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WATER POLLUTION CONTROL AND BIODIVERSITY CONSERVATION IN THE GULF OF GUINEA LARGE MARINE ECOSYSTEM (LME)

EG/RAF/92/G34

Report of the Final In-depth Evaluation Mission: Findings and Recommendations*

Prepared for the Governments of Benin, Cameroon, Cote d'Ivoire, Ghana, Nigeria and Togo
by the United Nations Industrial Development Organisation (UNIDO)
in cooperation with the United Nations Development Programme (UNDP)

Based on the work of Messrs. M. El-Sayed and B. Williams
UNIDO consultants

Project Manager: M. Moore, Cleaner Production and Environmental Management Branch
Sectoral Support and Environmental Sustainability Division

* This document has not been edited.

I. EXECUTIVE SUMMARY

This report presents the FINAL IN-DEPTH EVALUATION of the Project " ***Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem (LME)"; EG/RAF/92/G34",*** funded by GEF through the UNDP "implementing agency" executed by UNIDO with the technical co-operation of NOAA and UNEP. The purpose of this In-Depth Evaluation is to enable the Government bodies, UNDP, UNIDO and UNEP and the donor to assess progress and to take decisions on the future orientation and emphasis, as well as to decide on a possible second phase project.

Participating countries in the project were Benin, Cameroon, Cote d'Ivoire, Ghana, Nigeria and Togo. The evaluation was conducted during November – December 1999.

The project design focuses around a main objective that is "to restore and sustain the health of the Gulf of Guinea LME and its natural resources particularly as it concerns its biological diversity" and bears directly on the relationship between industrial and coastal development activities and the environment.

The Project Document of 1994 had 5 Immediate Objectives, 21 Outputs and 85 Activities, encompassing all elements to effectively assess and manage the resources of the Gulf of Guinea Large Marine Ecosystem. The majority of these Outputs are not only Gulf of Guinea specific but they are specific to the holistic Large Marine Ecosystem approach, and its drainage basins, which can be applied to any tropical or sub tropical developing region of the world. The main objectives were strongly stated and outputs clearly identified. In some cases these were achievable but others were more difficult to achieve. Excellent progress has been made in many of the outputs but a few were far too ambitious for a four years project with a limited budget.

We consider the approach and objectives embedded in the Project Document to be far too ambitious for the region considering its resources, human capacity and available equipment. We have therefore, assessed the outputs of this Project with more realism and commented on the success and problems having observed and understood the limitations within the Region

The overall assessment of the immediate objectives demonstrates that many of the outputs and activities have been successfully achieved and in some cases the expected outputs have been surpassed.

Co-operation among international organisations was foreseen as necessary for the development and co-ordination of the project. This was achieved at the level of Regional Co-ordination but the co-operation could have been stronger between UN agencies (UNEP,UNDP and UNIDO) in some of the visited countries. In Ghana, Nigeria and Benin strong co-operation was observed but Ghana itself could be taken as a template for good and close co-operation within this project. Other international organisations (either UN or other agencies) co-operated on bilateral or multilateral

levels with the project. It is also suggested that co-operation among sectors, including the non-government and private sectors need further strengthening and enhancement.

Changes of Governments, Ministers, National Programme Project Directors and Assistants have caused many problems. This has been true in some countries more than others. These changes could have had disruptive impacts on the Project but for the stabilising efforts of the Regional Co-ordination Centre. Stability in the staffing of such a project as the GOG LME is a fundamental condition for success and should be nurtured in any subsequent phases.

The intended users of the project outputs were clearly identified. Direct beneficiaries of the project are the government authorities and the affiliated institutions and NGOs. The ultimate beneficiary of the project is the people dependent on the Gulf of Guinea Large Marine Ecosystem

Capacity building was an important focus of the project since the first immediate objective of this project was "Strengthening regional institutional capacities to prevent and remedy pollution of the Gulf of Guinea LME and associated degradation of critical habitats"

The project was very successful in building up institutional capacity in the region. Reasons for success include the enthusiasm and strong support of the various stakeholders, especially of the Governments themselves, which have demonstrated strong political will to foster a regional approach to finding solutions to their common problems. Secondly, more than 800 scientists, managers and supervisors from Government regulatory agencies, as well as numerous representatives of NGOs participated in 41 training activities.

The level of commitment to the project demonstrated by the responsible governments and/or non-government national institutions has been one of the biggest successes of the GOG LME together with the involvement of the GOG LME NGO Network. There was complete support expressed from all the Government Ministries involved at the First Meeting of the Committee of Ministers in Accra (Ghana) in July 1998. Taking note of the commendable achievements of the project in fostering effective consultation, co-ordination and monitoring mechanisms, and in instituting joint actions in environmental and living resources management, the Ministerial Committee recognised the project as a potential tool for regional co-operation.

The Committee adopted the Accra Declaration as an expression of common political will for the environmentally sustainable development of marine and coastal areas of the Gulf of Guinea, and furthermore called for the development of a Strategic Action Plan (SAP) including a full Trans-Boundary Diagnostic Analysis (TDA), leading to an expanded second phase to include all the 16 countries between Guinea Bissau in the north to Angola in the south, which are influenced fully or partly by the Guinea Current LME. A letter signed from the Ministers was addressed to the UNDP which strongly reflects the above and called for the speedy approval of the submitted PDF Block B Proposal for the development of a SAP for Gulf of Guineas LME. The Governments and Institutions agreed to provide local facilities, administrative and other

support services to ensure effective implementation of the specific activities although this was more forth coming in some countries than in others.

There were notable funding gaps in the project, which allowed only token funding to be made in most of the project activities, particularly in GIS, pollution and living resources monitoring programme and the NGOs participation. Funds allocated to activities did not correspond to the expectations, which were partly corrected by funds from the six countries, co-operating UN and non-UN agencies and the private sector. This makes the achievements of the project even more impressive.

The Regional Co-ordination Centre (RCC), Abidjan, served to enhance regional co-operation and co-ordination as well as achieving cohesion between the various inputs, including training of personnel, outlined in the project document or modifications thereof. The Regional Co-ordination Centre RCC/ project Steering Committee managed the project efficiently, especially considering that the RCC was under staffed.

Co-operation among sectors, including the non-government and private sectors has been facilitated by the project but nevertheless needs further strengthening and enhancements because of its importance in the sustainability of the project.

Although the potential achievements of the project were foreseen in the original project document, additional positive effects have been developed during the project implementation, particularly in areas of enhancement of national and regional capabilities (Training) and areas of environmental management such as Marine Debris and Waste Management. An example, has been the establishment and enhancement of regional co-operation and co-ordination, and the development of cross-sectoral co-operation at national levels.

The project had clear impacts on the policy and strategies of the countries; this was reflected on the development of management oriented actions in most of the countries, such as the Integrated Coastal Area Management National Action Plans.

Procedures for Monitoring and Assessment have been mainly through the periodic meetings of the governing bodies of the project, and through the use of independent consultants to assess project performance and impacts.

The sustainability of the project for the immediate future will largely depend on funding made available from funding agencies and/or donors, since the committed funds alone from the participating countries are not enough to sustain the project. This is because, as enthusiastic and willing as they are to contribute, the countries, for the most part, are facing severe economic problems.

Therefore, it is recommended to consider a second phase of the project**"** ***Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem (LME)***, based on the progress made in the project, on the strong political and community will, on the recommendation of the Second and Third Project Steering Committee meeting (Cotonou, 11-12 March 1997, 8 July 1998) and the decision of the Interagency Meeting between UNDP-GEF and UNIDO (Vienna, 8-9 September 1997). This Meeting concluded that a proposal will be developed for the

preparation of a Strategic Action Plan (SAP), including a Transboundary Diagnostic Analysis (TDA), as a basis for a second phase of the project with expanded coverage to include countries within the natural limits of the Guinea Current LME. This was endorsed by the First meeting of the Committee of Ministers (see Accra Declaration), Accra, Ghana 9-10 July, 1998.

It is also recommended to proceed as quickly as possible to the PDF Block B proposal so that enthusiasm and capacity are not lost.

INTRODUCTION

This report presents the FINAL IN-DEPTH EVALUATION of the Project "***Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem (LME); EG/RAF/92/G34"***. This project was funded by the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP), and executed by the United Nations Industrial Development Organisation (UNIDO), UNEP as co-operating agency with the technical co-operation of the National Oceanic and Atmospheric Administration (NOAA) of the U.S.A

The purpose of this In-Depth Evaluation is to enable the Government bodies, UNDP and UNIDO and the donor to assess progress and to take decisions on the future orientation and emphasis, as well as to decide on a possible second phase of the project.

Participating countries in the project were Benin, Cameroon, Cote d'Ivoire, Ghana, and Nigeria. Togo was accepted as a formal member of the project at the second Steering Committee meeting on 11-12 March 1997, and has since fulfilled the conditions for membership.

The evaluation team was composed of team leader Prof. Mahmoud Kh. El-Sayed, Department of Oceanography, Alexandria University and Dr. Robert Williams, Independent Consultant and Honorary Research Fellow of Plymouth Marine Laboratory (Centre for Coastal Marine Science) UK. (Refer to Annex 1 for Terms of References for the in-depth evaluation)

The mission did not comprise a Regional Consultant. However, Mr. Peter Scheren, Associate Expert of UNIDO at the Project Regional Co-ordination Centre in Abidjan, assisted the evaluation mission by arranging and co-ordinating field visits to the individual project countries, and by providing and compiling the necessary and adequate background information and documentation for the evaluation report. He joined the mission to Benin, Cameroon and Cote d'Ivoire as a facilitator.

The evaluation was conducted during November – December 1999 and followed the methodology and activities identified in the Terms of Reference (TOR) as follows:

(i) Studying documents:

- documents at UNIDO HQs.
- documents at the Regional Co-ordination Centre.

(ii) Interviews by visiting:

- UNIDO HQ, Vienna, Austria.
- Regional Co-ordination Centre, Abidjan, Cote d'Ivoire.
- UNDP/UNIDO offices in Benin, Cameroon, Cote d'Ivoire, Ghana, Nigeria and Togo.
- National Director's office and relevant Ministries.
- National Focal Institutions.
- Co-operating institutions.
- Country/regional offices of international organisations

- NGO offices.
- Industries.
- Other constituencies and stakeholders not directly involved in the project that may have experienced, or may be expected to have experienced, its impacts.

Following to the TOR, the In-depth Evaluation Report was prepared, according to the standard structure as specified in the UNDP Guidelines. Considering the regional approach of this project, and the national level for its implementation, emphasis was made, whenever necessary, on some specific activities.

The itinerary of the visits to the respective countries which participated in the project is in Annex 2, while the list of ministries, institutions, organisations and agencies visited and persons met is given in Annex 3.

The mission was not able to visit Togo as planned between 1 – 2 December 1999 because of flight cancellation; however, the mission received official input from Togo answering the mission's enquiries for the purpose of the in-depth-evaluation.

After team debriefing discussions and presentation of findings at the Regional Co-ordination Centre at Abidjan and UNIDO HQ in Vienna, the evaluation team submitted this Draft Report.

I. EXECUTIVE SUMMARY

This report presents the FINAL IN-DEPTH EVALUATION of the Project "***Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem (LME)*"*; EG/RAF/92/G34",** funded by GEF through the UNDP "implementing agency" and executed by UNIDO with the technical co-operation of NOAA and UNEP. The purpose of this In-Depth Evaluation is to enable the Government bodies, UNDP, UNIDO and UNEP and the donor to assess progress and to take decisions on the future orientation and emphasis.

Participating countries in the project were Benin, Cameroon, Cote d'Ivoire, Ghana, Nigeria and Togo. The evaluation was conducted during November – December 1999.

The In-Depth Evaluation Report follows assessment of project conceptual design, implementation and results followed by conclusions, recommendations and lessons learned.

The project design focuses around a development objective that is "to protect and restore the health of the Gulf of Guinea Large Marine Ecosystem and its natural resources" and bears directly on the relationship between industrial and coastal development activities and the environment.

The Project Document of 1994 with its immediate objectives and outputs had 85 activities, encompassing all elements to effectively assess and manage the resources of the Gulf of Guinea Large Marine Ecosystem. The majority of these Outputs are not only Gulf of Guinea specific but they are specific to the holistic Large Marine Ecosystem approach, and its drainage basins, which can be applied to any tropical or sub tropical developing region of the world. The main objectives were strongly stated and outputs clearly identified. In some cases these were achievable but others were more difficult to achieve. Excellent progress has been made in many of the outputs but a few were far too ambitious for a four years project with a limited budget. We have therefore, assessed the outputs of this Project with more realism and commented on the success and problems, having observed and understood the limitations within the Region. The overall assessment of the immediate objectives demonstrates that many of the outputs and activities have been successfully achieved; and in some cases the expected outputs have been surpassed e.g. publication of country coastal profiles and draft Integrated Coastal Areas Management Plans.

Changes of Governments, Ministers, National Programme Project Directors and Assistants have caused many problems. This has been true in some countries more than others. These changes could have had disruptive impacts on the Project but for the stabilising efforts of the Regional Co-ordination Centre. Stability in the staffing of such a project as the GOG LME is a fundamental condition for success and should be nurtured in any subsequent phases.

Co-operation among international organisations was foreseen as necessary for the development and co-ordination of the project. This was achieved at the level of Regional Co-ordination. On the national level the co-operation could have been stronger between UN agencies in some of the countries visited more specifically, Cameroon and Togo. In Ghana, strong co-operation was observed and could be taken as a template for good and close co-operation within this project. Other international organisations (either UN or other agencies) co-operated on bilateral or multilateral levels with the project. It is also suggested that co-operation among sectors, including the non-government and private sectors needs further

strengthening and enhancement.

The project was successful in building up institutional capacity in the region (see Annex 10). Reasons for success include the enthusiasm and strong support of the various stakeholders, especially of the Governments themselves, which have demonstrated strong political will to foster a regional approach to finding solutions to their common problems e.g. overfishing, coastal erosion, oil and chemical spills. Secondly, 416 scientists, managers and supervisors from Government regulatory agencies, as well as numerous representatives of NGOs participated in 35 regional training activities, besides 426 participants attending National ICAM Workshops

The project had clear impacts on the policy and strategies of the countries; this was reflected in the development of management-oriented actions in most of the countries, such as the Integrated Coastal Area Management National Action Plans.

The intended users of the project outputs were clearly identified. Direct beneficiaries of the project are the government authorities and their affiliated institutions, private sector and NGOs. The ultimate beneficiary of the project is the people dependent on the Gulf of Guinea Large Marine Ecosystem. Capacity building was an important focus of the project since the first immediate objective of this project was "Strengthening regional institutional capacities to prevent and remedy pollution of the Gulf of Guinea LME and associated degradation of critical habitats".

The level of commitment to the project demonstrated by the responsible governments and/or non-government national institutions has been one of the biggest successes of the GOG LME together with the involvement of the GOG LME NGO Network. There was complete support expressed from all the Government Ministries involved at the First Meeting of the Committee of Ministers in Accra (Ghana) in July 1998. Taking note of the commendable achievements of the project in fostering effective consultation, co-ordination and monitoring mechanisms, and in instituting joint actions in environmental and living resources management, the Ministerial Committee recognised the project as a potential tool for regional co-operation.

The Ministerial Committee adopted the Accra Declaration as an expression of common political will for the environmentally sustainable development of marine and coastal areas of the Gulf of Guinea, and furthermore called for the development of a Strategic Action Plan (SAP) including a full Trans-Boundary Diagnostic Analysis (TDA), leading to an expanded second phase to include all the 16 countries between Guinea Bissau in the north to Angola in the south, which are influenced fully or partly by the Guinea Current LME. A letter signed from the Ministers was addressed to the UNDP which strongly reflects the above, and called for the speedy approval of the submitted PDF Block B Proposal for the development of a SAP/TDA for the Gulf of Guinea LME. The Governments and Institutions agreed to provide local facilities, administrative and other support services to ensure effective implementation of the specific activities, although this was more forthcoming in some countries than in others.

There were notable funding gaps in the project, which allowed only token funding to be made in most of the project activities, particularly in GIS, pollution and living resources monitoring programme and the participation of NGOs (see for e.g. Boxes 2 and 3). Funds allocated to activities did not correspond to the expectations, which were partly corrected by funds from the six countries, co-operating UN and non-UN agencies and the private sector. This makes

the achievements of the project even more impressive. It is therefore recommended that governments similarly support national activities should there be a phase 2.

The Regional Co-ordination Centre (RCC), Abidjan, served to enhance regional co-operation and co-ordination as well as achieving cohesion between the various inputs, including training of personnel, outlined in the project document or modifications thereof. The Regional Co-ordination Centre (RCC) / Project Steering Committee managed the project efficiently, especially considering that the RCC was under-staffed. UNIDO was aware of some of these shortcomings and contributed by placing extra manpower from its own resources in the RCC.

Co-operation among sectors in the areas of environmental management and protection, including the non-government and private sectors has been facilitated by the project but, nevertheless, needs further strengthening and enhancement because of its importance to the sustainability of the project.

Although the potential achievements of the project were foreseen in the original project document, additional positive effects have developed during the project implementation, particularly in areas of enhancement of national and regional capabilities (Training) and areas of environmental management such as Marine Debris and Waste Management. An example, has been the establishment and enhancement of regional co-operation and co-ordination, and the development of cross-sectoral co-operation at national levels. **The level of achievements and success in the implementation of some activities/outputs pertaining to the project immediate objectives could be enormous, taking into consideration the pre-existing condition.**

Procedures for Monitoring and Assessment of progress have been mainly through the periodic meetings of the governing bodies of the project, and through the use of independent consultants to assess project performance and impacts.

The sustainability of the project outcomes for the immediate future will largely depend on funding made available from funding agencies and/or donors, since the committed funds alone from the participating countries are not enough to sustain the project. This is because, as enthusiastic and willing, as they are to contribute, the countries, for the most part, are facing economic problems.

Therefore, it is recommended to consider a second phase of the project "***Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem (LME)"***, based on the progress made in the project, on the strong political and community will, on the recommendation of the Second and Third Project Steering Committee meeting (Cotonou, 11-12 March 1997, 8 July 1998) and the decision of the Interagency Meeting between UNDP-GEF and UNIDO (Vienna, 8-9 September 1997). This Meeting concluded that a proposal would be developed for the preparation of a Strategic Action Plan (SAP), including a Transboundary Diagnostic Analysis (TDA), as a basis for a second phase of the project, with expanded coverage to include countries within the natural limits of the Guinea Current LME. This was endorsed by the First meeting of the Committee of Ministers (see Accra Declaration), Accra, Ghana 9-10 July, 1998.

It is also recommended to proceed as quickly as possible to the PDF Block B proposal so that enthusiasm and capacity are not lost.

II. PROJECT CONCEPT AND DESIGN

A. Context of the Project

The project is directly related to the preservation and improvement of environmental conditions. It has a direct bearing on the relation between industrial and urban development activities and the environment in that measures will be taken to identify pollutants which adversely affect the environment and to introduce guidelines and standards for cleaner and environmentally sustainable industrial production and urban development.

The project design focuses around a development objective, which is **"to protect and restore the health of the Gulf of Guinea Large Marine Ecosystem and its natural resources ".**

The concept of Large Marine Ecosystems (LME)

Growing awareness of the utility of a more holistic ecosystem approach to resource management is among the reasons for the increasing interest of researchers and managers in the concept of large marine ecosystems (LME) as geographic units for improving the assessment and management of marine resources. LMEs are regions of ocean space encompassing coastal areas from river basins and estuaries out to the oceanic margins of continental shelves and the seaward extent of coastal current systems.

For managing LMEs, planners consider entire ecological units, including target fish stocks but also prey, predators and other biological and physical factors. To be successful, the LME management concept must be linked with the management of Marine Catchments Basins (MCBs) that represent areas adjacent to LMEs and from where many of the impacts due to human activities originate

One of the primary long-term aims of the project was to ensure that an infrastructure would be developed during the first three years of the project. In the short-term, the reports of the project findings will be brought forward for implementation of the most pressing mitigation actions as soon as is feasible.

The original design of the project, as reflected in the project document identified three requirements to be satisfied:

1. Upgrading of the physical facilities and human resources of the existing institutions involved in environmental monitoring;

2. The establishment of effective, clear and sustainable lines of communication between these institutions for the exchange and correlation of information, and

3. Mechanisms for the provision of decision support systems at the national/regional levels, to provide decision-makers with feasible management options, based on the analysis of the information gathered by the network

Expected end of project status, the project was designed to:

A. consider introducing the LME modular approach to overcome the sectoral approach to coastal pollution, fisheries, and habitat loss problems in the countries of West Africa bordering the Gulf of Guinea ecosystem;
B. enhance regional co-operation, which will strengthen the NGO's capabilities by their participation in project activities;
C. incorporate training and awareness activities, which will provide a proper assessment of the sources of environmental stress on the Gulf of Guinea LME;
D. develop an incentive system for the reduction and amelioration of industrial and urban effluent discharges;
E. identify financial instruments and mechanisms both to provide the necessary funds to achieve a reduction in pollution and to fund the recurrent costs for the continuation of project activities;
F. help in identifying investment opportunities.

- The project was designed to provide the basis for carrying out the activities endorsed in UNCED for the protection of internationally shared water resources. This project meets with two of the objectives of the Global Environment Facility (GEF), namely, the protection of international waters, and the protection of biodiversity.

- The project concept and design were appropriate at the time of approval. The institutional arrangements have developed further than the evaluated structure and the institutional frameworks have been enhanced and augmented during the project development.

- The project fits into national sectors and sub-sector plans of the participating countries, since many of the outputs have been directly linked to several national development plans particularly in resources and environmental management.

- The project ties into other sources of external assistance through the in cash or in kind assistance provided to the project at the stage of its formulation (e.g. NOAA) or during its inception and development (Annex 4).

The project design embodied an ambitious approach incorporating many *outputs* and *activities*. The main objectives were strongly stated and outputs clearly identified. These, in many cases, were achievable and others were more difficult to achieve. Good progress has been made in many of the outputs but for others funds allowed for only initial activities to be supported (see discussions and tables in Section IV).

B. Project Document

The problem and the technical approach

The importance of the coastal waters, including lagoons, estuaries, bays, creeks, etc., to the socio-economic development of countries bordering the Gulf of Guinea is largely recognised on account of its potential resources. It is thus critical to maintain this marine environment in a state capable of supporting its productivity. However, it is known that the health of the coastal waters in this region is increasingly in jeopardy due to a rapid intensification of human activities on or near the coast.

Industrial and urban pollution have deleterious effects on the waters of the Gulf of Guinea and its natural living resources, which depend on clean waters for their survival. The results, of this pollution, are environmental degradation, including habitat destruction, loss of biological diversity and degenerating human health.

The concerns shared by the countries in the region about the deterioration of their marine environment coupled with experiences gained from their participation in existing regional and global conventions and protocols in environmental protection, make them eager and ready to move forward collectively with new initiatives for the protection of their shared waters and natural resources. The communal project, "Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem (LME)", funded by the Global Environment Facility (GEF) is one such initiative by six countries in the region namely Benin, Cameroon, Côte d'Ivoire, Ghana Nigeria and Togo, which are making large in-kind and cash contributions to the project (Annex 5). Other countries influenced by the Guinea Current LME have expressed their intention to join the project in the second phase.

Objectives

The project development objective is "to protect and restore the health of the Gulf of Guinea LME and its natural resources".

The project seeks to strengthen the capacities of the participating countries to achieve this development objective, by focusing on the following immediate objectives:

Box. 1. Project's Immediate Objectives

(i) Strengthening regional institutional capacities to prevent and remedy pollution of the Gulf of Guinea LME and associated degradation of critical habitats.
(ii) Developing an integrated information management and decision-making support system for environmental management.
(iii) Establishing a comprehensive programme for monitoring and assessment of the health and productivity of the Gulf of Guinea Large Marine Ecosystem.
(iv) Preventing and controlling land-based sources of industrial and urban pollution.
(v) Developing national and regional strategies and policies for the long-term management and protection of the Gulf of Guinea Large Marine Ecosystem.

Beneficiaries

The intended users of the project outputs were clearly identified. Direct **beneficiaries** of the project are:

- The government authorities and the affiliated institutions and NGO's. Among the concerned Ministries of the countries are the Ministries of Environment, the Ministries of Agriculture and Fisheries, the Ministries of Industry/Trade or Transportation, the Ministries of Mining and/or Tourism, and the Ministries of Planning/Finance. Impact of the outcome from the project on these Ministries will be significant, because the recommendations from the project need to be reflected in the laws and regulations of the concerned Ministries.

- The introduction of the concept of cleaner production, pollution control, waste management to individual industrial enterprises.

- The ultimate beneficiary of the project is the people dependent on the Gulf of Guinea Large Marine Ecosystem. The inhabitants as well the economic sectors in the region will benefit from the sustained productivity of its marine resources, sustainable industrial development, and rational and integrated coastal development.

- The Governments of Benin, Cameroon, Cote D'Ivoire, Ghana and Nigeria were involved to some extent in drafting the project document, and actively participated in the development of the detailed work plan, timetable and budget. The UNDP/UNIDO preparatory assistance/appraisal mission in 1992 undertook several consultancies with the concerned ministries and agencies in the participating countries. The problems addressed under this project, generated activities and outputs that were based on the findings and recommendations of the preparatory mission.

- The project document clearly states the problems that the project was intended to solve. Institutional capabilities were thoroughly assessed and the recipient institutions were consequently selected at the result of this assessment. However, during the lifetime of the project and because of the development of activities other institutions were invited to assist in the implementation of the project activities.

- National Implementing Agencies Networking developed under the GOG LME Project is given in Annex 6.

- **Risks** were identified in the Project Document, however **assumptions** were developed during the progress of work.

- The framework of the project document clearly states the project objectives and outputs in verifiable and quantifiable terms, and the phasing of the project activities and inputs were realistic. The document comprises a work plan scheduling the project activities. However, and because of the late inception of the project (1995), and following the First Meeting of the Project Working Group in August 1995, the project work plan was revised and a detailed work plan, time table and budget was produced in August 1995.

- The project document outlined a monitoring mechanism for the tracking of major project milestones and recognition of any difficulties or constraints that would require management action. This appears in Part H of the document addressing project reviews, reporting and evaluation. However, no budget was allocated to meet the above either in the budget lines of the project document or in the revised Work plan, timetable and budget.

Monitoring and Evaluation procedures

1. Meetings of Committee of Ministers (1)
2. Meetings of Steering Committees at National and Regional levels (4)
3. Conducting Internal UNIDO reviews (1)
4. UNDP/GEF PIRs (4)
5. UNDP PPER (4)
6. TPR Meetings (3)
7. Fielding external independent evaluations (2)

- Procedures for Monitoring and Assessment have been mainly through the periodic meetings of the governing bodies of the project, and through the use of independent consultants to assess project performance and impacts. The Monitoring and Evaluation tools in place include:

1. Committee of Ministers
2. Steering Committees at National and Regional levels
3. Tripartite Reviews
4. Internal UNIDO reviews
5. External independent evaluators

The following is a list comprising 22 documents including final evaluation report, annual programme/project report (APR), completion report, etc:

- Six 6-monthly reports by the Regional Co-ordinator
- Report on the first Meeting of the Project Steering Committee, 1995UNIDO
- Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea (LME): Project management Consultancy, Natural Resources Institute (NRI) / UNIDO, June 1996
- UNIDO Internal Review, November 1996
- Project Performance Evaluation Report, UNDP-UNIDO, 1997
- Report of the first Tripartite Review Meeting, 1997
- Report on the second Meeting of the Project Steering Committee, 1997
- UNDP GEF Implementation Review, 1997
- Mid-term In-depth Evaluation Report, 1998
- Project Performance Evaluation Report, UNDP-UNIDO, 1998
- Report of the second Tripartite Review Meeting, 1998
- Report on the third Meeting of the Project Steering Committee, 1998
- Report of the first Meeting of the Committee of Ministers, 1998
- Final project progress report, June 1999
- Project Performance Evaluation Report, UNDP-UNIDO, 1999
- Report of the third Tripartite Review Meeting, August 1999
- Report of the Final Project In-Depth Evaluation, December 1999

In addition to the above, annual reports have been prepared for the Administrative Co-ordinating Committee (ACC) subcommittee on Oceans and Coastal Areas, CSD and to the Law of the Sea.

III. PROJECT IMPLEMENTATION
(Results and Outcome)

Given the transboundary nature of the pollution problems and biodiversity concerns, a regional approach was proposed. This approach consisted of a programme involving five objectives (see Box 1). The Gulf of Guinea Large Marine Ecosystem project attempted to build an infrastructure of multidisciplinary government and non-government specialists to provide the information and baseline data and surveys needed to mitigate coastal pollution and the degraded conditions of critical habitats and living marine resources.

B. Activities

- The implementation of the main activities given in the initial project document, plan and schedule was revised three times by the Project's Steering Committee. Through the Steering Committees, the detailed work plan was developed during the inception period of the project in 1995 and adopted by the First Steering Committee Meeting 17 – 19 August 1995. All the main activities were implemented following the revised plan.

- All parties, UN Agencies (UNDP, UNEP & UNIDO), NOAA (US), Participating Governments, through their National Focal Point Agencies (NFPA) and Institutes (NFPI) were involved in all stages and agreed in full on the main issues of project implementation. Co-ordination occurred through the Regional Steering Committees, which contained full representation of all parties, and through National Steering Committees (Annex 7). All activities listed in the Project Document Work Plan were addressed. In fact, some additional activities were initiated and achieved during the project development above those listed in the original or revised Work Plan. For example, there were only 17 Workshops planned but 41 were conducted in order to increase co-ordination, awareness, training and capacity building.

- The formulation of the Integrated Coastal Area Management documents for all countries has been very successful; the results highlighted in the National Coastal Profiles and workshop reports have been incorporated into government policy documents (ICAM plans) by five of the countries.

- There were severe limitations in the project budget, an example being, only US $ 50K was allocated for implementation of a comprehensive GIS system to develop an integrated information management and decision-making support system. Similarly, the support given to NGOs and pollution monitoring funded only token involvement but, in both cases, the funds available were used by the NGOs and agencies to make large in kind additions to the project (see Boxes 2 and 3).

- **Capacity building** is an important focus of the project since the first immediate objective of this project is "**Strengthening regional institutional capacities** to prevent and remedy pollution of the Gulf of Guinea LME and associated degradation of critical habitats"

- The project was successful in building up institutional capacity in the region (see Section IV). Reasons for success include the enthusiasm and strong support of the various stakeholders, especially of the Governments themselves, which have demonstrated strong political will by adopting the ACCRA DECLARATION to foster a regional approach to find solutions to their common problems (eg. overfishing, crossfrontier pollution, coastal erosion). Secondly, 416 scientists, managers and supervisors from Government regulatory agencies, as well as numerous representatives of NGOs participated in an extensive regional training programme (making it the Region's largest network for marine and coastal area management). In addition 426 participated in National ICAM Workshops.

- The project was successful in bringing together scientists, government policy makers and NGOs to jointly assess their problems and find solutions. Activity groups in different areas of expertise, as well as networks of National and Regional Experts were established, for pooling of equipment and facilities, joint surveys, mutual assistance and exchange of knowledge and experiences in relation to the 5 project modules listed below.

- The capacity of the networks has been reinforced through the supply of equipment, and by a series of group training workshops aimed at standardising methodological approaches around five project modules:

  Productivity
  Fish and fisheries
  Pollution and ecosystem health
  Socio-economics and
  Governance

- One of the main outputs that emerged under the GOG LME project was the development of efficient co-ordination mechanism between specialists from multidisciplinary Government agencies and NGOs. In the countries, governments, universities, research institutions and non-governmental organisations, conscious of the crossboundary nature of their problems, co-operated in marine resource assessment, monitoring and management and collectively accepted the ecosystem approach as an encompassing strategy for their activities.

- An innovative element of the project was the establishment of Activity Groups of Competent National Experts, which in some instances replaced the necessity of External International experts. This whole network of National experts was not originally planned in the Project Document but had the extra desired effect of building capacity within the regional community. To date this network consists of about 416 scientists, managers and others. In the mangrove surveys it was not foreseen to do any pilot projects. They were instigated in every country and involved and relied on the NGOs participation. These projects were extremely important in raising awareness within the local community, especially with the high profile media coverage thereby ensuring community level interventions that augur well for their sustainability.

- The level of commitment to the project demonstrated by the responsible governments

and/or non-government national institutions has been one of the biggest successes of the GOG LME together with the involvement of the GOG LME NGO Network. There was complete support expressed from all the Government Ministries involved at the First Meeting of the Committee of Ministers in Accra (Ghana), July 1998. Taking note of the commendable achievements of the project in fostering effective consultation, co-ordination and monitoring mechanisms such as the Regional Activity Groups, and in instituting joint actions (eg. restrictions in fishing activities) in environmental and living resources management, the Ministerial Committee recognized the project as a potential tool for a regional co-operation.

- The Ministerial Committee adopted the Accra Declaration (Annex 8) as an expression of common political will for the environmentally sustainable development of marine and coastal areas of the Gulf of Guinea, and furthermore called for the development of a Strategic Action Plan (SAP) including a full Trans-Boundary Diagnostic Analysis (TDA), leading to an expanded second phase to include all the 16 countries between Guinea Bissau in the north to Angola in the south, which are influenced fully or partly by the Guinea Current LME. A letter signed from the Ministers (Annex 9) was addressed to the UNDP which strongly reflects the above and called for the speedy approval of the submitted PDF Block B Proposal for the development of SAP GOG-LME. The Governments and Institutions agreed to provide local facilities, administrative and other support services to ensure effective implementation of the specific activities although this was more forth coming in some countries (eg. Benin, Nigeria, Ghana) than in others.

- A total commitment to achieving the development objectives of the project by the participants was observed and experienced during the mission's visits to the Ministries, Government Agencies, Institutions, National Experts, Private Sector and NGOs.

- Many of the persons hired under this project were already fulfilling similar roles within their Institutes and Universities. During the term of the GOG LME their awareness and competence in coastal zone management has increased and built up further capacity within the countries. They are fully able to continue many, if not all, of the national activities of this project but if new funding is not forthcoming this important capacity directed to improvement of the regional coastal zone ecosystems will not reach its full potential.

- External expertise was provided to the project, but most of the expertise was eventually provided internally within the project. A general assessment from the recipients of external expertise was that reports by certain external experts were not up to expectations.

- The political experience and expertise of the Regional Co-ordinator had a strong influence on the success of the Project Co-ordination. The formal training provided by the project was impressive. The number of Workshops (41) with 842 participants, 416 in Regional Workshops and 426 in National ICAM Workshops in several fields matching the project activities (Annex 10), 500 contactable persons within the region with perhaps 80 persons reachable within the e-mail network. Network conferencing facilities have been set up between 5 of the 6 countries in the later part of the project. Many of those trained have taken higher internal responsibilities. The majority of

trainees were nominated by their NPFA and are part of their system. The training and enhancement of their capabilities received under the project have enabled some experts to take higher internal responsibilities

- Changes of Governments, Ministers, National Project Directors and Assistants have caused many problems. This has been true in some countries more than others. These changes have had disruptive impacts on the Project all having to be catered for by the Regional Project Co-ordinator. Stability in the staffing of such a project as the GOG LME is a fundamental condition for success and should be nurtured.

- We consider that the Regional Co-ordination Centre (RCC)/ Project Regional Co-ordinator/Project Management Group managed the project efficiently, considering that the RCC was under-staffed, because until mid 1998, the Regional Co-ordinator was the only professional.

- Contained within the holistic approach of the GOG LME are embedded many of the mainstream activities and mandates of the responsible agencies.

- There were problems and constraints that affected successful implementation of the project activities. Funds allocated to activities did not correspond to the expectations, which were partly corrected by funds from the participating countries, co-operating UN and non-UN agencies and private sector (Annexes 4 & 5). Some companies were invited to Workshops and then contributed supporting funds. There were problems in some countries with management of human resources and co-ordination on national level and on national/regional level but a lot of this was due to the many changes with the national systems and lack of transparency on the project administrative construction at a national level.

- There were notable funding gaps in the project, which allowed only token funding to be made in most of the project activities, particularly in GIS, pollution and living resources monitoring programme and the NGOs. The allocation of funds for publications in the original Project Document were totally under-estimated although this situation was rectified by re-allocation by the Steering Groups. The problems, through lack of staff, in the Project Co-ordination Office, also meant that application for funding was delayed, which itself caused problems in funding certain Workshop (flow of funds did not match planning of activities). UNIDO was aware of some of these short coming and contributed by placing extra manpower from its own resources in the RCC, at a total budget amounting US$135,650.

- The equipment purchased was mostly AAS, microscopes, laboratory equipment, fishing gear, PCs, and GIS software. Equipment were either being fully, partially or unused in their designated departments. Two very good studies were done on equipment needs but partly due to lack of funds they were not fully implemented, and priorities were not fully set. Atomic Adsorption Spectrophotometers were supplied to all countries (except for Togo, who joined the project later in 1997). However, some countries (eg. Cameroon) found difficulties in providing the necessary running cost or maintenance funds to run the allocated equipment. The vehicle received under the project, for use in the RCC, was essential to facilitate the administrative obligations of the centre.

B. **Quality of Monitoring and Backstopping**

- The project had UNDP as the Implementing Agency, UNIDO as the Executing Agency and UNEP as Co-operating Agency. The United States Department of Commerce through its National Oceanic and Atmospheric Administration (NOAA) provided technical support particularly in capacity building initiatives (especially in fisheries, productivity and pollution studies) in addition to in kind contribution to the funding of the project. Other United Nations and non United Nations Agencies such as the Intergovernmental Oceanographic Commission (IOC) of UNESCO, IMO, FAO and IUCN have provided guidance at specific stages in project implementation (Annex 4 provides a list of the contribution of international co-operating organisations).

- Implementation of the project at a national level required involvement of national environmental protection Agencies/ Departments, public health Administrations, Sewage work Authorities, Industries, Universities/ Research Institutions, NGO's and private sector organisations. In order to provide the necessary focus, National Focal Point Agencies (NFPA) and National Focal Point Institutions (NFPI) were designated.

- A special role was reserved for non-governmental organisations (NGOs) and Community Based Organisations (CBOs). At a national level this role is vital as it relates to public awareness and environmental education (pollution prevention and overcutting of mangrove, obeying fishing regulations) aspects of the project. The consigning of this special role is because NGO's are, by their very nature, closer to the grassroots populations and are thus able to mobilise them. The active involvement of concerned populations, both citizenry and entrepreneurs of commerce and industry, continue to be important to the realisation of the ultimate objectives and targets of the project.

Administrative Set-up **(Management and Organisation)**

A. The Regional Co-ordination Centre (RCC) located at the Centre de Recherches Océanographiques (CRO), Abidjan, served to enhance regional co-operation and co-ordination as an underlying philosophy of the project as well as achieve cohesion between the various inputs, including training of personnel, outlined in the project document or modifications thereof.

B. At the national level, a Project Office was established in each country under a government nominated Project Director who was assisted by a Programme Assistant, to ensure delivery of inputs from country level activities (Annex 7).

C. Procedures for Monitoring and Assessment have been mainly through the periodic meetings of the governing bodies of the project, and through the use of independent consultants to assess project performance and impacts. The Monitoring and Evaluation tools in place include:

D. There were 4 Meetings of the Steering Committees, which comprised international and national agencies and experts, three Tripartite Reviews, one Ministerial Level Meeting during which project implementation was measured by all participating

countries and contributing parties. Progress reports were produced every six-month by the Project Co-ordinator, and annual Project Performance Executing Documents PPER (for UNDP), Project Implementation Review PIR (for GEF), and UNIDO did an Internal mid-term Review.

E. There were a number of external evaluations during the implementation of the project, the mid-term evaluation and the in depth final project evaluation. The results of the mid-term evaluations were considered by both the RCC and UNIDO. The recommendations from the mid term evaluations were implemented as far as could be within the limitations of the project.

F. The 3 tripartite reviews (***11 March 1997, 7 July 1998 and 19 August 1999)*** were very effective. They brought together people on a regional basis and built confidence and partnerships and provide encouragement. Most changes were implemented from these reviews. The system of the TPR has allowed the Accra Declaration to be signed by illustrating regional responsibility to the respective governments.

G. Complementary support was provided by other United Nations specialised agencies, bilateral agencies and NGOs (Annex 3). There was a large contribution by NOAA with expertise and financial contribution. IOC contributed a great deal to the marine debris and pollution module providing support for local workshops, experts and finance. ORSTOM provided the vessel for the first Fish Trawl survey. IMO funded and executed 2 Workshops on Oil Spill Contingency Planning. IAEA provided the expertise for a training Workshop on analysis of chlorinated hydrocarbons and trace metals. UNEP was the main co-operating agency yet their contribution hardly materialised. Originally, they were expected to cooperate in the survey of land based pollution and effluent standards, Immediate Objective 4. This contribution was at the level of exchanging documents although they were defined in the Project Document as the lead agency in some of the activities.

- Management arrangements were adequate, although dispersed between the international agencies (especially funding procedure). The Project Co-ordinator had the overall technical and operational responsibilities, however, the RCC had limited funding authority which at times slowed down the pace of project implementation.

- In some countries, management sustainability was lacking at national level due to the continuous changes of personnel in charge of the project co-ordination and follow-up activities.

- Although co-operation among international organisations was foreseen as feasible and as necessary for the development and co-ordination of the project, the co-operation was less pronounced between UN agencies (UNDP and UNIDO) in some of the visited countries eg. Cameroon and Togo. Strong co-operation was observed in Ghana, Nigeria and Benin. However, Ghana could be taken as a template by itself of good and close co-operation. Other international organisations (either UN or other agencies) co-operated on bilateral or multilateral levels with the project. In most cases, the reporting system was maintained between the NFPA and UNDP/UNIDO offices, however this co-operation needs to be strengthened since UN agencies (national offices) in some cases functioned only as paymasters.

IV. PROJECT RESULTS (EVALUATION CRITERIA)

A. Relevance

The overall programme objective remains valid and relevant. The regional approach and the transboundary type of the project proved to be relevant. The following table summarized the Rating of the Project Relevance regarding its purpose, approach modality of execution and recipient institutions.

	High	Partial	Low
Purpose	A.		
Approach	B.		
Modality of execution		A.	
Recipient institution		B.	

B. Efficiency

A. Through the RCC the project was well managed and implemented considering the difficulties in communication throughout the region. The project communications infrastructure was put in place during the early development of the project. Each national project office was equipped with PC, printer, fax, copier and e-mail connection. The agreed administrative framework was also quickly put in place for the NFPAs, NFPIs, NPOs, NPDs and the NPAs in each country.

B. Certain of the countries were to hold this administrative set up, without change, for the period of the project which gave continuity and efficiency to the National and Regional Co-ordination. In other countries, unfortunately, changes in Government, Ministers, NPDs and NPAs, over the period of the project, caused many difficulties and, at times, breakdown in National Co-ordination.

C. The administrative set up in Ghana, with the Ministry of Environment, Science and Technology, as the NFPA supported by a National Steering Committee, made up of all interested parties, to advise the NFPA on the implementation of the Project, was a very effective arrangement which ensured cross sectoral co-ordination. The NSC comprised representatives from 11 Institutions including UNIDO and UNDP, which kept the funding and implementing agencies fully involved and aware of the progress of the Project.

D. The implementation and organisation of the training and capacity building Workshops by RCC was one of the major strengths and outputs of this Project.

E. The equipping of 5 NFPI's with Atomic Absorption Spectrophotometers for measurement of heavy metals was not effectively followed through by the RCC. The AAS in Cameroon was never commissioned. In Ghana, there were many problems with the instrument, although it has been used. There was a lack of on site initialisation of the equipment by the supplier/agent, which was not corrected by the National Co-ordinators.

C. Outputs

- There were 21 expected outputs from the 5 Immediate Objectives in the Project Document and 85 planned Activities. These Activities were extremely wide ranging covering many aspects of environmental concern for the UN Agencies in the Region. The majority of the project activities were achieved either fully or partially.

Some highlights in the outputs were:

- A varied list of documentation came from all 5 immediate objectives ranging from the GOG LME Newsletter (9 volumes) with a 2000 circulation, reports of Workshops and Activities, reports from National and International experts to Coastal profiles and Draft National ICAM plans were related to these Activities (see Annex 11).

- Regional networks of 30 NGOs were involved with the GOG LME and improved national, regional and international exchanges and collaboration was achieved An outline for a Regional Action Plan for coherent NGO activities was put forward.

- The GOG LME supported National GIS facilities to improve and set up electronic data exchange facilities. This has been effective in Cote d'Ivoire, Benin, Nigeria and Ghana but very little data generated under the GOG LME Activities has been entered into a regional database, because the national experts were appointed in late 1997, and the final project reports including most of the data were only completed in 1999.

- The GOG LME funded surveys of land-based sources of pollution with reports published from 5 countries and a report from an international consultant on urban waste management. Their link with the private company 'MAMSCO Management Ventures Ltd.' and inclusion of the company within the Project for the establishment of a Waste Stock Exchange Management System and the Workshops was extremely positive.

- Manuals for standardised methods for pollution monitoring and nutrient sampling and analysis were prepared.
- Living marine resources programme completed involving 2 regional trawl surveys with two reports on the surveys and five reports from national experts (Annex 11).

- Coastal profiles were produced for the six participating countries, followed by the development of national Guidelines for Integrated Coastal Areas Management (ICAM) and draft National ICAM Plans developed.

In general, the qualities of the outputs were high as measured by the project documentation, Country reports, Consultants reports and Independent monitors. Even the outputs that did not fully achieve their written objectives were generally observed by the participants to be successful. An example, only 2 of the 4 regional trawl surveys were completed but the results from these 2 surveys were above expectations providing valuable insights into the benthic fishery stocks in the Gulf of Guinea.

The timeliness of certain outputs were delayed especially the manual on the standardised methods for pollution monitoring which was only completed towards the end of the project. At least the foundations are now established for comparative sampling and analysis techniques throughout the region. The present status of laboratory and inter-calibration exercises in the region, as recorded during the mission, requires a sustainable inter-calibration scheme to be established. All participating laboratories in the programme agreed to a quarterly laboratory exercise and a twice a year inter-calibration exercise. These are planned for 1999-2000.

D. Immediate Objectives (Rating of Achievements)

Rating of achievements and success from the outputs identified for the five immediate objectives of the projects are listed below.

Immediate Objective 1. Strengthen regional institutional capacities to prevent and remedy pollution of the Gulf of Guinea LME and associated degradation of critical habitats

Output	C. Achievements	Level of achievement	Success
1. A network of scientific and monitoring institutions equipped for monitoring and assessment of the LME	A. A survey of equipment needs was made. B. Inventory of available resources (human and institutions) executed. C. Recommended equipment purchased for five countries, installed (except for Cameroon), and made functional (except for Cameroon), within the limitations of the project budgets.	**D. C** **C** **P**	**S** **S** **PS**
2. Scientific and technical personnel at **RCC at *CRO*** and **NFPI** trained to carry out the project monitoring and assessment programme	D. Establishment of RCC (under staffed, limited logistics and late recruitment). E. NFPI established in five countries (Togo joined late in 1997). National Project Director, Co-ordinator and Assistant appointed. Frequent changes in the structure of NFPA in some countries has negatively affected the efficient implementation of the project activities F. 41 region-wide workshops (17 originally foreseen) held and 416 individuals trained on a large range of relevant topics, among which scientists, managers, decision makers, NGOs and private sector representatives	**C** **C** **E. C**	**S** **PS** S
3. Personnel of government regulatory and management agencies trained in environmental assessment and management techniques related to pollution control and resource management	G. Beside on the job training, personnel of government regulatory and management agencies trained in fields corresponding to this out put (Annex 10)	C	**S**

***C** complete **P** partially **S** satisfactory **PS** partially- satisfactory **F** failure*

Output	F. Achievements	Level of achievement	Success
4. Enhanced capacity of NGOs to participate in environmental management and to generate public awareness	A. Network of 30 NGOs established and trained to conduct activities for public awareness campaigns, monitoring project execution and policies enhancement in all project countries.	**P**	**PS**
	B. Improved intra- and inter-country exchanges and collaboration achieved (Box 2).	**P**	**PS**

***C** complete* ***P** partially* ***S** satisfactory* ***PS** partially- satisfactory* ***F** failure*

The overall assessment of this objective demonstrates that the outputs and activities have been successfully achieved.

BOX 2. NGO'S

The sustainability of the long-term objectives of the project calls for a participatory approach involving not only powerful stakeholders but also grassroots populations. This requires that a bottom up approach be actively encouraged and that every attempt be made to clearly identify stakeholders for each of the policy areas to be included in the National ICAM plans. From the records available, it was clear that the NGO's have facilitated contact and interaction with local communities who are the ultimate beneficiaries of the several actions initiated by the project towards improved natural resources and environmental management art the grassroots level.

An active public awareness and outreach programme NGO's and CBO's and the mass media as reflected in the mountain of newspaper clippings, has been effective in spreading the message of the integrated approach implicit in the LME concept for environmental and living resources management and in involving local communities in dialogue, decision-making and site interventions. The aim is to generate a deep sense of ownership through community-based actions. The success of the Community-Centred Mangrove Reforestation Programme, and Polluter Watch Groups and the ICAM of the project tend to buttress this principle.

In June 1997, personnel from leading NGO's in the project countries were trained at a "Train the Trainers" workshop organized by CEDA, Benin (Annex 10) on behalf of the project, this was followed by in the countries training workshop. The NGO's were involved in the meetings of the Working Groups as well as in Screening Committee meetings both at the National and Regional levels.

The objectives were to deepen the NGO's insight into the goals and targets of the project and to encourage an expansion of the scope of their operations in and contacts with local communities. ESSOR from Cote D'Ivoire is considered as good demonstration model for the active participation of NGO's. The multiplier effects with respect to the sensitisation and involvement of the NGO's and CBO's are expected to be considerable.

A regional network of NGO's was established (Annex 12).

The achievements in these regards exceed the outputs defined in the project document In recognition of this success, The UN Train Sea Coast Programme based in New York has designated one NGO from the region, the Centre for Environment and Development (CEDA) in Benin as a course development centre to develop generic NGO training courses for developing countries.

Despite the very limited budget assigned to NGO participation (US$ 50 K) NGOs have been able to attract, on the basis of their improved knowledge and capacity under the project, substantial funds from other sources for furthering project objectives. It is noted that limited awareness materials were produced, these mainly are the GOG LME Newsletter (9 volumes), one Demo CD, media articles.

Immediate Objective 2: Develop an Integrated Information Management and Decision-Making Support System for Environmental Management

Output	Achievements	Level achieved	Success
1. Regional Environmental Information Management System, including a multi-purpose Geographic Information System (GIS)	A. Investigation of hardware and software equipment needs executed	**C**	**PS**
	B. Partial support for hardware and software provided. Identifying the requirements of regional system for information management	**P**	**PS**
	C. Training in the subject (Annex 10).	**C**	**PS**
	D. Basic information system being established (Box 3).	**P**	**PS**
2. A multi-purpose GIS data base assembled from all known national and international electronic sources and relevant scientific literature	E. Basic GIS data-base assembled, including more detailed pilot data-bases for demonstration of GIS possibilities	**P**	**PS**
3. Manager's version GIS data base for National Focal Point Agencies	F. Not achieved		**F**

***C** complete **P** partially **S** satisfactory **PS** partially- satisfactory **F** failure*

The overall assessment of the achievements of outputs and activities under this objective was partially successful (for detailed notes refer to Box 3),

Box 3. GOG-LME Integrated Information Management and Decision-Making Support System for Environmental Management

As one of the milestone defined project objective, the allocated budget was a mere pittance (US $ 50 K). This caused initial delays in finding the appropriate level of people/companies willing to be involved in such ambitious and large activity.

The Project Management was forced to reorganise this objective to get it off the ground. Rather than seeking a dedicated capability that is beyond the reach of the project, emphasis was put on tapping into and enhancing existing facilities and expertise at the countries level. Even the target of establishing a Regional Data and Information Management Centre at the Regional Co-ordination Centre at the CRO in Abidjan was abandoned in favour of upgrading, after seeking the agreement of the project's countries. An existing National Centre at Abidjan, the "Comite National de Teletedection et D' Information Geographique" serve as a Centre of Activity on a regional level.

A regional Network of national GIS experts was created and their capabilities enhanced through training and mutual assistance (Annex 10). Through the activities of the network, means of common architecture and standardised forms were discussed. Emphasis was placed on each country to collect existing dispersed data from various institutions and agencies, often with retroactive geo-reference to make them compatible for entry, into a GIS.

Ongoing activities also yielded current data and information. Seed fund was made available to some countries to enhance or develop their existing system. Thematic maps have been produced both at national and regional levels. In some countries internet connections have been set up for networking data and information exchange.

The target of establishing a full integrated information management and decisional making support system including an abstracted "Manager's Version" is yet to be realised, the achievements under this project hold promises for a more viable and dynamic future for the project countries in terms of managing there shared environmental resources.

The mission observed that relevant facilities were established or being established in some of the participating countries (e.g. in Nigeria at the NDES), and the Remote Sensing Application Unit at Ghana. Integration of the developed systems will strengthen the overall approach of establishing a regional decision-making support system.

It is recommended to establish the system in full as a priority regional action, besides it is required to harmonise co-ordination system and to develop a regional meta data-base.

Immediate Objective 3: Establish a comprehensive programme for monitoring and assessment of the health and productivity of the Gulf of Guinea Large Marine Ecosystem.

Output	Achievements	Level achieved	Success
1. Integrated monitoring programme design for the LME	• Integrated programme prepared and subdivided into activity groups. • Manual and standardised methods for pollution monitoring created (Annex 10) • Inter-calibration exercises executed	**C** **C** **P**	**S** **S** **PS**
2. Mangrove survey	• Survey executed and reported. • Mangrove distribution maps prepared • Demonstration rehabilitation pilot projects executed in five countries	**C** **C** **C**	**S** **S** **S**
3. Pollution monitoring programme in coastal lagoons	• Monitoring programme executed within the limitations of project budgets and existing national and regional (financial and human resources) capacities	**P**	**PS**
4. Pollution monitoring programme for nearshore waters and sediment	• Monitoring programme executed, although open ocean sampling was restricted to 2 regional trawl surveys due to unforeseen problems related to the availability of a research vessel	**P**	**PS**
5. Living marine resources survey programme	• Programme executed, although surveys were restricted to 2 regional trawl surveys due to unforeseen problems related to the availability of a research vessel	**P**	**PS**
6. Plankton survey programme	• Plankton survey executed within the limitations of project budget and existing national and regional (financial and human resources) capacities	**P**	**PS**
7. LME working meetings to develop ecosystem health indices	• Stock taking meetings executed through activity groups. • Country state of the marine environment reports for all project countries prepared. (Annex 10) • Regional "State of the Marine Environment" document compiled (Annex 10).	**C** **C** **C**	**S** **S** **S**

***C** complete **P** partially **S** satisfactory **PS** partially- satisfactory **F** failure*

Additionally:

- A comprehensive assessment of 'The state of the Mangroves in the Gulf of Guinea' is given by C.E. Isebor (Co-Chair Mangrove Study Group GOG LME Project) NIOMR PMB 1279 Lagos, July 1999 for the 6 coastal States all of which have established nurseries and pilot restoration sites (only 4 in early 1998). A strategy for sustainable management of the Mangrove Ecosystems is presented. Although these may be modest in size they are pilot studies and will take a further 7 years to mature. Many of the difficulties have been assessed in carrying out these studies and lessons learned. The involvement with NGOs and CBOs was excellent even Prof. Ibe (RCC) carrying out a publicity coup by having Mr Robert Mallet, Deputy Secretary of Commerce of USA plant the first mangrove seedling in Ebrie Lagoon mini project for the Control of Pollution in the Bay of Cocody, Abidjan. Restoration of the mangrove ecosystem will increase the productivity and provide stability for the coastal ecosystems, avoiding loss of land by erosion and its biological diversity.

- Living Marine Resources Programme. Only two of the four Trawl Surveys were completed due to problems and availability of vessels. The first trawl Survey was in the western Gulf of Guinea (29 July –13 August 1996) and the second carried out throughout the Gulf, in two legs, (25 February to 25 March 1999); only benthic trawling was completed. No oceanographic data were collected from this commercially hired vessel because of the lack of suitable equipment. Nevertheless, these Surveys represent a significant and historic event of collaboration between these 6 countries and extremely valuable results were obtained. All countries expressed a need to expand this activity in a Second Phase.

- Plankton Survey Programme. Three Training Workshops on Plankton Identification were implemented (29 April – 10 May 1996, 2 - 13 September 1996, 16 – 27 June 1997) with participants from Benin, Cameroon, Cote d'Ivoire, Ghana and Nigeria plus two out of region visits from Ghana to SAHFOS, UK. Despite this training all analysis of plankton samples has been carried out at SAHFOS (UK) under supervision. A total of 1370 plankton samples were collected using the Continuous Plankton Recorder (CPR) tows from 1996 to May 1999 between Cape Palmas and Douala. Only 88 samples have been analysed to date. Following a visit of Mrs E.R. Anang (Director of the Fisheries Research and Utilisation Branch Laboratory in Tema, Ghana), 15 –18 December 1998, future options were considered for setting up a Plankton Analysis Laboratory, to centralise activities, in Tema. This is considered by the evaluation team to be the only viable option if this technology is going to be sustained in the Gulf of Guinea Large Marine Ecosystem. Already further International funding is being sought to sustain and increase capacity for this unit in Tema. The instrumentation has yet to be transferred to the region although the 2 microscopes are on site, the latter one not arriving until mid 1999. This is a new and advanced technology to be brought to the Region and further in-depth training is required in a Second Phase for the successful implementation of this important survey technique. It is also noted that no sensors for primary productivity, oil and petroleum residues, to be used with this technology, were purchased. In the present level of training in the Region this is understandable.

Immediate Objective 4: Prevent and control land-based sources of industrial and urban pollution

Output	Achievements	Level achieved	Success
1. Inventory and assessment of industrial pollution	• Industrial pollution assessed in all project countries by national experts guided by an international and a regional expert	**P**	**PS**
2. Case studies for demonstration of industrial waste treatment and management	• Detailed feasibility study on the establishment of a Waste Stock Exchange Management System. • Demonstration projects on the use of mangroves as natural purifiers of urban and industrial effluents executed in two project countries (see Box 4)	**C** **C**	**S** **PS**
3. Feasibility study of urban sewage waste management	• Urban waste management options analysed by national, regional and international experts. • Economic evaluations cancelled due to budgetary restrictions	**C** -	**S** **F**
4. Development of a strategic plan outlining options for industrial and urban pollution control	• Recommended options and actions, including institutional set up, and options for pollution control and monitoring defined through studies by national, regional and international experts. • Regional stock taking workshops involving pollution control experts, representatives of regulatory agencies, NGOs and the private sector. • Regional effluent standards defined.	**G. C** **C** **P**	**S** **S** **PS**

***C** complete **P** partially **S** satisfactory **PS** partially- satisfactory **F** failure*

Additionally:

A. Regional Marine Debris Monitoring executed and marine debris stock taking workshops organised (in co-operation with IOC/UNESCO), with the participation of scientists, decision makers, NGOs and the private sector. Beach cleanup and awareness building campaigns executed in all project countries with the help of local NGOs. Regional policy recommendations formulated and a Protocol to the Abidjan Convention drafted.

B. Regional Oil Spill Contingency Planning Workshops executed in co-operation with IMO.

Box. 4. UNIDO "Environmentally Sound Industrial Development " and the GOG LME Project

UNIDO has considered CPT and the Pollution Control & Waste Management as contributing to environmentally sustainable industrial development by encouraging enterprises in the target countries (developing countries and countries with economies in transition) to adopt cleaner production technologies.

Sustainable industrial development requires three elements: a competitive economy, productive employment and a sound environment. This could be achieved by building awareness in the target countries regarding the benefits that enterprises (as well as society in general) will derive from adopting CPT, and by building the capabilities within industry, and industry's support institutions to implement CPT. Pollution Control and Waste Management will solve environmental problems in a cost-effective manners.

The GOG-LME Project Document recognized that pollution affects the waters of the Gulf of Guinea and the natural living resources, which depend on clean waters for their survival. Environmental degradation, including habitat destruction, loss of biological diversity and degenerating human health are among the major impacts. Industrial and urban pollution are the more prominent threats to the marine environment in the Gulf of Guinea and its urban coastal waters. At the same time that there is growing realisation of these dangers, and the scarcity of accurate information. There are hardly any credible examples of "***cleaner production*** " techniques existing in the region.

Amongst the project activities survey of LBS of pollution that affect the coastal and marine environment. The project was involved in providing options for management and control of industrial and urban wastes such as the innovative approach of **Waste Stock Management System** in Ghana. Mangroves are being used as 'purifiers' of urban waste sewage that presently run into in the Bay of Cocody, Abidjan. These are demonstration projects supported by the GOG LME. Preliminary proposals for effective urban waste and sewage control being addressed to the governments are a mix of conventional and innovative applications.

At the last review meeting on Marine Debris (Abidjan, 19-21 April 1999), analyses of results of **marine debris** (beach litter) monitoring (with IOC-UNESCO), have resulted in advice and recommendations comprising preventive and control actions to municipal and local authorities on solid waste management.

Recommendations were made for the establishment of an effective region-wide programme of control of marine pollution, and a Protocol in the subject is being prepared as an adoption to the Abidjan Convention. Common regional effluent standards and enforcement systems were identified.

The approach of **Cleaner Production and Pollution Control & Waste Management** will require further consideration and implementation on large scale for the region, since the developed activities were merely demonstration and should be supported to a full operational system.

Immediate Objective 5: Develop national and regional strategies and policies for the long-term management and protection of the Gulf of Guinea Large Marine Ecosystem

Output	Achievements	Level achieved	Success
1. National and regional guidelines for integrated coastal zone management planning	A. Guidelines defined.	**H. C**	**S**
	B. Coastal Profiles and draft National ICAM Plans developed	**C**	**S**
	C. National workshops, attendance 426 participants (Annex 10)	**C**	**S**
	D. Regional ICAM planning has not been developed		**F**
2. Financial support mechanisms for CRO, NFPIs, NFPAs and NGOs for long-term continuation of LME monitoring and environmental management activities	E. Study on financial mechanisms for long-term continuation of project activities completed	**I. P**	**PS**
	F. Consultations with countries concluded	**P**	**PS**
	G. Reports on funding requirements, financial mechanisms, and preliminary action plan prepared incomplete	**P**	**F**
3. Mechanisms for regional policy and strategy formulation and implementation	H. Mechanisms established	**J. C**	**S**
	I. Regional and national (cross-sectoral) Steering Committees created.	**C**	**S**
	J. Regional Declaration (the Accra Declaration) signed at Ministerial level meeting	**C**	**S**

***C** complete **P** partially **S** satisfactory **PS** partially- satisfactory **F** failure*

A project consultancy report entitled " Report on mechanisms for Financial Support" was prepared by Bergen Group in 1999, in which mechanisms for recurrent funding and financial support were identified. However, this report was not completed.

E. Development Objectives

The project development objective is to protect and restore the health of the Gulf of Guinea Large Marine Ecosystem and its natural resources.

The nature of this Development Objective requires a longer assessment period to make definitive judgements on improvements in environmental quality and the sustainability of living resources stocks and diversity.

F. Effectiveness

- It could be questioned whether or not general effectiveness could have been increased through another approach. The simple answer to the question is no. Considering the 5 Immediate Objectives, 21 Outputs and their Activities they encompass all the elements to effectively assess and manage the resources of the Gulf of Guinea Large Marine Ecosystem. The majority of these Outputs are not Gulf of Guinea specific but they are specific to the holistic Large Marine Ecosystem approach, and its drainage basins, which can be applied to any tropical or sub tropical developing region of the world (Project Document and GOG LME Final Progress Report, 1999).

- The attraction of this comprehensive approach is that it is all encompassing and provides an umbrella for many of the World Bank, GEF, UN Agency activities in coastal pollution and environmental degradation. This particular project was structured to provide strong linkages between scientific information and its use in resource management decisions and effective co-ordination of all coastal assessment and monitoring activities.

- Realising the limitations of the existing infrastructure and the available capacity in the region it is understandable that progress towards the ultimate objectives would be slow. The objectives of the project embody a much longer term strategy involving amelioration of Mangroves and Wetlands, Water Quality degradation, Fisheries, Biodiversity in lagoons, near shore and shelf regions, Environmental Issues and Legislation and Control. These objectives cannot be achieved, or finalised, in a four years project but the foundations can be laid to monitor, restore and enhance the Gulf of Guinea ecosystem to provide increased potential for economic opportunities.

- In many of the activities the published results and their recommendations are very good (Annex 11) in others further capacity building is required but overall they represent excellent value for the resources used under the project.

G. Capacity Building

- During the preparatory phase (1992) and the inception of the project (1995), the region's technical capacity was mostly in universities and research institutions, but not integrated into a comprehensive effort to address regional issues such as in the Gulf of Guinea integrated approach.

- The project has established regional and national networks of scientific institutions and non-governmental organisations, with scientists, policy makers and other participants, to undertake studies on ecosystem degradation, to assess living resources availability and biodiversity, and to measure socio-economic impacts of actions and non-actions. The

capacity of the networks has been enhanced through the supply of equipment and by a series of group training workshops aimed at standardising methodological approaches.

- The regional workshops were held on issues varying from pollution monitoring, ecosystem productivity studies, natural resources management and planning, development of institutional capacities (including administrative and legal structures), data and information management and exchange. Inter-calibration exercises (with IAEA) have been promoted as a further means of ensuring comparability of results from different participating laboratories and countries. On a national level, numerous workshops and training activities have been organised under the project, while individuals benefited from training, fellowships and study tours.

- One of the pressing issues in capacity building is the development of human resources. Attrition of trained personnel was common in some countries. Selection of trainees remains a national responsibility, however, selection criteria for training purpose and trainees would help countries evaluate the candidates and to make the best possible selection based on these criteria.

- The quality of training was quite satisfactory, since training issues were put forward according to the region needs, this increased the originally planned 17 workshops to 41 workshops mostly on a regional level.

- An outreach and capacity building oriented programme such as the GOG-LME Project should pay much attention to the distribution of information and lessons learnt through all channels accessible. The relevant national institutions, NGOs, the individual managers, policy makers and experts should therefore be involved, consulted and informed at all stages of project implementation. An intensive network of such partners becomes crucial, and should be maintained through both analogue (workshops, activity groups, meetings, distribution of publications, newsletters, etc.) and digital (communication and information distribution through the Internet) means. The funds allocated for maintaining such a network, for the printing of documentation and publications, etc. should therefore be substantial.

H. Impact (Positive Effects)

A. Although the positive effects of the project were foreseen in the original project document, additional positive effects were developed during the project implementation, particularly in areas of enhancement of national and sub-regional capabilities (Training) and areas of environmental management as Marine Debris and Waste Management. A significant impact was the establishment and enhancement of sub-regional co-operation and co-ordination, and development of cross-sectoral co-operation at national levels.

B. The assisted institutions under this project were environmentally designated institutions known as NFPI (see Annex 7), NGO's from the different countries (Annex 12), and private sector organisations. The project has established a network (national/sub regional) of the involved institutions. A positive impact was to bring along institutions and

scientists from the sub region to co-operate in achieving the activities outlined in the ambitious designed project and to resolve many of the problems of language barrier, national scientific development, infrastructure, logistics and institutional structure. Negative impacts were recognized in areas related to human resources management and mobilisation.

A. The staff linked to the assisted institutions, and contributed to the project have directly benefited from the project through their active participation on the project activities including training and workshops. The involvement of trained women experts in many of the project's activities was adequate in some countries.

- The direct end users are the government authorities and the affiliated institutions and NGO's. Among the concerned ministries of the countries are the Ministry of Environment, the Ministry of Agriculture and Fisheries, the Ministry of Industry/Trade or Transportation, the Ministry of Mining and/or Tourism, and the Ministry of Planning/Finance. It is anticipated that impact of the project on these Ministries will be significant, because the recommendations from the project need to be reflected in the laws and regulations of the concerned ministries.

A. Individual industrial enterprises to which concept of cleaner production, pollution control, waste management was introduced benefited from the approach. However, the impact of the project in this regard will not be fully perceived at this stage, since the approach was to link the project activities to the on-going national plans. For example, in Ghana, the project has directly contributed to impact assessment studies for industrial, waste management programmes.

B. The ultimate beneficiary of the project is the people dependent on the Gulf of Guinea Large Marine Ecosystem. The inhabitants as well the economic sectors in the region will benefit from the sustained productivity of its marine resources, sustainable industrial development, and rational and integrated coastal development

- The development objective of the project was to protect and restore the health of the GOG LME and its natural resources; the impact of the project will lead to significant effect on the planning of environmental management. The protection and restoration of the environment will be feasible in case of implementation of the identified action plans particularly for ICAM, management of Marine Debris and wastes.

A. The project has developed awareness of its outputs to the participating countries on its outputs.

B. The countries have expressed substantial commitment to support the project; this is reflected nationally through the initiation and support given to the NFPI's and NFPA's involved in this project. Over and above was the Accra Declaration in 1997 showing the strong political will and commitments of the participating countries on a ministerial level.

A. The project had a clear impact on the policy and strategies of the countries; this was reflected in the development of management oriented actions in most of the countries, such as the ICAM National Action Plans

B. Technical and managerial co-operation among the participating countries has improved, manifested in the several technical workshops and meetings, which has resulted in some common regional guidelines in the Steering Committee meetings addressing managerial issues.

C. Although co-operation among international organisations was foreseen as feasible and as necessary for the development and co-ordination of the project; the co-operation was less pronounced between UN agencies (UNDP and UNIDO) in some of the visited countries. Other international organisations (either UN or other agencies) co-operated on bilateral or multilateral levels with the project

D. Co-operation among sectors, including the non-government and private sectors needs further strengthening and enhancement.

I. Sustainability

- Sustainability of the project will largely depend on funding made available from funding agencies and/or donors, since the committed funds from the participating countries are not enough to sustain the project. However, it is necessary that participating countries maintain financial support for their national activities. A project consultancy report entitled " Report on mechanisms for Financial Support" was prepared by Bergen Group in 1999, in which mechanisms for recurrent funding and financial support were identified. However, this report was not completed.

- The countries participated in the project in its first phase were and are still strongly committed to the project sustainability. The mission had the opportunity to meet with several Ministers and decision-makers in the five visited countries, and received an official document answering the mission's enquiry on Togo (unable to be visited by the mission). During these visits and in Togo's answer, the governments of the six countries have strongly expressed their political will on seeing the project extended to its second phase based on the achievements of its first phase.

- On a regional level, the six participating countries representatives "the five Ministers responsible for the environment in Benin, Cameroon, Côte d'Ivoire, Ghana and Togo, and the Director General/Chief Executive of the Federal Environmental Protection Agency of Nigeria", gathered for the First Meeting of the Committee of Ministers in Accra (Ghana) in July 1998. Taking note of the commendable achievements of the project in fostering effective consultation, co-ordination and monitoring mechanisms, and in instituting joint actions in environmental and living resources management, the Ministerial Committee recognized the project as a valuable tool for regional co-operation.

- The Committee adopted the Accra Declaration (Annex 8) as an expression of common political will for the environmentally sustainable development of marine and coastal areas of the Gulf of Guinea, and furthermore called for the development of a Strategic Action Plan including a full Transboundary Diagnostic Analysis, leading to an expanded second phase to include all the 16 countries between Guinea Bissau in the north to

Angola in the south, which are influenced fully or partly by the Guinea Current. A letter signed from the Ministers (Annex 9) addressed to the UNDP called for the speedy approval of the submitted FDP Block B.

- The socio-economic factor was considered in the project with the development of ICAM national plans. The participatory process was effective and proved to be achievable. An example was seen in the Fishermen Community in Nigeria (Lagos) who participated in the formulation of local policy for the management of fishing industry based on the trawling results of the project and the awareness process.

- The logistics provided from the project to the NFPI's were made following the allocation for such activity. However, this has not been maximised since most of it went in large capital investment in five similar AAS with their accessories. Although the reason was to standardise and to facilitate maintenance, this proved not to be the best way, since most of the recipients expressed their hope of getting more appropriate and easily maintained equipment.

- The mission observed that dissemination of some of the latest submitted reports was not effective, this was because of the unavailability of funds to publish these project documents.

- The original project budget (Annex 13), the last budget revision (Annex 14) and the countries contributions (Annex 5) and other co-operating agencies contribution (Annex 4), outlines the process of the project funding. The funding made available to the project was merely seed funds to initiate identified activities, but was not enough to enable the implementation, as envisaged, or full functioning of some activities.

- A project consultancy report entitled " Report on mechanisms for Financial Support" was prepared by Bergen Group in 1999, in which mechanisms for recurrent funding and financial support were identified. However, this report was not completed.

J. Follow-up

- That the tremendous strides made during the project lifetime in starting establishing GIS based integrated data and information support system should be continued and supported to bring the overall targets defined under this immediate objective to realisation.

- The importance of regular marine resources trawl surveys for making national resources management decisions is far reaching for the food security and fisheries sustainability of the region. Therefore, availability of oceanographic vessels for these trawl surveys and other oceanographic surveys must not be left to chance. Contingency funds have to be set in any future development of the project for vessel hire in case of failure of providing vessels from the participating countries.

- Improvement of infrastructure and facilities (including non-expendable equipment and scientific consumables) in the participating countries should be made a distinct priority

- Despite of the excellent record and quality of publications during the project lifetime, many compiled benchmark volumes addressing many activities and results are still unpublished. It came to the mission's attention that the Implementing and Executing agencies were urged to publish and bring these materials to the wider scientific community. Substantial funds should be allocated to publish these outstanding materials, and to consider the experience gained during the project progress to overcome this problem.

- Although great efforts were expressed from the project in the production of a draft proposal on the Control of Marine Debris, which is in the process of being submitted to the Regional Co-ordinating Unit of the Abidjan Convention for further action.

- More demonstration activities are required in the fields of waste management (reduction), mangrove and critical habitat protection.

V. CONCLUSIONS

The Final-In-Depth Evaluators of the four-year Project "Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem" consider it to be a successful approach and implementation. It has upgraded physical facilities and human capacity throughout the region and established effective and sustainable lines of communications within the telecommunications limitations of the region. The networks of regional and national scientists, managers and NGOs are a lasting and sustainable product of the Project. This augurs well for continued exchange of experiences, and for sustaining joint decision making on resolving common problems begun during Phase 1. The decision/support systems at national and regional levels have created options for feasible management. These can only improve with time as the benefits of joint management of their marine environment and the shared living resources become more personnel. One of the main strengths of the project is the strong political will from all the Ministries involved to continue to support the GOG LME approach into a second phase.

A. Findings

- Progress was made during the project life time in establishing Geographic Information System (GIS) based integrated data and information support system, which should be extended and appropriately funded during a possible second phase to bring the overall targets defined under the first phase to fruition.

- The mission observed the lean structure of the RCC in Abidjan. It comprised a Regional Co-ordinator and an Associate Expert (who joined only one year before the end of project), a Personal Assistance and a driver; the efficiency of the centre appeared highly satisfactory. However, to quote from the Ministerial Resolution from their First Meeting in July 1998 (Accra) " adequate regional co-ordination structures should be put in place from the inception of phase 2 of the project, after consultations between the Ministers of Environments of the countries concerned". This resolution embodies the sense of ownership, which the countries feel about the project and should be considered.

- There is a requirement, in some countries, to improve and enhance National Co-ordination and National/Regional Co-ordination. The system used by Ghana, from the beginning of the Project, is suggested as an effective template. Here the Ministry of Environment, Science and Technology was the National Focal Point Agency for the Project with the NPO set up with the NPD assisted by the NPA to co-ordinate delivery of inputs from activities at the national level. The NFPA is supported by a National Steering Committee comprised of other relevant Ministries, NFPIs, Network of Environmental NGOs, UNIDO and UNDP Offices, Association of Industries and FAO. This guarantees awareness and involvement of the UN Agencies. The Steering Committee advises the NFPA on the implementation of the Project in the Country. The NFPIs then implemented the activities determined by the Regional Steering Committee of the project. This was the structure to be implemented in all countries but in Ghana it was most successful because of the continuity of the participants throughout the Project

B. Assessment

Performance

- Improvement of infrastructure and facilities (including non-expendable equipment and scientific consumables) in the participating countries should be made a distinct priority in the first six months of the implementation of a project to avoid unnecessary delays in starting field and laboratory studies. Many pieces of equipment arrived in the latter phase of the project, which restricted their value and use to the participants.

- Capital investment in expensive equipment proved to be not justified in the absence of some catalytic funds to maintain the equipment by providing necessary supplies. The assumption was that governments would fulfil these needs but that was not always the case. For example, the non-availability of gas in the case of the AAS UNICAM 969 installed at the "Food and Nutrition Research Centre in Yaounde, Cameroon, rendered this instrument useless, especially as no regional expert helped to commission the equipment.

  The project was successful in building up institutional capacity in the region (see Annex 10). Reasons for success include the enthusiasm and strong support of the various stakeholders, especially of the Governments themselves, which have demonstrated strong political will to foster a regional approach to finding solutions to their common problems. Secondly, 416 scientists, managers and supervisors from Government regulatory agencies, as well as numerous representatives of NGOs participated in 35 regional training activities.

Success

- Despite the excellent record and quality of publications during the project life time, many compiled benchmark volumes addressing many activities and results (for example, 'Coastal and Lagoon Pollution Monitoring Harmonised Sampling and Analytical

methods' I.L. Mbome et al. December 1997 detailing Good Laboratory Practice and a 'Manual on Nutrient Analysis and Water Quality Monitoring in the Gulf of Guinea' by S. C. Anurigwo, May, 1999) are still unpublished.

- It came to the mission attention that the Implementing and Executing agencies were urged to find extra budgetary financial resources if possible to publish and bring these materials to the wider scientific community. Funds should be allocated to publish these outstanding materials, and to consider the experience gained during the first phase of the project in order to overcome this problem in a possible second phase of the project.

VI. RECOMMENDATIONS

Preamble

According to the recommendation of the Second Project Steering Committee meeting (Cotonou, 11-12 March 1997) and the decision of the Interagency Meeting between UNDP-GEF and UNIDO (Vienna, 8-9 September 1997), a proposal will be developed for the preparation of a Strategic Action Plan (SAP), including a Transboundary Diagnostic Analysis (TDA), as a basis for a second phase of the project with expanded coverage to include countries within the natural limits of the Guinea Current LME. The PDF Block B proposal, after several revisions made since September 1997, is pending for approval. The main activity of the PDF Block B will be the Stocktaking Conference. The conference will agree on an intermediate phase project to develop and formulate the TDA and to start up priority demonstration projects in line with the spirit of the Accra Declaration.

Although, The Ministry of Environment of Cote D'Ivoire is supportive to a 2nd phase of the project, has made some reservations on the project first phase in general for being devoted to collect basic information and data, and for lacking implementation and concrete actions to resolve the immediate environmental issues facing the country and the region.

The following are the recommendations:

To UNDP-GEF

- To consider, quickly a second phase of the project**"** ***Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem (LME)***, based on the success achieved in the project on the strong political and community will and on the recommendation of the Second Project Steering Committee meeting (Cotonou, 11-12 March 1997) and the decision of the Interagency Meeting between UNDP-GEF and UNIDO (Vienna, 8-9 September 1997), to develop a proposal for the preparation of a Strategic Action Plan (SAP), including a Transboundary Diagnostic Analysis (TDA), as a basis for a second phase of the project with expanded coverage to include countries within the natural limits of the Guinea Current LME

- To proceed as quickly as possible to the PDF Block B proposal so that enthusiasm and capacity are not lost.

- Contingency funds have to be set in any future development of the project for vessel hire in case of failure of providing vessels from the participating countries

- Project design needs to be more focussed. With the 5 Immediate Objectives involving 85 Activities over 6 countries this was a very difficult project to manage. It is suggested that the Objectives of a Second Phase are more cohesive and the modules inter-related even if this means narrowing the field of objectives.

- The independent recommendations, which appeared in the national expert's individual reports should be assessed and adopted where appropriate. These recommendations could serve as a good platform for the development of the project second phase.

- It is recommended that development has to consider the outputs and recommendations of phase one as building blocks for phase 2, and to be in close and continuous consultations with the participating countries, in order to focus on common environmental and development aspects, to consider implementation of the already identified actions and to complete the ongoing activities.

It is recommended to develop sub-regional co-ordination units in case of increase of countries involved and geographic coverage of the project. These units will be sidelines to the RCC.

- To allocate adequate finances to consolidate and expand the regional and national networks of NGO's and CBO's. A significant role was played by these organisations during the lifetime of the project in mobilising widespread and enduring grassroots action. Given the nature of the long-term (development) objective of the project, this recommendation holds promise for the sustainability of the project activities and outputs. In this respect, a higher level of emphasis should be placed during any project continuity on socio-economic and community participation.

To UNIDO

- Based on the success of executing the project in its first phase, it is recommended that UNIDO will maintain its function as executing agency for any development of the project (2nd Phase).

- To continue to support the various actions taken under the project in the area of waste management, especially the development of the Waste Stock Exchange Management System and Cleaner Production Centres within the participating countries

- It is recommended, in the advent of involving 16 countries, those sub-regional co-ordination units for west, central and southern regions of the Gulf of Guinea LME are established. Following the recent decision to locate the UNIDO Regional Office in Cote d'Ivoire then it would be recommended that the RCC should be located within the UNIDO Regional Office.

To Governments of Participating Countries

- To establish an interim secretariat to follow up on the development of the implementation activities of the project, and to maintain the NFPA and NFPA structure and role.

- To strengthen the national and regional environmental management capacity using a GIS for compilation, analysis and communication of data within the natural limits of the Gulf of Guinea LME

- To establish national co-ordination bodies (cross-sectoral in nature) on Coastal Areas Management, with designated focal points, a process, which is essential for cost effective management of coastal zones and their resources.

- The six countries should play lead roles in the sub-regional co-ordination to convey their experiences of the first phase programme to the newly added countries. This is axiomatic but should be stated because problems encountered in the first phase could be handled easier in the expanded development of the project.

- All participating governments budgeted a contribution for national activities in phase 1, it is recommended that national activities in phase 2 be similarly supported.

VII. LESSONS LEARNED

- Understanding the limitations of the existing infrastructure and the available capacity in the region it is understandable that progress towards the ultimate objectives would be slow. The objectives of the project embody a much longer term strategy which cannot be achieved, or finalised, in four years project but the foundations can be laid to monitor, restore and enhance the Gulf of Guinea ecosystem to provide increased potential for economic opportunities.

- The project attempted to be all encompassing and had many disparate activities. This was its strength and yet its weakness. These problems were pointed out in the 1998 'Assessment of Integrated Coastal Management in Africa' (UNEP Priority Actions Programme), which stated 'how well the project achieved the aim of harmonising all its activities will become obvious when the project has its final evaluation.

- There were notable funding gaps in the project which allowed only token funding to be made in most of the project activities, particularly in GIS, pollution and living resources monitoring programme and the NGOs were all under funded. Problems related to the flow of funds are inherent in the UN system (there response time is far too slow). The problems, through lack of staff, in the Project Co-ordination Office, also meant that application for funding was delayed, which itself caused problems in funding certain Workshops (flow of funds did not match planning of activities). UNIDO was aware of some of these shortcomings and contributed by placing extra manpower from its own resources in the RCC.

- The enthusiasm with which policy makers, managers and experts have embraced the project, and thereby ensured its success, has meant that countries in general recognise the transboundary nature of some of the environmental and resource management problems that afflict them at the national level, and would readily embrace a common (regional) approach to their assessment and the formulation of their remedial actions.

- By involving the private sector in the project decision-making meetings and in the consultative processes, it has become evident that the private sector is anxious to be partners with Governments.

- Environmental and living resources management actions or interventions that are not community based are doomed to failure. They are more likely to succeed if the local communities around the sites of intervention are part of the consultative process and had a voice in the choice of actions, since this gives them a sense of ownership and by implication, engenders a sense of commitment to sustain the actions / interventions and obey the laws. NGOs by their very nature are steeped in such a participatory approach and therefore are more effective in reaching grassroots population (including settler communities and minors). They are therefore better placed to serve as vehicles for mass mobilisation and out-reach programs, with the help of Government structures where pertinent. Although NGOs participating in the project have proven to be able to attract additional funding for activities within the scope of the GOG-LME project, more adequate funds should have been reserved under the project to facilitate the important task assigned to them.

- The mission observed the lean structure of the RCC in Abidjan. It comprised a Regional Co-ordinator and an Associate Expert (who joined one and half years before the end of the project and was funded by UNIDO), a Personal Assistance and a driver The efficiency of the centre appeared highly satisfactory. However, to quote from the Ministerial Resolution from their First Meeting in July 1998 (Accra) " adequate regional co-ordination structures should be put in place from the inception of phase 2 of the project, after consultations between the Ministers of Environments of the countries concerned". This resolution embodies the sense of ownership, which the countries feel about the project and should be considered.

- Although co-operation among international organisations was foreseen as feasible and as necessary for the development and co-ordination of the project; the co-operation was less pronounced between UN agencies in some of the visited countries. However, in Ghana strong co-operation was noticed and could be taken as a template by itself of good and close co-operation. Other international organizations (either UN or other agencies) co-operated on bilateral or multilateral levels with the project. In most cases, a reporting system was maintained between NFPA and UNDP/UNIDO offices, however this co-operation needs to be strengthened.

- An outreach and capacity building oriented programme such as the GOG-LME Project should pay much attention to the distribution of information and lessons learnt through all channels accessible. The relevant national institutions, NGOs, the individual managers, policy makers and experts should therefore be involved, consulted and informed at all stages of project implementation. An intensive network of such partners becomes crucial, and should be maintained through workshops, activity groups,

meetings, distribution of publications, newsletters, etc. and communication and information distribution through the internet. The funds allocated for maintaining such a network, for the printing of documentation and publications, etc. should therefore be substantial.

- Decision Support Systems based on a Geographical Information System are extremely useful tool to policy makers. An important objective of the project has therefore been the development of a basic information and decision support system. Despite this ambitious aim, however, funds allocated for such a resource intensive task were highly inadequate, and if were not for the strong country support received, this objective would not have reached a respectable level.

LIST OF ACRONYMS

ACC	Administrative Coordinating Committee
ACOPS	Advisory Committee on the Protection of the Sea
CBO's	Community Based Organisation
CEDA	Centre for Environment and Development in Africa
CP	Cleaner Production
CRO	Centre de Recherches Oceanologiques
CSD	Commission for Sustainable Development
FAO	Food and Agriculture Organisation
GEF	Global Environment Facility
GOG	Gulf of Guinea
GPA	Global Programme of Action
GIS	Geographic Information System
ICAM	Integrated Coastal Area Management
IMO	International Maritime Organisation
IOC	Intergovernmental Oceanographic Commission
IUCN	World Conservation Union
LME	Large Marine Ecosystem
NDES	Niger Delta Environmental Survey
NFPA	National Focal Point Agencies
NFPI	National Focal Point Institutions
NGO's	Non Governmental Organisation
NOAA	National Oceanic and Atmospheric Organisation
NPA	National Project Assistant

NPD National Project Director

NPO National Project Office

PACSICOM Pan-African Conference on Sustainable Integrated Coastal Management

RCC Regional Co-ordination Centre

SAHFOS Sir Alister Hardy Foundation of Ocean Science

SAP Strategic Action Programme

TDA Transboundary Diagnostic Analysis

UNDP United Nations Development Programme

UNEP United Nations Environment Programme

UNESCO United Nations Educational, Scientific and Cultural Organisation

UNIDO United Nations Industrial Development Organisation