to sustainable funding reflects that, while BCLME was successful in securing funding for the BCC science plan, the SAPIMP project itself and also inducing increased country contributions, it did not manage to establish fully sustainable funding sources for LME management. Related to the need for sustainable funding is the objective to develop formal partnerships (typically termed “strategic partnerships” by GEF) generally considered necessary for delivering the necessary level of investment for full-scale LME management. Finally, the objective of full stakeholder participation in the BCLME process confirms that BCLME did not generate the full extent of stakeholder participation required for transition to the BCC.
- The need for capture of knowledge and networking of best practices reflects the fact that, while BCLME successfully gathered extensive knowledge, it did not fully consolidate or capture such knowledge and did not identify best practices as might have been done, for example, through conducting a series of demonstration actions addressing trans-boundary concerns. The reference to transfer of lessons and best practices further emphasises that the valuable knowledge accumulated by BCLME still needs to be effectively transferred. Finally, the reference to networking partnerships tends to confirm, as pointed out by several observers, that the BCLME information gathered by the many subprojects has not been fully shared or distributed.

Project Implementation assessment

Overall implementation approach

The overall implementation approach followed that of GEF IW projects, beginning with a Block B preparation phase (PDF-B) which lasted approximately 3 years (1997 to 2000). Unusually for GEF IW projects, the PDF-B phase resulted in the elaboration of a Trans-Boundary Diagnostic Analysis (TDA) and a multi-country agreement on a Strategic Action Programme of priority actions to be undertaken by the project, all within a 3-year period. This was a record at the time and remains so today. The fact that the TDA and SAP were already completed during the PDF-B phase facilitated project implementation, although resulted in a SAP and a project that are focused primarily on filling knowledge and policy gaps rather than undertaking concrete actions in trans-boundary management. The project did not make use of the now more usual approach of a series of stress-reduction demonstration actions in the foundational phase.

The TDA/SAP exercise

Numerous commentators stated that the initial August 1998 workshop had been critical in kick starting the project preparation process. The use of ‘ambassadors’ from GEF well informed about the GEF IW processes was considered a deciding factor.

The TDA was developed following a series of trans-boundary assessments and, although found cumbersome by some stakeholders, was ultimately considered the defining foundation of the project. The BCLME TDA has been widely published and has been imitated or adapted in other LME projects (such as the GCLME and CCLME). It is considered one of the best examples of its kind and is used in training courses developed for the TDA/SAP process.

The SAP was derived from the TDA and manifests the necessary political commitment to key policy actions identified in the TDA. The SAP is intentionally brief – being aimed at decision makers – but as a result it lacks a detailed listing of the precise activities to be undertaken under the BCLME programme (a lack of detail that persisted into the BCLME project document itself).

The SAP contains the unusual opening statement: “An organisation entitled the BCLME Programme is hereby established as an international body in terms of the United Nations Convention on the Law of the Sea (UNCLOS)”. This inspirational, if grandiose, opening statement of the SAP actually has no basis in law but it is a good illustration of the visionary language that has helped to drive and inspire the BCLME process. The TDA and SAP documents have served as valuable foundation documents for stakeholders and decision makers throughout the project.

Implementing institutions

The project was implemented by UNDP and executed by UNOPS. This arrangement had the advantage of separating development agency support and administrative functions, leaving UNDP management free to focus on guidance and support to the project leadership while ensuring administrative efficiency. Several commentators remarked on the valuable vocational support provided by UNDP and the high efficiency of UNOPS administration.

The project adopted an implementation approach typical of GEF IW projects generally and of LME projects in particular, but with certain significant innovations. The basic project structure comprised:

- A project steering committee (PSC)
- A regional project coordination unit based in Windhoek, Namibia
- Thematic activity centres (ACs) in each country, based close to appropriate national institutions
- National focal points (individuals, one in each country from the same national institution)
- 6 Advisory Groups on technical themes related to trans-boundary issues (fisheries, environmental variability, biodiversity and ecosystem health, marine pollution, legal and maritime affairs, information and data exchange)

The project steering committee was a substantial structure of 15-20 persons, including country representatives from each of the three key sectors (fisheries, mining, environment), BENEFIT, SEAFO, SADC, UNDP, UNOPS, the Chief Technical Adviser (CTA) and AC Directors. Several commentators highlighted the benefits of a relatively relaxed, informal style to conducting project business in the PSC.

The regional coordination unit was a small, autonomous, structure, based above a modern shopping centre in Windhoek, away from any particular national or regional institution. The total staff

comprised just the chief technical advisor (CTA), administrator and secretary with support staff as necessary.

The thematic activity centres were based at or close to key national partner institutions, in fact the same partner institutions as the BENEFIT project, thus capitalising on the institutional basis developed by BENEFIT (INIP, the fisheries research institute in Angola; NATMIRC, the national marine institute in Namibia and MCM (Marine and Coastal Management) in Cape Town, South Africa). Each activity centre comprised the thematic coordinator (who was a national of the host country), an administrator and support staff (driver, guard, domestic).

National focal points had been appointed at the PDF-B stage, when they played an instrumental role, becoming less visible but nonetheless significant when the project moved into full implementation. The Advisory Groups played a vital role in shaping technical aspects of project implementation and were the foundation for the technical working groups within the BCC.

Innovations in implementation

Significant innovations in the BCLME project structure included:

Multi-sector representation on the Project Steering committee – In many GEF IW projects, budgetary constraints dictate that each country is represented on the PSC by a single national representative, typically from the environment ministry, whose mandate is to represent all sectors of the country government, reporting back to a National Inter-ministerial Committee (NIC). The BCLME has been especially fortunate in: 1) having just three countries in relative proximity and 2) similar sectoral organisation (ministries for fisheries, mining and environment) permitting optimal integration at the *regional* level. Not only has this promoted the integrated approach, but it has dispensed with the need for National Inter-ministerial Committees (NICs) and thus lightened project structure (although, as the stakeholder survey indicates, the need for a national structure was felt by some stakeholders).

Thematic Activity Centres, one in each in each country, based on the trans-boundary concerns of 1) environmental variability; 2) management of marine living resources and 3) pollution and ecosystem health, corresponding to the first three modules of the LME approach. It was particularly fortunate that the number of countries corresponded to the number of key issues and LME core modules. But another important feature of the activity centres was that they were thematic, rather than national. Thus, each country centre had responsibility for coordinating activities across the entire LME for a given theme, thereby fostering inter-country cooperation and leadership. In addition, the allocation of themes corresponded quite well with national concerns and/or capacities, favouring national political support and providing an incentive for success. Thus, Angola, which possesses tropical marine ecosystems of relatively high biodiversity and sensitivity, and has particular concerns about pollution from the offshore oil and gas industry, hosted the theme ‘Pollution and ecosystem health’. Namibia, which has particular concerns about fisheries, and which lies at the centre of the LME, hosted the ‘management of trans-boundary marine living resources’. South Africa, which has notable scientific capacity and national concerns in relation to ecosystem variability, hosted ‘environmental variability’. This allocation of activity centres fitted remarkably well with country priorities and capacities and was a major factor underlying project success;

Sub-contracting (use of multiple sub-contracts) - The most significant innovation in project implementation included the extensive use of sub-contracting as a mechanism to execute planned activities (although these were not specified in the SAP or the project document). This was fundamental to project approach and probably was the only possible way to implement so many activities (over 100 separate sub-projects) in such a brief time frame. It was also the approach that had already been used by BENEFIT, so stakeholders were familiar with it. Advisory Groups decided at the start of the Programme which projects should go out to tenders and which should be directly allocated to BENEFIT and other entities in the region i.e. INIP, NatMIRC and MCM.

The approach was partially flawed for the following reasons:

- Neither the specific projects, nor the projects as an ensemble, were the subject of a final approval by the countries to ensure consistency with the SAP or project document or logical framework before initiating the tender process or direct contracting – it was therefore not always easy to see exactly how the project related to the SAP, logical framework or project indicators;
- Several projects were awarded directly to BENEFIT – while most stakeholders welcomed this approach as an optimal and expedient use of resources and as a means of developing capacity, BENEFIT was not an autonomous entity with legal competence to undertake contracts and did not (at least initially) have the mandate to act in this way from its own beneficiary institutions (INIP in Angola, NATMIRC in Namibia, MCM in South Africa) or its principal donors;
- In the case of tenders, the awarding of projects was based on technical and financial components and selections were made according to UNOPS selection criteria and point system. This often gave an advantage to South African institutions who were able to submit stronger technical bids – while most projects actively involved personnel from all three countries and included a mandatory capacity building component, most Angolan and Namibian institutions were at a disadvantage. While most stakeholders acknowledged that the South African institutions were able to achieve good results, the benefits from the contracts were unevenly spread between the countries.
- Most projects and their terms of reference were designed by Advisory Groups whose members in some cases included individuals who subsequently participated in bids for the same project – while there has been no suggestion of any improper motives or conduct, this technically constituted a conflict of interest for the advisory group members concerned;
- There were no penalty clauses in the contracts for late delivery, leading to several extremely late deliveries, sometimes without strong justification – this held up delivery on several project outputs.

While the allocation of mini-projects was the main flaw in the BCLME project implementation process, stakeholders appeared mostly to consider that the “end had justified the means” and proved to be an effective way of achieving results.

Overall rating on project implementation: Satisfactory (S)

Country Ownership/Driven-ness

Country ownership and driven-ness are fundamental requirements of any GEF project. Country driven-ness generally refers to the need for projects to be consistent with national policies and international agreements signed by the countries, while ownership encompasses a broader set of principles. In common with other GEF IW projects, the BCLME project design was the subject of a country-owned preparation process resulting in agreement on priority trans-boundary issues (TDA), a programme of action to address them (SAP) and a project document endorsed by national GEF operational focal points. The project itself was driven by a steering committee with strong country representation and activity centres were led by national directors. Thus, the BCLME project necessarily enjoyed a substantial degree of country ownership. Country ownership may be considered particularly strong in the case of BCLME for the following additional reasons:

- The project proceeded and enjoyed political support despite the fact that participating countries had recently been at war – this implies an extremely strong commitment of the countries to the project;
- Several commentators spoke of the high level of enthusiasm among country personnel, indicating that many nationals shared a strong commitment to the project;
- Project preparation generated both a TDA and a SAP signed by government ministers – this implies a particularly strong involvement and commitment of national governments going well beyond the minimum GEF requirement;
- The project has resulted in ministers signing an interim agreement for the establishment of the Benguela Current Commission, confirming country political support and therefore ownership;
- The Project Steering committee included at least three representatives per country;
- In interviews, commentators mostly expressed strong approval of the project design process, including its participatory nature, transparency, fairness, rigor and inspirational quality;
- South Africa (through MCM) provided major buy-in to projects such as EAF and Top Predators.

The main criticisms raised by stakeholders relevant to the issue of country ownership concerned the manner in which mini-projects were selected (which has been reviewed above) and incomplete buy-in to the project by national managers (especially by MCM in South Africa during the period 2002-2005 until a change of management rectified the problem), but none suggested that these defects affected the fundamental national ownership of the project.

GEF IW projects normally encourage countries to establish National Inter-Ministerial Committees (NICs) whose aim is to bring together all the concerned sectors at the national level in order to debate issues arising out of the project. BCLME was unusual in not having NICs, which is explained by the fact that the key ministries were already all represented in the Project Steering Committee (PSC). However, the structures were not analogous since the PSC is mandated only to provide direction to the project and has no mandate at the national level or resources to invite additional national stakeholders. The matter was raised indirectly in the mid-term evaluation (MTE) which advised that ‘National Stakeholder Committees’ were needed as forums for national consultations on the future BCC, although this recommendation was never implemented.

While only one stakeholder commented that a national committee was lacking, by the most recent GEF IW standards, the BCLME programme would be considered deficient in the absence of NICs. Despite the above criticisms, the BCLME project clearly fulfilled the GEF requirements of country ownership and country driven-ness.

Stakeholder participation

Independent assessment of stakeholder participation

Stakeholder participation is intrinsic to the TDA/SAP process of GEF IW projects and began with the first major project preparation workshop in Cape Town in July 1998. The Mid-term evaluation confirmed that the quality of stakeholder participation had been very satisfactory but did not specifically address the adequacy of breadth of stakeholder participation.

The present evaluation has indicated that, while the project enjoyed the support of the fishing, mining and petroleum industries, the participation of the private sector was somewhat patchy, which may have had a limiting effect on project impact, particularly as regards the establishment of operational management plans. However, with the establishment of the BCC which integrates the private sector, the prognosis is now good for full participation of the fishing, mining and petroleum industries during the SAPIMP phase.

Stakeholder views on stakeholder participation

Stakeholders were not explicitly asked for their views on stakeholder participation, but a review of their responses on other issues reveals the following viewpoints:

- The private sector industries, particularly fisheries but also mining and petroleum, were insufficiently involved in the programme;
- The management level was not adequately engaged or consulted, resulting in doubts that the management level had really taken ownership of the programme;
- In the case of Angola, it was felt that coastal communities should have been more fully engaged;
- In general with regard to Angola, it was felt that the participation of Angolan stakeholders had been compromised by the lack of adequate preparation to ensure Angolan participation.

Nevertheless, overall, stakeholders were positive about stakeholder participation, particularly as regards the high quality of stakeholder participation.

Overall rating of stakeholder participation: HS

Communication and Information

The BCLME project has been exceptional in the communication of information to stakeholders. Early in the project a communications specialist, Clare Attwood, formerly with MCM South Africa, was hired and who, together with the project coordination unit, developed a communications strategy for the BCLME project with three key objectives:

- To communicate the activities and successes of the BCLME project to a clearly defined audience;
- To improve communication between people participating in the programme and
- To record the progress of the BCLME programme over the years.

The audience was defined as scientists, managers and politicians in the three countries, stakeholders in the fishing and mining industries and the general public (for the general raising of awareness).

An important aspect of the communication strategy was the use of a graphics designer to develop an attractive logo and publication style for BCLME that has underpinned the BCLME identity and message throughout the programme.

The principal documentary outputs of the communication programme have been an initial leaflet (BCLME – An African Partnership in Marine and Coastal Management), a 6-monthly newsletter ‘Benguela Current News’ (6 newsletters in total were issued), the TDA and SAP documents, a very popular map of the world’s LMEs and special issue publications such as ‘BENEFIT-BCLME A Decade of Collaboration’ issued on the occasion of the BENEFIT-BCLME final symposium in November 2007. In addition, the communication unit has developed a comprehensive project website and issued numerous press articles and bulletins, all of which are on the BCLME website. The project also supported the production of a film, ‘Benguela – The Current of Plenty’.

The website was designed to make information available while the primary role of the newsletter was to record successes and achievements of the programme.

Many commentators have remarked on the value of BCLME communication materials not only in promoting the BCLME identity and vision, and providing useful and relevant information for their work in the programme, but also in fostering the sense of a BCLME constituency, thus encouraging political commitment to the enterprise and other benefits. The cost of the communications programme is estimated to have been in the order of \$US100,000 for the entire programme, representing good value for money.

The communication items considered most useful by stakeholders were the newsletter, website and wall map (stakeholders were able to put up the map in their place of work, thus reinforcing the LME concept, providing a talking point and projecting their own involvement in the project). The project component receiving the most media coverage was the environmental variability component based in South Africa, while the component receiving least attention was the biodiversity and ecosystem health in Angola, with fisheries in Namibia lying somewhere in between. These differences can be related to the particular contexts of the host countries, with South Africa having the most developed media culture, and the media interest of the subject matter (the variability component generated much undeniably attractive visual material and was able to make the link to climate change).

UNDP comparative advantage as implementing agency

UNDP has served as GEF implementation agency from the development phase of the project (PDF-B) and throughout project implementation. UNDP will continue to serve as implementation agency for the follow on project, SAPIMP.

At the time of the PDF-B project development phase, UNDP was one of only three eligible GEF implementation agencies, the others being the World Bank and UNEP. Numerous factors made UNDP the best suited of the GEF implementation agencies to undertake responsibility for the BCLME project. UNDP had extensive prior experience of GEF IW projects, including LME projects, with permanent staff in New York dedicated to GEF IW programs. UNDP is able to operate regional programs, whereas the modalities of the World Bank generally necessitate a country by country approach. UNDP has a strong presence in the Southern African region, with a permanent UNDP/GEF adviser in Pretoria and a strong representation in Windhoek, Namibia (which became the host country for the project coordination unit). With its broad development mandate, UNDP is also well suited 'culturally' to the integrated and participatory nature of LME programs which bring together science, civil society, government and the private sector. UNEP, while it also had prior experience of LME projects, is an environmentally focused agency perhaps lacking the necessary development ingredient of GEF IW programs; based in Nairobi, UNEP lacks national offices in Africa and would have had limited capacity to provide continuous support during the project.

A further advantage of UNDP is its well established practice of working with UNOPS. As noted above, this enables UNDP to delegate administration to another agency thus freeing its hands to provide strategic and political support to projects. While the separation of administration and technical functions can have disadvantages (such as in the optimal selection of technical sub-contractors), there is no doubt that BCLME benefited greatly from uninterrupted strategic and political support from UNDP, both from the UNDP GEF coordination unit in Pretoria and the national representation in Windhoek.

Perhaps most importantly, UNDP was there from the start. The BCLME project development process was initiated from the fisheries ministry in Namibia. Both the minister and the UNDP Representation gave valuable early support to the process and it was only natural that UNDP should make the link to GEF. The relationships and commitment developed at this early stage have played a vital part in the successes of BCLME.

The UNDP will play an important role as the contracting and accounting entity for the BCC in its initial development phase, before the BCC acquires legal personality.

Linkages between BCLME and other interventions

The relationship with BENEFIT

The relationship with BENEFIT was the most significant of BCLME's linkages with other interventions. Sharing a similar overall goal and the ecosystem approach but with distinctive objectives and approaches, the linkage between BENEFIT and BCLME brought much added value and synergy but also some potential for duplication and tension. Initially operating as separate programmes of uncertain complementarity, BENEFIT and BCLME were ultimately merged and reconciled, holding a joint symposium celebrating a decade of collaboration in November 2007 and together providing the foundation for the BCC. No evaluation of the BCLME programme would be complete without a careful examination of the linkages with BENEFIT.

The BENEFIT and BCLME programmes had distinct objectives and approaches. BCLME was geared particularly to implementing the SAP and establishment of the Benguela Current Commission and funding the many issue-driven sub-projects which were cross-sectoral and trans-boundary in approach. BENEFIT was mainly marine science and training programme to build capacity and foster collaborative research between the fisheries research institutions of the three countries.

According to a planning document written in 2001, both BCLME and BENEFIT originated from a workshop on "Fisheries Resource Dynamics in the Benguela Current Ecosystem" held in Swakopmund, Namibia, from 30 May to 2 June 1995, and organised by the Namibian Ministry of Fisheries and Marine Resources in partnership with NORAD, GTZ and the IOC.

The specific idea for a large marine ecosystem or 'LME' project for all the countries of the Benguela first emerged in 1995 or 1996 when personnel from NOAA, originators of the LME approach, visited South Africa. It is generally acknowledged that BCLME and BENEFIT had contemporaneous, if distinct origins. BENEFIT grew out of Norwegian support to the region, particularly the *Nansen* programme, while BCLME grew out of interactions between South African scientific expertise, UNDP/GEF IW and NOAA.

The BCLME, in common with all large GEF projects, went through an extended preparation phase, reaching the implementation stage in 2002. BENEFIT, on the other hand, moved quickly from conception in 1995 to start-up in 1996-7. This substantial time lapse between the two projects had significant effects. Firstly, it enabled BENEFIT to initiate the process of scientific cooperation in research and training and developing a network of regional scientific cooperation which contributed to the foundations of the BCLME programme. Secondly, it meant that BENEFIT developed as an independent project and not as an integral part of a BCLME programme as had originally been intended.

A tabular comparison between BENEFIT and BCLME may be helpful (see Table 4). BCLME has wider objectives than BENEFIT but the two projects share a particular focus on improving knowledge of the dynamics of commercial fish stocks and their surrounding environment. The BENEFIT focus is on strengthening science capability useful for management of resources, whereas BCLME views capacity at the country level and extends into the trans-boundary assessment, management and governance spheres. The projects share a similar *modus operandi* – project activities are mostly conducted as sub-projects that are sub-contracted to the appropriate institutions. IN the case of BENEFIT, a "call for proposals" approach was used, whereas for the BCLME the specific deliverables were determined in advance by technical advisory groups and then put out to tender. The latter process

offers greater certainty for project management, with the caveat that the contracts should include penalty clauses for late delivery in order to compensate for the tendency within academic institutions to be less used to meeting tight deadlines than their private sector counterparts.

Table 4 – Comparison of BENEFIT and BCLME objectives

Aspect	BENEFIT	BCLME	Observations
Overall (development) goal	Not stated	The ecological integrity of the BCLME is sustained through integrated trans-boundary ecosystem management	The BCLME goal is fully compatible with BENEFIT
Immediate goal / purpose	Develop enhanced science capability required for optimal and sustainable utilisation of the Benguela ecosystems living resources	Participating countries and their institutions sharing the BCLME have the understanding & capacity to utilise a more comprehensive ecosystem approach and to implement sustainable measures to address collaboratively trans-boundary ecosystem related environmental concerns	BENEFIT focus is on science capacity whereas BCLME seeks to develop understanding and capacity on a broader base to enable countries to implement collaborative measures to address trans-boundary issues
Objectives	Objective 1 - Improving knowledge and understanding of the dynamics of important commercial fishery stocks and their environment	Output 2 - Sustainable management and utilisation of trans-boundary marine resources are enhanced Output 3 – Environmental variability, its ecosystem impacts are assessed, and predictability is improved for enhancing the management of living marine resources.	The central focus of BENEFIT and BCLME are essentially the same, whereas BCLME also addresses governance (BCC) and ecosystem health and pollution (BCLME component 4)
	Objective 2 - Building appropriate human and material capacity for marine science in the countries bordering the BCS	Regional strategic plan for capacity strengthening and maintenance by 2004 (part of output 1)	BENEFIT focuses on <u>human</u> capacity as an objective. BCLME focuses on <u>country</u> capacity at level of project purpose while human capacity is at sub-output level.
Activities	Sub-projects	Sub-projects	BENEFIT and BCLME had a similar <i>modus operandi</i> using multiple subprojects. BENEFIT used a “call for proposals” approach while BCLME used a tendering process for specific deliverables.

Commentators considered BENEFIT to be more ‘bottom up’ in approach, directly driven by the country institutions, whereas BCLME was considered to be more ‘top down’, implemented by

UNDP/GEF with the assistance of international advice (although necessarily in accordance with country approval).

BENEFIT and BCLME were subjected to mid-term evaluations. The BENEFIT mid-term evaluation in May 2004 concluded as follows with regard to the BENEFIT/BCLME relationship:

- There was a problem of similar objectives that needed to be addressed in order to avoid duplication and ensure coherence of activities;
- There was a need to render operational the BENEFIT training working group (TWG) and explore and formalise training linkages with BCLME;
- The future of BENEFIT needed to be clarified (whether to become an institute or incorporated into a regional structure e.g. BCC);
- A decision was needed on whether BENEFIT could implement BCLME sub-projects;
- BENEFIT and BCLME should have a combined work programme to guide implementation;
- If a regional institution such as the IBCC is established then BENEFIT should become part of it with the assistance of BCLME.

The BCLME mid-term evaluation in August 2005 made the following observations:

- It had always been the intention that BENEFIT would be linked to BCLME but the degree and mechanism for this linkage was never clearly defined in the project document or elsewhere;
- There engagement of BENEFIT in the GEF project development process had been poor which led to misunderstandings about the respective roles of the two programmes;
- Problems in the relationship between the BCLME Project and BENEFIT resulted from a lack of clarity regarding BENEFIT's role within the BCLME programme;
- There should have been a Memorandum of Understanding between BENEFIT and BCLME as part of the Project Document;
- That there were (nevertheless) functional and effective relationships between the BENEFIT and BCLME programmes that would be beneficial for the future BCC;
- The decision had been taken that BENEFIT could implement BCLME sub-projects.

The two evaluations highlight similar problems but indicate substantial improvement in the relationship between 2004 and 2005.

Consideration of the mid-term evaluations for the two projects highlights some common problems faced by BENEFIT and BCLME:

- Both projects experienced similar obstacles to participation by Angola
- Both projects lacked a strategic plan for capacity building
- Both projects lacked legal status which affected country financial commitment
- Both had weak interaction with SADC

By the end of the BENEFIT and BCLME programmes the relationship had clearly progressed to a full partnership which provided the foundation for the BCC. At a joint symposium was held celebrating 10 years of collaboration the consensus was that the projects had complimented one another and were even described by UNDP as a “merger”. The joint publication “A Decade of Collaboration” contains many affirmations of the BENEFIT/BCLME partnership.

To conclude, the BCLME/BENEFIT relationship was a natural partnership with a positive outcome, but which might have been even more positive had the relationship been formalised earlier on and had there been less of a time lag between the PDF-B and project start up. The lessons learned are that collaborative relationships bringing co-finance to GEF IW projects should be formalised in project documents and joint work plans, which requires the project donors to be more pro-active

(NORAD/GTZ and UNDP/GEF in this case). The delay between PDF-B and project start up should also be kept to a minimum.

Other interventions

Apart from BENEFIT, the BCLME project document stipulated that relationships would be established with the following:

- SEAFO (South Eastern Atlantic Fisheries Organisation)
- ENVIFISH & VIBES (joint fisheries research projects linking South Africa, Namibia and Angola with several European institutions)
- GLOBEC (Global Ocean Ecosystems Dynamics), SPACC (Small Pelagic Fish and Climate Change) & GOOS (Global Oceanographic Observation System, programme of IOC-UNESCO)
- Abidjan Convention
- Other LME projects (CCLME and GCLME)

The relationship with SEAFO appears to have been maintained, doubtless assisted by the fact that the SEAFO headquarters are in Swakopmund, close to the BCLME fisheries activity centre and the fact that the former coordinator of the activity centre became Permanent Secretary of SEAFO (the same individual has since been appointed to the BCC). SEAFO is a young organisation and BCLME has been helpful in providing information and the basis for extension of the large marine ecosystem approach into the SEAFO area. SEAFO expects to collaborate actively with the BCC in the future.

No information was available to the evaluator on any collaboration with the ENVIFISH and VIBES projects, which was presumably of relatively minor importance. The same goes for GLOBEC and SPACC, whereas there was active interaction and collaboration with GOOS. GOOS-Africa and BCLME share the objective of establishing operational oceanography, resulting in some harmonisation of approach, with GOOS adopting the LME as a working oceanographic unit, and specific collaboration e.g. on extension of the PIRATA oceanographic monitoring buoy network. GOOS also co-organised with BCLME a leadership workshop on operational oceanography in Cape Town in November 2006.

BCLME interactions with the Abidjan Convention appear to have been limited. However, BCLME has exerted influence on the Abidjan Convention, particularly through the GCLME programme which is situated more centrally in the Abidjan region, to encourage the adoption of the LME approach by the convention. BCLME participated as an observer at the Abidjan CoP of March 2005.

BCLME has actively maintained relationships with other African LME projects and with the global LME community in general, contributing to international forums relating to LMEs and International Waters and organising two African LME summit meetings. BCLME has supported the GCLME and CCLME projects through presentations and technical guidance.

In addition to those listed in the project document, BCLME has interacted with the DLIST project (Distance Learning and Information Sharing Tool). DLIST project assured dissemination of the scientific outputs of the BCLME and BENEFIT programmes throughout the coastal communities of the Benguela current region, involving regional decision-makers and empowering local communities through information and understanding. DLIST operated through a series of nodes and focal points (about 10 in total) and “kiosks” (40-45). A detailed assessment of DLIST interactions with BCLME was not possible within the time and scope of the final evaluation and because of busy schedules it was not possible to interview DLIST personnel or DLIST beneficiaries (target audiences). It is thus difficult to assess how successful DLIST has been as an outreach mechanism for BCLME. Scientific and government stakeholders did not refer to DLIST when discussing stakeholder participation. This

would suggest that such BCLME stakeholders had not appropriated DLIST as an outreach extension of BCLME.

Overall, BCLME's interactions with other interventions appear to have been limited but satisfactory.

Project management arrangements

[Note: See also section on project implementation]

Overall responsibility for project management was assured by UNDP/GEF, with administrative support services from UNOPS. The project was guided by a Project Steering Committee (PSC) and directly managed by the Project Coordination Unit (PCU) and national Activity Centres (ACs), assisted by Advisory Groups (AGs). The arrangement appears to have been highly effective.

UNDP/GEF

UNDP/GEF provided an important management role in following closely project progress, assisting with the preparation of Project Implementation Reviews (PIRs) and providing strategic guidance. UNDP/GEF provided a particularly important role in assuring the smooth transition to the next phase through securing funding for the SAPIMP follow on project early enough to ensure that there was no significant suspension of activities upon termination of the BCLME project. The UNDP country office in Namibia, as noted above, provided important political and some local administrative support.

UNOPS

UNOPS New York provided administrative services throughout the project. While no specific analysis has been undertaken to confirm this, UNOPS support was universally acclaimed by stakeholders as highly efficient and supportive. The responsible administrative officer in New York received particular praise.

Project steering committee (PSC)

The PSC met unusually often for a project of this size – on average twice a year, all the more remarkable for a committee of this size (with 9 country representatives and other members (one each from UNDP/GEF and SADC) together with CTA and Activity Centre directors. While initially formal, the PSC appears to have become a lively group with a relaxed but effective style of doing business. The presence of all three concerned ministries from each country was of particular benefit in promoting the integrated approach at national level (although it must be observed that with a larger number of countries and more stringent GEF budget restrictions, this may no longer be possible for other projects).

Project Coordination Unit (PCU)

The project coordination unit (PCU) was located in a modest office above a shopping centre in Windhoek, within easy reach of, but clearly independent from, Namibian government offices. The PCU was manned by the Chief Technical Adviser (CTA), project administrator and project secretary, with temporary additional administrative staff as needed. The PCU had one project vehicle, allocated to the CTA. Overall, the arrangement appears to have been as economic as reasonably possible. As consideration of the stakeholder survey will confirm (Annex 2), the project coordination unit was universally acclaimed for its high efficiency and supportiveness. The personal experience of the present evaluator and the mid-term evaluators accords with this view. The main criticisms that can be made are:

- There was no deputy CTA capable of dealing with technical issues in the absence of the CTA or to retain experience and capacity that would have been useful for a follow on phase;
- The PCU was significantly understaffed, placing unreasonable pressure on the CTA and administrator who held the project together through unique dedication and personal sacrifice.

Activity Centres (ACs)

The activity centres comprised a Director, sometimes supported by national consultants and an administrator. The Angolan AC also had a project driver. The AC offices were located within a relevant government department or national institution, thus benefiting from subsidised accommodation and enhancing country ownership.

The Activity centres were responsible for the management and administration of the many sub-projects in their sphere of activity across all three BCLME countries. This responsibility was valuable in developing a national share in responsibility for the project's activities but necessarily imposed challenges in organisation and communication, especially for the project activity centre in Angola. The sub-project workload was such that it effectively excluded most other activity, especially during the last year when AC personnel were working up to the last minute ensuring that subprojects were completed on time.

Activity centre directors were on modest salaries and had the status of national consultants, meaning that they were not entitled to a UN Laissez-Passer and did not have all of the usual employment benefits (medical insurance, social security etc.) despite being effectively permanent staff. While this was not satisfactory for the directors themselves, their dedication ensured that project results were not compromised.

AC directors also had no deputy to provide back up during their absence and for helping with the high workload. Employing a deputy would also have enhanced national capacity development and ownership.

Advisory Groups (AGs)

Six advisory groups were established under the Strategic Action Programme (SAP) on 1) living marine resources; 2) environmental variability; 3) pollution; 4) biodiversity & ecosystem health; 5) legal and maritime affairs and 6) information and data exchange. The purpose of the Advisory Groups was to give the best available advice to the PCU (and later the BCC Secretariat) on topics related to implementation of the SAP. Advisory Groups decided at the start of the project which subprojects should go out to tender and which should be directly allocated to BENEFIT or other entities in the region e.g. INIP, NatMIRC and MCM. It was the responsibility of the relevant ACs (for AGs 1, 2, 3 & 4) or the PCU (AGs 5 & 6) to call upon the AGs for assistance. This apparently resulted in some under use of the AGs, particularly the group on marine living resources (MLRs).

Responsiveness of project management

As noted under Output, project coordination was highly effective and was responsive to stakeholder needs and a changing environment. Establishment of the BCC by interim agreement is a good example of an adaptive approach responsive to circumstances. A similar observation can be made for most levels of management – UNDP/GEF, UNOPS, the Activity Centres and the Project Steering Committee all operated in a responsive manner.

Financial Planning & Management

Financial planning

Financial planning in the BCLME programme took place at the following stages of implementation:

PDF-B phase – during the PDF-B phase the TDA and SAP identified the principal activities required to address priority trans-boundary concerns which resulted in some preliminary estimation of costs and identification of the main partners willing to contribute resources to the same problems (e.g. NORAD/GTZ via BENEFIT and NORAD via the *Nansen* programme);

Project brief/document formulation – the project document included an incremental costs assessment and a detailed project budget by cost category (personnel, sub-contracts, training etc.) broken down into activity areas but not to the level of subprojects. The budget was also presented by year. Thus, while the cost of individual subprojects was not budgeted in detail at that stage, the project document did provide a general financial planning framework for project implementation and coordination.

Revision of logical framework - Revision of the logical framework has been analysed earlier in the report. Most of these concerned revisions to objectives, outputs and indicators without consideration of the activities level and therefore had no material impact on the budget or consequences for financial planning.

Identification & selection of sub-projects – the substantial funding allocated to sub-contractors (about 40% of total budget) permitted adaptive financial planning at the level of subproject identification and selection. One advantage of subcontracting is that much of the work setting the budgets for each activity is undertaken by prospective contractors, sometimes in a competitive bidding process; resulting in efficiencies and simplified administration for the project. By the same token, the detail of the financial planning is outside the direct control of the project and therefore difficult to evaluate. What can be evaluated is the overall allocation of funds to different types of activity (e.g. scientific research, policy work, management plans, training etc.) and whether funding appears to have been justified in the case of individual subprojects. This latter point is important since the level of funding and the apparent usefulness of results varied substantially between subprojects.

Following the mid-term evaluation – the MTE made various recommendations that had or could have had consequences for financial planning, notably:

- Shift towards management applications of the information gathered
- Consolidate and review information generated by subprojects
- Perfect operational monitoring systems
- Accelerate establishment of the BCC
- Adopt a more focused approach on capacity building
- Resolve inequities between South African institutions and Angolan and Namibian institutions
- Broaden stakeholder participation beyond fisheries to include managers and policy makers from other sectors
- Reinforce national and trans-boundary management

An assessment has been made of how well the project responded to these recommendations. How the response to these recommendations may have influenced financial planning would not be ascertainable without a detailed analysis of sequential project budget revisions and expenditure, which is beyond the scope of this evaluation. However, the probable answer is that any response was primarily in the form of a change in emphasis by the PCU and ACs rather than budgetary revision since by that time the project was locked into the full series of subprojects to which most of the available budget had been allocated.

The allocation of funding in the original budget was approximately as indicated in Table 5:

Table 5 – Allocation of funding by cost category (original project budget, as in project document)

Cost category	Includes	GEF \$ million	%	Observation
Personnel	Project staff and consultants (international and national), staff travel & mission costs	4.99	33	Staff salaries within norms, or appear reasonable for the level of skill required
Contracts	Cost of all the subprojects	5.83	39	Sub-contracts include all subcontractor costs
Training	Project workshops, in service training, study tours, formal study	0.78	5	NB 30% relates to project workshops, 70% to actual training
Equipment	Scientific instruments, computers, vehicles, furniture	2.32	15	High cost of certain instruments (vehicles made up only 7%)
Sundries	Sundry costs relating to technical activities, project reports, PSC meetings, project audits	1.18	8	Sundries provides flexibility at the operational level
Total		15.1	100	

Across cost categories budget was distributed approximately as presented in Table 6 between components (excluding permanent staff salaries and administration and operating costs) (figures taken from BCLME project document):

Table 6 – Allocation of budget by output (original project document)

(Output 1 = coordination, BCC, capacity building) 2 = marine living resources; 3 = environmental variability, EWS etc.; 4 = ecosystem health & pollution)

Category	Output 1 \$	Output 2 \$	Output 3 \$	Output 4 \$	Remarks
MISSIONS	121900	360400	339200	84800	Budget for missions quite evenly allocated between components, with component 2 (marine living resources) the highest.
	159000	53000	21200	53000	
	63600			53000	
				169600	
				10600	
				58300	
				59300	
Subtotal	344500	413400	360400	488600	
CONSULTANTS	190800	180200	106000	54060	Consultants are heaviest on component 4 (ecosystem health and pollution) and least for component 3 (environmental variability)
		31800	31800	54060	
		43460		127200	
				63600	
				43990	
Subtotal	190800	255460	137800	342910	
CONTRACTS (subprojects)	42400	2167700	1436300	275600	Contracts (subprojects) were weighted in favour of Component 2 (marine living resources) with Component 4 in second place. Component 4 was also broken down into a greater number of different contract themes. NB the actual number of subprojects was much greater than the number of themes identified in the budget.
		190800	127200	265000	
				498200	
				408100	
				31800	
				233200	
				153700	
Subtotal	42400	2358500	1563500	1865600	
EQUIPMENT		339200	1081200	106000	Planned equipment purchases (essentially various scientific instruments) were quite evenly balanced between components 2, 3 & 4 - (vehicles excluded from the calculations).
		212000		53000	
				106000	
Subtotal	42400	2909700	2644700	2130600	
SUNDRIES	65720	233200	312700	42400	Sundries weighted in favour of Component 3 (ecosystem variability). Sundries provide valuable flexibility in project implementation.
		10600	31800	21200	
		53000		53000	
				47700	
				36163	

Subtotal	65720	296800	344500	200463	
Total	685820	6233860	5050900	5028173	Project overall quite evenly balanced between components 2, 3 & 4 but weighted slightly towards marine living resources (Component 2).

The analysis suggests that financial planning was not done in a detailed manner down to activity level, as would be expected given that the subprojects were not designed in detail until after project inception.

Financial management

Overall funding level of BCLME

BCLME was relatively well funded for an LME project, especially with regard to the GEF contribution, which amounted to just over \$US15 million. Comparison can be made with other African LME projects, as set out in Table 7.

Table 7 – Comparative funding levels between African LME projects

LME Project	Number of countries	GEF funding (\$ million)	\$ million per country
BCLME	3	15.11	5.04
ASCLME	8	12.2	1.52
CCLME	7	8.09	1.16
GCLME	16	9.0	0.56

Funding levels could of course be compared in other ways, such as the productivity of the ecosystem, surface area of the LME, severity of environmental threats and their economic consequences for poverty etc. However, the funding level per country provides a rough measure of financial resources actually available for project operations and activities. On this basis, BCLME rides well ahead of other African LMEs.

Declining US dollar

At the time of the MTE, mention was made by stakeholders of difficulties due the sharp decline in the value of the US dollar shortly after project inception. This necessarily reduced the local currency funds available for project activities, although not for personnel costs (since the decline in the US dollar did not affect UN salaries and had slight impact on UN consultancy rates) and other costs set in US dollars.

At the time of the final evaluation, the decline of the US dollar was barely mentioned as a problem by project personnel or other stakeholders. Furthermore, the project was subject to a no-cost extension until March 31 2008 apparently without particular difficulty. The conclusion is that BCLME was, and remained, adequately funded despite the decline in the US dollar.

Responsible financial management

While BCLME was relatively well funded, there were no indications of poor or wasteful management. Salary levels, particularly of the AC directors, appear reasonable given the demanding and specialist nature of the work involved. Individual consultancy rates are not ascertainable from the project budget, but there was no suggestion from stakeholders of excessive rates. While travel costs will have been substantial, there was no indication that missions had been undertaken unnecessarily. One stakeholder did comment on the high levels of DSAs relative to BENEFIT (see stakeholder survey), but according to the CTA these were harmonised after 1 year of operation. Certainly there was no suggestion that DSAs were paid otherwise than in accordance with correct practice.

Every indication is that financial management was responsible and prudent, both at the level of the PCU and at the UNOPS level. This is borne out by the absence of any major financial problem reported (overspend, shortfalls etc.) during project implementation or mentioned by stakeholders and the fact that a six-month no cost extension was possible without particular difficulty.

Monitoring and evaluation

M&E approach of the BCLME

M&E of the BCLME project was based on the following elements:

PSC – the Project Steering Committee provided semi-annual monitoring of project progress based on the reporting of the PCU and Activity Centres and information flowing to PSC members through their own government networks. The PSC clearly functioned well (as examined in more detail elsewhere) both in terms of flow of information and in providing guidance to project management. However, effectiveness of the PSC in M&E may have been compromised by the lack of an officially designated National Inter-ministerial committee (NIC) in each country as is now generally required for GEF IW projects. While the PSC was effective in bringing together the three ministries or departments most concerned (fisheries, mining, petroleum) within the PIC, it may have lacked the full breadth of government monitoring that NICs might have provided.

Project Performance and Evaluation Review (PPER) – data from the PPER reviews were not available to the present evaluation.

Tri-partite Review – data from the tripartite reviews were not made available to the present evaluation.

Annual PIR reports - BCLME PIR reports were timely and thorough in their coverage of project progress, and have provided an essential record of project activities for the purposes of this evaluation. PIRs also revealed how particular outputs and indicators were interpreted by project managers, in particular the PCU, and helped to illustrate the linkages between some of the subprojects and particular objectives and indicators.

The PIRs did not, however, provide a systematic account of progress on the many subprojects and how these were related to the project outputs and indicators. Indeed, no BCLME document provided adequate M&E in relation to subprojects.

The PIRs also display a tendency to interpret progress towards an indicator in the best light, to the extent of ignoring the literal meaning of the indicators (some of which were over-optimistic or even unattainable), rather than acknowledging that the indicator would not be attained and needed revision. The disparity between actual achievement and the over-optimistic project indicators is particularly apparent in the later PIRs. These defects are partly intrinsic to the PIR system itself in which project managers report on their own progress.

BCLME Communications strategy – it was an objective of the communications strategy to record the progress of the BCLME programme through the newsletters, website and other outputs which provide an invaluable record. The communications of the BCLME project are assessed elsewhere in this report.

Mid-Term Evaluation – the MTE was conducted in accordance with usual good practice and was highly instructive for the purposes of the present evaluation. There was good agreement between the findings of the two evaluations. The MTE and project response thereto are covered elsewhere in this document.

Terminal Evaluation – the terminal evaluation proceeded in good conditions, with the reservation that only one evaluator was recruited instead of the usual pair or team, limiting the amount of information that could be assimilated and the multi-disciplinary scope of the analysis. In addition, the extensive ToR of the final evaluation required addressing UNDP criteria in addition to GEF IW evaluation criteria.

Particular M&E challenges posed by BCLME

By far the major challenge to M&E of the BCLME results from the fact that the project document contains no detailed description of project activities. The activities were only defined in detail after the project began with the design of over 100 subprojects. While the subprojects had basis in the SAP, they had not previously been described in detail in either the SAP or the project document and the linkages between project activities, outputs, objectives and indicators of the logical framework had not been described. Even after the scope of all the subprojects had been defined, no synthesising document was issued rendering explicit the overall logic of the project linking activities to outcomes or linking the sub-projects to one another in a coherent framework. This has placed significant constraints on internal and external M&E; it also poses challenges for ensuring the sustainability of the BCLME programme's considerable achievements.

A further problem was that the project logical framework was substantially revised after project inception, introducing an assortment of new indicators which had little or no basis in the text of the project document and which did not render any more explicit the linkages between the project activities and output indicators. Indeed, the second logical framework seems to have somewhat obfuscated the original logic of the project which was to implement the activities of the SAP. However, the problem would then have been that the SAP itself was written as a general framework document and might have proved unsuitable as a basis for project implementation.

Furthermore, several of the new indicators were unrealistic, resulting in some rather forced reporting in the annual PIRs and a problem for the mid-term and final evaluations, since it would have been unreasonable to judge the project too literally on these unrealistic indicators.

Quality and timeliness of outputs

“Outputs” for the purposes of this section refers to the reports of subprojects or consultancies conducted for the project. The individual appraisal of every such output of the project was beyond the scope of the evaluation. However, the consensus of stakeholders was that the quality of BCLME outputs had been consistently high.

Timeliness gave greater cause for concern. A number of the subproject reports were delivered late, and certain subprojects were never completed (e.g. the regional integrated management plan on biodiversity conservation). Several stakeholders suggested that penalty clauses for late delivery should have been included in all the contracts.

Management by UNDP country offices

Since the project benefited from the administrative support of UNOPS, UNDP country offices played only a limited role in management of the BCLME project. However, UNDP has provided an important supportive role in various respects.

Namibia

UNDP Namibia was considered to be highly supportive of the project, and frequently provided support in the political arena. UNDP Namibia was clearly the UNDP country mission with the closest links to the project.

Angola

The UNDP office in Angola appears to have played only a limited role in supporting the BCLME project. No adverse comments were made.

South Africa

The UNDP office in Pretoria, South Africa, provided continuous technical support through the UNDP/GEF regional coordinator including an important role with the production of annual Project Implementation Reviews (PIR) and some administrative support. Some commentators indicated that the administrative support of the UNDP Pretoria office (e.g. as regards travel arrangements) had been weak although no details were obtained. The other UNDP missions were not criticised in this respect.

CONCLUSIONS

Summary of project ratings

The overall rating of the project, based on an average across all components, was “Highly Satisfactory”. Components 1, 3 and 5 were rated as highly satisfactory, while components 2 and 4 were rated as satisfactory. The highest ratings were achieved in relation to component 1 (coordination and support).

Overall, the benefits of the project are considered “Likely” to be sustainable (“L”). The assessment is that the benefits of outcomes 1 (programme coordination, capacity building and BCC establishment), 3 (environmental variability and prediction) and 5 (donor and country support) are likely to be sustainable (rating “L”), whereas the benefits achieved under Outcomes 2 (marine living resources) and 4 (pollution and ecosystem health) are only moderately likely to be sustainable.

The rating of project implementation approach was “Satisfactory”. While project coordination was excellent, the full effectiveness of project implementation was compromised by the approach involving numerous subprojects which were designed only after project inception, which were not systematically linked to specific indicators and which imposed a major burden on project coordination.

Stakeholder participation was rated as “Highly Satisfactory”. While there was some criticism that the project did not involve industry fully enough, the project nevertheless enjoyed support of key industrial operators and the quality of participation was consistently high. Project communications were excellent, which enhanced participation generally. The partnership with BENEFIT reinforced participation of national stakeholders. Stakeholder participation therefore merits a rating of highly satisfactory overall.

Monitoring & Evaluation were rated as “satisfactory”. While the principal elements of the M&E plan operated well (PSC, PIRs, MTE), the full effectiveness of M&E was compromised by the multiple project approach in which project activities were designed in detail only after project inception and were not explicitly linked to specific project indicators. Furthermore, no synthesis was completed to

establish the linkages after the fact. Thus, the project could not be adequately monitored or evaluated down to the activity level. The revision of the project logical framework without revising the project document, while facilitating project operation, also compromised M&E, as did the use of several unrealistic indicators.

In relation to the GEF IW results template, the project was rated as “satisfactory” overall. Although this does not count towards the final result, since the template was only issued after the project began, it demonstrates that BCLME compares satisfactorily with current GEF IW practice.

Project design

Project design was based on a combination of the GEF IW TDA/SAP process and the LME-modular approach. Exceptionally, both a TDA and a SAP were achieved during the PDF-B phase of the project. Resulting from the TDA, there was a strong focus on environmental variability and trans-boundary concerns and on a SAP (and project) which was science driven and primarily concerned with knowledge gathering for management and governance. Capacity building was included as a sub-component of Output 1 and envisaged the development of a strategic capacity building plan.

At the activities level, the SAP and project document identified policy action areas but did not specify the particular activities to be undertaken. Following inception, the precise activities to be undertaken were identified with the assistance of the Advisory Groups which assisted with the selection of subprojects and their allocation to open tender or to particular institutions (e.g. BENEFIT).

From the design process, stakeholders expected improved regional cooperation with a shift towards the ecosystem approach, establishment of a Benguela Ecosystem Commission, the setting up of an effective Early Warning System (EWS) for phenomena such as HABs, LOWs and Benguela El Niños as well as significant capacity building impacts.

The strong points of the design process were the strong scientific foundation and country participation and the fact that the TDA/SAP process was undertaken during the preparation phase. The main weakness was the fact that project design did not fully address the activities level, resulting in an excessively large number of subprojects whose linkage to the project design was not fully explicit.

Extent of progress

The main achievements of the project at the level of project purpose were:

- Early Warning System is almost in place
- Regional status of certain threatened species has been improved (seabirds, bronze whaler)
- Fisheries management objectives are now included in some MPAs
- Mining leases are now issued with pro-active environmental management plans
- The capacity of countries to deal with ecosystem management has increased

At the level of project outputs, operational and effective coordination (including establishment of the BCC) was achieved, the sustainable management and use of MLRs has been enhanced, environmental variability has been assessed and its predictability improved, preliminary steps have been taken to maintain BCLME health and donor participation and co-finance have been increased.

According to stakeholders the main benefits of the project have been establishment of regional cooperation and understanding, bringing Angola into a regional cooperative framework, generation of a very substantial body of useful information, greatly improved understanding of the ecosystem, bridging the gap between science and management in some sectors and countries, improving capacity substantially and many significant achievements at the sub-project level (SEIS, top-predators project,

bronze whaler conservation, progress towards EAF, identification of MPAs, mariculture policy and regulations etc.).

The main shortcomings at the level of project goal and purpose were:

- Integrated trans-boundary management was not yet operational at project end;
- There has been no conduct of any survey on alien invasive species;
- The intended Early Warning System is still not fully operational;
- Mining leases with environmental action plans are not yet universal.
- The intended coordinated enforcement between countries, such as on MCS, did not occur;
- The SADC fisheries protocol was not fully implemented.

The main shortcomings in relation to implied outcomes were:

- The SAP was not updated and remains preliminary in nature;
- “Real time” trans-boundary management of resources is not yet in place;
- An integrated regional biodiversity and habitats conservation plan is not yet in place.

The main factors in successes of the project were the enthusiastic attitude and support of project stakeholders, excellent coordination and team work, good quality stakeholder involvement, favourable timing and the valuable foundation provided by the BENEFIT programme. Other important factors were the small number of countries, the undertaking of a first iteration of the TDA/SAP process during the PDF-B phase, the choice of project implementation structure (notably the Activity Centres) and the high quality outputs of contributing consultants and contractors.

The main factors in the shortcomings were a lack of an overall strategic plan or vision for the BCLME, delay in addressing the key governance issues (notably the BCC), the very broad project scope and excessive number of subprojects, too much focus on science at the expense of management, the limited role played by government institutions in project activities, weak donor coordination, insufficient linkages between science and management and the obstacles to Angolan participation.

Lessons learned

The positive lessons learned from BCLME experience, and to be encouraged as best practices are:

- The stepwise establishment of a Large Marine Ecosystem Commission for the governance and management of an LME is a promising institutional approach, but has yet to be fully tested;
- A science-based approach to a fundamental understanding of the ecosystem is essential but should be complimented by management-orientated demonstration actions;
- The Ecosystem Approach to Fisheries (EAF) adds a valuable compliment to LME projects and the systematic integration of EAF in LME projects is recommended;
- A TDA/SAP cycle during the PDF-B phase can be highly beneficial but should be considered as preliminary and should be reiterated during project implementation;
- A preliminary SAP is beneficial but it should include EcoQOs and a Vision Statement and should be updated during project implementation;
- The integration of all sectors in the PSC if feasible is highly beneficial but is not a substitute for national level integration through National Inter-ministry Committees;
- The use of thematic Activity Centres at the country level can be highly beneficial to project implementation but should be done in a way that does not compromise participation of national institutions;
- The use of a multiple subproject approach can be beneficial to implementation and output quality but subprojects should be explicitly linked to project logical framework, limited to a manageable number and the results fully synthesised before project end;

- A tendering process based on specific requirements developed by technical teams is generally preferable to a more open “call for proposals” approach;
- Integration of capacity building into subprojects is an effective way to improve capacity;
- Partnerships with other programmes and cooperation between donors are highly beneficial but should be proactively pursued and formalised from the start;
- Industry stakeholder participation is essential and should be actively promoted from the start of the project design process;
- LME projects should have an active communications programme and make use of “branding” to promote a sense of regional identity with the ecosystem.

The negative lessons learned from BCLME, corresponding to approaches to avoid, were as follows:

- The time lag between project conception and full project implementation via the PDF-B process is excessive and must be reduced substantially;
- Management changes are difficult to achieve in a first project phase – any such targets should be realistic and not included if in doubt;
- 1st iteration LME projects should endeavour to produce a full set of ecosystem state indicators to pass on to the subsequent operational phase;
- LME programmes should avoid excessively numerous subprojects, focussing instead on a smaller number of concrete demonstration actions;
- Where making use of the multiple subproject approach, care should be taken to ensure transparent and equitable allocation of projects and contracts should include penalty clauses for late delivery;
- The feasibility of subprojects should be carefully assessed and any assumptions (such as the need for sharing of information) addressed in advance through protocols or other suitable agreements;
- Capacity building and the achievement of concrete outputs cannot be effectively combined without a very well integrated capacity building strategy;
- Capacity building needs a strategic plan which should be undertaken at the TDA/SAP stage rather than await the project implementation stage;
- Any capacity building strategy needs to be designed in such a way as to encourage national staff to stay in the system;
- Projects should ensure that hiring of consultants does not undermine the capacity of the very institutions the project is supposed to support;
- Potential obstacles to project implementation, such as the language barrier or administrative or logistical issues, should not be underestimated or ignored and should be actively addressed in project design;
- Where countries are unequal participants the project must include intensive measures to “level the playing field”;
- Substantial logical framework revision should be avoided unless accompanied by revision of the project document itself; the linkages to any existing TDA or SAP should remain explicit;
- The project logical framework should truly reflect what the project designers and managers intended, using indicators that are realistically achievable;
- Indicators conditional upon the successful performance of other projects should only be included where the arrangements for collaboration are very solid;
- Harmonisation of law and policies between countries is not a realistic or useful objective in the context of LME projects which should focus on actual cooperation through operational plans;
- Where ships surveys are involved in an LME project, an additional staff member or consultant dedicated to ships’ coordination should be recruited.

RECOMMENDATIONS

Immediate priorities

Resources permitting, certain actions should be undertaken immediately by the BCC without waiting for start-up of the BCC science programme or SAPIMP. They are:

Undertake a proper synthesis of BCLME subprojects - the BCC should complete the synthesis of all the sub-projects linking them to indicators in the BCLME logical framework and the SAP. This would advantageously be supported by those most familiar with the project, such as the former CTA and AC directors while they remain available.

Develop a set of BCLME Ecosystem state indicators - convene a meeting of BCLME experts and national focal points to define a provisional set of ecosystem state indicators for the BCLME, as a legacy to pass on to the BCC to test and refine over the coming years. It is important to perform this soon before some of the senior experts involved retire or younger ones move on to other positions.

Maintain a working group on operational ecosystem monitoring systems – as has been observed, the BCLME project got very close to establishing operational monitoring systems for HABs, LOWs and Benguela El Niños – it would be a major setback if this valuable progress was to be lost through delay awaiting the implementation of the BCC science plan and the SAPIMP project. It is therefore recommended to maintain a working group on this theme in the interim to ensure that BCLME achievements are fully capitalised in the future.

Working group to update the TDA and SAP – the evaluation has found that the updating of the TDA and SAP, while not explicit in the logical framework, would have been beneficial and which now urgently need to be updated. While formal updating will only be possible once SAPIMP is operational, it is recommended that the BCC should establish a working group with immediate effect to begin the process of reviewing the original TDA and SAP and identify the requirements for achieving a full update.

Medium term priorities

Update the TDA & SAP - In order to bring BCLME into line with best GEF IW practices it is now necessary to update the TDA and develop an updated SAP with modern features including a clear vision statement and EcoQOs and to put financial “mechanisms” in place. This work would benefit from the input of the working group established as recommended above.

Perfect the operational monitoring systems – the BCLME project has got very close to operational monitoring systems for HABs, LOWs and BCLME El Niños – every effort should be made to perfect these systems such that they become fully operational. This work would benefit from the input of the working group established as recommended above.

Apply knowledge in management approaches and mechanisms, focusing on trans-boundary resource management across the LME. It is very important that the BCC, through the science plan and the support of SAPIMP, makes deliberate use of the knowledge gathered by BCLME in developing trans-boundary management approaches and mechanisms. BCC needs to be proactive in this respect, and to develop a manual or other tool addressed to managers enabling useful information to be used effectively.

More focused approach to capacity building and training (CB&T) – given the rather diffuse capacity impact of BCLME it is especially important that the BCC with SAPIMP support works towards a truly

strategic and planned approach to capacity building, including developing a clear road-map for institutional and individual CB&T targets.

Ensure effective national management of regional fish stocks and to expand this to trans-boundary management - there is a need for the BCC to work with governments at both the national and regional level, with a particular emphasis on building capacity in each country for fisheries management, addressing the disconnect between trans-boundary fisheries research and management and reinforcing the linkages between the scientific working groups on fisheries (at the national level) and the BCC (at the trans-boundary level).

ANNEXES

Annex 1 – BCLME Results summary

Note: A rating of n/a means that a rating is either not required or is considered inappropriate or not meaningful.

Overall project outputs rating: Highly Satisfactory (HS)

Individual output ratings:

Project development goal: n/a

Project purpose: HS (average rating)

Output 1 – HS

Output 2 – Satisfactory (S)

Output 3 – HS

Output 4 – S

Output 5 – HS

Project goal / objective	Impacts / Outcomes / Outputs	Assessment (as at March 31 2008)	Shortfall , review of indicator and prognosis	Evaluation
<u>Development goal:</u> The ecological integrity of the BCLME is sustained through integrated trans-boundary ecosystem management.	Overall assessment of progress towards project development goal	Undoubted progress has been made towards the project development goal while improved ecological integrity and the actual implementation of integrated management will mostly only become measurable in subsequent phases.	No shortfall – the indicator is meaningful - the prognosis is for achievement of the goal during SAPIMP.	n/a
	Reduction in presence, location, number of alien invasives	While this remains a valid future objective, the BCLME programme has not yet conducted a baseline assessment of alien invasives, which remains an objective for consideration of the BCC. The impacts of invasive species are still not well understood. Training courses have been held with the GEF global invasive species project (GISP)	No change in the presence, location or number of invasive species to date. However, this should not be considered a shortfall since 1) this is an indicator at the level of the development goal; 2) it was unrealistic to expect progress on the issue particularly because BCLME	n/a

		<p>A small project is planned in SAPIMP to develop port surveys.</p> <p>The new GEF/IMO project on ballast water is expected to make considerable progress on the issue.</p> <p>There is at least consensus between countries that alien invasives are a trans-boundary concern.</p>	<p>made no substantial investment to address the issue. The BCC should consider the issue during the SAPIMP but addressing the issue should be left to other specialised projects.</p>	
	<p>Early warning system (EWS) for monitoring outbreaks of harmful algal blooms (HAB) and associated mortalities</p>	<p>Not fully operational regionally, although most of the elements in place and the newly established ACCESS project will support continuation of scientific work.</p> <p>In Namibia and S Africa national monitoring systems are already in place. Four different phytoplankton monitoring programs are in place in Angola, including a marine biotoxin programme.</p> <p>Predictive capacity – While operational prediction for HABs is still not established, the African Centre for Climate and Earth System Science (ACCESS) is an Africa-wide project that has commenced. It has adopted the work based on the EWS project and taken ownership of follow up and more comprehensive implementation of models related to predictability (HAB, LOW etc).</p>	<p>Some shortfall against original expectations although progress has been substantial and completion is very close. Every effort should be made to complete the missing elements during first part of SAPIMP.</p>	n/a
	<p>Increase in productivity and carrying capacity</p>	<p>This is a long term goal not realisable in a first project cycle.</p>	<p>No shortfall as not a realisable target – indicator of doubtful utility since the BCLME is naturally subject to large fluctuations in productivity and carrying capacity – it is doubtful whether there will be any impact towards end of SAPIMP.</p>	n/a
	<p>Regional status of threatened species improved</p>	<p>While this is a long term goal and it is still too early to assess any change in status, some progress has already been made in stress reduction.</p> <p><u>Two species' are subject to stress reduction so far</u> (Bronze whaler shark and sea birds affected by the South African and Namibian industrial fishing</p>	<p>No shortfall since progress has been achieved on seabirds and the bronze whaler shark within the first project cycle. The indicator is meaningful. Prospects remain favorable for the wider introduction of seabird scarers in the region and expanded</p>	n/a

		<p>industry). The major impact has been on species affected by by-catch which has been addressed; <u>There has been real progress towards reducing seabird mortality</u> since S African fishing vessels have installed seabird scarers. Namibia has declared the need for bird scarer lines to reduce by-catch of albatrosses, petrels. Namibia has issued its NPOA on sea birds, South Africa to do so shortly. Eventually, large reductions in sea bird mortality are expected as a result of the project.</p> <p><u>Some hope for pelagic sharks</u> since the presentation made to ICCAT by BCLME scientists. However, no means have been identified as yet for reducing the mortality of pelagic sharks in industrial fisheries – this remains a global as well as regional problem.</p> <p>But situation of demersal sharks has <u>worsened</u> in Namibia which are now targeted because of hake decline.</p> <p>Limited progress as yet on sea turtles. Some education and awareness work, some assessment.</p>	conservation range for the bronze whaler.	
	Fisheries management objectives included in marine protected areas by 2007	<p>S Africa and Namibia have both taken some steps - Angola - there are some MPAs where this has been addressed.</p> <p>Namibia has prepared a submission to the Minister of Fisheries as well as Cabinet and is hopeful to get approval to declare MPAs around all the Namibian offshore islands in 2008.</p> <p>Angola is looking at one trans-boundary area to extend an MPA offshore.</p>	Some shortfall. Fisheries management objectives have been included formally in only a few MPAs and not at all yet in Angola. The target indicator is meaningful although may be influenced by other processes than BCLME. Prognosis is for a gradual assimilation of fisheries management objectives in MPAs.	n/a
	Yields of fish and its composition in the Benguela increased and diversified	This objective appears to have been unrealistic and questionable, in that the increased quantity and diversity of yields are not sure indicators of recovery or sustainability – indeed they may equally well be	Yields of fish have continued to decline without diversification to new species but this should not be considered a shortfall since the	n/a

		<p>signs of over-exploitation.</p> <p>During the project period, yields of hake stocks have continued to decline and there is no information to suggest that yields have diversified significantly. There are also indications that the overall productivity of the system may be in decline due to climate change (see below). However, improvements in <u>sustainability</u> are clearly in prospect, notably the recent elaboration of EAF-based fisheries management plans in Namibia.</p> <p>Some experimental licensing has been implemented in Namibia, with an aim to encourage diversification, resulting in some diversification of captures (e.g. to include demersal sharks, which is a <u>negative impact</u> of diversification).</p> <p>Yields of sardine and anchovy in South Africa increased during the 1990s but dropped dramatically during the project cycle, but this is not only due to fishing (environmental changes have played a part).</p>	<p>objective was unrealistic for the first phase. The indicator is meaningful but influenced by other processes than BCLME. The prognosis is for some improvement during SAPIMP implementation for hake and potentially sardines.</p>	
	Mining leases issued with pro-active environmental management plans by 2007	<p>Namibia has issued permits with environmental management plans. Angola is also making changes. No information on South Africa.</p> <p>Namibia passed the Environmental Management Act early in 2008. Guidelines for responsible mining practices have been prepared and are being used by marine mining companies.</p>	<p>Some shortfall since the practice is not yet universal. The indicator is meaningful but may be influenced by other processes than BCLME. The prognosis is that EMPs will become standard practice in all mining leases during SAPIMP.</p>	n/a
	Other outcomes at this level	<p>Marine protected areas have been declared in Namibia around islands many of which fall within existing mining leases.</p>	<p>Some shortfall on the capacity to <u>use</u> an ecosystem approach. The indicator is meaningful but qualitative only. The prognosis is that capacity to manage according to more comprehensive approach will develop more during SAPIMP.</p>	n/a
<u>Project purpose:</u> Participating countries	Overall assessment of achievement of project purpose	<p>The countries undoubtedly possess strongly increased understanding to use a more comprehensive ecosystem</p>	<p>No overall shortfall – the indicators is meaningful. Prognosis for</p>	HS

and their institutions sharing the BCLME have the understanding & capacity to utilise a more comprehensive ecosystem approach and to implement sustainable measures to address collaboratively trans-boundary ecosystem related environmental concerns.		approach and also some of the capacity to implement sustainable measures to address trans-boundary concerns.	consolidation during SAPIMP.	
	Harmonisation of national legal and regulatory frameworks at regional level by 2007	Full harmonisation of oil spill contingency legislation has proven impossible, at least for Angola, but cooperation agreements have been developed. Regional Aquaculture management plan and policy – has also proved very complicated to harmonise, although again some general policy harmonisation is possible.	The harmonisation objective was unrealistic and this should not be regarded as a shortfall. The indicator should be revised down to the level of cooperation agreements. The prognosis is for increased cooperation and gradual convergence of legislation during SAPIMP and beyond.	S
	Coordinated enforcement of agreed regulatory instruments by 2007	Some close operational cooperation in MCS (fisheries surveillance) through intergovernmental agreements (Namibia-Angola; Namibia-South Africa).	Shortfall – coordinated enforcement is not complete. The indicator is meaningful but not quantitative and may be influenced by processes other than BCLME. Continued progress can be expected during SAPIMP.	S
	Implementation of SADC fisheries protocols by 2007	SADC fisheries protocol is already embedded in national legislation. However, SADC lacks personnel to push forward its general application.	SADC protocol not fully implemented but this was primarily due to staff shortages at SADC and outside the control of BCLME. Improvement can nonetheless be expected during SAPIMP.	n/a
	Capacity to deal with ecosystem management by 2007	Many examples of improved understanding and knowledge, some ecosystem based management plans e.g. Namibia. In Namibia, MFMR is in the process of recruiting biologists into vacancies and some will be dedicated to EAF work. One senior scientist is already fully dedicated towards ecosystem work.	Shortfall (minor) - specific examples of ecosystem management capacity not demonstrated by 2008 but consensus is that capacity has been developed. The indicator is meaningful but qualitative. Continuing progress expected during SAPIMP.	S
	Introduction of an ecosystem approach for at least 2 species by 2007	Namibia has introduced new management plans based on EAF, although only national in scope so far. Also S Africa on hake is progressing towards EAF-based plans.	No shortfall – EAF is now effective for more than 2 trans-boundary species in Namibia. Indicator clear. Good prospects for extension during SAPIMP.	HS

		In Namibia, the MFMR is finalising their management plans for all commercially harvested species. No regional plans in place yet.		
Other project outcomes express or implied from project document	Updated SAP	Not updated, but new support project to BCC (SAPIMP) defined and science plan prepared. The SAP could be updated within the early part of SAPIMP, incorporating the approved BCC Science Plan and additional inputs from workshops.	Shortfall – original SAP preliminary in nature and lacking clear vision or EcoQOs. Indicator useful. Good prospects for updated SAP early in SAPIMP but budget provision needed.	n/a
	Functioning BCC	BCC established and functioning. Ministerial Conference of BCC held in July 2007 followed by 1 st Management Board meeting. Science Plan for 2008-2011 adopted. Second meeting of Management Board held in Cape Town in August 2007. Rules of procedure adopted. Secretariat of BCC established. Positions of Executive Secretary and Ecosystem Coordinator filled. Funding secured for donors and government partners.	No shortfall – BCC up and running and countries engaged to render full legal. Indicator meaningful. Good prognosis for full legalisation and further consolidation during SAPIMP.	n/a
	Development of real-time management capability to sustain & use marine living resources (MLRs)	Foundation of understanding is in place, with specific data for some stocks. State of fisheries report issued. SoE website is functioning. State of the commercial fish stocks for BCLME developed and being incorporated into the SEIS meta data base.	Shortfall – real time management capability not yet in place but close. Indicator useful. Prognosis for real time management during SAPIMP.	n/a
	Improved ecosystem forecasting	Significant progress in numerous respects, but cannot yet claim full forecasting. Some capability to forecast primary productivity changes. Major advances have been achieved in insights about ecosystem function and change. The following expert view is illustrative: <i>The LOW project discovered (for the Namibian</i>	No shortfall – BCLME has had a major impact on improved ecosystem forecasting. Indicator qualitative. Operational forecasting expected during SAPIMP.	n/a

		system) two long term trends consistent with global warming: 1) a 16 year increase in the lag between seasonal warming at Cape Frio and the following upwelling peak at the Luderitz upwelling cell and 2) 23 year warming at the Angola-Begueta Front (ABF). Both contribute to the intensification of seasonal hypoxia (LOWs). If there is a decline of wind stress at Luderitz, scientists predict long-term decline in ecosystem functions supporting fisheries. This would mark the end of the highly productive BCLME ecosystem as we know it. Monitoring must continue as part of EEWS.		
	Policy harmonisation in BCLME countries	Numerous symptoms of convergence, no specific policy harmonisation exercises conducted. Complex to assess. Socio-economic projects have made many useful recommendations.	No shortfall – real progress towards harmonisation (SAP, BCC? SAPIMP etc.). Indicator appropriate. Prognosis for consolidation during SAPIMP.	n/a
	Regional integrated environmental plans	Regional Integrated Biodiversity Conservation Management plan still in preparation (to be completed as part of BCC science plan).	Shortfall – regional biodiversity not completed due to lack of data. Indicator meaningful.	n/a
GEF IW standard outcomes not already mentioned above	National inter-ministry coordination	PSC includes representatives from the different ministries. This appears to be the main basis of <u>national</u> inter-ministry coordination. NICs have not been established specifically for the BCLME project. NICs exist in Angola for ICZM, and there is a marine pollution committee, but not put in place by BCLME. SA and Namibia also have various committees. In Namibia, MFMR has a NIC (the Aquaculture Inter-Ministerial Committee) to address aquaculture issues, especially the evaluation of applications for aquaculture licenses. NACOMA has NIC in relation to coastal and marine biodiversity in Namibia.	No real shortfall – while NICs not in place for LME national integration is already very strong via the PSC. Indicator does not fit all cases. Prognosis for continued strong integration via the BCC.	n/a
	Multi-country agreement on regional legal mechanism for waterbody	Interim agreement on the BCC. Is considered legally to be a treaty between countries and a major achievement.	No real shortfall – BCC operating and countries committed to perfecting it. Indicator meaningful. Prognosis for fully ratified BCC	n/a

		Ministerial Conference of BCC held in July 2007 followed by 1 st Management Board meeting. Science Plan for 2008-2011 adopted. Second meeting of Management Board held in Cape Town in August 2007. Rules of procedure adopted.	during SAPIMP.	
	National legislation or policy reformed to address trans-boundary problems	Namibian fisheries policy and legislation addresses trans-boundary issues. Angolan fisheries took inspiration from the ecosystem approach. Also to be addressed by BCC.	Shortfall - no specific national legislation on addressing trans-boundary problems to date. Indicator is meaningful but non-quantitative. The prognosis for increase national assistance to trans-boundary issues.	n/a
	Broad stakeholder involvement in priority setting and strategic planning	Stakeholder involvement in TDA, SAP, project design, BCC and science plan. Industry participates on advisory council of BCC. Industry representatives have confirmed their support to BCLME despite limited attendance. Participation of management secured through EAF project <i>inter alia</i> . Fishing Industry in Namibia is involved in Strategic Planning through a MFMR forum. Industry also serves on the Fisheries Advisory Council of the MFMR	Minor shortfall – management and could have been more involved in priority setting and planning. Indicator is meaningful but not quantifiable. Prognosis is for increased participation of management and industry now that BCC established.	n/a
	Newly established or strengthened trans-boundary waters institutions	BCC	No real shortfall – BCC operational and countries committed to ratifying. Indicator is meaningful but generic. Prognosis is that the BCC will be fully ratified during SAPIMP.	n/a
	Financial and institutional sustainability of joint trans-boundary waters institutions	The countries have entered into a legally binding treaty to establish the BCC. The BCC is already functioning as an institution, complete with premises, staff, science plan, science committee and established advisory groups. The financial needs of the BCC have been secured for the coming 5 years through a combination of GEF funding and country contributions. In addition, other donors have agreed to support financing of the BCC science plan.	No real shortfall – the financial and institutional stability of BCC is assured for now. Indicator meaningful. Good prospects for achieving sustainability during SAPIMP.	n/a

	Trans-boundary concerns mainstreamed into country assistance programs	<p>Nansen programme has mainstreamed trans-boundary concerns at the national as well as regional levels.</p> <p>As an example, the pilchard (sardine) survey extended into the Angolan area. South Africa and Namibia research trans-boundary hake stocks in cross-boarder activities. Namibian scientists joined an international survey into the SEAFO area to conduct regional research on sea mounts.</p> <p>Now that BCC in place, it should influence the allocation of support to addressing trans-boundary issues in national assistance programs.</p>	Slight shortfall - no examples of mainstreaming trans-boundary concerns as yet. Indicator meaningful but not quantifiable. Good prognosis for mainstreaming during SAPIMP.	n/a
	Regional environmental monitoring mechanism established	<p>SEIS in place. Committees are now much busier with monitoring, but no formalised mechanism as yet.</p> <p>One tide gauge deployed in South Africa, two to be deployed in Namibia in April 2008. Two more to be deployed in Angola. SEIS will be taken over by the BCC Data Manager who will continue inputting data.</p>	No shortfall – main elements of regional monitoring system in place. Indicator meaningful if general. Good prognosis for fully operational monitoring during SAPIMP.	n/a
	Financial mechanisms in place to support SAP implementation	<p>Strong countries' commitment – who make a substantial contribution. Funding secured for BCC science programme.</p> <p>GEF funding secured for BCC development</p> <p>Strong donor support has been secured for BCC over period 2008 to 2011. Over US\$10 million pledged by Norway and Iceland. Governments are to contribute US\$300,000 per year cash. SAPIMP Project has raised US \$5.13 million from UNDP-GEF.</p>	Shortfall – updated SAP not in place and only funding as opposed to “financial mechanisms” yet in place. Indicator meaningful. Good prognosis for financial mechanisms to be established during SAPIMP.	n/a
Other outcomes (please list and assess)	Coordination with other LMEs	Substantial coordination with GCLME e.g. on fishery surveys, participation at workshops, providing exchange. Support to CCLME launch workshop. Convened 2 nd Pan-African LMEs summit in 2007.	No shortfall – coordination with other LMEs excellent. Contribution to Abidjan useful to help revive this framework convention. Indicator useful. Prognosis for continued interaction with other LMEs and	n/a
	Inputs into revision of Abidjan	The BCLME project has contributed proposed		

	Convention	revisions to the Abidjan convention whereby LMEs / LME Commissions will play a role in its implementation	Abidjan Convention during SAPIMP.	
<u>Project impacts:</u>	<u>Global environmental benefits</u> (list & comment qualitatively – do <u>not</u> assess 0-5). Early signs of impact	<u>Namibia</u> – bronze whaler mortality reduced, NPOA for sharks, mariculture developing as alternative to increased fishing effort, EAF fisheries plans, TACs reduced for horse mackerel by Namibia. Extension of the 200 mile limit to 300 miles will also reduce pressure. Rock lobster has increased (though not due to project).	No shortfall – environmental impacts would not normally be expected in 1 st project cycle. Target essential. Prognosis for real impacts during SAPIMP.	n/a
<u>Replication effects</u> (list & comment qualitatively – do <u>not</u> assess 0-5)		BCLME has become a global example for LME projects. Shark work has been taken up elsewhere. Aquaculture model is applicable elsewhere. EAF has been promoted in 2 projects (top predators and the EAF approach project) and S Africa and Namibia are now replicating it.	No shortfall	n/a
<u>Other effects</u> (list & comment qualitatively – do <u>not</u> assess 0-5)		Attitudinal shifts in fishing industry. Management improvements in artisanal fishery in Angola.	No shortfall	n/a
Project outputs	Sub-outputs			
<u>Output 1</u> – Operational and effective intra and inter programme coordination and support is established	Overall assessment of Output 1	Programme coordination and support has been highly effective.	No shortfall. Excellent coordination.	HS
	3 activity centres and 6 advisory groups created by 2003	Yes	No shortfall. Activity centres and advisory groups very effective.	HS
	PSC and advisory groups meet at least 2 times a year	Yes	No shortfall. PSC and Advisory Group meetings totalled more than twice a year.	HS
	Regional strategic plan for capacity strengthening and maintenance by 2004	Needs assessments undertaken and draft strategy proposed, if not formally adopted. Numerous training courses. Recent efforts to increase capacity include supporting MScs and PhDs (2 Angola, 2 Namibia). Training courses at Agostino Neto University, Angola.	Slight shortfall – numerous capacity building actions have been undertaken and effective but a formal regional strategic plan was never developed. The complete	S

		<p>Several scientists and managers received training overseas including MScs, PhDs and management courses. One Angolan doing oceanographic research at UCT.</p> <p>Substantial hands on training in subprojects as well as capital reinforcement (boats, equipment etc.). 15% of total BCLME budget went on capacity building.</p> <p>New BENEFIT/BCLME training officer developed and coordinated a training programme.</p> <p>Support project to BCC includes capacity reinforcement with a formal plan already established.</p> <p>Training and capacity building management plan prepared for BCC. Training Officer to be recruited shortly. Icelandic aid (ICEIDA) specifically linked to training and capacity building.</p>	target is realistic. Prognosis is that a plan be developed at the earliest opportunity by the BCC under SAPIMP.	
	Collaborative study on human capacity and training and infrastructure needs for assessing priority trans-boundary issues by 2005	Yes	Shortfall (minor) – the study was completed and has been used although in hindsight was considered not to offer sufficient strategic guidance.	S
	Agency document for phasing in of BCC signed by mid-2005	Yes – BCC	No real shortfall -	HS
	BCC phased in and functional by 2006	Yes – BCC	Shortfall – no IBCC was established but the “shadow” BCC is functional in 2007 and expected soon to become a full commission.	HS
	BCC to secure financing for core activities by 2006	<p>Yes – GEF funding for BCC development secured Funding for science plan secured</p> <p>Significant donor funding secured, close to US\$15 million to cover 2nd phase of BCLME including institutional strengthening of BCC and science.</p> <p>Interim Financial Management Mechanism in place</p>	No shortfall – funding to develop the BCC is secured.	HS

		for 2008-2011 and agreed to by donors		
Output 2 – Sustainable management and utilisation of trans-boundary marine resources are enhanced.	Overall assessment of Output 2	Undoubted <u>progress towards</u> enhanced management and utilisation of marine resources, while few concrete management systems are yet in place.	Shortfall – new management arrangements are not yet in place. The target is reasonable but not quantifiable. The prognosis is to arrive at operational plans during SAPIMP.	S
	Annual state of BCLME ecosystem reports by 2004 and 6 monthly by 2006	The first State of Stocks review 2007, has been updated. The related consultancy provide for the fisheries data and SOS report to feed into the SEIS website. The SEIS website will be populated with the latest batch of State of Environment indices from the three countries However, no broader ‘state of the ecosystem’ report yet issued or planned.	Shortfall – no annual state of the ecosystem reports have been issued to date (2008) although numerous reports and a book document the ecosystem. The objective for annual reports was in hindsight over optimistic. The prognosis is for 1 st LME report during early part of SAPIMP assuming BCC adopts the target.	S
	Annual state of the shared commercial fish stocks available by 2004 and by 2006 every 6 months	1 st State of fish stocks report has been done and updated to early 2008.	Shortfall – the 1 st state of stocks report issued in late 2007. In hindsight the target was not realisable in the time frame envisaged. The prognosis is for an updated report during SAPIMP but at best annually.	S
	Joint surveys and assessment of shared stocks of key species by the end of 2005	Nansen joint surveys on hake. Also Namibia-Angola joint survey on sardines and horse mackerel. As an outcome of the trans-boundary small pelagics and midwater resources workshop, Namibia and Angola will consider and plan to extend national surveys across their borders.	No shortfall. The target was non-quantitative. The prognosis is for further surveys during SAPIMP.	S
	Regional working group on conservation and management measures of shared stocks established by 2005	Working group(s) in place, although not fully regional and not formalised. But the idea is that they will work under coordination of the ecosystem committee of BCC, which they are ready to do.	Shortfall – groups not fully operational. The target was reasonable but data dependent. The prognosis is for progress during SAPIMP.	S
		Not yet. Reduced TACs in Namibia may already be having an effect.	Shortfall – no stock declines have been arrested as yet. The target was	n/a

			unrealistic. The prognosis is for progress with some stocks during SAPIMP.	
	Responsible regional mariculture policy by December 2006	<p>Yes in Namibia, progress in Angola. Policy may not yet be adopted regionally.</p> <p>The LMR Advisory Group recommended that aquaculture issues are currently more important nationally than regionally.</p> <p>The BCC aware of potential serious impacts that aquaculture may have in the region.</p>	Shortfall – mariculture policy not yet in place in Angola. This part of target may be unrealistic because Angola is prioritising continental aquaculture and the indicator should be downscaled to achievement in Namibia. The prognosis is for continued progress in Namibia during SAPIMP.	S
	50% of the shared stocks have been rebuilt to optimal level by 2007	Ambitious objective at output level; would have been better placed at level of project goal.	Shortfall – no stock rebuilding has been undertaken yet. However, the development of bilateral management plans is underway for some species and there is prognosis for beginning the rebuilding of 50% of stocks during SAPIMP.	S
	Quality and sanitary methods for aquaculture products being used in the region meet international standards	Progress in Namibia (although standards are awaiting verification). Angola underway, but a long process required to meet international standards.	Shortfall (minor). Angola has not yet adopted methods. The target was realistic, but Angola will prioritise continental sanitary methods so may not pursue. The prognosis is for further progress in Namibia during SAPIMP.	S
	All trans-boundary stocks are being managed by agreed operational management plans (OMP) by 2007	None as yet. But national EAF-based plans are taking this in the right direction. Namibia is finalising national plans for the commercially harvested species.	Shortfall – no OMPs are in place as of 2008. In hindsight the target was unrealistic but an alternative indicator cannot be suggested. The prognosis is for several OMPs during SAPIMP, particularly sardines, horse mackerel and hake.	S
Output 3 – Environmental variability, its ecosystem impacts are assessed, and predictability is improved for enhancing the management of living	Overall assessment of Output 3	Undoubted major achievements in assessment of environmental variability and its impacts; predictability also vastly improved even if not yet fully operational.	Shortfall – capacity for prediction is still limited. The target was reasonable. The prognosis is for achieving the objective through the BCC science plan during life of SAPIMP.	HS

marine resources.	Living marine resource managers in the 3 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.	Managers starting to use BCLME findings, SEIS and fish stocks report. Elements of an SOE identified as: abundance of stocks, Benguela El Niños, LOWs, HABs and sea states. BCLME Forecasting book published. SEIS will be taken over by the BCC Data Manager and continue populating it.	Shortfall – resource managers are not yet using SOE reports or attendant forecasts in 2008. Target was overoptimistic. The prognosis is for achieving the target during BCC science plan within SAPIMP time frame.	HS
	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	EWS for HABs – most elements in place. Some human health warning plans in place in Namibia. 4 Phytoplankton and biotoxin monitoring programs ongoing in Angola. The African Centre for Climate and Earth System Science (ACCESS) has adopted the TOR and SOW work based on the EEWS project and taken ownership of follow up and more comprehensive implementation of models related to predictability.(including HAB, LOW etc).	Shortfall – EWS for HABs is not yet operational regionally. The target was realistic. The prognosis is for perfecting EWS through the BCC science plan during life of SAPIMP.	S
	Environmental baseline against which all future changes in variability will be measured by 2007	SEIS in place	No shortfall	HS
	Management actions by IBCC is based on knowledge of:	BCC is not yet managing (consultative only) but is based on knowledge of a) and b).	Shortfall – the knowledge is there but not yet applied in management.	HS
	a) environmental control factors in the Orange cone / Lüderitz area which apparently separates the pelagic fish stocks of Namibia and South Africa (by 2007)	Knowledge is in place	Shortfall – the knowledge is there but cannot yet be applied in management.	
	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)	Knowledge in place	Shortfall – the knowledge is there but cannot yet be applied in management.	
	Management action by IBCC based on knowledge of the shifts	Knowledge is in place	Shortfall – the knowledge is there but cannot yet be applied in	

	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)		management.	
Output 4 – Preliminary steps to maintain BCLME health and to enhance effective pollution management are initiated to safeguard fisheries and other resources	Overall assessment of Output 4	Preliminary steps to maintain BCLME health and enhance effective pollution management have definitely been initiated, even if not all of those envisaged.	Shortfall – no environmental management measures are in place to date. The target was reasonable. The prognosis is for continued progress during SAPIMP.	S
	Cooperative agreement with SADC to implement MARPOL 73/78 by 2004	A small project was conducted on MARPOL. All countries have ratified. Implementation in some countries. No specific agreement with SADC.	Shortfall – there is no specific agreement with SADC on MARPOL but this has proved unnecessary and was outside BCLME control.	S
	Regional consultation framework for mitigating negative impacts on mining by 2005	Negative impacts are now well understood	No shortfall.	HS
	Regional marine and coastal early warning system by 2004	EWS is virtually in place. Tide gauges to measure sea level have been installed throughout the region. New marine scientific programme established in South Africa ACCESS to model and monitor climate change.	Shortfall – EWS not yet fully operational. Target was reasonable. Prognosis for completion through the BCC science plan in early part of SAPIMP.	n/a
	20 projects for marine and coastal areas elaborated by 2003	Yes (24 projects in fact)	No shortfall	n/a
	List of waste quality criteria for receiving waters by 2004	Yes – specific project addressed this (report by CSIR) and regional water guidelines prepared. Land based sources of pollution assessed for BCLME.	No shortfall	S
	Oil pollution contingency plan and regional pollution policy by 2006	No, after several attempts, but a regional <u>cooperation</u> plan is at an advanced stage of elaboration. Some constraints on Angolan side. Document includes policy aspects. An assessment of a Regional Oil Spill contingency plan has been prepared and complements the existing national oil spill contingency plans.	Shortfall – no regional contingency plan is yet in place (2008). The target for a contingency plan was unrealistic. The prognosis is for completing a more general cooperation plan early during SAPIMP.	S
	Code of conduct for responsible mining by 2004	Many codes exist e.g. guidelines for offshore mining. Guidelines for and assessment of responsible seabed mining report have been completed.	Shortfall- regional code not finalised although other codes already in place. Target was reasonable. The	HS

		Policies and legislation for mining have made progress in all countries.	prognosis is for a final code early during SAPIMP.	
	Assessment of the status of vulnerable species and habitats by 2005	Major project of MCM. The mapping component of this project (physical and biological) has been completed. The main land-based sources of degradation have been identified.	Shortfall – the report has been delayed but is now almost complete. The target was reasonable. The prognosis is for completion in the remaining months of BCLME.	S
	Regional marine biodiversity conservation management plan by 2005	Due to difficulties in logistics and timing, this project will be completed by the BCC as part of its Science Plan.	Shortfall (minor) – plan prepared but not yet formally adopted. The target was realistic. Adoption by BCC can be expected soon.	S
	Protected areas identified and measures for conservation implemented by 2006	Sites of future MPAs identified in all three countries (BENEFIT responsible for reports). A SEA report for Namibia but Danish firm has made a contribution. There have been several EAs in region. Plans advanced for fisheries and MPAs at Orange River, Cunene River. Closed areas for fisheries have been recommended for some MPAs in Angola. S Africa completed its own plan some years ago.	Shortfall – MPAs identified but measures for conservation not yet implemented. Target reasonable but not quantifiable. Prognosis for progressive implementation of conservation measures during SAPIMP.	S
	Oil pollution contingency plans within the region harmonised and implemented by BCC including specific agreed mechanisms for sharing technology and expertise for controlling oil spills by 2005	National plans are elaborated Regional cooperation agreement at an advanced stage Regional Oil Spill Contingency project finalised and recommendations to be carried forward to the BCC	Shortfall – no regional contingency plan is in place. The target was unrealistic since harmonisation poses too many challenges. The indicator should be downscaled to cooperation agreements. The prognosis is for finalisation of a cooperation agreement early during SAPIMP.	.S
	Guidelines for water quality in all three countries including (STD) index to measure levels of pollution by 2005	National water quality guidelines in place in Namibia and S Africa. A common set of guidelines has been drawn up and are recommended to be followed by the three governments The guidelines also cover sediment quality.	Shortfall – guidelines not in place in Angola. The target was reasonable. The prognosis is that Angola will have guidelines in place during SAPIMP.	.S
Additional Output 4 indicators undertaken but omitted from logical framework	Identifying land based sources of pollution in the BCLME	A comprehensive assessment was undertaken of the land based sources of pollution to the BCLME by CSIR	No shortfall (additional)	
	Addressing alien invasive species	Baseline surveys have been conducted by South Africa under the first GLOBALLAST IMO tranche of funding.	No shortfall (additional)	

	Management of ballast water	<p>A regional and management plan has been prepared port waste reception facilities in the BCLME.</p> <p>A strategy for developing ballast water management activities in Angola has been prepared.</p>	No shortfall (additional)	
<u>Output 5 – Donor participation and co-financing are increased throughout the life of the programme and beyond</u>	Overall assessment of Output 5	While slow to start with, the project has ultimately been highly successful in securing increased donor participation and co-financing, particularly for the next phase.	No shortfall.	HS
	Development of an overall plan to increase donor and country resource commitment to the project and the long term sustainability of the BCC	Funding secured.	No shortfall	HS
	Donor conferences planned and executed	Yes. Successful.	No shortfall	HS
	Systematic procedures established to use the GEF project to leverage other donors for direct and indirect support to project activities	Efforts were systematically made to leverage funds from other donors. UNDP-GEF funds for SAPIMP project used to lever funds from Norway and Iceland.	Shortfall (minor) – no systematic procedures were used and efforts with donors came late but leverage achieved anyway with satisfactory results.	S
	Increased donor support for direct and indirect assistance to project related activities and the longer term activities of the IBCC	Yes. Ministers recently agreed to increase the countries' annual cash contributions to the BCC, equivalent to an increase of up to 25% in relation to the country contributions to BENEFIT while it was still running.	No shortfall.	HS
<u>Other significant outputs not mentioned in log frame</u>	BCLME book – The <i>Benguela</i> - Predicting an LME	The book documents scientific progress towards understanding the BCLME ecosystem and the basis for predicting ecosystem variability and contributed to delivery on several project indicators.	No shortfall (all additional)	n/a
	BCLME book “Benguela – Current of Plenty”	The book on the BCLME has promoted general awareness of the ecosystem and of trans-boundary concerns.		
	BCLME six newsletters and brochures	The newsletter was considered by many to be the most useful of the project communication tools.		

	<p>BCLME CD 20 minute promotional film “Current of Plenty”</p> <p>BCLME website www.bclme.org</p> <p>BCLME final reports 140 with copies on CDs distributed to stakeholders</p> <p>BCC science plan – not originally foreseen as output.</p> <p>Training and Capacity Building report prepared for BCC.</p> <p>Legal review of interim financial management arrangements for the BCC.</p> <p>A strategy for developing ballast water management activities in Angola.</p> <p>Regional assessment and management plan for port waste reception facilities.</p>	<p>The documentary film has been useful for increasing public awareness at international, regional and local levels and for various targeted audiences</p> <p>The BCLME website provides a valuable information source and has much potential for increased use in the future.</p> <p>The many BCLME reports and their capture on CD provide a guarantee the information will not be lost and will provide the information base for future management.</p> <p>The BCC science plan, a joint output of BCLME and BENEFIT, is part of the foundation for the new BCC and a compliment to the SAPIMP project which focuses on governance.</p> <p>The training and capacity building report for BCC will provide a further operational foundation.</p> <p>The legal review on interim finance arrangements will provide guidance to the newly established BCC.</p> <p>The Angolan strategy on ballast water will contribute to the regional programme on this issue and contribute to output 4.</p> <p>The regional assessment of port waste reception facilities has contributed to the preliminary steps to protect BCLME ecosystem health (Output 4).</p>		
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Annex 2 – Stakeholder survey results

Stakeholders were interviewed following a simple questionnaire structure (appended to this document) which took the interviewee through the background to the project, the design process and the origins of their involvement and then questioned them on the main achievements, main shortcomings, factors contributing to successes and shortcomings, lessons learned, early signs of impact (environmental, socio-economic, understanding, capacity building), detectable effects (replication, changes in management / governance, attitudinal shifts) and sustainability of the outcomes. Stakeholders were invited to sum up with a concluding remark that encapsulated their overall view or raised issues which they considered to be of particular importance.

Were the conditions for the project favourable?

Most stakeholders felt that conditions had been especially favourable for the project, citing desire for peace and cooperation after war, the manageable number of countries, scientific enthusiasm and knowledge, a strongly felt need for outside cooperation (especially felt by fisheries in Namibia) and the valuable foundation provided by BENEFIT. A few felt there were some unfavourable factors, such as doubts in the fishing industry about the trans-boundary approach, persisting distrust between the countries, different legal systems and the language barrier (Angola being Portuguese speaking). But the consensus was definitely that conditions had in general been very favourable.

How was the project design process?

Most stakeholders considered that the project design process had been transparent, participatory, technically rigorous and even inspiring (although a few described the TDA/SAP process as cumbersome or tedious and a bit stereotyped). Some felt that the GEF restrictions on funding for “research” were unhelpful and led to somewhat artificial reasoning to justify activities which they still viewed as research, even if the management applications were more explicit. Several commented on the usefulness of the LME modular framework while one thought it tended to detract from a holistic approach. Another thought that the process should have included scenario building. Some thought the design was essentially similar to that of the Benguela Ecology Programme (BEP). Some commented that the process was biased towards fisheries, science and southern concerns (one explanation being that this was in part due to the shortage of information for Angola), that it lacked an adequate capacity building component, did not take enough account of economic issues, did not take enough account of the BENEFIT experience and did not really deliver a clear vision or end goal. As regards the bias towards fisheries, the Angolan head of delegation at the closing symposium commented that fisheries was the only renewable resource of the BCLME.

A significant number commented that inadequate account was taken of the obstacles to effective Angolan participation. Some considered that fishing and other industries were not sufficiently involved in the process. Some considered that the process for designing and selecting the activity projects was not a truly regional or transparent process, even if in principle the activities were derived from the SAP (see below under shortcomings).

Stakeholder expectations

At the level of the broader objectives, most stakeholders expected improved regional cooperation, a shift towards the regional ecosystem approach, an improved understanding of the ecosystem, the establishment of a Benguela Current Commission and initiation of trans-boundary management. Some expected an operational early warning system (EWS) to be in place, while several thought it would

have been unrealistic to expect trans-boundary management to be achieved during the first phase, which could take 10 years. Some expected significant capacity building impacts while others felt the emphasis would be on achieving outputs. At the level of specific activities, stakeholders had expectations in relation to the projects in which they were concerned e.g. mariculture regulations in place, marine conservation plan for BCLME etc. Stakeholders in Angola tended initially to have lower expectations, presumably because they felt less well placed to contribute or benefit. Private sector stakeholders and petroleum sector stakeholders were also consistent in saying they did not have high expectations, apparently confirming a sense that the project was not for them, at least initially (for some of the fishing industry, this changed later on).

Main achievements

There was general consensus that establishment of the BCC has been the most significant single outcome, although several put the fact of regional cooperation and understanding before establishment of the commission itself. Bringing Angola into a regional cooperation arrangement was highlighted by some as a particularly important achievement. Most considered that the science had been excellent, that project outputs had been of high quality, that understanding of the ecosystem had very much improved and that an enormous body of useful information has been collated. Stakeholders were divided on whether the bridge had really been built between science and management, with stakeholders in Namibia expressing the greatest satisfaction. One considered that the BCC structure, which includes an overarching science coordinator, would help bridge the gap. Most felt that the project had had a substantial impact on capacity development and had built the professional confidence of many individuals.

At the activity (sub-project) level technical achievements highlighted included establishment of SEIS, near-operational EWS, establishment of the regional marine conservation plan, the top predators project (on reducing by catch of seabirds), conservation of the bronze whaler shark, progress towards an EAF, various important reviews on artisanal fisheries and other themes, a regional cooperation agreement on oil spills and identification of potential MPAs. The mariculture projects in Namibia stood out as delivering tangible development benefits as well as environmental benefits.

It should be noted that even where reservations were expressed, stakeholders overall mostly considered the project had been a major success, using a range of superlatives such as: “resounding success” (both generally and in establishing the BCC), “huge success” (in the compilation of information), “most successful” (in raising the profile of trans-boundary issues), “magnificent” (in getting the message across to management in Namibia), “extremely educative” (in raising awareness within the governments), “ground breaking” (e.g. in relation to EAF and top predators), “exceptional” (in catalysing the regional process) and “brilliantly done” (generally).

Shortcomings

A few stakeholders could not identify any shortcomings, but most had at least some reservations. At the programme level, several stakeholders thought that the BCC was established too late and that it lacked the necessary powers (advisory only, no diplomatic status, no legal personality) while others thought it could not have been done any more quickly and indeed that moving too far too fast might have been detrimental. The lack of communication to stakeholders about the BCC was criticised - one fisheries industry representative said the industry would have been more supportive had it been aware that BCC would only be advisory in its first incarnation. Despite the BCC, several stakeholders thought that government ownership and integrated management were still not fully developed and that there remained some disconnection between science and management. Some thought that the fishing industry had been insufficiently engaged and that joint management by scientists, government and industry was still some way off. The EAF project had made important progress towards these linkages but it had come too late in the programme yet to have had a major impact. In Angola, it was felt that more should have been done to engage rural coastal communities.

On the issue of science stakeholders were divided – some thought there had been too little and that the importance of science was still not fully appreciated while others thought there had been too much science for science’s sake, that science had sometimes dominated to the extent of “hoodwinking” government stakeholders, that some science had been unproductive and that some had been incomplete (especially on fisheries). Some were disappointed that certain key trans-boundary concerns, such as trans-boundary hake stocks, had still not been adequately tackled scientifically. One expressed dismay and disappointment that an important trans-boundary hake workshop had been ‘sabotaged’ by industry and scientific groups antagonistic to the trans-boundary approach. Several thought that the scientific information generated by the project was not in a form that was accessible to the non-scientific community.

Some considered capacity building to be disappointing, particularly in environmental management (e.g. oil pollution control), specialist areas (e.g. modeling) and management, or that it had been scattered and not always delivered in the right places. The capacity needs assessments prepared early on in BCLME appeared helpful at the time but in hindsight proved to be little more than a wish list which did not provide a strategic framework. Several stakeholders considered that there had been no strategic vision or plan for capacity building. Training activities had been considerably enhanced through the recent collaboration with BENEFIT but this came late in the programme and the impact will necessarily be limited.

On the issue of country participation, many stakeholders commented on the uneven benefits capture by the three countries, most considering that Angola had been less able to benefit from the project than the other countries and that probably Namibia had benefited most. The particular case of Angola has given rise to much stakeholder commentary which will be presented below under ‘Factors in Shortcomings’.

On the issue of project scope and content, several thought that there had been too many sub-projects and not enough synthesis of the information they had generated, that some projects overlapped and that they had been unevenly distributed across thematic areas and between the countries.

At the closing symposium, the Angolan representation stated that the Angolan science community would have liked to have been involved in more publications,

Factors in success

The most commonly cited factor in the success of the project was the high level of “enthusiasm” of the BCLME project community, indicating that success came mainly from within. However, external factors were also important, such as the favourable timing of the project, the foundation provided by BENEFIT and the small number of countries involved. One commentator pithily summed it up as “Timing – Attitude – Foundation”, but stakeholders cited many other factors of interest. Since the factors were cumulative over time, the best way to make sense of them is to cite them chronologically.

In the beginning, circumstances were favourable for a regional cooperation project of this kind, facilitating the genesis of both BENEFIT and BCLME. The small number of countries helped make it all seem possible, and sufficient funding was available. Some considered that joint donor effort was a decisive factor. Starting first, BENEFIT was able to develop the scientific part of the BCLME constituency, several stakeholders citing BENEFIT as the “foundation” for BCLME. As a compliment to BENEFIT, some stakeholders considered that the inclusive TDA/SAP and project design process and the broader horizons of the BCLME approach added significant value and helped to develop country commitment and ownership. Strong political support in the early days, particularly from Namibia, was an important boost for BCLME, as were the knowledge and leadership of South African scientists in the design process (which has been sustained throughout the programme).

Moving into the implementation phase, several commentators highlighted the importance of the project structure, in particular the thematic activity centres, as promoting country ownership and

providing valuable guidance to the countries and support to the small projects. The integration of the relevant sectors at the level of the PSC (fisheries, mining/petroleum, environment) was cited as very beneficial, as was the relaxed and trust-building working style of the PSC and project meetings in general. Many stakeholders commented on the very strong, dedicated and supportive project team, referring to “superb” management, “impeccable” coordination, strong “leadership” and good planning. Flexible administration and excellent administrative support from UNOPS were also cited as factors. Stakeholders much appreciated the numerous opportunities for interaction at project meetings which helped to build trust and cooperation. Several stakeholders cited the excellent communication and marketing functions of BCLME as major factors in success, particularly the newsletter.

On more technical aspects, some perceived that the ability of BCLME to bring in external expertise and consultants (many of whom were from within the region) had a beneficial impact on the achievement and quality of project outputs, as well as bringing in fresh ideas to counter conservative elements. The scientists much appreciated the opportunity to participate in the design of project activities and several thought that building capacity reinforcement into the sub-projects had been a successful strategy. On the BCC, it was thought that keeping the treaty document clear and simple had been a key factor in securing political approval. One commentator thought that strong awareness of the economic importance of the ecosystem promoted by the project had been a factor in securing political support (this view is of interest because the project design has also been criticised for neglecting the economic dimension). Good industry buy-in for the top predators and EAF projects, and the support from FAO, were key factors in their success.

At the closing symposium other factors cited included joint donor effort and the political support of SADC.

Factors in shortcomings

At the level of the overall programme, some felt there was a lack of overall strategic plan or vision and that big issues (such as establishment of the BCC) were not addressed until a late stage, compromising project impact and sustainability. The programme was considered by several to be too broad and ambitious with too many sub-projects, particularly on the theme of environmental variability. Government compliance with the SAP was considered by some to have been less than full, citing examples such as the decision of the Angolan government not to release marine biodiversity data for oil production areas (a formal agreement on information sharing might have averted this problem). Some felt that the project coordination had not done enough to push government compliance or to develop government ownership and involve or support the management level within governments. Some thought that government institutions did not have a sufficient role in project management and that the project was inconsistent in the way it interacted with the national institutions. One thought that the dominant role of consultants in the programme sometimes made the Activity Centres seem superfluous and more political than effective. Cooperation between donor agencies was also thought to be weak, especially between UNDP/GEF and Norway, and that this had led to some unnecessary parallelism between BENEFIT and BCLME in the early stages (which was later resolved).

On the criticisms that the project was too science-based and insufficiently focused on management, it was suggested that science itself had not yet made the transition to a more modern, applied approach and that managers did not yet know what they wanted - as a result, the scientists had it too much their own way and management was not fully engaged. One commentator summarised that there was now “too much information to absorb and no management systems in place”.

At an operational level, stakeholders identified various factors that impacted project success. Several thought that the project had been too rushed and ambitious and that the shortage of time had compromised the quality of project outcomes, especially capacity building. The rush was said to be one of the factors in the decision of the Angolan government not to release data on marine biodiversity in oil production areas. Many of the projects were not completed on time and several commentators considered that there should have been penalty clauses in the contracts (although one stakeholder

considered that late delivery of some outputs had not significantly compromised the overall project outcome). One observer criticised the high UN subsistence allowances (DSAs), noting that the DSA for a three day meeting would be the equivalent of a month's salary for a Namibian fisheries scientist. DSAs were high in comparison with BENEFIT (which some considered already ample) and were thought to have encouraged inappropriate incentives for participation in BCLME meetings. Changes in personnel, particularly the directorship of the Activity Centre in Namibia, were considered detrimental. The project also experienced technical problems of communication, particularly in Angola, at various times.

At the closing symposium, it was confirmed that there had been few concrete changes in trans-boundary management, with many issues still to solve, and that linkages between science, socioeconomics and management were still weak.

The special obstacles to Angolan participation

Almost all stakeholders commented on the obstacles to Angolan participation as a factor in the project's shortcomings. Most, however, felt that Angola had made enormous progress over the last 10 years and that the factor was becoming less important. The language barrier was the obstacle most often cited, and it was suggested that this had almost doubled the amount of work per output. Other factors cited included a relatively top down administrative system, shortage of qualified personnel, lack of field work experience, limited access to information, the "brain drain" to the petroleum and other industries (although this was thought to be even worse in Namibia), high operating costs and infrastructure problems. Some expressed the view that project management did not do enough to facilitate project expeditions to Angola and some disappointment that the Angolan administration itself offered no special treatment for project personnel needing visas, which was always a laborious process.

Main lessons learned

At the level of the overall process, stakeholders had learned that the participatory process is costly but the "only way to go" and one at least (from the fishing industry) had learned that "the marine ecosystem is incredibly complex and that no one has all the answers", making the cooperative approach all the more necessary. In general, country stakeholders felt the project had confirmed that it is better to cooperate than be in conflict.

In the project design phase, one commentator suggested that fuller account should be taken of complementarity with other projects (citing the example of BENEFIT). Most stakeholders thought that the more challenging issues (such as BCC establishment) should be addressed early on in the programme. Targets and time lines for these major political challenges should be realistic and should allow for a step by step approach. Harmonisation of law and policies between countries was identified as an unrealistic objective in the time frame available and should have been downscaled to securing general cooperation agreements as was eventually done. There was general consensus that science and understanding are easier to achieve than changes in management and that more effort should therefore be concentrated on the management side. Indeed, management should be involved, kept informed and supported from the very beginning. Some felt that it was still good strategy to build outwards from a scientific foundation while others were definite that a better balance should have been struck from the beginning between information collection and developing management. Finally, several stakeholders complained that GEF procedures were opaque and difficult to follow and should be demystified.

Several stakeholders considered that national institutions should have been more directly involved in project management and that meetings and activities should have been more directly linked to these institutions, rather than develop parallel structures. Stakeholders, such as these institutions, should at least be fully informed about project processes so that they know what is going on (the mini-project selection process had been a particular source of concern). Care should be taken to ensure that the

hiring of consultants does not undermine the capacity of the very institutions the project is supposed to support.

As regards capacity building, several stakeholders observed that combining good outputs with capacity building was almost inconsistent and that a deliberate balance needs to be struck between these conflicting aims. Building capacity reinforcement into each project activity is a good approach but needs to be applied rigorously, and not added as an afterthought. In general, capacity building needs much more thorough planning from the start. Given the regional problem of “brain drain”, capacity building needs to be designed in such a way as to encourage staff to stay in the system. Related to the issue of capacity reinforcement, it was considered important to ensure that disparities between stakeholders did not lead to some being left behind and that it is necessary to “rein in” the enthusiasts where appropriate.

At the level of activities, the feasibility of activities should be properly assessed, such as where success depends on agreement to hand over data (the decision by the Angolan petroleum administration not to release data on marine biodiversity in oil production areas was the lesson most often cited). Other potential obstacles, such as the language barrier or administrative or logistical issues, should not be underestimated or ignored.

As regards implementation, stakeholders thought that the BCLME experience had demonstrated that a small dedicated team is the most effective way to get results but also noted that it would not be reasonable in other projects to expect the same exceptional dedication shown by members of the BCLME management team. One commentator recommended, however, that there should have been an additional staff member dedicated to ships’ coordination, since survey opportunities had been lost on several occasions. Developing a corporate identity or branding of the BCLME had proven to be a good approach.

On a positive note, the top predators project had shown that mitigation of long line impacts on sea birds can be inexpensive which has significant international implications for sustainability in the marine environment globally.

At the closing symposium, additional lessons learned mentioned included the economic benefits of trans-boundary management, the importance of stakeholder and user participation and the simple fact that cooperation was better than distrust.

How could things have been done differently?

A few stakeholders said they would not have done the project any differently but most had suggestions for improvements, many of which have already been alluded to above.

At the programme level, several stakeholders said there should have been a clearer overall vision, one suggesting the SAP should have contained a clear vision statement for a 10-15 year period indicating where the countries wanted to be by that time. The most frequent recommendations were that:

- the process to establish the regional governance framework (BCC in this case) should have been undertaken from the start, accompanied by good communication and
- there should have been a very clear capacity development strategy.

Another frequently cited recommendation was that activities should have been more evenly distributed between countries and that the sub-project selection process should have been fully transparent. A significant number said that Angola should have benefited from a package of measures to better prepare it for participation in the programme, including additional language training, assistance with information and skills useful for participation and the establishment of a translation secretariat to assist with providing reports in English.

Stakeholders seemed to be divided on the issue of whether project activities should have been channelled through national institutions or through the system of activity centres and consultants. It was recognised that working through the national institutions would have given rise to administrative challenges and that the use of consultants ensured a more consistent output quality (albeit with less capacity benefit). BCLME was fortunate to have BENEFIT as a partner programme which worked more directly with the institutions and undertook several of the projects, thus assuaging some of the concerns about the lack of national institutional involvement and confirming that the approach to be taken can depend on the context. It did not, however, escape the notice of some that BENEFIT was not, strictly speaking, an autonomous legal entity competent to enter contracts independently of the national institutions.

Several stakeholders observed that a series of agreements or protocols should have been negotiated early on to avoid surprises down the line, including an agreement on information sharing and agreements on cooperation with the fishing, mining and petroleum industries. Several also recommended that project contracts should have contained penalty clauses for late delivery.

Various other recommendations were made by individual stakeholders concerning project implementation approach including:

- Training courses of one week were too brief to really make a difference - courses of 3 weeks to one month would have been better (however, project personnel have commented that the cost would have been prohibitive);
- There should have been an appropriate policy on DSAs (Note: in fact, DSAs were harmonised after year 1);
- The project should have operated an information service providing responses to requests for information accompanied by better information dissemination;
- Specific mechanisms should have been developed for maintaining programme constituencies after project completion;
- The project should have been better “marketed” to national agencies;
- There should have been more communication with coastal communities;
- Project leadership would have benefited from external advisory support or guidance, particularly on the applied science approach;
- The project technical level could have been better adjusted to suit a larger number of stakeholders;
- The development of some project outputs (e.g. the state of BCLME fisheries report) should have been entrusted to working groups in which the external consultants played a support role and reported on behalf of the group;
- While the integration of sectors within the PSC was beneficial, each country should also have had its own structure (e.g. a National Inter-ministerial Committee) to consider national priorities in relation to the project.

On miscellaneous technical issues, the following recommendations were made:

- Place more emphasis on biodiversity and habitats;
- Do more EIA training;
- Use more species as ecosystem state indicators (use of commercial fishery species too narrow);
- Include collection of historical fisheries data as a BCC objective, working with industry.

Early signs of impact (environmental, socio-economic, understanding, capacity, replication effects, changes in management or governance, attitudinal shifts)

Most stakeholders thought that it was too early to demonstrate specific environmental impacts, with some exceptions. According to fisheries stakeholders, there was better compliance on by-catch within

the South African fishing industry, voluntary use of bird scarer lines in Namibia and more frequent release of seabirds and turtles in Angola. In the mining sector, policy changes have already led to some impact reduction in Namibian waters. Pressure on the bronze whaler shark had also been reduced in Namibia through the introduction of a catch and release scheme.

Stakeholders cited a wider array of socio-economic impacts. Aquaculture regulations and improved knowledge of HABs and LOWs are expected to have a substantial beneficial impact on mariculture development in Namibia and will provide a model for Angola to follow (although impact may be minor since Angola's priority is continental aquaculture). Angola has started to implement BCLME socio-economic recommendations on artisanal fisheries which should be beneficial. There have been positive impacts on recreational anglers and Namibia and Angola targeting the bronze whaler. The SEIS and EWS systems should have substantial socio-economic impacts once they are in place. In general, the improved understanding of what can and cannot be managed should avoid wasted effort on futile management measures and thus have a positive socio-economic impact.

Stakeholders identified various international and regional replication effects of the project. BCLME has engendered replication effects as a result of exposure in international forums (GEF IW meetings, LME congresses etc.). BCLME ideas and approaches have been taken up by other African LME programs (GCLME, CCLME; ASCLME). BCLME work on the bronze whaler shark was said to have promoted development of the Namibian National Plan of Action for sharks and was said to have influenced approaches to shark conservation internationally. As regards EAF, WWF is now replicating a training course on EAF based on the BCLME experience and has made a presentation to ICCAT to encourage adoption of bird scarers in the ICCAT convention sea area. The top predators project has also led to a global seabird – fisheries project to be funded by UNDP/GEF.

Stakeholders reported several cases of the BCLME project leveraging co-finance. BCLME has helped create favorable conditions for the establishment of ACCESS (Southern African Climate Change Center) and has leveraged around 50 million Kroner from the *Nansen* programme and over \$US2 million from Germany over the duration of the BCLME programme. There have also been leverage benefits to HABs training and LOW work, and most recently funding for the BCC science programme (over \$US10 million). The BCLME book alone (*Begueta – Predicting a Large Marine Ecosystem*) has leveraged an estimated \$US1 million in cash and in kind.

Attitudes have also shifted in various ways due to the BCLME. Fishing industry representatives, confirmed by national personnel, considered that there had been an increased sense of responsibility and stewardship within the industry, with shifts reported in the industries of all three countries. There have also been shifts within government, with Namibia and Angola reporting the greatest shifts in management attitude. According to Angolan national personnel, the Angolan administration holds up BCLME as an example of regional and inter-sector cooperation to be followed and the existence of BCLME has led to collaboration between fisheries and environment on the TOUMBA project. Cross sector cooperation has also improved strongly in Angola. The partner project DLIST reportedly contributed to attitude shifts in target stakeholder groups.

Almost all stakeholders confirmed a very substantial improvement in understanding and awareness of the ecosystem, which extended internationally as well as within the region. One commentator predicted that the better appreciation of what you can and cannot manage would have far reaching impacts.

Most stakeholders reported significant capacity improvements, noting that there had been a huge impact on those personally involved. The confidence and experience of Angolan and Namibian scientists in particular was thought to have increased substantially. In Namibia management now places more confidence in scientists. Some commented that project management skills had improved. Institutional capacity in these countries, however, is threatened by the brain drain, with one stakeholder suggesting that institutional capacity may even be less today than at the start of the project (see also under “Sustainability”). Younger scientists were considered to have particularly benefited in

Namibia. In Angola the petroleum industry has taken much capacity from national institutions but is reported to be looking to compensate by promoting a regional environmental programme. There were still doubts, however, whether the various institutions have the capacity to use all the information that has been collected by BCLME.

By contrast, stakeholders reported few actual changes in management to date. In fisheries, there had been no change in fishing quotas anywhere in the BCLME as a result of the project and industry representatives considered that some management decisions appeared still to be politically motivated rather than based on ecosystem considerations. In the case of Angola, concerns were raised about the recent issue of permits for trawling and the use of gill nets in the Cunene estuary, identified by BCLME as critical habitat. One stakeholder reported that a proposed framework for land based sources of pollution had been beneficial to management, although its implementation would depend on the availability of data.

At the closing symposium, reported positive capacity benefits included improved management skills,

Sustainability

Stakeholders raised a wide range of concerns about sustainability. The single most commonly expressed concern was the loss of key personnel to the private sector, particularly in Angola and Namibia but also in South Africa. Not only did this reduce available human resources, but it also led to loss of the valuable personal networks of institutional contacts that had been developed by the departing staff members, requiring new relationships to be established. Namibia is already taking action to address the issue.

Other external factors were identified as important, including political culture (in the case of South Africa this was felt not to be science friendly), the attitude of the fishing industry and persistent poverty (particularly a factor in Angola). In Angola the national policy is pro-environment but the government clearly lacks resources to implement all the BCLME recommendations without assistance.

Several stakeholders observed that the establishment of the BCC demonstrated political commitment to the process while others expressed concern that the BCC had come too late and was too weak as yet to guarantee such commitment. Its lack of legal personality might also be an obstacle on issues of information ownership, since BCC cannot yet own and therefore determine the use of information. On the specific matter of EAF, BCC was also thought to lack sufficient structure to implement EAF, which is a highly structured process.

Stakeholders doubted whether senior managers had fully taken up ownership of the BCLME process. Namibian stakeholders appeared to be the most assured of the political commitment of their own leaders and managers. There was concern that the management level still lacks direction and that it will not necessarily know how to proceed to the application of desirable measures, such as by-catch reduction.

Most stakeholders appear to have assumed that sustainability could not have been achieved in just one project cycle and had expected the continued support of GEF and other donors to be necessary for a further 5 to 10 years. GEF funding of SAPIMP was seen as a critical element in eventual sustainability and that other financing would also be needed to support continuing scientific effort. The fact that the SAPIMP project aims to conserve and develop the information base was seen as reassuring by some stakeholders.

Concern was expressed that the amount of consultation with management levels in government may not have been sufficient to ensure that the body of information collected by BCLME would actually be used. Some thought that the capacity to use the information was not fully developed and that in a worst case scenario there would be “a room full of fantastic information but no real client, no real institution and no capacity to use the data”.

Scientific stakeholders considered that the foundation to sustainability was the science-based approach and that improved understanding of the ecosystem would help drive the process forward. But a major job remained to be done synthesising and archiving the information. The SEIS would assist in this regard and would support the transition between BCLME and BCC. The project had chosen at an early stage to prioritise outputs over capacity building and this in itself threatens sustainability – special effort is now needed to ensure that the information gathered is not lost and that capacity is developed to use the information.

At the level of specific activities, the risk of unsustainability was thought to be greatest with the projects that had not made the connection with management – those that made the connection should have lasting impact. Equipment purchase projects were expected to have sustainable benefits, such as the fish egg sampler purchased by the project for use at NATMIRC and the telephone system at a marine laboratory in southern Angola (there are other examples which are not listed here). Doubt was expressed, however, about the refitting of the Angolan research vessel since it was not clear that the government had the resources to run the ship after the refit. The LOW monitoring system in Namibia has been integrated into the government budget and therefore should be sustainable.

Closing remarks

As noted above, stakeholders were invited to make any closing remarks on what they regarded as particularly important from their perspective. Most stakeholders felt that the interview had covered all the issues, but about 25% responded with additional remarks. The result is necessarily heterogeneous and partly repetitive but nonetheless instructive.

All the final remarks summing up the overall BCLME experience were positive, with comments such as “an excellent job has been done”, “outputs were of very high quality”, “we are quite satisfied” and “it could not have happened faster – even if the ideas only come to fruition in 20 years the project will have been a success”. Others sought to highlight particular concerns or to make recommendations.

Some stakeholders reflected on whether the original objectives had been realistic, one observing that once the BCLME programme of activities had begun it became clear that it would be impossible to achieve changes in management within the first project cycle, and that a step by step process would be needed. This viewpoint has been echoed by many stakeholders.

Several stakeholders made remarks about the BCC. It was observed that a lot hangs on the success of the BCC. BCC must possess the minimum necessary capacities to implement its mandate. The functions of 1) monitoring; 2) EIA; 3) fisheries assessment and management; 4) influence over politicians and 5) building partnerships between science and management were highlighted as particularly important, requiring high caliber personnel. It was also suggested there should be an overarching science coordinator for implementation of the science programme. Getting all the information into usable format would be critical for success of the BCC. Several stakeholders considered that the participation base of BCC needed to be broadened beyond fisheries to include e.g. mariculture (justified by the Namibia mariculture experience). It was recommended that the BCC should work to promote application of the SADC protocol on fisheries and work closely with SEAFO and the Abidjan Convention. One stakeholder felt that there was a particular need to promote more effective MCS and fisheries data collection (with a particular need for fisheries data collection in Angola).

Conversely, some thought that perhaps too much emphasis had been placed on the Commission. For Namibia, at least, it was felt that there was no choice but to work with neighbors and that bilateral efforts on fisheries would be pursued in any event. One stakeholder was concerned that Angola would have difficulty in prioritising trans-boundary cooperation while it remained highly dependent on small scale artisanal fisheries for addressing poverty.

BCLME Interview Structure

Describe your involvement in BCLME:

How did you view the design process and resulting design? –

Main achievements in your view –

Factors in successes (direct & underlying) –

Main lessons learned from the project (positive and negative) –

What BCLME projects were you involved in? Give your assessment of these

Environmental (local, trans-boundary, global) –

Replication effects –

Impacts on national management practice / changes in governance –

Improved understanding –

Other –

Concluding key point(s):

Annex 3 – Evaluation activities

Overall work plan:

Phase	Title	Description	Duration
1	Preparation and planning	Reading ToR, planning missions, reading project documentation administrative aspects	5 days
2	Mission 1	Mission to BCLME region to interview broad range of project stakeholders	15 days
3	Initial analysis	Writing up results of 1 st mission, further reading, preparation of 2 nd mission	5 days
4	Mission 2	Participation at BCLME / BENEFIT joint symposium; Completing interviews with stakeholders	5 days
5	Analysis and reporting	Analysis of results, preparing draft final evaluation report	20 days
6	Mission 3	Final mission to review results of evaluation and contribute to orientation of follow on project	5 days
7	Finalisation	Finalise report	5 days
		TOTAL	55 days

Mission 1: 10 - 24 October 2007

Day	Date	Time	Activity
Wed	10 October	1430 – 1750	Fly Antananarivo-Johannesburg, car to Pretoria
		Evening	Dinner with Nik Sekhran, UNDP/GEF
Thur	11	Morning	Meetings with undg/gef, Pretoria, car to Jo'burg
		Afternoon	Fly Johannesburg-Windhoek, meeting with CTA
Fri	12	All day	Meetings with CTA and stakeholders, Windhoek
Sat	13	Morning	Fly Windhoek – Walvis Bay, meeting with AC director
Sun	14	All day	Writing up meeting notes, reading
Mon	15	All day	Stakeholder meetings in Swakopmund
Tues	16	Morning	Stakeholder meetings, Swakopmund
		Afternoon	Meeting with AC diector, fly Swaokopmund-Windhoek
Wed	17	All day	Stakeholder meetings, Windhoek
		Evening	Dinner with CTA, Windhoek
Thur	18	Morning	Fly to Luanda
		Afternoon	Meeting with AC Director, Luanda
Fri	19	Morning	Stakeholder meetings, Luanda
		Afternoon	Stakeholder meetings, Luanda
Sat	20	Morning	Meeting with AC Director, Luanda
		Afternoon	Fly Luanda – Johannesburg – Cape Town
Sun	21	All day	Writing up meeting notes, reading, Cape Town
Mon	22	Morning	Meetings with AC Director, Cape Town
		Afternoon	Stakeholder meetings, Cape Town
Tue	23	All day	Stakeholder meetings, Cape Town
Wed	24	Morning	Fly Cape Town-Johannesburg-Antananarivo

Mission 2: 17- 22 November 2007

Sun	17 November	All day	Fly Antananarivo – Johannesburg – Wondhoek
Mon	18	Morning	Work and preparations at hotel
	18	Afternoon	Travel by car Windhoek – Swakopmund
Tue	19	All day	Participate at BCLME / BENEFIT symposium, Meetings with stakeholders
Wed	20	All day	
Thur	21	All day	
	21	Evening	Drive Swakopmund – Windhoek
Fri	22	All day	Fly Windhoek – Johannesburg – Antananarivo

Annex 4 – Categories of stakeholders interviewed

Categories marked with ~~strike through~~ were not available for interview or not applicable.

Agency level

UNDP/GEF (Pretoria, in person)
UNOPS (including budget holder, portfolio manager – by e-mail/skype/phone)
UNDP Namibia (UNDP Rep., relevant managers, PIR report preparers – in person)
FAO – Coordinator, EAF demonstration project

Project coordination level

Programme Coordinating Unit key personnel (coordinator, communications director, archivist, logistics manager etc.)
PCU consultants / advisers (individuals) (list to be provided)
Mid-term evaluators
Other non-technical contractors to the coordination unit (e.g. PR consultants)
~~Members of any special project selection committee (if different from Steering Committee)~~

Regional institutional level

Project Steering Committee (~~chair~~ and members)
~~Benguela Interim Commission members~~ (key personnel, chair and key members)
Regional demonstration project coordinators (e.g. EAF project)

National

Activity Centre coordinators & other key staff
Small project managers
Key national ministry leaders (fisheries, environment, minerals/mining/energy etc.) (including SAP and project document signatories where still in post)
“Lead Agencies” in each country (to the extent not covered above e.g. national parks services)
National Inter-ministerial Committee ~~Chairs & members~~
National focal points for GEF, Abidjan and/or Nairobi conventions
~~Other national representatives concerned with relevance of project to national priorities e.g. Ministry of Foreign Affairs, national action plan designers~~
Resource managers (directors & senior technicians in fisheries, environment, mining, other)
Resource assessors (e.g. directors of national fisheries and environmental research institutions, senior national scientists)
Resource users (head of fishers’ organisations in each country, other significant users – where appropriate)
~~Representatives of small project beneficiaries e.g. artisanal fishers~~
Other significant national NGOs or civil society organisations concerned with / involved in project
~~National press representatives who have followed and reported on the project during its lifetime~~
Industry associations and private sector companies of national scope
Any significant national beneficiaries or other stakeholders not included in the above

External to project (including project partners and contractors)

GEFSEC (inc. GEF IW)
NOAA
BENEFIT (former & present Directors, other key personnel)

Industry associations or private sector companies with regional scope (fisheries, mining, shipping etc.)
Original co-financers and any additional donors recruited during project life
IMR Norway (*Nansen* programme coordinator)
FAO (in relation to EAF demonstration activity)
Institutions submitting proposals to BCLME project (both those accepted and those declined)
Project contractors (all entities having technical contracts with the project)
Key external players in project design process (to be identified)
Other LME programs interacting with BCLME (ASCLME, GCLME, CCLME)
Abidjan & Nairobi Convention Secretariat, Nairobi
SEAFO
Regional Advisory Council chair for African LMEs
Editors of the scientific reference work on variability in the Benguela
~~Technology experts (able to comment on suitability of project technology)~~
Relevant international experts (including independent experts where willing to comment)

Annex 5 – List of persons interviewed 6 TO BE COMPLETED

TO BE COMPLETED (visiting cards are at home base)

Name	Institution	Dates
Nik Sekhran	UNDP/GEF Pretoria	
Akiko Yamamoto	UNDP/GEF Pretoria	
Motlana	UNDP Namibia	
Dr Mick O'Toole	CTA, BCLME Project	
Cathy Kuske	Administrator, BCLME Project	
Frikkie Botes	AC Director, MLR, Swakopmund	
Lesley Staegermann	AC Director, EVAC, Cape Town	
Maria de Lourdes Sardinha	AC Director, BEHP, Luanda	
Ngossi	Director, INIP	
Mishali	Permanent Secretary, SEAFO	
NAMIBIA		
Gabi Schneider	Directorate of Mining	
Anna Kreiner	NATMIRC	
Bronwen Currie	NATMIRC	
Ben Van Zyl	NATMIRC	
Chris Bartolomae	NATMIRC	
Eckerhard Klingelhoefter	NATMIRC	
Gert Keeger	Oil industry consultant	
Hans Holtzhausen	NATMIRC	
Theo Inghitlila	Min Env, Namibia	
Moses	Min Fisheries, Namibia	
	Fishing Industry chief, Namibia	
Jacobs	Fishing Industry, Namibia	
ANGOLA		
Various, environment etc		
Various, petroleum directorate		
Sylvie	INIP	
SOUTH AFRICA		
Johann Augustyn	MCM	
Yusseid	MCM, South Africa	
Prof Vere Shannon	UCT	
Frank Shillington	UCT	
Clare Attwood	MCM Consultant	
Marek	Scientist, MCM	

Tore Strommer	Nansen programme	
Neville Sweijd	Director, BENEFIT	
Pavitray Pillay	BENEFIT/BCLME training officer	
Kevern Cochrane	FAO	
Peter Tarr	Environmental Consultant, Namibia	
Pat Morant	CSIR, South Africa	
Pedro Monteiro	CSIR; South Africa	

Annex 6 - List of documents reviewed

BCLME documents

First regional workshop report (July 1988)
Thematic reports (on fisheries, ecosystem variability, pollution and ecosystem health) prepared for the TDA
BCLME TDA
BCLME SAP
BCLME Project Brief / Project document
Articles published on the BCLME Programme in international books
Benguela – Predicting a Large Marine Ecosystem (book)
Project Reports Executive Summaries
BENEFIT / BCLME – A decade of collaboration
Note entitled: BCLME Decision Making Tools (Draft) – undated.
Various brochures, leaflets, wall charts
Film – Current of Plenty

BCC documents

Ecosystem Advisory Committee – A proposal for the funding of the science programme

SAPIMP documents

SAPIMP Project Identification Form
SAPIMP Project brief

GEF documents

Programme Study on International Waters 2004
GEF Evaluation Officer Guidelines for Implementing and Executing Agencies to Conduct Terminal Evaluations (May 7 2007)

Miscellaneous

SEAFO documents
Angola Aquaculture Policy

Websites

BCLME
SEIS
BENEFIT
GEF

Annex 7 – List of project reports by theme

BCLME PROGRAMME FINAL REPORTS

(as of 12th April 2008)

Fisheries Management /Ecosystem Approach

1. Determination of optimal harvesting strategies for the hake trawl and long-line fisheries in Namibia and South Africa (Project LMR/CF/03/07)
2. An assessment of the state of the commercial fisheries catch data in the BCLME region (Project LMR/CF/03/02).
3. Report on outcomes of consultations undertaken, gaps in information and data and necessary amendments to the TOR's for SEIS (Project: BCLME/SEIS/05/01)
4. Proceedings of the BENEFIT/BCLME Luderitz Upwelling Cell Orange River (LUCORC) Workshop – April 2004 (Project EV/PROVARE/02/02a)
5. Report on potential shared hake stocks – research planning meeting between Namibia and South Africa (Project: BCLME/LMR/CF/03/06)
6. A trans-boundary study with emphasis on deep water hake in the Luderitz-Orange River Cone Area (project: LMR/NANSEN/04/04)
7. A trans-boundary study with emphasis on deep water hake in the Luderitz-Orange River Cone Area (Project: LMR/NANSEN/04/01)
8. A trans-boundary survey between Namibia and South Africa with focus on shared stocks of hake (Project: LMR/NANSEN/05/01)
9. Review of the state of knowledge and research on the distribution, biology, ecology and abundance of non-exploited mesopelagic fish and the bearded goby in the Benguela ecosystem (Project: LMR/CF/03/08)
10. Retrospective analysis of Sardinella fisheries in Angola (Project: LMR/CF/03/11b)
11. BCLME / BENEFIT Luderitz Upwelling Cell / Orange River cone (LUCORC) workshop report: A synthesis of the Luderitz Upwelling Cell Orange River Cone Area. The synthesis of the scientific inputs into the LUCORC workshop: April 2004 (Project: EV/PROVARE/02/02a)
12. The marine scientific status of the Angola-Benguela Front: The synthesis of scientific inputs into the Angola Benguela Front workshop: April 2006 (Project: BCLME/Boundary/05/01)
13. Angola – Benguela Front workshop report: BCLME –BENEFIT, April 2006: (Project: BCLME/Boundary/05/01)
14. BCLME Southern Boundary workshop report: May 2006 (Project: BCLME/Boundary/06/01)
15. Optimal line sink rates: Mitigating seabird mortality in the South African longline fisheries (Project: BEHP/EEF/03/01/02)
16. By-catch of threatened seabirds, sharks and turtles in long-line fisheries in the Benguela Current Large Marine Ecosystem: An Integrated Approach

- (Project: BEHP/EEF/03/01/02)
17. Survey of the pelagic fish resources of Congo, Gabon and Cabinda, Angola, 15th July -28th July 2004: BCLME Sardinella Recruitment Studies: (Project LMR/NANSEN/04/02)
 18. A trans-boundary study of the pelagic fish stocks of southern Angola and northern Namibia: (Project: LMR/NANSEN/02/05)
 19. Ecosystem approach to Fisheries (EAF) management in the BCLME : Report of the second regional workshop, Luanda, Angola: 20-24 March 2006: (Project:LMR/EAF/03/01)
 20. Ecosystem approach to fisheries (EAF) management in the BCLME: Report of the third regional workshop, Cape Town, South Africa: 30 October – 3 November 2006 (Project:LMR/EAF/03/01)
 21. Ecosystem approaches for fisheries (EAF) management in the BCLME – Report on the first regional workshop, Windhoek: 21-24 September 2004. (Project: LMR/EAF/03/01)
 22. Trans-boundary survey between Namibia and South Africa with focus on spawning and the early life history of hakes: (Project: LMR/NANSEN/05/03)
 23. Feasibility study into the establishment of a permanent regional fish-ageing center in one of the BCLME countries – (Project LMR/CF/03/01)
 24. Feasibility study into the application of genetic techniques for determining fish stock identity of trans-boundary populations in the BCLME region – (Project LMR/CF/03/04)
 25. Results and conclusions of the project “ecosystem approaches for fisheries management in the Benguela Current Large Marine Ecosystem – (Project LMR/EAF/03/01)
 26. Top Predators as biological indicators of ecosystem change in the BCLME – (Project LMR/EAF/03/02) : Final Report: with Annex 2: Manual of methods for monitoring Cape fur seals in the BCLME: Annex 3: Monitoring seabirds in the BCLME- data collection manual.
 26. The Benguela Current large Marine Ecosystem - State of Stocks Review 2007 (Project: PCU/SSR/07/02)
 27. Migratory behaviour and assessment of the Bronze Whaler (*Carcharinus Brachyurus*) (Project: LMR/CF/03/16)
 28. Northern Benguela trans-boundary small pelagic and mid-water resources research planning workshop – A synthesis of the scientific input discussions and outputs from the workshop with annexes: (Project BCLME/LMR/CF/03/10)
 29. Northern Benguela trans-boundary pelagic and mid-water resources research planning workshop – Report by BENEFIT including workshop proceeding, synthesis and papers reduced: (Project BCLME/LMR/CF/03/10)
 30. An overview of the boundary areas of the Benguela Current Large Marine Ecosystem – A synthesis of workshop reports on the Angola Front, Angola Benguela Frontal Zone, Lureritz-Orange River Cone Area and Southern Boundary: Prepared by: J. Groeneveld and D. Japp, Capricorn Fisheries Monitoring CC. April 2008

Fisheries Socio-economics and Trade

1. A BCLME regional integration study regarding trade in fish and fish products – equitable trade (Project LMR/SE/03/02).
2. An analysis of commercial law in the BCLME countries – equitable trade in fish and fish Products Project: LMR/SE/03/02)
3. Recommendations on beneficiation and commercialisation of fishing activities in the BCLME countries (Project LMR/SE/03/02)
4. Assessing the role and impact of eco-labelling in the three BCLME countries (Project LMR/SE/03/02)
5. Marketing analysis of major fish products markets in the Benguela Current Large Marine Ecosystem (Project LMR/SE/03/02)
6. Micro-economic systems analysis of the BCLME commercial marine fisheries (Project:LMR/SE/03/03)
7. BCLME commercial fisheries rights holder and vessel analysis (Project LMR/SE/03/03)
8. The desirability of balanced trade in fish and fish products among the three BCLME countries (Project: LMR/SE/03/02)
9. Transformation in the marine fishing industries of the BCLME countries (Project: LMR/SE/03/03)
10. An analysis of fisheries management protocols in the BCLME countries (Project LMR/SE/03/03)
11. Report on the biological, social and economic impact of rights allocations in the BCLME region (Project: LMR/SE/03/03)
12. Overview and analysis of socio-economic and fisheries information to promote management of artisanal fisheries in the BCLME region – Angola (Project: LMR/AFSE/03/01B)
13. Overview and analysis of socio-economic and fisheries information to promote management of artisanal fisheries in the BCLME region – Namibia (Project: LMR/AFSE/03/01B)
14. Overview and analysis of socio-economic and fisheries information to promote management of artisanal fisheries in the BCLME region – South Africa (Project: LMR/AFSE/03/01B)
15. Socio-economic baseline survey of coastal communities in the BCLME region – Angola (Project: LMR/AFSE/03/01/C)
16. Socio-economic baseline survey of coastal communities in the BCLME region – Namibia (Project: LMR/AFSE/03/01/C)
17. Socio-economic baseline survey of coastal communities in the BCLME region – South Africa (Project: LMR/AFSE/03/01/C)
18. Management accounting and public finance : Fisheries sector – BCLME Countries: (Project”LMR/SE/03/05)
19. Harmonisation of socio-economic policies and legal provision for effective implementation of the BCLME Programme – (Project: LMR/SE/03/04)
20. An analysis of revenue raising instruments for the important commercial fisheries in the

BCLME Countries – (Project: LMR/SE/03/05)

21. Training course notes: Economics of natural resources – (Project: LMR/SE/03/03)
22. Harmonisation of socio-economic policies and legal provision for effective implementation of the BCLME Programme: Summaries, recommendations and measurable indicators – (Project: LMR/SE/03/04)

Environmental Variability and Oceanographic Processes

1. SADCO Holdings of Namibian data: Assessment of historical oceanographic data available from SADCO (Project: EV/SADCO/03/01)
2. Low oxygen variability in the Benguela ecosystem: A review and new understanding (Project: EV/LOW/02/01)
3. Assessing potential to produce final ocean colour maps of Namibia's marine environment (Project: PCU/POLYTECH/05/01)
4. Diagnosis of large scale South Atlantic modes that impact on the trans-boundary Benguela Current Large Marine Ecosystem: Investigating the potential for improved predictability and sustainable management (Project: EV/LS/02/06)
5. Feasibility assessment for use of a towed undulating oceanographic recorder in the Benguela Current Large Marine Ecosystem (Project: EV/PROVARE/02/01)
6. Assessment of key trans-boundary processes and measurement scales in respect of low oxygen water (LOW) variability: Implement the LOW generation areas that provides input to trans-boundary models in project EV/LOW/02/03: (Project: EV/LOW/02/04)
7. Assessment of key trans-boundary processes and measurement scales in respect of low oxygen water (LOW) variability: Preliminary implementation and examination of the role of large scale and trans-boundary hydrodynamic control of LOW variability: (Project: EV/LOW/02/03)
8. Characterising the spawning habitat of harvested pelagic species (*Sardinops sagax*, *Trachurus sp*, *Engraulis capensis*) using continuous underwater fish egg samples (CUFES) and net sampling: (Project: EV/PROVARE/04/01)
9. The extension of PIRATA in the South East Atlantic – Final Report
10. The changing state of the Benguela Current Large Marine Ecosystem: Expert workshop on climate change and variability and impacts thereof in the BCLME region: Workshop report, Kirstenbosch Research Centre, Cape Town 15-16 May, 2007.
11. Assessment of the structure and functioning of the Angola Front (AF) Zone and associated natural resource exploitation issues: Workshop Report, Talatona Convention centre, Luanda, Angola, 2-3 October 2006.
12. Assessment of appropriate surface forcing (SST) and initial comparison of output against quickscat wind – (Project: EV/MODEL/05/01)
13. Retrospective analysis of plankton community structure in the Benguela Current Large Marine Ecosystem (BCLME) to provide an index of long-term change in the ecosystem: (Project: EV/ PROVARE/02/05)
14. The extension of Pirata in the South East Atlantic including a cruise report on deployment of moorings and buoy system (Project EV/PIRATA/03/01)

15. Analysis of Benguela dynamic variability and assessment of the predictability of warm and cold events in the BCLME (Project: EV/LS/02/03)
16. Assessment of the present state of oceanographic environmental monitoring in the Angolan sector of the Benguela Current Large Marine Ecosystem (Project EV/Angola/03/03)
17. Development of a satellite remote sensing products for operational application.: Project EV/PROVARE/06/01)
18. Low oxygen variability in the Benguela Ecosystem: A review and new understanding – (Project EV/LOW/02/01)
19. Developing of and making operational, a viable and integrative environmental early warning system (EEWS) for the BCLME (Project: BCLME/EEWS/05/01)
20. A cross-cutting simulation modeling capability for the BCLME: (Project BCLME/MODEL/05/01).

Harmful Algal Blooms

1. Development of an operational capacity for real-time observations and forecasting of harmful algal blooms in the BCLME region: Detection of harmful algal blooms through deployment of bio-optical moorings. (Project EV/HAB/02/05)
2. Development of an operational capacity for monitoring of harmful algal blooms in countries bordering the northern part of the BCLME: Phase 1 – Design (Project EV/HAB/02/02a)
3. Development of an operational capacity for monitoring harmful algal blooms in the northern Benguela: Phase 1 – Design Pilot Monitoring in the Luderitz area (Project EV/HAB/05/02)
4. Development of an operational capacity for real-time observation and forecasting of harmful algal blooms in the Benguela Current Large Marine Ecosystem Region: Utility of models in forecasting HAB events (Project: EV/HAB/02/06)
5. Feasibility study for cost effective monitoring for shellfish sanitation in Namibia and Angola with an analysis of the various options for implementation of shellfish safety programmes (Project: EV/HAB/02/02a)
6. Investigation into the diversity and distribution of cysts of harmful algal blooms within the Benguela Current Large Marine Ecosystem Region (Project: EV/HAB/02/03)
7. A proposed Benguela regional shellfish sanitation monitoring programme (Project: EV/HAB/02/01-3)
8. Review of existing information on harmful algal blooms in Angola including past and present monitoring of phytoplankton (Project: EV/HAB/02/02a-1)
9. An interim report on the status of shellfish sanitation programmes in Namibia and Angola: Development of an operational capacity for a shellfish sanitation monitoring programme in countries bordering the northern part of the Benguela Current Large Marine Ecosystem; Phase 11 – Implementation: (Project: EV/HAB/06/01)
10. Development of an operational capacity for a shellfish sanitation monitoring programme in countries bordering the northern part of the BCLME: Phase 11 – Implementation – (Project: EV/HAB/06/01);

11. A synthesis of requirements of various sectors of government and industry relating to microalgal toxins and other sanitary issues (Project: EV/HAB/02/01):

Ecosystem Health and Pollution

1. Baseline assessment of sources and management of land-based marine pollution in the BCLME region (Project BEHP/LBMP/03/01)
2. Assessment of the cumulative effects of sediment discharges from on-shore and near-shore diamond mining activities on the BCLME (Project BEHP/CEA/03/03)
3. The development of a common set of water and sediment quality guidelines for the coastal zone of the BCLME (Project: BEHP/LBMP/03/04)
4. Marine Litter Programme (Project: BEHP/ML/03/01)
5. Assessment of cumulative impacts of scouring of sub-tidal areas and kelp cutting by diamond divers in near-shore areas of the BCLME region . (Project: BEHP/CEA/03/04)
6. On the assessment of the status of the Abidjan Convention in the Benguela Current region and implications for the Benguela Current Commission: Report commissioned by PCU for Abidjan and Nairobi CoP meeting , Johannesburg, November 2007.
7. A review of the impacts of seismic surveying and toxicity of oil on pelagic fish, the benthos and the sardinella fishery in Angolan waters – (Project LMR/CF/03/12);
8. Regional Oil Spill Contingency Planning in the BCLME Region: (Project: BEHP/OSCP/03/01)
9. Marine environmental survey of bottom sediment in Cabinda Province, Angola – Survey of the bottom fauna and selected physical and chemical compounds in October 2006: (Project: BEHP/NANSEN/06/01)
10. Assessment of the cumulative effects of sediment discharges from on-shore and near-shore diamond mining activities on the BCLME (Project BEHP/CEA/03/03)
11. Appraisal of environmental management guidelines in the seabed mining industry (Project: PCU/RSM/07/01).
12. A strategy for developing ballast water management activities in Angola: (Project BEHP/SWB/08/01)
13. A regional assessment and management plan for port waste reception facilities in the BCLME region in accordance with MARPOL/73/78
14. Data gathering and gap analysis for assessment of cumulative effects of marine mining activities on the BCLME region (Project BEHP/CEA/03/02).
15. Cumulative effects of offshore petroleum exploration and production activities on the marine environment in the BCLME region (Project BEHP/CEA/03/01)
16. Luanda coastal ecosystem: Environmental quality management – situation assessment (Project: BEHP/LBE/04/01)

Marine Biodiversity

1. Mapping of the BCLME Shoreline, shallow water and marine habitats – Physical

Mapping Project – (Project: BEHP/BAC/03/02)

2. Analysis of threats and challenges to marine biodiversity and marine habitats in Namibia and Angola – (Project: BEHP/BTA/04/01)
3. Investigation into the diversity and distribution of cysts of harmful algal blooms within Luanda Bay (Angola) and Walvis Bay and Luderitz Bay (Namibia) (Project EV/HAB/05/01)
4. Identification of communities, biotopes and species in the offshore areas and along the shoreline and in the shallow subtidal areas in the BCLME region:
Section A – Namibian coastal data acquisition (Project: BEHP/BAC/03/03)
5. Identification of communities, biotopes and species in the offshore areas and along the shoreline and in the shallow subtidal areas in the BCLME region:
Section B – Angolan coastal field survey report : (Project: BEHP/BAC/03/03)
6. Identification of communities, biotopes and species in the offshore areas and along the shoreline and in the shallow subtidal areas in the BCLME region:
Section C – Demersal fish assemblages analysis: (Project: BEHP/BAC/03/03)
7. Ecosystem mapping and biodiversity: Consultative workshop, Swakopmund, April 2004, (Project BEHP/BAC/Workshop/04/01)
8. Baseline surveying of species and biodiversity in estuarine habitats (Project: BEHP/BAC/03/04)

Governance

1. Implementation plan for BCLME regional aquaculture policy options (Project LMR/MC/03/01)
2. Harmonisation of national environmental policies and legislation for marine mining, dredging and offshore petroleum and production activities in the BCLME region (Project BEHP/IA/03/03)
3. Institutional study regarding the establishment of a regional organisation to promote integrated management and sustainable use of the BCLME (Project PCU/BCC/04/01)
4. Legal commentary on draft BCLME agreement and convention (Project PCU/BCC/04/01)
5. A review of aquaculture policy and institutional capacity in the BCLME region with recommended regional policy options (Project: LMR/MC/03/01)
6. Economic study and cost-benefit analysis of co-operative research and management for the BCLME (Project: PCU/BCC/04/02)
7. Benguela Current Commission: Interim Agreement between Angola, Namibia and South Africa: Draft final text: August 2006.
8. An assessment of the legislation and regulations controlling access to key export markets in the three BCLME countries (Project: LMR/SE/03/02)
9. Comparative legal analysis and report on law reform (Project LMR/SE/03/03)
10. Review and audit of the legal provisions and institutional arrangements that impact on the artisanal fisheries sector in the BCLME region: Final Report – Angola (Project: LMR/AFSE/03/01A)
11. Review and audit of the legal provisions and institutional arrangements that impact on the artisanal fisheries sector in the BCLME region: Final Report – South Africa (Project: LMR/AFSE/03/01A)

12. Review and audit of the legal provisions and institutional arrangements that impact on the artisanal fisheries sector in the BCLME region: Final Report – Namibia (Project: LMR/AFSE/03/01A)
13. Introducing the BCLME Programme to the wider audience within the coastal communities (Project: LMR/COM/03/02)
14. A compendium of legal instruments and conventions relevant to the BCLME countries (Angola, Namibia and South Africa): Draft document (no project reference)
19. An assessment of how coastal communities can become involved and benefit from the BCLME Programme: Report on the Angolan visit (Project: LMR/COM/03/01)
20. An assessment of how coastal communities can become involved and benefit from the BCLME Programme: Final Report (Project: LMR/COM/03/01)
17. Report on MARPOL 73/78: Adoption, compliance and monitoring in the BCLME region: (Project: PCU/MARPOL/07/01)
18. Report on the legislative, policy and governance frameworks in the BCLME region – (Project: PCU/POLGOV/07/01).
19. Benguela Current Large Marine Ecosystem Strategic Action Programme: Stakeholders Participation Plan – (Project PCU/STKPT/07/01)
20. A legal study to determine interim financial management services for the Benguela Current Commission. (Project: PCU/BCCFINMGT/08/01):

Training and Capacity Building

1. Benguela Current Large Marine Ecosystem Strategic Action Programme: Training and Capacity Building Plan – (Project PCU/TCBPLN/07/01)
2. BCLME strategic planning workshop on training and capacity building, Johannesburg, (South Africa (July 2004)
3. Consultative meeting on capacity building and training for effective management of the Benguela Current Large Marine Ecosystem (BCLME), Windhoek, March 2004.
4. Integration and review of training and capacity building in the BCLME Programme (Project PCU/T&CB Review/06/01)
5. Upgrade communications systems for Angolan BCLME core partners institutions (Project EV/Angola/03/06).
6. Report on the benthic workshops held in Angola and Namibia – November 2005: R.V. Alexander von Humboldt Post-Cruise Analysis and Training (Project: EV/ HUMBOLDT/04/01)
7. Regional zooplankton taxonomy and identification training workshop, Swakopmund, 8 – 19 January 2007 (BCLME-BENEFIT-CmarZ): Workshop Report
8. Regional zooplankton taxonomy and identification training workshop, Swakopmund, 8 – 19 January 2007 (BCLME-BENEFIT-CmarZ): Guide to some common copepods in the Benguela Current Large Marine Ecosystem

9. Training course report: Impact assessment and decision making in the BCLME region – (Project: PCU/EIA/07/01)
10. Harmful algal bloom workshop and distance learning course, 22 January to 2nd February 2007: (Project: EV/PROVARE/07/01)
11. Development of institutional capacity in biodiversity management in BCLME Countries – (Project BEHP/CD/03/01):
12. Compilation of inventory and acquisition of oceanographic environmental data in the Angola sector of the BCLME. Phase one - inventory (Project EV/ Angola/03/01):
13. Comprehensive review and where appropriate re-interpretation of oceanographic information on the Angola sector of the Benguela Current Large Marine Ecosystem (Project EV/Angola/03/02):

Monitoring and Evaluation

1. Global International Waters Assessment (GIWA): Sub-Region 44: The Benguela Current – Final Report
2. Report on BCLME Highlights Symposium, 9-10 May 2005, Breakwater Lodge, Cape Town
3. Angola's needs for multi-sectoral management of marine environment information: Scoping workshop, 7 April 2003: Alte Brücke Conference Centre, Swakopmund, Namibia - (Project BEHP/WS/03/02)
4. The BCLME mid-term evaluation report (RAF/00/G32/1G/31)

Annex 8 – Terms of Reference

Terms of Reference - Final Evaluation (FE) UNDP/GEF Implementation of the Integrated Management of the Benguela Current Large Marine Ecosystem (BCLME)

INTRODUCTION:

The Monitoring and Evaluation Policy (M&E Policy) at the project level in UNDP/GEF has four objectives to:

- a) monitor and evaluate results and impacts;
- b) provide a basis for decision making on necessary amendments and improvements;
- c) promote accountability for resource use;
- d) document, provide feedback on, and disseminate lessons learned.

A mix of tools is used to ensure effective Project monitoring and evaluation. These might be applied continuously throughout the lifetime of the project e.g. periodic monitoring of indicators through the annual Programme Implementation Reports (PIR), Project Steering Committee meetings – or as specific and time-bound exercises such as mid-term reviews (MTR), audit reports and final evaluations (FE). In accordance with UNDP/GEF Monitoring and Evaluation policies and procedures, all regular and medium-sized projects supported by the GEF should undergo a final evaluation upon or nearing completion of implementation. A final evaluation of a GEF-funded project (or previous phase) is also required before a concept proposal for additional funding (or subsequent phases of the same project) can be considered for inclusion in a GEF work programme. However, a final evaluation is not an appraisal of the follow-up phase.

Final evaluations are intended to assess the relevance, performance and success of the projects. It looks at early signs of potential impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals and objectives. It will also identify and document lessons learned and make recommendations that might improve the design and implementation of other UNPD/GEF projects.

1. BACKGROUND:

The BCLME Programme is designed to improve the structures and capacities of Namibia, Angola and South Africa to deal with the environmental problems that occur across the national boundaries, in order that the Benguela Current Large Marine Ecosystem may be managed as a whole.

These trans-boundary issues include the migration or straddling of valuable fish stocks across national boundaries, the introduction of invasive alien species via the ballast water of ships moving through the region, and pollutants or harmful algal blooms that can be advected by winds and currents from the waters of one country into another.

The Programme is funded by the Global Environment Facility (GEF) which has contributed \$15.2 million through the United Nations Development Programme (UNDP) for the regional initiative. The GEF's funding complements an investment of \$16 million by the three countries, and over \$7 million from other sources such as the Benguela Environment Fisheries Training Interactions Programme, BENEFIT. The Government of Angola, Namibia, and South Africa, the United Nations Development Programme and UNOPS signed the project document in 2002.

The Project Development Goal:

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

The 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 trans-boundary ecosystem related environmental concerns.

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 utilise 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.

2. GENERAL OBJECTIVES OF THE EVALUATION:

The final evaluation of the UNDP/GEF project “BCLME” is initiated by the UNDP Namibia and it is being undertaken in accordance with the UNDP/GEF Project Monitoring and Evaluation Policy see (<http://thegef.org/MonitoringandEvaluation/MEPoliciesProcedures/mepoliciesprocedures.html>). The principal purpose of the Final Evaluation is to assess the project results and impacts as required by the UNDP/GEF Monitoring and Evaluation Policy. It is also mandatory to evaluate and review any UNDP programme of the magnitude of USD 1 million or more, at mid-term and when the assistance is about to phase out. The mid-term evaluation of the BCLME Programme was conducted in 2005.

3. PROGRAMME PERFORMANCE:

3.1 OBJECTIVES OF THE FINAL EVALUTION:

A final evaluation is a mandatory requirement of UNDP/GEF Programmes and Projects of this magnitude. The evaluation will analyse and assess the achievements and progress made so far towards achieving the original objectives of the BCLME Programme. It will also identify factors that have facilitated or impeded the achievement of the objectives. The evaluation will consider the effectiveness, efficiency, relevance, impact and sustainability of the BCLME Programme. While a thorough assessment of the implementation to date is important, the evaluation is expected to also result in recommendations and lessons learned to assist in defining future direction of similar programmes.

The evaluation will in particular assess:

- (1) Programme Design – review the original programme intervention strategy including objectives, outcomes, outputs and activities and assess quality of the design and delivery of planned outcomes. The review should also assess the conceptualisation, design, effectiveness, relevance and implementability of the programme. The review should also include the updated logical framework matrix which was designed during Programme Inception. This evaluation shall cross-reference the results, and report, including recommendations of the Mid-Term Evaluation which was carried out in 2005.
- (2) Programme Impact – assess the achievements of the BCLME Programme to date against the original objectives, outcomes and activities using the indicators as defined in the project document as well as any valid amendments made thereafter. Of particular relevance are the indicators that have been identified during Programme Inception. Achievements should be measured against the indicators as described in the log frame.
- (3) Programme Implementation – assess:
 - a. Project management arrangements, i.e., effectiveness of UNDP/GEF, UNDP Country Office, UNOPS, the Programme Coordination Unit (BCLME PCU), and the three Activity Centers;
 - b. Quality and timeliness of delivering outputs and activities;
 - c. Financial situation (i.e., budget and expenditure status). In this regard, this evaluation is not a financial audit, which is a separate process carried out by UNOPS. If a financial audit was done the consultants should have access to the audit reports under the auspices of UNOPS;
 - d. Cooperation among partners including but not limited to: GEF, UNDP, Governments counterpart Ministries, PCU, ACs and private companies;

- e. Responsiveness of project management to adapt and implement changes in project execution, based on partner and stakeholder feedback;

Based on the above points, the evaluation should provide a document of approximately 50 pages indicating what programme and project activities, outputs/outcomes and impacts have been achieved to date, and specifically:

- (1) Assess the extent of the progress which the BCLME Programme has made to achieve its objectives and where gaps are evident;
- (2) Draw lessons from the experiences of the BCLME Programme, in particular those elements that have worked well and those that have not, requiring adjustments and;
- (3) Provide recommendations to strengthen the effectiveness, efficiency, impact, implementation, execution and sustainability of the BCLME Programme.

3.2 SCOPE OF THE EVALUATION:

While the specific issues of concern are listed in the following paragraphs, a reference to the UNDP programming manual and UNDP/GEF guidelines to conduct terminal or end-of-cycle evaluations should be made for addressing the issues not covered below.

The evaluation will include ratings on the following two aspects: (1) Sustainability and (2) Outcome/Achievement of objectives (the extent to which the programme's immediate and development objectives were achieved). The review team should provide ratings for three of the criteria included in the Final Evaluations: (3) Implementation Approach; (4) Stakeholder Participation/Public Involvement; and (5) Monitoring and Evaluation. The ratings will be: Highly Satisfactory, Satisfactory, Marginally Satisfactory, Unsatisfactory, and N/A.

4.2a) Programme Conceptualisation/Design:

1. whether the problem the programme addressed is clearly identified and the approach soundly conceived.
2. whether the target beneficiaries and end-users of the results of the programme are clearly identified.
3. whether the objectives and outputs of the programme were stated explicitly and precisely in verifiable terms with observable success indicators.
4. whether the relationship between objectives, outputs, activities and inputs of the programme are logically articulated.
5. whether the programme started with a well-prepared work-plan and reasons, if any, for deviations.

4.2b) Programme Relevance:

1. whether the programme is relevant to the development priorities of the country.
2. given the objectives of the programme, whether appropriate institutions have been assisted.

4.2c) Programme Implementation:

The evaluation team will examine the quality and timeliness in regard to:

1. the delivery of inputs specified in the programme document, including selection of sub-programmes/projects, institutional arrangements, interest of beneficiaries, the scheduling and actual implementation.

2. the fulfilling of the success criteria as outlined in the programme document.
3. the responsiveness of the programme management to significant changes in the environment in which the programme functions (both facilitating or impeding programme implementation).
4. lessons from other relevant programmes if incorporated in the programme implementation.
5. the monitoring and backstopping of the programme as expected by the Government and UNDP.
6. the delivery of Government counterpart inputs in terms of personnel, premises and indigenous equipment.
7. Programme's collaboration with industry associations, private sector and civil society, if relevant.

4.2d) Programme Performance:

1. whether the management arrangements of the programme were appropriate.
2. whether the programme resources (financial, physical and manpower) were adequate in terms of both quantity and quality.
3. whether the programme resources are used effectively to produce planned results.
4. whether the programme is cost-effective compared to similar interventions.
5. whether the technologies selected (any innovations adopted, if any) were suitable.
6. the role of UNDP CO and its impact (positive and negative) on the functioning of the programme.

4.2e) Results/Success of the programme applied to each Specific Programme/Project (3 Areas):

The overall outputs and their meaning are as defined in the programme support documents and project documents that should form the main basis for this evaluation. The details of the specific programme impact to be provided, in addition to general outputs, is as under:

1. what are the major achievements of the programme vis-à-vis its objectives.
2. what are the potential areas for programme's success? Please explain in detail in terms of impact, sustainability of results and contribution to capacity development.
3. what major issues and problems affected the implementation of the programme and what factors could have resolved them.
4. given an opportunity, what actions the evaluation team members would have recommended to ensure that this potential for success translated into actual success.
5. level of institutional networking achieved and capacity development of key partners, if done in a structured manner at different stages – from inception to sub-programme operations.
6. environmental impact (positive and negative) and remedial action taken at each sub-programme site.
7. social impacts, including impact on the lives of women at each sub-programme site.
8. any underlying factors, beyond control, that influenced the outcome of each sub-programme.

3.3 METHODOLOGY/EVALUATION APPROACH:

The team should provide details in respect of:

1. Documentation review (desk study);
2. Interviews and/or consultations;
3. Field visits if any;
4. Questionnaires, if used; and
5. Participation of stakeholders and/or partners.

4. TIME TABLE:

The duration of the evaluation will be a total of 40 working days and will commence towards early September 2007 with the following tentative schedule for the critical milestones:

- Acceptance and commencement of duties by end August 2007.
- Inception meeting with the principal parties (UNDP and BCLME PCU) by first week of September, with a schedule and definite timetable for the overall evaluation.
- Draft Evaluation Report by end September.
- Presentation of the draft to the key stakeholders and incorporation of comments if deemed necessary, including submission of five copies of the final evaluation report by mid –October 2007.
- Final Evaluation report by first week of November, in five copies, 5 CD ROMs.

5. CONSULTATIONS:

The consultant and team members are open to consult all reports, files, manuals, guidelines and resource people they feel essential, to make the most effective findings, conclusions and recommendations. The mission will maintain close liaison with the UNDP Resident Representative and Deputy Resident Representative in Namibia, as well as other concerned officials and agencies in UNDP; the Governments of Angola, Namibia and South Africa, and the national focal point staff assigned to the programme; the BCLME PCU, CTA and Directors of the Activity centers in the three countries.

6. REPORTING:

The evaluation team will report directly to the Senior Management of UNDP Namibia, UNDP/GEF RCU, but mostly to the UNDP Resident Representative and/or his designated officials to act on his behalves. The consultant shall work in close collaboration with the BCLME PCU. The consultant will prepare and submit the draft report of the evaluation to UNDP. A presentation and debriefing of the report to UNDP, the programme beneficiaries (executing and implementing agencies), PSC will be made in November as part of the combined wrap-up workshop for the BCLME and BENEFIT Programme. The reporting schedule will be finalised during the inception meeting between the evaluation team and key stakeholders.

DISCLOSURE

Although the team is free to discuss with the authorities and any partners in the three countries on anything relevant to the assignment, under the terms of reference, the team is not authorised to make any commitments on behalf of UNDP or the Governments of Angola, Namibia and South Africa.

Annex 1: Evaluation Report: Sample Outline

Executive Summary

- **Brief description of programme**
- **Context and purpose of the evaluation**
- **Main conclusions, recommendations and lessons learned.**

Introduction

- **Purpose of the evaluation**
- **Key issues addressed**
- **Methodology of the evaluation**
- **Structure of the evaluation**

The programme and its development context

- **Programme start and its duration**
- **Problems that the programme seeks to address**
- **Immediate and development objectives of the programme**
- **Main stakeholders**
- **Outcomes/ Results expected**

Findings and Conclusions

- **Programme formulation**
- **Implementation approach**
- **Country Ownership/Driveness**
- **Stakeholder participation**
- **UNDP comparative advantage**
- **Linkages between programme and other interventions within the country**
- **Management arrangements**

Implementation

- **Financial Planning**
- **Monitoring and evaluation**
- **Execution and implementation modalities**
- **Management by the UNDP country office in Namibia, Angola and South Africa**
- **Coordination and operational issues**

Results

- **Attainment of objectives, outcomes and outputs**
- **Sustainability beyond the Programme Life Cycle**
- **Contribution to capacity building, regional and national development**

Recommendations

- **Corrective actions for the design, implementation, monitoring and evaluation of the next programme.**

- **Actions to follow up or reinforce initial benefits from the programme and relevance for inclusion in future initiatives**
- **Proposals for future directions underlining main objectives.**

Lessons Learned

- **Best and worst practices in addressing issues relating to relevance, performance and success of the programme.**

Annex 2:

- **TOR for the BCLME FE**
- **BCLME Final Evaluation Schedule**
- **List of Persons and Organisations interviewed**
- **List of documents reviewed**
- **Questionnaire used, if any, and summary of results.**