

CANARY CURRENT LARGE MARINE ECOSYSTEM (CCLME) PROJECT

PROJECT DOCUMENT

1. PROJECT IDENTIFIERS

PROJECT NUMBER: GEF/6030-04-10

REQUESTING COUNTRIES: **Sub-regional** (West Africa): Cape Verde, Guinea, Guinea-Bissau, Mauritania, Morocco, Senegal and The Gambia.

PROJECT TITLE: Protection of the Canary Current Large Marine Ecosystem

GEF AGENCIES: The Food and Agriculture Organization of the United Nations (FAO) and the United Nations Environment Program (UNEP).

PROJECT EXECUTING AGENCIES: FAO, Sub-Regional Fisheries Commission, Abidjan Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment; national executing agencies; Guinea: Centre National des Sciences; Guinea Bissau: Ministère de l’Energie et des Ressources Naturelles; The Gambia: Department of State for Fisheries and Water Resources; Senegal: Direction des Pêches Maritimes; Cap Verde: Ministério do Ambiente et Agricultura; Mauritania: Institut Mauritanien de Recherches Océanographiques et des Pêches; Morocco: Institut National de Ressources Halieutiques

GEF FOCAL AREA: International Waters

GEF STRATEGIC PROGRAM: GEF IW Strategic Objective 1 (To foster international, multi-state cooperation on priority transboundary water concerns through more comprehensive, ecosystem-based approaches to management) and GEF4 IW Strategic Program 1 - Restoring and sustaining coastal and marine fish stocks and associated biological diversity.

DURATION: 5 years.

ELIGIBILITY: The participating countries are eligible under paragraph 9(b) of the GEF Instrument.

PROJECT FINANCING PLAN

Cost to GEF:		US\$
	Project	8,090,000
	PDF-B	700,000
	Subtotal GEF	8,790,000
PDF Co-financing		
	National contributions	164,000
	Others	888,000
	Subtotal PDF-B Co-finance	1,052,000
Project Co-financing		
	National contributions	4,000,000
	Others	13,699,250
	Subtotal Co-finance (main project)	17,699,250
Total project cost		27,541,250

2. SUMMARY

The Canary Current Large Marine Ecosystem (CCLME) extends southwards from the Atlantic coast of Morocco to the Bijagos Archipelago of Guinea Bissau and westwards to the Canary Islands (Spain) and following the western extent of the North West African continental shelf (corresponding approximately with the EEZs of the coastal states). The countries within the recognized limits of the CCLME are Spain (Canary Islands), Morocco, Mauritania, Senegal, The Gambia and Guinea Bissau. Cape Verde and the waters of Guinea are considered adjacent areas within the zone of influence of the CCLME (see maps in Annex 8).

The Canary Current LME is one of the world's major boundary current systems with cold water upwelling, ranking 3rd in the world in terms of primary productivity after the Humboldt and Benguela LMEs and having the highest fisheries production of any African LME (annual production ranges from 2 to 3 million tonnes). The CCLME also provides important ecosystem goods and services including provision of habitat for fish and other coastal species, supply of fresh water from coastal rivers & estuaries, wood from mangroves and provision of coastal and marine space for agriculture, aquaculture, urban development, tourism and transport. The CCLME is a vital food and economic resource not only for coastal populations bordering the LME, but also for much of West Africa and beyond.

The capacity of the CCLME to sustain valuable ecosystem goods and services is threatened by over fishing (by both industrial and artisanal fishing fleets), habitat degradation (of benthic, coastal and estuarine habitats) pollution (from both land-based and sea-based sources) and climate change (slowing of the North Atlantic gyre and other atmosphere/ocean effects). Furthermore, the efficient capture and distribution of benefits from the goods and services of the CCLME is constrained by the lack of adequate plans and policies. Current approaches to the management of the natural assets of the CCLME are primarily national or sector-based and limited in scope. Without introducing an ecosystem-based, integrated approach to management, the health of the CCLME ecosystem will continue to decline with negative socio-economic consequences for the people of the region.

As part of the preparatory phase, the countries of the project and development partners have undertaken a series of national consultations and regional meetings leading to a Preliminary TDA that has identified and analyzed specific priority trans-boundary concerns and actions to address them. From the Preliminary TDA was derived a Strategic Action program 'pre-cursor' (Pre-SAP) which led to the project design itself. Project objectives and activities were further refined in the light of redefined GEF IW strategic objectives and programs for GEF4. Key program partners and their donors have been solicited to adopt the Preliminary TDA, SAP-precursor and project framework as a basis for directing their own future interventions. Interventions of the CCLME project and project partners will be coordinated within the framework of the CCLME project through a series of cooperation and co-financing arrangements, creating in effect a CCLME program.

The long term environmental objective of the CCLME program is to "reverse the degradation of the Canary Current Large Marine Ecosystem caused by over-fishing, habitat modification and changes in water quality by adoption of an ecosystem-based management approach". This is consistent with GEF IW's identification of depletion of coastal and marine fish stocks and associated biological diversity as a major global concern and is in accordance with IW Strategic Program 1 for GEF4 ("Restoring and sustaining coastal and marine fish stocks and associated biological diversity"). The project will assist countries in achieving WSSD targets relating to sustainable fisheries and progress towards Millennium Development Goals 1 (poverty reduction) and 7 (stabilized environment).

The CCLME project objective is to "enable the countries of the Canary Current Large Marine Ecosystem to address priority transboundary concerns on declining fisheries, associated biodiversity and water quality through governance reforms, investments and management programs". A Preliminary TDA has confirmed the focus of regional concern on depleted fisheries and on habitat, associated biodiversity and water quality critical to fisheries. The principal outcomes of the project will be: 1) Multi-country agreement on on priority transboundary issues; 2) Multi-country agreement

on governance reforms and investments to address priority transboundary issues; 3) a sustainable legal/institutional framework for the CCLME; 4) strengthened existing transboundary waters institutions; 5) Stakeholder involvement in transboundary waterbody priority setting and strategic planning; 6) functioning National Interministerial Committees; 7) multi-country policy proposals (as annexes to the SAP); 8) management instruments for maintaining fish stocks, associated biodiversity and water quality (as annexes to the SAP) and 9) demonstrations implemented and costs/benefits evaluated. Specific actions to address transboundary concerns prior to the SAP will include policy, legal, and institutional reforms, developing an LME-wide network of MPAs and demonstrations of shared stock management, selective trawling gear, MPAs for fisheries, mangrove restoration and use of threatened species as indicators of fisheries practices and other aspects of LME status.

The project is primarily a foundational / capacity building project focused on addressing depleted fisheries and centered on a combination of the TDA-SAP process and the Large Marine Ecosystem 5-module approach¹ which aims to foster cooperation between the project countries to adopt common trans-boundary policy and management objectives and instruments to address priority trans-boundary issues and monitor the status of the CCLME based on sound science. Reflecting GEF Replenishment Programming Paper (GEF/R.4/33), the project also includes a series of innovative demonstration actions to address initial trans-boundary priorities that will serve to encourage adoption of a SAP by the project countries before the end of the project while also providing 1) useful input to the TDA/SAP and LME assessment; 2) stress reduction² for certain components of the ecosystem and 3) model approaches for replication within and beyond the CCLME. The project includes targeted experience sharing with existing GEF IW projects through IW:LEARN, support to one SIDS (Cape Verde) and will pursue linkages with other coastal management and river basin management initiatives in the CCLME including other programs of the GEF.

The project will help countries to implement the WSSD Plan of Implementation, particularly as regards Part IV paragraphs 29-32 (implementing Ch. 17 of agenda 21, ecosystem approach, ICOM, regional cooperation, ICAM, sustainable fisheries, conservation of the oceans etc.); 34 (improved scientific understanding of marine and coastal ecosystems); 38 (integrated land management and water use); 42 (control of alien invasive species) and Part VIII paragraphs 56 (Africa Process for the marine & coastal environment) and 60 (integrated water resources development).

The total project cost, including PDF-B financing and co-finance, is an estimated US\$27,704,250. The total GEF contribution will be US\$8.79 million (including \$0.7 million towards the PDF-B phase). The in-kind contribution of participating countries is estimated to be US\$4.052 million. Total co-financing from other sources, including donors, FAO, UNEP and others is estimated at US\$17,716,250.

¹ The LME approach to the assessment, monitoring and management of large marine ecosystems is based on the five modules of 1) productivity 2) fish & fisheries; 3) pollution & ecosystem health; 4) socio-economics and 5) governance. See a fuller explanation in the main text.

² 'Stress reduction' here refers to the equivalent category of GEF IW indicators (which cover process, stress reduction & environmental status)

3. RECORD OF ENDORSEMENT ON BEHALF OF GOVERNMENTS

Country	Name	Position / institution	Date
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Guinea	Sékou <u>Camara</u>	Directeur du Fonds de Sauvegarde, Ministère de L'Environnement BP 761, Conakry, Guinea. Tel: 224 60211083 (Cell). E-mail: sekuba1@yahoo.fr . GEF Operational Focal Point.	11 June 2007
Guinea Bissau	João Raimundo <u>Lopes</u>	General Director of Environment, Ministry of Natural Resources, PO Box 399. Bissau, Guinea-Bissau. Tel: 011 245 256239. Mobile: +245 666 9072. Fax: 011 245 201 753. E-mail: jraylopes@yahoo.com . GEF Operational Focal Point.	12 June 2007
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Senegal	Fatima Dia <u>Touré</u>	Directrice de l'Environnement et des Etablissements Classés, Ministère de l'Environnement et de la Protection de la Nature. GEF Operational Focal Point. Tel: (221) 821-0725; Fax: (221) 822-6212 E-mail: fdtoure@sentoo.sn	11 June 2007
The Gambia	Momodou <u>Sarr</u>	Executive Director, National Environment Agency, Banjul, The Gambia. Tel: 220 4223860. Fax: 220 4229701. E-mail: msarr@gamtel.gm & nea@gamtel.gm Mobile:+220 9960732. GEF Operational Focal Point.	20 June 2007

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LIST OF ACRONYMS/ABBREVIATIONS

Acronym	Full Name
Abidjan Convention	Abidjan Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment
ACCC	Adaptation to Climate Change through ICZM in West Africa (GEF-UNDP-IOC-UNESCO)
AFD	Agence Française de Développement
AfDB	African Development Bank
AGC	Agence de Gestion et de Coopération entre le Sénégal et la Guinée Bissau
AGPAO	Appui à la Gestion de Pêche en Afrique de l'Ouest
ANEP	National Association of Fishing Operators (Guinea Bissau)
ATLAFCO	Ministerial Conference on Fisheries Cooperation among African States bordering the Atlantic Ocean (Dakar Conference, 1992) COMHAFAT in French
AtlantNIRO	Atlantic Research Institute of Marine Fisheries & Oceanography (Kaliningrad, Russia)
BCEAO	Banque Centrale des Etats de l'Afrique de l'Ouest
BCLME	Benguela Current Large Marine Ecosystem
BFS	Projet du Bas Fleuve du Sénégal (GEF-World Bank)
CBD	Convention on Biological Diversity
CBMP	Coastal & Biodiversity Management Project, Guinea Bissau (World Bank/GEF)
CECAF	FAO Fishery Committee for the Eastern Central Atlantic (cf. COPACE)
CEMARE	Centre for Marine Resource Economics, Portsmouth University, UK
CMS	Bonn Convention on Migratory Species
COMHAFAT	Conférence Ministérielle sur la Coopération Halieutique entre les états Africains riverains de l'océan Atlantique (Conférence de Dakar, 1992) - ATLAFCO in English (<i>supra</i>)
COPACE	Comité des Pêches pour l'Atlantique Centrale de l'Est (cf. CECAF)
COSMAR	Coastal and Marine Secretariat (NEPAD), Nairobi
CRODT	Centre de Recherche Océanographique de Thiaroye (Senegal)
CSRP	Commission Sous-Régionale des Pêches (SRFC in English)
DPM	Direction des Pêches Maritimes (Senegal)
DPN	Direction des Parcs Nationaux (Senegal)
DSPCM	Délégation pour la Surveillance des Pêches et de Contrôle en Mer (Mauritania)
EcoQO	Ecosystem Quality Objective
ECOST	Evaluation des Coûts Sociaux et Economiques des Activités de Pêche
EEZ	Exclusive Economic Zone
ExA	Executing Agency
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FFEM	Fonds Français pour l'Environnement Mondial ("French GEF")
FIAS	Fisheries Information and Analysis Systems
FIBA	Fondation Internationale du Banc d'Arguin
FIGIS	Fisheries Geographical Information Systems
FIMF	Fisheries Management & Conservation Service (FAO)
GCLME	Guinea Current LME
GEF	Global Environment Facility
GISP	Global Invasive Species Program
GIRMAC	Gestion Intégrée des Ressources Marines et Côtières (World Bank/GEF project in Senegal)
GWA	Global International Waters Assessment (UNEP)
Glo-Ballast II	Global Ballast Water project – Phase 2 (GEF-UNDP-IMO)
GOOS	Global Ocean Observation System
GOOS-Africa	Global Ocean Observation System - African Region
GPA	Global Programme of Action for Protection of the Marine Environment from Land-based Activities
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
IA	Implementing Agency
IAC	International Agricultural Centre, Wageningen, Holland
IBAP	Institute for Biodiversity & Protected Areas (Guinea Bissau)
ICAM	Integrated Coastal Area Management
ICARM	Integrated Coastal Area & River Basins Management
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICOM	Integrated Coastal & Ocean Management
ICZM	Integrated Coastal Zone Management
IDA	International Development Association
IEO	Instituto Español de Oceanografía, Las Palmas, Tenerife
IMO	International Maritime Organization
IMROP	Institut Mauritanien de Recherche Océanographique et des Pêches
INGO	International NGO
IPIMAR	Instituto de Investigação das Pescas e do Mar, Lisbon, Portugal
IOC-UNESCO	Intergovernmental Oceanographic Commission of UNESCO
IRD	Institut pour la Recherche et le Développement (France)
IRD-RAP	IRD Project: Réponses Adaptatives des Peuplements de Poissons
IRD-AMPHORE	Project : AMP et gestion Halieutique par Optimisation des Ressources et des Ecosystèmes
ISTAM	Improve Scientific and Technical Advice for Fisheries Management
IUCN	World Conservation Union
IUCN-SSC	IUCN Species Survival Commission
IW:LEARN	International Waters Learning Exchange and Resource Network
LAFG	Lost and Abandoned Fishing Gear
LBP	Land-based sources of pollution
LIFD	Low-Income Food-Deficient [country]

LIST OF ACRONYMS/ABBREVIATIONS

Acronym	Full Name
LME	Large Marine Ecosystem
MAVA	MAVA Foundation (PRCM donor)
M&E	Monitoring and Evaluation
MDG	Millenium Development Goals
MOLINA	Initiative de Modélisation du Littoral du Nord-Ouest de l'Afrique
MPEM	Ministère de la Pêche et de l'Economie Maritime (Mauritania)
MCS	Monitoring, Control & Surveillance
MLR	Marine Living Resources
MoU	Memorandum of Understanding
MPA	Marine Protected Areas
MSC	Marine Stewardship Council
NAP	National Action Plan
NAUTA	Initiative of Spanish Cooperation for sustainable development of African fisheries
NCU	National Coordination Unit
NEPAD	New Partnership for Africa's Development
NGO	Non Governmental Organization
NOAA	National Oceanographic and Atmospheric Administration
NPPF	National Project Focal Point
NTC	National Technical Coordinator
ODIN Africa	Oceanographic Data and Information Network for Africa
OECD	Organization for Economic Co-operation and Development
OMVG	Organization pour la Mise en Valeur du Fleuve de la Gambie
OMVS	Organisation pour la Mise en Valeur de Fleuve du Sénégal
OP	Operational Program
PAPCM	Projet d'Ajustement des Pêches Maritimes (Senegal / AfDB)
PCEAO	Pêche, Commerce et l'Environnement en Afrique de l'Ouest
PDF-B	Project Development Facility (Block B)
PBGZCGB	Coastal and Biodiversity Management Project (CBMP), Guinea Bissau
PRCM	Programme Régional de Conservation de la Zone Côtière et Marine en Afrique de l'Ouest
PSC	Project Steering Committee
PSRA	Plan Sous-Régional d'Action pour la conservation et la gestion des populations de requins
Ramsar	The Ramsar Convention on Wetlands, 1971
RED-AFRIMAR	Red de trabajo para la gestión sostenible de los recursos pesqueros de la ecoregión África des Oeste
RPA-LBA	Regional Programme of Action on Land Based Activities
RC	Regional Coordinator (FAO)
RCU	Regional Cordination Unit
SAP	Strategic Action Plan/Program
SIAP	Système d'Information pour l'Aménagement des Pêches (= FIAS supra)
SINAPS	Système d'Information National sur la Pêche
SINEPAD	Interim Secretariat for NEPAD (Dakar)
SPA	Strategic Plan of Action
SRFC	Sub-Regional Fisheries Commission (CSRP in French)
Strategic Partnership	Strategic Partnership for Sustainable Fisheries Fund for Sub-Saharan Africa (GEF/WB/FAO/WWF)
SSA	Sub-Saharan Africa
SSC	Scientific Sub-Committee
TDA	Trans-boundary Diagnostic Analysis
TF	Trust Fund
UBC	University of British Columbia
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
UNOPS	United Nations Operational Services Program
WACAF	West and Central Africa
WAMER	West African Marine Eco-region (WWF designation)
WB	World Bank
WWF	World Wide Fund for Nature
WSSD	World Summit on Sustainable Development

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PART I – BACKGROUND AND CONTEXT

Ecosystem context

1. The Canary Current Large Marine Ecosystem (CCLME) is defined as an ocean space (including afferent estuaries) extending southwards from the Atlantic coast of Morocco to the Bijagos Archipelago of Guinea Bissau and westwards to the Canary Islands (Spain) and the western extent of the North West African continental shelf (corresponding approximately with the EEZs of the coastal states). The countries within the recognized limits of the CCLME are Spain (Canary Islands), Morocco, Mauritania, Senegal, The Gambia and Guinea Bissau. The waters of Cape Verde and Guinea are considered adjacent areas within the zone of influence of the CCLME. The waters of Madeira (Portugal) and Sierra Leone might also be considered within the zone of influence of the CCLME but are not included in the present project. The CCLME lies within FAO Fisheries Area 34.

2. The CCLME comprises a diverse assemblage of marine and coastal ecosystems and three distinct zones – 1) a northern, sub-tropical, upwelling zone centred off northern Mauritania with minimal river inputs; 2) a southern, tropical, estuarine zone, centred off Guinea Bissau and extending from Senegal to Guinea, dominated by estuaries and mangroves and 3) a western, sub-tropical to tropical, oceanic zone (including the Canaries and the adjacent waters of Cape Verde).

3. The CCLME is one of the world's major cold water upwelling boundary current LMEs, ranking 3rd in the world in terms of primary productivity after the Humboldt and Benguela currents and having the highest fisheries production of any African LME (annual production ranges from 2 to 3 million tonnes). Aquatic productivity in the CCLME is driven by the combined influences of the wind-driven upwelling system centered between Morocco and Mauritania and the substantial seasonal inputs of nutrients from rivers draining into the southern part of the CCLME (rivers of Senegal, Gambia, Corubal and Kogon). Nutrient enriched waters are entrained by the Canary Current southwards from Morocco to Guinea (extending as far as Sierra Leone in February-March) and westwards towards the Cape Verde islands.

4. A large part of the fishery resources of the CCLME undertake trans-boundary migrations: the smaller pelagic fishes (typically sardines, sardinellas, mackerels and horse-mackerels) remain relatively close to shore but migrate between EEZs. Certain larger, near-shore coastal pelagic species (mullet, meagre, bluefish) make seasonal north-south migrations.³ The tunas (predominantly yellowfin, skipjack and bigeye) make long-distance movements both in and out of this LME and the EEZs of the six countries. Although less mobile, demersal species undertake seasonal movements and populations often straddle the EEZs. Many fish species depend on estuarine habitats for part of their life cycles.

5. The CCLME coastal zone also provides important goods and services to coastal states including provision of critical fish habitat, wood from mangroves and provision of coastal and marine space for agriculture, aquaculture, urban development, tourism and transport. The CCLME is a vital food and economic resource not only for coastal populations bordering the LME, but also for much of Western Africa. Sustainable stewardship of the CCLME is essential for achievement of Millennium Development Goals in Africa.

Socio-economic context

6. Socio-economic conditions in countries bordering the CCLME and adjacent areas range from highly developed, high income, countries (Spain (Canaries), Portugal (Madeira)), through middle income (Morocco) to transitional (Cape Verde) and low-income, food-deficient, countries (Senegal, Guinea Bissau, Guinea), the two Guineas ranking among the poorest countries in the world according to published Human Development Indicators.

³ The migratory coastal species form the subject of a specific trans-boundary management project of IUCN

7. The fisheries in the Canary Current LME are of major economic and social importance in that they provide sustainable livelihoods, fish-protein supplies and revenue for the coastal populations and states of the region. In Morocco, Mauritania and Senegal, for example, marine fish accounts respectively for 25%, 30% and 80% of protein consumption by coastal populations. In the SRFC countries alone (Cape Verde, Gambia, Guinea, Guinea Bissau, Mauritania & Senegal) fisheries support an estimated one million jobs, including about 100,000 artisanal fishermen operating 20,000 pirogues and 1,000 industrial vessels. Coastal artisanal fishermen make substantial migrations within the region, and fish and fish products are traded extensively across national borders. Annual landings from the CCLME in 2003 included around 1.6 million tonnes of pelagic fishes (excluding tuna); 80,000 t of tuna; 260,000 t of demersal fishes together with 130,000 t of other marine fishes, plus 80,000 t of cephalopods; 8,000 t of non-cephalopod molluscs and 17,000 t of crustaceans (mainly shallow water penaeid and deep water rose shrimps), representing a total landed value of about US\$ 2 billion⁴ or around 10% of the combined GDP of the SRFC countries).

8. Apart from fisheries, marine, coastal and estuarine zones are highly important for other economic sectors including energy (hydroelectric dams, onshore and offshore petroleum exploitation), agriculture (irrigated flood plains), human settlement and urbanization, transport (both land and sea), industry, trade and tourism. Coastal and estuarine ecosystems provide vital goods and services including supply of fresh water (ground water, river water), construction materials (wood from mangroves & coastal forests, beach sand), provision of space for human settlement and urban growth and coastal defense (mangroves, beaches, dune systems). The countries of the CCLME, particularly the islands (Canaries, Madeira, Cape Verde) and Senegal & The Gambia, depend increasingly on the quality of their marine and coastal environments for coastal tourism and recreation.

Trans-boundary concerns

9. The countries of the region, with the support of the GEF (PDF-B funds), UNEP, FAO, SRFC, NOAA and others, have undertaken a Preliminary Trans-boundary Diagnostic Analysis (TDA) in order to identify, analyze, prioritize and propose solutions to address priority environmental concerns relating to trans-boundary issues affecting the environmental goods & services of CCLME (Annex 6). In addition to a broader, participatory regional level process, each country undertook its own participatory national process including a national stakeholder consultation.

10. According to the results of the Preliminary TDA workshop, held from 18-20 July 2006 and adopted unanimously by country representatives at the final sub-regional consultation on 5 September 2006, the principal trans-boundary concerns⁵ of the CCLME countries relate to 1) declining marine living resources; 2) degradation of habitat and 3) declining water quality, further broken down into a total of 15 specific trans-boundary problems (6 in fisheries, 3 in habitats and 6 in water quality). General and specific priority issues are presented in Table 1.

Table 1 – Priority trans-boundary issues for the CCLME identified by the Preliminary TDA

Declining marine living resources	Habitat degradation	Declining water quality
<ul style="list-style-type: none"> ▪ Decline and/or vulnerability of small pelagic resources ▪ Decline of demersal resources (finfish, cephalopods & crustaceans) ▪ Decline of, and threats to, vulnerable sharks & rays ▪ Decline of marine turtles ▪ Decline of marine mammals ▪ Uncertain status & impacts of tuna fisheries 	<ul style="list-style-type: none"> ▪ Disappearance and destruction of mangroves ▪ Degradation and modification of seabed and seamounts ▪ Degradation and modification of wetlands (<i>sensu</i> Ramsar : coastal zones, coral reefs, estuaries) 	<ul style="list-style-type: none"> ▪ Salinity changes in estuarine and terrestrial coastal environment ▪ Oil pollution ▪ Eutrophication of coastal waters due to nutrient inputs ▪ Alien invasive species ▪ Sediment mobilisation ▪ Toxicity from pesticides

⁴ Within the FAO-CECAF Major Fishing Area 34, Divisions 1.1, 1.2, 1.3, 1.9, 2.0, 3.1, 3.2, and 4.2.

⁵ A trans-boundary concern is identified as one that cannot be addressed by countries acting alone

11. Background to fisheries issues – In addition to the regional and national stakeholder consultations and reports from various specialized (expert) working groups, the Preliminary TDA benefited from a comprehensive report on trans-boundary fisheries issues for the CCLME⁶. Fisheries of the northern zone of the CCLME have undergone several decades of intensive fishing activity, and most are classified as either fully or overexploited. Recent assessments of the FAO Working Group⁷ on the assessment of small pelagic fish off North West Africa concluded that 5 of the 10 stocks studied were found to be either fully or over-exploited. Sardine (*Sardina pilchardus*) stocks (the most important for the region) have been subject to large, unpredictable, fluctuations, indicating vulnerability. While not intensively exploited in the southern area of its distribution, the Central sardine stock was found to be overexploited. Round sardine (*Sardinella aurita*), with catches of around 300,000 tonnes in 2006, has been showing an overall downward trend in biomass since 1999, although with a slight increase in 2006⁸. More than half of the demersal stocks studied, targeted both by artisanal and industrial fishing, are overexploited^{9, 10}. Substantial reductions in biomass have been reported for some of the main species (e.g. Laurans, 2005). Recent calls have been made for efforts to restore the CCLME's declining demersal fisheries¹¹. Declines in landings are particularly acute for demersal resources¹², yet these are the most critical to artisanal fishing communities and therefore to poverty reduction¹³. Shark and ray resources, supplying international demand for fins and regional demand for food, are subject to intensive over-exploitation throughout most of the region by artisanal fisheries and are an important part of the by-catch of long line tuna fisheries. Out of 33 species assessed by regional members of the IUCN-SSC Sharks Specialists group, 15 were reclassified as either critically endangered (8 species), vulnerable (4) or near threatened (3)¹⁴. Non-fish yields, especially those for octopus, have shown marked declines since the early 1990s^{15, 16}. Lobster fisheries in both Cape Verde and Mauritania are in decline. Discards (estimated at 250,000-350,000 tonnes) have been cited as a further problem, particularly associated with cephalopod and shrimp trawl fisheries^{17, 18}. Shrimp fisheries in the southern part of the zone are showing signs of over-exploitation.¹⁹

⁶ Resources, fisheries & trans-boundary problems in the Canary Current Large Marine Ecosystem. By Merete Tandstad, Birane Samb, Asberr Mendy, Ana Maria Caramelo, Mika Diop & Andrew Cooke. July, 2006. 92 pages.

⁷ Report of the 7th Meeting of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa, Agadir, Morocco, 17-26 April 2007. FAO Fisheries report (in preparation).

⁸ Report of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa. Nouadhibou, Mauritania 25 April-5 May 2005. FAO Fisheries report No 782 (in press)

⁹ FAO Fishery Committee for the Eastern Central Atlantic. 2006. Report of the FAO/CECAF Working Group on the Assessment of Demersal Resources-Subgroup North. Saly, Senegal, 14-23 September 2004. CECAF/ECAF Serie No. 06/68. Rome, Fao. 2006. 219p.

¹⁰ FAO/Fishery Committee for the Eastern Central Atlantic/Comité des pêches pour l'Atlantique Centre-Est. Report of the fourth session of the Scientific Sub-Committee. Accra, Ghana, 24–26 October, 2005. Rapport de la quatrième session du Sous-Comité scientifique. Accra, Ghana, 24–26 octobre 2005. FAO Fisheries Report/FAO Rapport sur les pêches. No. 800 Accra, FAO. 2005. 52p.

¹¹ European Commission, 2005. Rebuilding our marine ecosystems, protecting our future. Key findings of the International Symposium on Marine Fisheries, Ecosystems and Societies in West Africa – Half a Century of Change. Dakar, Senegal, 24-28 June 2002. 21 pages.

¹² See for example the PhD thesis of Laurans, M., which finds 8 demersal species in steep decline (Laurans, M., 2005. Ressources et exploitations “démersales” en Afrique de l'Ouest : Evaluation des stocks, dynamique des populations et approche écosystémique. UPR Mesh d'Agrocampus Rennes. January 2005. 303 pp + annexe 13.

¹³ Failler, P & Samb, B, 2005. Present and future economic and nutritional consequences of the exploitation of small pelagics (sardinellas) in West Africa. Positioning paper (draft version for comments). Prepared for the Sustainable Fisheries Livelihoods Programme, DfID/FAO. CEMARE, Portsmouth, UK. April 2005.

¹⁴ IUCN-SSC Sharks Specialists Group West Africa Red List Assessment Workshop, Dakar, June 12-16. 2006

¹⁵ Review of the state of world marine fishery resources (2005) FAO Fisheries Technical Paper No. 457.

¹⁶ Report of the 17th Session of the Fishery Management Committee for the Eastern Central Atlantic (Dakar, Senegal 24-27 May 2004. FAO Fisheries Report No. 754. 57p.

¹⁷ Balguerias, E. (1997). Discards in Fisheries Form the Eastern Central Atlantic. In Technical Consultation on Reduction of Wastage in Fisheries, Tokyo, Japan, FAO Fisheries Report N° 547 Supplement.

¹⁸ Kelleher, K.. Discards in the world's marine fisheries. An update. FAO Fisheries Technical Paper No. 470, Rome. FAO, 2005. 131 p.

¹⁹ See reference 5 above

12. According to the Preliminary TDA, the generic underlying causes of declining marine living resources were identified as:

- over-capacity of fishing fleets (both industrial and artisanal);
- ecosystem complexity & variability;
- weak management & MCS;
- lack of scientific and technical capacity for management and
- poor stakeholder participation.

IUUs are considered a significant problem, particularly for the southern states (Senegal, The Gambia, Guinea-Bissau, Guinea) and Cape Verde. Fisheries conflicts are increasing between artisanal and industrial fleets and between neighboring states. The artisanal fleet of Senegal, which has fished outside the country's borders for many years, has undergone rapid, uncontrolled expansion and is seeking opportunities for extension into offshore industrial fishing grounds and waters of neighboring states. Fisheries conflicts are especially acute in Senegal, where they have led to several deaths and many injuries. The massive expansion of attempted illegal immigration to the Canary Islands from Senegal has been linked to the crisis in the artisanal fishing sector, when carrying illegal immigrants, despite the high risks involved, offers greater returns than using vessels for fishing.²⁰

13. Background to habitat degradation & threatened species concerns – the principal forms of habitat degradation having trans-boundary consequences relate to disappearance or degradation of estuarine and wetland habitats (particularly mangroves) and damage to benthic habitat due to trawling. Damage to sea mounts due to trawling was also identified as an emerging concern. The direct causes of mangrove loss are over-harvesting of wood, salinity changes (mainly due to river dams) and sedimentation from soil erosion from river basins, while underlying causes include dam construction, urban encroachment and the absence of national and regional policies for conservation of mangroves. Damage to benthic habitats is primarily due to trawling and sedimentation, for which underlying causes include inadequately regulated fishing and an absence of information or policy in relation to critical habitats and upland erosion due to unsustainable agricultural practices. The degradation of wetlands is mainly due to hydro-electric and irrigation schemes upstream of rivers flowing into the coastal zone and, again, the absence of any systematic policy for conservation of these critical habitats. Habitats are also affected by changing water quality (see below).

14. Threats to biodiversity and endangered species are a further concern for the countries of the CCLME. Cetaceans are threatened by reduced abundance of prey, by direct interactions with fisheries and by petroleum exploration²¹. Sea turtle nesting rates have significantly declined, presumably due to the indirect impacts of fishing, loss of suitable nesting sites, beach sand mining and human hunting in the southern countries. Sharks have undergone a substantial decrease in abundance and sawfish (Pristidae), the symbol of the Central Bank for West Africa (BCEAO), appears virtually extinct. The endangered manatee survives in small populations in the estuaries of Casamance, Senegal and areas of Guinea Bissau but appears to be extinct in the Senegal river delta, due to loss of habitat.

15. Background to changes in water quality – the principal forms of water quality change are salinity changes upstream as well as downstream of river mouths, oil pollution (which presents an increasing threat in the CCLME), localized eutrophication of coastal waters associated with population centers, alien invasive species, changes in sediment transport and toxicity from pesticides. The Djama dam was constructed on the lower Senegal river to prevent saltwater penetration into irrigated areas and has resulted in salinization and habitat loss in the lower section of the river and the movement of euryhaline species, thus affecting ecosystem processes. The Gambia, Casamance and Corubal rivers are among the CCLME's only remaining naturally functional estuaries which are important to maintain. Pollution from land-based sources (LBP) is particularly severe in coastal hotspots such as

²⁰ http://www.irinnews.org/report.asp?ReportID=55215&SelectRegion=West_Africa

²¹ One of the identified impacts of foraging, confirmed by an event in Mauritania, is that seismic surveys cause large scale mortality of cetaceans through ear damage (P. Tous, pers. comm.).

Hann Bay, Dakar, where coastal waters are polluted and anoxic, causing losses in fishery resources and marine biodiversity, human health risks and loss of amenity value, although its trans-boundary impact is not yet known. While only very limited data exist for the CCLME, global modeling studies of nitrogen and other river-born inputs to LMEs predict that total inputs of dissolved organic carbon, nitrogen and phosphorous are extremely low in the arid countries of the CCLME (Morocco, Mauritania, Cape Verde) and higher in the wetter countries (Senegal, Gambia, Guinea Bissau, Guinea). The current anthropogenic contribution to N and P inputs ranges from 50-100% in the north to 0-10% in the south while natural sources of dissolved organic C, N & P still probably account for 90-100% of inputs overall.^{22,23}

16. The risk of oil pollution is a particular emerging concern, especially for countries with sensitive coastal habitats and which are dependent on tourism. Offshore drilling has recently begun in Mauritania and was the subject of an environmental impact assessment²⁴ and other studies²⁵. A foraging program was recently announced by the Senegal government and future exploration may identify potential oil fields in the EEZs of Guinea Bissau and Guinea. A potential risk of oil extraction is that accidental discharges would be carried by the Canary Current to the sensitive downstream coastal ecosystems of Guinea Bissau and Guinea, or westwards to Cape Verde. A recent observation of Mauritanian fish traps washed up on the beaches of Cape Verde confirms this risk (P. Campredon, pers. comm.).

17. Socio-economic consequences of the issues - The socio-economic consequences flowing from the above concerns are various and ramified, but include increased poverty (reduced incomes amongst artisanal fishermen & fish workers), reduced food security, reduced government revenues from industrial fisheries, increased conflict within the fisheries sector, loss of tourism and recreational amenities and significant human health problems associated with contaminated seafood and pollution. The underlying causes are equally diverse - the 1st CCLME Regional Stakeholders' Workshop identified unregulated external market forces, lack of cooperation between states and limited access to relevant information by policy and decision-makers as key areas for attention.

Past and present initiatives

18. Various initiatives in the West African region (Annex 8) have sought or are seeking to address some of the trans-boundary concerns identified, although they have primarily been sector-based, national in focus or research orientated. Relevant initiatives include international or regional conventions, institutional frameworks, research networks, programs and projects. While these initiatives are unlikely to lead to regional cooperation to address these issues using an ecosystem-based approach, they constitute valuable foundation upon which to build the GEF alternative.

Fisheries initiatives

19. In the fisheries sector, one of the longest standing regional efforts is the Fishery Committee for the Eastern Central Atlantic (CECAF), established by FAO in 1967 to (a) facilitate the coordination of research and to encourage education and training and (b) to assist its members in an advisory management capacity in establishing rational policies to promote the rational management of resources. CECAF covers the Atlantic coast of Africa from Morocco in the North to Angola in the South and all CCLME countries are members of CECAF. Also longstanding (est. 1969) is the

²² Harrison, J.A., N. Caraco & S. P. Seitzinger, 2005. Global patterns and sources of dissolved organic matter export to the coastal zone: Results from a spatially explicit global model. *Global Biogeochemical Cycles*, Vol 19, GB4SO4, doi:10.1029/2005GB002480, 2005.

²³ Dumont, E., J. A. Harrison, C. Kroeze, E. J. Bakker & S. P. Seitzinger, 2005. Global distribution and sources of dissolved inorganic nitrogen export to the coastal zone: Results from a spatially explicit global model. *Global Biogeochemical Cycles*, Vol 19, GB4SO2, doi:10.1029/2005GB002488, 2005.

²⁴ Chinguetti Development Project – Environmental Impact Statement (EIS), Final. January 2005. Woodside Petroleum

²⁵ Kloff, S & C Wicks, undated. *Gestion environnementale de l'exploitation de pétrole offshore et du transport maritime pétrolier*. PRCM, Mauritania. 81 pp.; Semelin, J, undated. *Synthèse bibliographique à propos des impacts écologiques et des aspects réglementaires de l'exploitation pétrolière en mer*. PRCM, Mauritania. 65 pp.

International Convention for the Conservation of Atlantic Tunas and its Commission (ICCAT) that promotes cooperation in maintaining tuna and associated species at MSY levels. ICCAT covers the Atlantic Ocean and adjacent seas. CCLME country members include Cape Verde, Guinea, Morocco and Senegal.

20. Also significant for the fisheries sector has been the establishment in 1985 of the Sub-Regional Fisheries Commission (SRFC), grouping Cape Verde, Guinea, Guinea Bissau, Mauritania, Senegal, The Gambia and (since 2004) Sierra Leone. The goal of the SRFC is to ensure sustainable use of marine living resources in SRFC countries through three specific objectives: 1) coordinated policies and access regulations; 2) collaboration in management of common interest fisheries and 3) conservation and protection of marine living resources and marine and coastal ecosystems. Significant projects within the SRFC program in recent years have included AFR/013/LUX, a project funded by Luxemburg to support the development of a regional MCS network (with technical assistance from FAO via project GCP/INT/722/LUX). For the purposes of the present project, SRFC will serve as FAO's principal counterpart agency and will provide the location for the project regional coordination unit (RCU).

21. Many of the countries of Western Africa, including all the states of the SRFC and Morocco, are linked through the 1991 Regional Convention on Fisheries Cooperation among African States Bordering the Atlantic Ocean (ATLAFCO, or COMHAFAT in French). An initiative of Morocco, this agreement aims primarily to promote cooperation and solidarity among West African states in the development and management of fisheries. ATLAFCO is the only international convention that links all CCLME states and thus provides part of the foundation of the present project.

22. As regards projects in the fisheries sector, one regional project of particular relevance is the project entitled 'International Cooperation with the *Nansen* Programme: Fisheries Management and Marine Environment' of FAO (funded by Norway) which has been working towards the introduction of a mechanism for improved regional cooperation in the development, research, and management of the small-pelagic fisheries in the North-west Africa region. The project "Strengthening the Knowledge Base for and Implementing an Ecosystem Approach to Marine Fisheries in Developing Countries" also funded by Norway aims to provide the fisheries research institutions and management administrations in the participating countries with additional knowledge on their ecosystems for their use in planning and monitoring, and to further the acceptance of the key principles of the EAF. The Swedish funded project 'Assistance in the Management and Development of the Fisheries of the Eastern Central Atlantic Area – CECAF' (GCP/RAF/397/SWE) aims to build capacity of staff of the fisheries research institutions in participating countries to enable them to carry out improved assessment and monitoring of the status of pelagic and demersal resources at national, sub-regional and regional levels and to analyze fisheries management and exploitation options aimed at ensuring optimal and sustainable use of such resources in both off-shore and coastal fisheries. The CCLME Project will cooperate closely with all of the projects at various stages of its implementation.

23. With respect to recent but now finalized projects, one project of relevance has been the FIAS Project (Fisheries Information & Analysis Systems Project), funded by the European Union (1999-2003) and also benefiting from technical assistance from FAO. FIAS focused primarily on promoting cooperation between fisheries research institutions in West African (Guinea, Guinea Bissau, The Gambia, Senegal, Mauritania, Cape Verde) and European countries (Spain, Portugal, France & Italy). (The key outputs of FIAS were the compilation of historical fisheries catch data from different countries in to regional databases (Statbase, Trawlbase, STO), status assessments for various demersal species, training in applications of GIS for fisheries and a final symposium). However, while linked to SRFC, FIAS did not engage fisheries management authorities of the region.

Habitat related initiatives

24. In relation to pollution and ecosystem health, a number of the states of West and Central Africa (WACAF) are linked through the Abidjan Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment. Of the CCLME countries, the convention has

been ratified by Senegal and Guinea and signed (but not yet been ratified) by Cape Verde, Guinea Bissau and Mauritania. Morocco is currently excluded but has ratified the Regional Seas Convention for the Mediterranean. The convention does not extend to Spain or Portugal. The Convention has an Emergency Protocol for dealing with disasters such as oil spills, which is to be revised, and is developing a new protocol on land-based sources of pollution and land-based activities. Most of the CCLME countries have ratified or indicated an intention to ratify the Abidjan Convention, which thus contributes to the institutional foundation of the present project.

25. The principal regional initiative for habitat and species conservation is PRCM (Programme Régional de Conservation des Zones Marines et Côtières de l'Afrique de l'Ouest), being a common program of action linking a consortium of international NGOs (IUCN, WWF, FIBA and Wetlands International) founded in 2002. In June 2003, PRCM entered into a cooperation and partnership agreement with the SRFC which hosts the shark fisheries component of the PRCM program. A significant achievement of PRCM has been the development of a regional MPA strategy that was signed by ministers responsible for fisheries and environment of the SRFC member countries in 2003²⁶. PRCM is currently approaching the end of its 1st phase (2002-2007). PRCM and PRCM donors participated actively in the preparation of the present project. Phase 2 of PRCM (2008-2012) will for the most part comprise activities re-directed to be within the framework of the present project and thus represent a major part of the co-financing for this project.

Water quality related initiatives

26. Initiatives addressing water quality issues have only recently begun to emerge in the CCLME region. At the global level, certain CCLME countries have been approached as potential hosts for development of ballast water treatment and invasive species control capacity (Guinea, Senegal), while potentially all those awarding or considering petroleum concessions (Mauritania, Senegal, Guinea Bissau) are potentially interested in developing capacity for ballast water treatment. The present project has established links with the GEF-supported Globallast initiative (GEF/UNDP/IMO). However, no activities have commenced.

27. At the regional level, the PRCM is addressing the issue of pollution from the developing offshore petroleum industry, which has had a considerable influence on the conduct of the EIA in relation to the Chinguetti oilfield drilling concession awarded to Woodside Petroleum by the government of Mauritania²⁷ and has resulted in various publications²⁸ and resolutions on the issue at the West African Marine & Coastal Forum²⁹. Also significant at the regional level is the GEF/UNDP project supporting improved management of the River Senegal estuary, which includes the establishment of an environmental observatory and which is beginning to address the impacts of restricted freshwater flow and reduced salt water penetration on estuarine ecosystems.

28. At the national level, an initiative of particular note is the Hann Bay Action Plan project in Senegal, which has undertaken beach cleaning operations and is supporting the introduction of controls on industrial effluent discharge into Hann Bay, a popular bay within the city limits of Dakar. This appears to be the only initiative of its kind in the CCLME region. Cape Verde, which depends on seawater desalination, is acutely concerned about the water quality but as yet has no projects addressing the issue. Morocco has a GEF/UNDP project addressing the maritime transport of toxic chemicals.

²⁶ Regional Strategy for Marine Protected Areas in West Africa, 2003.

²⁷ Woodside Petroleum, 2005 (supra)

²⁸ Kloff & Wicks, undated (supra)

²⁹ PRCM, 2006

PART II – COUNTRY OWNERSHIP

Country eligibility

29. The countries are eligible under paragraph 9(b) of the GEF Instrument.

Country drivenness

30. All the countries have ratified the principal global conventions (UNCLOS, Biodiversity, Climate Change, Ramsar) whose objectives will be promoted by the project. All countries have also declared their adherence to relevant voluntary global codes such as Agenda 21, WSSD, Millenium Goals (MDGs) and the Code of Conduct for Responsible Fisheries (CCRF).

31. At the pan-African level, all countries, with the exception of Morocco, are signatories to the New Partnership for Africa’s Development (NEPAD). LME programs have specifically been adopted by NEPAD, with the Regional Seas conventions, as a common framework for action on the marine and coastal environments of Africa.

32. At the regional level, the countries are linked by one or more of the Abidjan Convention, the Global Program of Action for Protection of the Marine & Coastal Environment from Land-based Activities (GPA), the Dakar Convention (ATLAFCO), ICCAT and the Convention for the Establishment of the Sub-Regional Fisheries Commission (SRFC). While Morocco is not a member of the Abidjan or SRFC conventions, it hosts ATLAFCO which links all countries in the project. While Cape Verde, Mauritania and Guinea Bissau have not ratified the Abidjan convention, all have indicated an intention to do so. All countries, including Morocco, are members of CECAF (Table 2).

Table 2- Adherence to global & regional instruments

Country	Conventions and Agreements							Regional Bodies		
	UNCLOS	CBD	UNFCCC	Ramsar	Abidjan	GPA	ICCAT	SRFC	CECAF	ATLAFCO
Cape Verde	X	X	X	X	-	-	X	X	X	X
Gambia	X	X	X	X	X	X	-	X	X	X
Guinea	X	X	X	X	X	-	X	X	X	X
Guinea Bissau	X	X	X	X	-	-	-	X	X	X
Mauritania	X	X	X	X	-	-	-	X	X	X
Morocco	-	X	X	X	**	-	X	*	X	X
Senegal	X	X	X	X	X	X	X	X	X	X
Sierra Leone	X	X	X	X	X	X	-	X	X	X

*Morocco's membership of SRFC is under discussion

**Barcelona Regional Seas convention for the Mediterranean ratified by Morocco

33. At the national level, all states have promulgated generically similar national policies on poverty reduction, environment and natural resources. The CCLME project will assist participating countries in achieving the objectives of their respective national policies, particularly through helping countries maintain the productivity and integrity of their marine and coastal ecosystems, to increase national benefits from such resources and thereby reduce poverty. The CCLME Project aims to provide the CCLME countries with a framework for progress in the direction of ecosystem-based management, by recognizing the basic linkages between scientific assessments, protection of the marine environment, sustainable development of coastal and marine resources, and poverty alleviation.

34. National policies of particular relevance to the CCLME include signature and/or ratification of the Abidjan and ATLAFCO conventions, declared commitment to the GPA, adherence to the SRFC, cooperation in MCS, universal adoption of the FAO Code of Conduct for Responsible Fisheries (including the recent annex promoting an ecosystem approach to fisheries), the revision in some cases of fisheries policies & laws, and the consolidation of existing and establishment of new MPAs.

PART III – PROGRAMME AND POLICY CONFORMITY

Fit with Focal Area Strategy

35. The project responds to GEF IW Strategic Objective 1 (To foster international, multi-state cooperation on priority transboundary water concerns through more comprehensive, ecosystem-based approaches to management) and IW Strategic Program 1 – Restoring and sustaining coastal and marine fish stocks and associated biological diversity. Marine-based pollution concerns affecting fisheries and coastal habitats (particularly from offshore petroleum extraction) will also be addressed. The CCLME project will support ecosystem approaches to assessment and management, building capacity and promoting multi-country agreement on collective action to address the identified priority issues. Particular attention will be paid to identifying the minimum environmental flows in rivers required to ensure sustenance for downstream coastal and marine ecosystems and the fostering of an enabling environment for action, supported by targeted learning, knowledge management and capacity building to replicate good practices.

36. While the CCLME project does not respond directly to IW Strategic Objective 2 (“To play a catalytic role in addressing transboundary water concerns by assisting countries to utilize the full range of technical assistance, economic, financial, regulatory and institutional reforms that are needed”), the CCLME project does reflect the shift in GEF4 towards on-the-ground implementation and innovative demonstration projects by supporting certain policy reforms and demonstration stress reduction measures prior to elaboration of the SAP. The CCLME project co-finance ratio is close to 3:1, consistent with an SO2-type project.

Program Designation and Conformity

37. The project will specifically contribute to GEF Waterbody-Based Operational Program #8. The project will reinforce other GEF investments in the Biodiversity focal area under Operational Program #2 - Coastal, Marine and Freshwater Ecosystems. Of particular importance in this category are national ICM projects implemented by the World Bank in Senegal (GIRMAC), Gambia (ICAM), Guinea Bissau (PBGZCGB) and Guinea (PGIRN). Under Operational Program #9 (Integrated Land and Water Multiple Focal Area), the project will pursue linkages with IWRM programs supported by GEF relating to the Senegal River basin and executed by the OMVS (Senegal River Basin Development Authority). The project will also contribute to adaptation to climate change in particular through synergies with the UNDP/UNESCO-IOC regional climate adaptation project for West Africa (known as ‘ACCC’).

PART IV – BASELINE

Baseline activity centers

38. The preparation phase of the CCLME project was used, *inter alia*, to scope the full range of baseline activities relevant to the proposed CCLME project. Baseline activities relevant to the CCLME are conducted through activity centers at various levels - intergovernmental, governmental & national and through donor-supported projects and programs.

Intergovernmental baseline activities

39. Table 3 presents intergovernmental baseline activities relevant to the CCLME project. The activity centers with the largest consumption of resources concern fisheries (ICCAT, SRFC, ATLAFCO, CECAF) and river basin management & development (OMVS, OMVG). The major environmental intergovernmental baseline activity centers are the Abidjan Convention Secretariat (which concerns

the whole of West Africa) and two NEPAD centers (SINEPAD & COSMAR) (which cover all of Africa).

Table 3 – Intergovernmental baseline activity centers relevant to the CCLME project

Center	CCLME Countries	Goal	Relevant activities	Limitations
CECAF	All CCLME countries	Sustainable fisheries management through provision of scientific advice	Resource assessments Information exchange Small-scale fisheries Management advice Policy development	Weak link to management, sector-based
ICCAT	Cape Verde, Guinea, Morocco, Senegal (covers entire Atlantic Ocean)	Cooperation to maintain tuna & associated stocks at MSY levels	Research (assessment of tunas & associated species, oceanography) and management (has authority to limit catches within country EEZs and to regulate imports)	Weak participation of CCLME countries, sector-based, narrow focus on tuna & associated species
ATLAFCO Secretariat	All CCLME countries	Cooperation in development & management of fisheries	Technical meetings and studies	Region wide, sector-based, consultative
Sub-Regional Fisheries Commission (SRFC), Dakar	Cape Verde, Gambia, Guinea, Guinea Bissau, Mauritania, Senegal, Sierra Leone	Coordinated policies; management and conservation of shared fisheries	All activities of the SRFC are relevant to CCLME objectives	Sector-based, advisory
NEPAD Secretariat, Midrand, S. Africa	All Africa	Implementation of NEPAD fisheries policy	Activities relating to fisheries policy in CCLME region	Sector-based, primarily monitoring
Organization for the Valorization of the River Senegal (OMVS), Dakar	Senegal, Mauritania, Mali (Guinea to be re-integrated)	Food sufficiency, human revenues, ecological balance, reduced vulnerability, economic development	Environmental Observatory (ecological balance & water quality) & associated activities	Continental focus
Organization for the Valorization of the River Gambia (OMVG), Dakar	Gambia, Senegal, Guinea Bissau, Guinea (covers Gambia, Géba/Kayanga & Corubal/Koliba river basins)	Energy (hydro-electric dams), food security and communications	Environmental assessment of proposed dams along the River Gambia	Continental focus
Agency for Management & Cooperation between Senegal & Guinea Bissau (AGC)	Senegal & Guinea Bissau	Cooperative development of fisheries and petroleum in shared sector of EEZ	Resources assessment & management Exploration & mapping Information management	Limited to shared EEZ of Senegal and Guinea Bissau
Abidjan Convention (secretariat in Nairobi & regional coordination unit in Abidjan)	All CCLME countries except Morocco & Spain (Cape Verde, Guinea Bissau & Mauritania have yet to ratify)	Protection & development of the marine & coastal environment	CoPs, support & other activities relating to CCLME countries	Primarily concerned with land-based activities
SINEPAD (linked to Ministry for Environment, Senegal, Dakar)	All Africa	Stable environment in Africa	Coordination, communication & other activities relating to marine & coastal environment of CCLME countries	Pan-African, primarily monitoring
COSMAR, Nairobi, Kenya	All Africa	Stable marine & coastal environments around Africa		

Government & national baseline activities

40. Centers for government baseline and national activities related to the project identified are presented in Table 4. The list is non-exhaustive but is considered to capture the majority of centers for current government and national baseline activities that are relevant to the CCLME project, based on the information gathered by the national preparation process in each country. Government & national baseline activities comprise essentially the activities of government departments or para-statal concerned with fisheries (marine & estuarine), environment and other economic activities affecting the marine and coastal zone (mines & energy, water, agriculture, marine transport etc.), national professional associations and national technical or research institutes in the related domains.

Table 4 – Activity centers for governmental & national baseline activities

Country	Fisheries	Environment	Others	Institutes
Cape Verde	Directorate for Fisheries Industrial fishing association Fishers' Associations	Directorate for Environment and its departments	National association of merchant shipping Port Authorities Directorate of : Land management Tourism development Coastguard	INDP Maritime & Ports Institute National Institute of Meteorology & Geophysics
Gambia	Fisheries Department GAMFIDA (fisheries development agency) Association of Gambia Fishing Companies National Association of Artisanal Fisheries Organizations (NAAFO)	National Environment Agency (NEA) Department of Parks & Wildlife Management	Gambia Navy Central Statistics Department Forestry Department Department of Water Resources Gambia Tourism Authority	None
Guinea	Ministry of Fisheries & Aquaculture including: Direction of Fisheries National Center for Fisheries Protection & Surveillance National Fisheries Observatory Professional fishers' associations (various)	Ministry for Environment including directions & centers for: Prevention of Pollution & Nuisances Protection of Nature CNPEMMZC (see abbreviations) Protected Areas Management Environmental Research Direction for Waters & Forests	Observatory for Maritime Guinea National Direction for Merchant Shipping Maritime Navigation Agency Directorate of Meteorology Directorate of Mines Coastal Zone Observatory	CERESCOR CNSHB
Guinea Bissau	Ministry of Fisheries & Maritime Economy including: Directorate of Fisheries	Ministry for Environment including: Directorate of Environment	Ministry of Agriculture including: Coastal Zone Planning Unit (GPC)	CIPA National Institute of Applied Research & Technology IBAP (Institute for Biodiversity & Protected Areas)
Mauritania	Ministry for Fisheries	Directorate of	Directorate of Merchant	IMROP

	& Maritime Economy including: Fisheries directions (several) Fisher associations DSPCM (Fisheries surveillance)	Environment (Min. of Rural Development & Environment) Banc D'Arguin National Park (PNBA)	Marine (littoral management & more typical functions) Directorate of Land Management (littoral management) Directorate of Mines including services for: Hydrocarbons Environmental Affairs Port Authorities	
Morocco	Ministry for Marine Fisheries (MPM) including the Directorates for: Maritime Fisheries & Aquaculture Marine Training Juridical Affairs Fishing Industries Human resources International Cooperation Federation of Maritime Fisheries Chambers	Ministry for Land Management, Water & Environment (various directorates)	Royal Navy National Meteorological Direction	INRH Research Unit on the Conservation of Natural resources
Senegal	Directorate of Fisheries Directorate for Protection & Surveillance of Fisheries Unit for studies & planning Fisheries associations (various)	Directorate of Environment Directorate of National Parks Directorate of Water & Forests	Directorate of Tourism Directorate for the exploitation of the sea bed Directorate of Merchant Shipping	Centre for Ecological Monitoring CRODT Dakar Research Institute (ISD) Sciences Faculty (UCAD) University Institute for Fisheries & Aquaculture (IUPA) Institute of Environmental Sciences

41. The activities actually conducted through the above centers correspond to the mandates typical for the types of organization in question (but on a scale commensurate with the generally low national budgets for developing countries). Thus, fisheries ministries and their directorates and institutes are concerned with fisheries policy, management, monitoring and research and other fisheries sector activities. Environment ministries assure similar functions for the environment while often assuring a cross-cutting role for all sectors. National parks authorities are concerned with the management of marine & coastal protected areas, and forest & water departments may sometimes have a relevant role (e.g. in the management of mangroves or estuaries). Several countries have specialized agencies for the monitoring of marine or coastal zones and seabed exploration and most have agencies responsible for maritime transport, ports, coastguard & navy, tourism and meteorology. Most countries have one or more research institutes involved in marine and coastal work. None of the current national or regional structures is mandated to promote a multi-country, multi-sector, ecosystem-based approach to addressing trans-boundary concerns of the CCLME countries. In particular, there are no mechanisms for integrating knowledge, capacity or collective management authority for addressing issues at the scale of the large marine ecosystem.

Donor-supported projects & programs

42. Donor-supported projects & programs related to the project have been identified and are presented in detail in Annex 8 (parts A & B). Table 5 summarizes the types of initiatives that have been identified at the regional and national level. While non-exhaustive, the table serves to capture the major types of donor-supported initiative that exist or are emerging in the region.

Table 5 – Types of existing & emerging initiatives (development projects & programs)
(main centers of activities given in parentheses)

Level	Status	LME Assessment	Fisheries	Habitat, biodiversity & water quality
Regional	Existing	<p>Oceanographic research (various centers)</p> <p>Comparative research of upwelling systems (EcoUp)</p> <p>Bibliographic collections & reviews (PRCM Phase 1)</p>	<p>Reinforcement of regional fisheries commission (SRFC)</p> <p>Stock assessment and management advice (FAO, CECAF)</p> <p>Support to shared stock research, assessment and management (FAO)</p> <p>Fisheries assessment</p> <p>Data-poor assessment methods</p> <p>Integrated approaches to assessment</p> <p>Impact assessment of fishing techniques</p> <p>Shark fisheries action plan implementation</p> <p>Ecosystem Approach to Fisheries (FAO)</p>	<p>Support to Abidjan Convention (UNEP)</p> <p>MPA Regional Strategy (PRCM)</p> <p>Trans-boundary biosphere reserve (Senegal river)</p> <p>Endangered species assessment (manatee, sharks etc.) (CMS etc.)</p> <p>River water flow volume & quality monitoring (OMVS)</p>
	Emerging	<p>Indicators for marine ecosystems (FAO, IRD and others)</p> <p>Research networks (RED-AFRIMAR)</p> <p>Near-shore oceanography (MOLINA)</p>	<p>Support to MCS (SRFC)</p> <p>Support to fisheries management (SRFC)</p> <p>Trans-boundary stock management (SRFC)</p> <p>MPAs as tool for fisheries co-management (AFD and SRFC, What about the FAO Project of Greboval?)</p> <p>Fisheries Information systems (SRFC, RED-AFRIMAR)</p>	<p>Mangrove regional charter (PRCM)</p> <p>Trans-boundary biosphere reserves network (UNESCO)</p> <p>Climate change adaptation (IOC)</p> <p>River-basin management (invasive species & stream flow regulation) (OMVS)</p> <p>River basin EIA (OMVG)</p> <p>Ballast water control (GEF)</p> <p>Marine litter assessment & control (UNEP/RS)</p> <p>Preparing for offshore petroleum development (National agencies, NGOs)</p>
National	Existing	<p>Observatories (marine, coastal) (Guinea, G. Bissau)</p>	<p>Socio-economic evaluation of fisheries</p> <p>Post-harvest improvement</p>	<p>ICAM / ICZM & coastal biodiversity initiatives (most CCLME countries)</p> <p>Coastal clean up (& pollution control)</p>

		Resource evaluations (Mauritania, Senegal, Morocco)	Artisanal fisheries development projects Co-management initiatives Artisanal fisheries monitoring Resources assessment Fleet registers	(Dakar) Maritime transport of toxic chemicals (Morocco)
	Emerging	Research Center networks & Centers for oceanographic research (Cape Verde) Ocean monitoring by petroleum industry (Mauritania)	Vessel decommissioning (AfDB/Senegal) National fisheries information systems (Senegal) Artificial reefs (Senegal)	Climate change adaptation plans (Gambia) Shipwreck removal (Mauritania) Mangrove regeneration (Senegal)

Projected scenario without GEF intervention

43. The baseline or ‘business-as-usual’ course of events over the next five years in the absence of any GEF intervention would comprise continuation and evolution of the existing heterogeneous mix of mainly sectoral intergovernmental, governmental and national baseline activities and initiatives (projects or programs) as presented in Annex 8 (parts A & B) and Tables 3, 4 & 5 (see above). This array of activities clearly would not lead to any systematic identification and analysis of trans-boundary concerns or to any multi-country commitment to address those problems according to an integrated, ecosystem-based approach. Specifically in relation to the elements of the proposed project objective, it may be observed that:

- None of the existing assessment activities is directed towards filling knowledge gaps with a view to understanding and addressing trans-boundary problems, all being either highly specialist (e.g. comparative research on upwelling systems) or national and sectoral in scope;
- None of the current or emerging initiatives respond to the capacity needs for effective multi-country cooperation in assessment and multi-country cooperation to address transboundary concerns, all being either specialist or national in focus;
- None of the current or emerging initiatives aims specifically to secure multi-country cooperation on transboundary concerns, being either technical or national in focus; the critical TDA/SAP process is lacking.

44. As a result, CCLME countries would not be placed in a position to jointly identify and cooperatively address shared trans-boundary concerns, but would remain limited to treating, or mitigating the impacts of, the local symptoms of the problems of the wider ecosystem. Furthermore, the impact, sustainability and replicability of their own unilateral or bilateral actions to address ecosystem and natural resource-related issues would be compromised by the lack of a regional mechanism to recognize, encourage and monitor the impacts of country contributions to the sustainable stewardship of the broader ecosystem.

PART V - GEF ALTERNATIVE

Overview

44. The essence of the GEF alternative is to bring to the CCLME countries in combination two innovative approaches that allow groups of countries to jointly identify, address and monitor the status of trans-boundary concerns relating to a shared Large Marine Ecosystem – namely the TDA/SAP process (developed for all GEF IW projects) to identify and address the issues and the LME 5-modular approach (developed by NOAA) for assessment & monitoring to provide the appropriate technical framework for an LME. Without this combination of approaches, the countries will be unable to effectively address the major transboundary problems relating to the CCLME identified in Preliminary TDA, with the predicted consequences for the environment and human-well being. Combined application of these two approaches will have the effect of catalyzing (or re-directing) the efforts of countries and their development partners towards an issue-driven, integrated, ecosystem & science-based process that will ensure improved impact and sustainability of interventions over the long term and help the countries to meet WSSD and other sustainable development targets. An additional dimension of the GEF alternative for the CCLME is to support innovative multi-country demonstration actions addressing initial priority concerns that will: 1) test model approaches; 2) feed into the LME assessment & management approach and TDA/SAP process; 3) make concrete progress towards stress reduction on the LME and 4) provide part of the basis for replication within and beyond the CCLME.

The TDA/SAP process

45. GEF-IW project goals include the joint preparation of a country-driven Trans-boundary Diagnostic Analysis (TDA) and a Strategic Action Programme (SAP), used to prioritize project actions. In a TDA, the countries bordering the water body prepare a document based on consensus that ranks resource issues, identifies and prioritizes trans-boundary concerns, analyzes socioeconomic impacts, outlines root causes and advances possible remedies. On the basis of the TDA, the countries prepare and agree a SAP, in which they propose to address the trans-boundary concerns identified in the TDA and outline national and regional commitments to policy, legal and institutional reform. Currently, no initiative or mechanism exists to take the CCLME countries through this process.

The LME Approach

46. The Large Marine Ecosystem (LME) approach to marine resource assessment and management provides a major tool and flexible approach for the application of ecosystem-based management by identifying driving forces of ecosystem change³⁰. The approach recognizes the linkages between scientific assessments, protection of the marine environment, sustainable development of coastal and marine resources and poverty alleviation. The approach will provide the means to determine the status of ecosystem condition in the Canary Current LME.³¹ It is being applied successfully in several GEF-supported LME projects in Africa, Asia, Latin America and Eastern Europe. In Africa it is being applied in the Guinea Current LME, Benguela Current LME and Agulhas & Somali Currents LMEs (ASCLMEs). Currently, the CCLME region lacks such a coherent framework for assessing and addressing concerns relating to the marine ecosystem.

47. A key factor in reaching a determination on the status of ecosystem condition is the quantitative output from five modules of spatial and temporal indicators of ecosystem (i) Productivity, (ii) Fish and Fisheries, (iii) Pollution and Ecosystem Health, (iv) Socioeconomics, and (v)

³⁰ Sherman, K. (2007). The Large Marine Ecosystem Approach to Marine Resources Assessment and Management. In Paper for Proceedings of the 26-28 September 2006 Bergen Conference on Implementing the Ecosystem Approach to Fisheries (CIEAF). 1-24.

³¹ Sherman, K., 1993. Large Marine Ecosystems as global units for management: an ecological perspective. In: K. Sherman, L.M. Alexander and B.D. Gold, eds. Stress, Mitigation and Sustainability of Large Marine Ecosystems. Proceedings of Symposium on Large Marine Ecosystems, October 1990, Monaco. AAAS Press, Washington, DC, pp. 3-14, 376p.

Governance. **Productivity** indicators measure the carrying capacity of an LME for supporting living marine resources, and assesses changes in the amounts of chlorophyll, phytoplankton and zooplankton at the base of the food web. The **Fish and Fisheries** module conducts assessments of important species within fish communities, and considers the effects of naturally occurring environmental shifts in climate regime. It also considers the effects of excessive fishing effort causing shifts in species composition and abundance. From that module, the Canary Current LME Project can obtain assessment information that will make it possible to distinguish between the effects of climate change and the effects of direct depletion of fish stocks from overfishing. Indicators in the **Pollution and Ecosystem Health** module³² are applied to assess changes in coastal waters, estuaries and wetlands, and to highlight eutrophic conditions in an effort to take measures to reduce and control nutrient over-enrichment and oxygen depletion events. The **Socioeconomics** module examines how a sustainable marine resource base can meet the nutritional, social, economic and developmental needs of humans living in the LME's border countries. The **Governance** module engages multiple scales of national, regional and local jurisdictional frameworks needed to select and support ecosystem-based management practices leading to a sustainable use of resources.

Combining the TDA/SAP and LME approaches

48. The TDA/SAP process and the LME approach appear distinct in that the former is a *process* whereby countries identify, analyze and address transboundary concerns whereas the LME modular approach is essentially a framework for assessment and monitoring of an LME. Further consideration, however, reveals a parallel between the socio-economic and governance analysis and implementation steps of the TDA/SAP process, and the socio-economic and governance modules of the LME approach. Having thus accounted for two of the five LME modules, the remaining three LME modules can be overlaid upon the TDA/SAP process to delimit three broad domains of transboundary concerns – concerns about productivity, concerns about fish & fisheries and concerns about pollution and ecosystem health. Based on the results of the CCLME project preparation process and the Preliminary TDA, the countries have chosen to combine productivity with fish & fisheries (Component 2), while encompassing 'pollution & ecosystem health' within a domain of transboundary concerns defined as 'habitat, biodiversity and water quality' (Component 3). Component 1 (Regional coordination for TDA/SAP process & LME assessment) integrates socio-economic and governance assessment and actions.

Project preparation process

49. The CCLME Project design is derived from a country-driven participatory process combining a simplified TDA/SAP process with the 5-modular LME approach. The project design process included two years of discussions, consultations, workshops, and conferences involving technical and political country representatives, representatives of regional instruments and institutions (i.e. NEPAD, CSRP, CECAF), advisors from international organizations (i.e. UNEP, FAO, World Bank), representatives of development and prospective CCLME project partners and donors (PRCM, AFD, EU, OMVS, OMVG etc.) and regional and international experts from relevant research institutions. As required by the PDF-B document, the process culminated in a Preliminary TDA (Annex 6), a "Pre-cursor" to a Strategic Action Program (SAP) and the present project document. An important result of the project preparation process has been to re-direct the projected investments of other development partners (e.g. PRCM, AFD, FAO/Nansen/EAF, EU/AGPAO) towards support for the GEF alternative.

Engaging development partners

50. The CCLME project preparation process was used to engage other development partners interested in helping countries to address trans-boundary issues relating to the CCLME. Such partners may be grouped according to their existing associations with UNEP, FAO, SRFC and international NGOs. Through UNEP, the project has engaged the support of the Abidjan Convention Secretariat and the

³² Sherman, K., ed., 1993. Emerging theoretical basis for monitoring changing states (health) of Large Marine Ecosystems. Summary reports of two workshops: Narragansett, RI, April 1992; Cornell University, July 1992.

Regional Seas Program in the project preparation process and design. Through FAO, the CCLME project has benefited from the support of existing FAO programs such as the Project 'International collaboration with the Nansen Programme. Fisheries management and Marine Environment', and has helped to secure the agreement of Norway to support a program of support for all African LMEs to begin in 2007³³ (in the case of the CCLME, the support will include about 190 subsidized³⁴ days of cruise time in the CCLME between 2008 and 2012 with the Norwegian fisheries research vessel, the *RV Dr. Fridtjof Nansen* and other benefits in the form of on-ship and on-shore training in the ecosystem approach to fisheries). Other FAO initiatives have also been engaged (CECAF, SFLP, FAO institutional support to SRFC, project on factors of non-sustainability in fisheries, project on reduced impacts of shrimp trawling etc.). Through SRFC, the CCLME project has developed links with substantial regional projects of the European Union (on MCS and fisheries management) and the Agence Française de Développement (AFD) (on co-management and MPAs for artisanal fisheries), a project funded by the Netherlands on policies for management of shared small pelagic stocks and a project of GTZ aiming to enhance SRFC as a provider of services to member countries. Through the international NGOs, the CCLME project has engaged PRCM support to the project formulation process and secured its adoption of the Preliminary TDA and CCLME project framework as a basis for PRCM's second phase (2008-2012). Finally, towards the end of the preparation phase, the CCLME project engaged with a new initiative of Spanish and regional research institutions (RED-AFRIMAR) which is also in partnership with PRCM. Through these various interactions, the CCLME project has been able to influence and re-orientate emerging initiatives towards the GEF alternative.

51. The project has also engaged with initiatives supported by GEF in the IW or other focal areas for which there exist opportunities for synergy, such as the GEF/UNDP/IOC-UNESCO project on adaptation to shoreline change in West Africa (known as ACCC). The project has also, through the national preparation *processes*, identified the numerous national projects of relevance to CCLME.

52. The final list of activities for the CCLME project was agreed in a sub-regional workshop attended by the participating countries and the main relevant development partners, including FAO, SRFC, PRCM and the Spanish Cooperation. This list of activities and the Preliminary TDA have provided the basis for negotiating cooperation and co-financing arrangements with other development partners. Given the scale of redirection towards the TDA/SAP and LME approaches catalyzed by the PDF-B, relatively few of the programmed activities of the major development partners remain unaffected and thus be considered 'business as usual' or 'baseline'. In the baseline calculations undertaken for the purposes of this proposal (see Part X), baseline was taken to comprise primarily recurrent national expenditures together with projected national investments that will continue to focus primarily on achieving domestic environmental benefits. Many of the existing national and regional programs are coming to a close or end of phase. An important exception is the series of GEF Biodiversity/World Bank ICZM projects (GIRMAC, ICAM, PBGZCGB, PGIRN) and non-GEF ICZM initiatives in other CCLME countries (PDALM, Coastal Management Project in Cape Verde) which are now at a midway point and constitute an important element of the baseline (see Part X).

Justification

53. The essential justification for the project is that CCLME countries will not otherwise be able to effectively address the trans-boundary concerns (as identified in the Preliminary TDA) or make significant progress towards WSSD targets relating to marine and coastal ecosystems (to introduce an ecosystems approach to marine resource assessment and management by 2010; to designate a network of marine protected areas by 2012; and to maintain and restore fish stocks to maximum sustainable yield levels by 2015). The project responds to needs that have been identified in an extensive, consultative process involving country stakeholders, culminating in the Preliminary TDA.

³³ Strengthening the Knowledge Base for and Implementing an Ecosystem Approach to Marine Fisheries in Developing Countries (GCP/INT/003/NOR)

³⁴ The CCLME project will pay for ship time at \$10,000 per day, which is substantially less than 50% of the true cost)

54. In relation to the identified trans-boundary concerns, there are no baseline activities or emerging initiatives that offer to provide an issue-driven, ecosystem-based, process for identifying and addressing trans-boundary problems at the scale of the CCLME in a cooperative manner. While sector-based interventions will make some progress (and indeed, if re-directed, potentially constitute a valuable contribution to the GEF alternative) the necessary linkages would not be made between productivity, fisheries, ecosystem health, governance and economics or between development sectors to deliver a truly integrated approach.

55. In relation to WSSD targets for marine and coastal ecosystems, while some progress would be made without GEF intervention by some countries, their impact, sustainability and replicability would be compromised by the absence of any multi-country cooperation mechanism (the TDA/SAP process) or integrated, science-based approach for marine & coastal ecosystems (the LME 5-modular approach).

56. From a broader, Africa-wide, perspective, the project is justified because it will complete the suite of African LME programs, and thus help Africa as a whole to achieve WSSD targets in relation to marine and coastal environments. LME projects were specifically highlighted as important for Africa in the recent AMCEN summit of environmental ministers. Because of its high productivity and large dependent populations, the CCLME is especially important to achieving Millennium Development Goals in Africa.

Project goal

57. The present project focuses ultimately on recovery of depleted coastal & marine fisheries and reversing the factors which contribute to their depletion, including overfishing, habitat degradation and water quality changes (due to both land-based and marine activities). The project long term goal, based on the formulation of the original pipeline application and PDF-B is: *‘To reverse the depletion of fisheries and nursery and reproductive habitat of the Canary Current Large Marine Ecosystem caused by over-fishing, habitat modification and changes in water quality by adoption of an ecosystem-based management approach.’* While this formulation corresponds well to GEF IW Strategic Program 1: “Restoring and sustaining coastal and marine fish stocks and associated biological diversity”, the original formulation is too narrow to encompass Strategic Program 2: “Reducing nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters in LMEs consistent with the GPA.” It is therefore proposed to generalize the project goal to: *‘To reverse the degradation of the Canary Current Large Marine Ecosystem caused by over-fishing, habitat modification and changes in water quality by adoption of an ecosystem-based management approach.’*

Project objective

58. The CCLME Project Objective is: *‘To enable the countries of the Canary Current Large Marine Ecosystem to address priority transboundary concerns on declining fisheries, associated biodiversity and water quality through governance reforms, investments and management programs’.* This more specific objective is based on a formulation developed in consultation with the countries, adjusted to take account of subsequently refined GEF IW priorities.

Project outcomes

59. The key project expected outcomes will be:

- (i) Multi-country agreement on priority transboundary issues;
- (ii) Multi-country agreement on governance reforms and investments to address priority transboundary issues;
- (iii) A sustainable legal/institutional framework for the CCLME

- (iv) Strengthened existing transboundary waters institutions
- (v) Stakeholder involvement in transboundary waterbody priority setting and strategic planning
- (vi) 7 functioning National Interministerial Committees
- (vii) 3 multi-country policy proposals (as annexes to the SAP)
- (viii) 5 management instruments for maintaining fish stocks, associated biodiversity and water quality (as annexes to the SAP)
- (ix) 5 demonstrations implemented and costs/benefits evaluated

All of these steps will pave the way for SAP implementation following completion of the project (including SAP planning and implementation at the national level).

Project structure

60. The project is structured around a central *process* component (Component 1), and *thematic* components, concerning issues on marine living resources (Component 2) and declining biodiversity & water quality (Component 3). Each of the thematic components is similarly structured, but with some deliberate differences in language to help distinguish components 2 and 3.

61. Component 1, the ‘process’ component (*Multi-country process and frameworks for understanding and addressing priority trans-boundary concerns*) comprises three main elements or component outcomes: 1) multi-country understanding and agreement on transboundary issues (TDA); 2) sustainable legal/institutional frameworks and plans for regional cooperation on the CCLME and 3) stakeholder involvement in transboundary priority setting and strategic planning. In addition, project management and monitoring (subcomponent 1d) & evaluation (1e) are located in this component for operational simplicity and because of their proximity of management to the TDA/SAP and stakeholder processes.

62. Component 2 (the ‘marine living resources component’) is entitled: *Strengthened policies and management, based on improved knowledge and demonstration actions, to address priority transboundary concerns on declining marine living resources of the CCLME* and comprises three main outcomes: 1) Improved knowledge & capacity for management to address concerns on marine living resources; 2) Strengthened regional policies, instruments & capacity for management to address priority concerns on marine living resources and 3) Demonstration management actions address priority transboundary concerns on marine living resources (3 demo projects, on small pelagics, selective trawling and coastal pelagics).

63. Component 3 (the ‘biodiversity, habitat and water quality’ component) is entitled *Strengthened knowledge, capacity and policy base for trans-boundary assessment & management of habitat & biodiversity and water quality critical to fisheries* and comprises three main outcomes: 1) Knowledge gaps filled in relation to critical habitat, biodiversity and water quality for the purpose of the TDA and SAP; 2) Capacity building, policy making and planning for the SAP 3) Demonstrating stress reduction measures (2 demo projects, one on MPAs, the other on mangroves).

Demonstration projects

64. Demonstration projects were selected from 23 country-sponsored proposals responding to an open call for concept proposals based on a set of criteria including: trans-boundary stress reduction, country drivenness & consensus, availability of co-finance, prospects for sustainability, innovative approach, replication potential, integration of capacity building, maximum use of national and regional expertise and other criteria. All demonstration projects were required to contribute ultimately to maintained health and productivity of the large marine ecosystem. Copies of the call for proposals and the finally selected project proposals are presented in Volume II of this proposal. A pre-final selection of nine (9) projects was agreed at the final preparation workshop (4 to 6 September 2006), while all remaining 14 concepts were retained for integration as activities within the main project components.

Upon further assessment, three (3) projects (developing a regional MPA network & plan, ecosystem approach to management of elasmobranchs and integrated management of The Gambia estuary) were considered to be more suitable as activities within the main project components while four (4) were retained as demonstration projects under Component 2 (policies & plans for sustainable management of shared pelagic stocks; reduction of the impact of shrimp trawling through by-catch and management changes; transboundary management of migratory coastal pelagics of importance to artisanal fisheries; MPAs as tools for sustainable demersal fisheries management) and one (1) project under Component 3 (development of a regional mangrove conservation plan with pilot restoration actions). In a final step, consideration of the STAP review and budgetary constraints led to elimination of demo 6 (conservation of sea turtles and their use as LME indicators) but retaining turtles within a suite of threatened species for assessment and use as indicators. In keeping with GEF IW priorities, all the retained demonstration projects ultimately address the global problem of depleted marine fisheries.

Innovative aspects of the project

65. A key innovative feature is to structure the project around a strategic combination of fisheries and ecosystem governance frameworks. The link to fisheries frameworks is assured through national fisheries authorities, the regional fisheries commission (SRFC), the ATLAFCO³⁵ convention, ICCAT³⁶ and FAO as the lead executing agency. The link to environment is assured through national environmental authorities, the Abidjan Convention and UNEP (through the Abidjan & Nairobi Conventions Secretariat) as the supporting implementation agency. The linkage of a Regional Seas convention (the Abidjan Convention) to regional fisheries governance frameworks is novel globally. The strong networks of UNEP and FAO and their links to the scientific community add further value to this novel combination. The project is novel in relation to the CCLME region, where the TDA/SAP process (with its focus on multi-country cooperation to address transboundary concerns) and the LME 5-modular approach for marine resource assessment and management, which are the keystones of this project, have never before been applied.

66. At the level of the project objective, further significant innovations are to prepare a first 5-Modular LME Assessment based on the TDA and to adopt a systematic approach to involving stakeholders in the TDA/SAP process. Innovations at the level of Component 1 (TDA/SAP & LME Assessment) include setting long-term targets based on the 5 LME modules, linking these to Ecosystem Quality Objectives (EcoQOs) and to objectives of an Ecosystem Approach to Fisheries (EAF). River basin authorities will be expressly included in the TDA/SAP process. At the level of Component 2 (productivity & fisheries), the main innovations are to apply the ecosystem approach to fisheries (EAF) in developing shared resource management agreements. In relation to Component 3 (biodiversity and water quality) the main innovations are to take an LME-wide, ecosystem-based, approach to the management of critical habitat, to develop an MPA network specifically for the CCLME and to promote an LME-based approach to the management of flow regimes of major rivers draining into the CCLME.

67. The project design includes multi-country demonstration actions to test modalities for addressing the priority concerns. Notable innovations in the fisheries demonstrations include 1) the general application of an ecosystem approach in all demonstration activities; 2) the first attempt at reduction of by-catch and of trawl damage in West Africa; 3) agreed shared stock management plans for small and coastal pelagics and 4) developing MPAs as tools for demersal fisheries co-management.

68. A further important innovation has been taking a partnership approach in addressing issues, working with a coalition of international NGOs (PRCM³⁷) and other major bilateral partners such as AFD and the EU in a program approach. The CCLME project has made a special effort to promote

³⁵ Ministerial Conference on Fisheries Cooperation among African States bordering the Atlantic Ocean (Dakar Conference, 1992)

³⁶ International Commission for the Conservation of Atlantic Tunas

³⁷ 'Programme Régional de Conservation des Zones Marines et Côtières de l'Afrique de l'Ouest' comprising IUCN, WWF, Wetlands International and the Fondation Internationale du Banc d'Arguin – FIBA.

joining of forces and integration between GEF focal areas, particularly biodiversity and climate change (e.g. coordination with GEF coastal biodiversity projects in the region such as GIRMaC in Senegal, UNDP-IOC/UNESCO climate change adaptation through ICZM in W Africa, global GEF projects on by-catch reduction, marine litter, ballast water etc.). Through this general approach, the project has been able to help re-direct part of the baseline and emerging initiatives towards the GEF alternative, and raise substantial co-finance.

Expected environmental impact

69. In the time frame of the project, demonstration activities will have direct positive impact on the large marine ecosystem through by-catch reduction in demonstration trawl areas, reduced stress on critical fish habitat through co-management around selected MPAs and reduced threats to critical mangrove habitat.

70. Primary long term effects on the marine ecosystem will derive from the implementation of the SAP to be established during the life of the project. Assuming that the conclusions of the full TDA are similar to those of the Preliminary TDA and the scope of activities of the final SAP are similar to the those identified in the Pre-SAP, implementation of the SAP will result in sustainable management of the CCLME's small pelagic fisheries and coastal pelagic fisheries and restoration of depleted demersal fisheries (including shark & ray fisheries and reduced by catch from trawling). The combination of an LME-wide MPA network, mangrove conservation plan, threatened species conservation plans and improved river-basin management will help to conserve coastal and estuarine habitat critical to trans-boundary ecosystem processes. Improved control of land-based and marine-based (particularly offshore petroleum) pollution will also assist in maintaining or restoring ecosystem processes.

71. The project could generate a range of secondary, indirect or unintended effects on the environment in the long term resulting from a positive shift in attitudes towards the marine environment, cooperation between the countries, integrated & ecosystem approaches, science, stakeholder involvement and other principles promoted by the project. Assuming a sound, science-based approach to the TDA/SAP process, negative impacts on the marine ecosystem appear unlikely.

72. Finally, the substantial capacity building impacts of the project are likely to have positive effects on the environment in the long term. Capacity reinforcement impacts at the national and regional levels will include an improved knowledge base for understanding and addressing trans-boundary environmental concerns and human capacity reinforcement at national stakeholder levels (resources users, scientific community, decision-makers) and at the level of regional mechanisms.

Detailed activities description

Component 1: Multi-country process and frameworks for understanding and addressing priority trans-boundary concerns (GEF US\$3,130,000 and co-financing US\$5,664,250)

Component Objective & main activities:

73. The objective of this component is to bring about multi-country understanding of, and agreement on how to address, priority trans-boundary concerns, through the following main outcomes:

- (a) Multi-country understanding and agreement on transboundary issues;
- (b) developing sustainable legal/institutional frameworks and plans for regional cooperation on the CCLME;
- (c) ensure stakeholder involvement in transboundary priority setting and strategic planning.

In addition the component will assure d) effective project management and e) effective project monitoring and evaluation. The component outcomes will be achieved through the following main activities:

Component detailed activities:

a) Multi-country understanding and agreement on transboundary issues (TDA)

73. Multi-country TDA: As a first step, a 1st International CCLME Symposium and planning forum will be held in order to bring together the entire constituency of holders and users of information on the CCLME in a major opening meeting to review the availability of knowledge of the CCLME and to plan for the filling of key knowledge gaps in relation to the recognized priority trans-boundary concerns. In the interests of efficiency and international harmonization, the first part of the Symposium will be structured according to the LME approach and will include keynote presentations and informative contributions under these themes, highlighting the major knowledge and information gaps in relation to the different priority issues identified in the preliminary TDA. The need for thematic working groups will be identified and initial team members designated. A special group on climate change is anticipated, as an overarching issue affecting all domains that would operate under Component 1 (other working groups to function under the thematic components). Other GEF-supported regional programs will be encouraged to take part, including programs on river basins and coastal zone management. Other African LME programs will also be encouraged to participate and contribute to the process (GCLME, BCLME, ASCLMEs). The symposium will generate a consolidated work plan to fill knowledge gaps for the CCLME, and will define linkages between the TDA/SAP process and the thematic project components (including demonstration projects).

74. Following completion of the symposium sessions, the designated technical working groups will remain at location in order to take part in a smaller, technical, issue-driven planning forum structured according to the two main project components (marine living resources and biodiversity & water quality) to identify the needs for filling information gaps for management of marine living resources and for addressing declining habitats, biodiversity and water quality (see Components 2 & 3). The planning forum would benefit from the participation of the FAO/EAF *Nansen* program and the agencies responsible for national vessels to draw up a detailed plan of ship-based surveys to fill information gaps in relation to the issues under the two domains. The forum will provide an opportunity for the demonstration projects to benefit from, and contribute maximally, to the planned assessments and surveys. Regional thematic working groups will be identified to pilot specific components of the assessment & survey program. About 15 distinct topics need to be covered, with some possibility for related topics to be covered by a single group. For budgetary purposes, a total of 10 working groups has been assumed across both thematic components of the project (7 for components 1 and 2, 3 groups for component 3).

75. Given the growing recognition of the importance of climate change in relation to marine ecosystems, a specific multi-disciplinary group will be established to coordinate the assessment of climate change impacts on the CCLME. The findings of the climate change assessment will contribute to the TDA and could be of considerable significance for the SAP and in the identification of financing for SAP implementation.

76. Later on in the project, and following completion of all the thematic assessments and surveys, regional workshop would be held to review and debate the results of the all the assessment work and to formulate the essential findings for the TDA, which would then be prepared by appointed teams of experts. Once written, the TDA would be considered by the Steering Committee and, if approved, published and widely circulated.

77. CCLME interactive information website – In parallel with the TDA preparation process, an interactive information website will be developed to handle and display relevant information, including information gathered for the TDA and to serve as one communication platform for the

project (recognizing that a website is not a substitute for a stakeholder involvement plan – see below). The website would be structured according to the LME 5-modular structure and would also be designed to be consistent with GEF’s IW:LEARN program and to have linkages to international systems such as those of SRFC, FAO, UNEP, UNESCO, GOOS-AFRICA and NEPAD and relevant regional programs (e.g. on river basins and coastal zone management). Support would be given to national information sources currently lacking means to participate in and contribute to the website. As information arises from the assessment work, reports and other information will be uploaded onto the site, following the LME Modular structure and progressively building up the elements of an LME assessment for the CCLME. The site would post contributions to, and materials generated by, the IW:LEARN program of GEF. The website would be overseen by the project coordinator, supported as needed by the thematic coordinators and serviced and updated periodically by specialist website engineers.

b) Sustainable legal/institutional frameworks and plans for regional cooperation on the CCLME

79. Regional legal/institutional framework for CCLME stewardship developed – A key component of CCLME project strategy is to develop a sustainable legal framework based on the combined foundation of SRFC and the Abidjan Convention, thus bringing together the fisheries and environmental sectors of the coastal states of the CCLME. Based on this foundation, linkages will be promoted between concerned regional and international institutions (SRFC, Abidjan Convention, ATLAFCO, OMVS, OMVG, CECAF, ICCAT, AGC, NEPAD (Environment & Fisheries etc.) with a view to establishment of a legal/institutional framework for long term CCLME stewardship. At the same time the project will establish firm linkages and coordination mechanisms between CCLME program and other significant agency programs and initiatives to ensure synergies (e.g. GEF ICZM, river basin and climate change adaptation projects, World Bank programs, International NGOs etc.). As the linkages are developed, a consultancy will be arranged to design and develop an overall legal / institutional framework for long term CCLME stewardship, for debate and possible adoption as part of the SAP. Finally, the project coordination would play a facilitating role for coordination between the concerned national sectoral agencies.

80. Formulation and endorsement of the multi-country SAP – In addition to the TDA, regional cooperation will be needed for formulation and endorsement of the SAP. A SAP working group will be established to pilot this process and will ensure the participation of the national-level SAP committees. To complement this, the project will provide TDA-SAP training to appropriate regional and national personnel and technical assistance to the SAP team itself. The SAP working group will develop a series of EcOQOs (Ecosystem Quality Objectives) for the CCLME and a draft vision statement for the future SAP. The SAP team will benefit from the Pre-SAP document and an orientation document on a regional framework for cooperation prepared during the PDF-B phase. To ensure broad stakeholder participation in priority setting and strategic planning for the SAP process, the West African Marine & Coastal Forum established by PRCM is expected to serve as a forum for debating the proposed SAP and making recommendations to governments on its content. The West African Marine & Coastal Forum currently represents a venue for coordination and knowledge sharing for a multitude of initiatives funded through the PRCM program. The CCLME project will support broadened stakeholder representation in this forum, through supporting participation of fisheries managers, research institutes, environment departments, forestry (mangrove) departments etc. Of particular importance will be to support participation of ministries of finance and foreign affairs at the forum as a means of access to higher decision making levels in member governments and to enhance assimilation of economic valuation of CCLME goods & services (see above). As final steps, the results of the demonstration projects would inform the SAP and be used to encourage endorsement of the SAP by the relevant authorities of each country.

- Identify options for sustainable financing of management and monitoring of resources of the CCLME
- Identify options and secure financing for SAP implementation (including private and public in sources)
- Develop an integrated sustainable financing and investment / partnership plan for implementation as part of the SAP

81. Sustainable financing and investment / partnership plan for SAP implementation – Parallel with SAP development, sustainable financing mechanisms and an investment plan must be established to support SAP implementation. Work would begin early in the SAP development process to identify and evaluate options for sustainable financing of management and monitoring of resources of the CCLME, including financing of its coordination mechanism. Since sustainable sources are likely to be insufficient for the first SAP cycle, development partners would also be mobilized to solicit contributions, inviting donors to one or more project workshops. Finally, an integrated sustainable financing and investment plan would be developed for country approval and integration into the SAP.

c) Stakeholder involvement in transboundary priority setting and strategic planning

82. Regional & national institutional stakeholder participation mechanisms established & operational - A Steering Committee³⁸ will be established that will be responsible for providing general oversight of the TDA/SAP process and support to the process through CCLME project implementation. It will ensure that all inputs and processes required for the development of the Transboundary Diagnostic Analysis (TDA), the Strategic Action Program (SAP) and any additional activities agreed upon under the GEF project document. National Coordination Units (NCUs) will be established and provided essential equipment to be operational. Very importantly, existing National Interministry Committees would be revived and extended as required with a view to becoming permanent and operational bodies ensuring sector integration at the national level. TDA/SAP training will be provided to national focal points and technical coordinators. The West African Marine Forum will be further promoted as forum for participation of regional and national institutional stakeholder participation, and the project will support participation of key personnel at the Forum. Specific funds will be allocated to support participation of project staff and national personnel at the I biennial GEF IW conferences and other important meetings where possible.

83. Local and private stakeholder participation mechanisms established and operational – Differentiated treatment will be required for the local and private sector stakeholders. During the preparation phase a draft stakeholder methodology, including some basic principles of stakeholder participation, was developed with the assistance of IUCN and is presented as part of the Public Involvement Plan (Annex 3). This would be developed into a full strategy, adding a communication component, and a regional working group set up to pilot the stakeholder participation process. Implementation of the strategy would be promoted throughout the project in close consultation with PRCM (which has already initiated stakeholder participation and communication in the region through the West Africa Marine & Coastal Forum and a communication program) and other partners. Support to specific stakeholder groups, such as training or awareness raising, may be required during the course of the project, for which funds would be reserved. Finally, the West African Marine & Coastal Forum would be adapted as necessary to ensure adequate and balanced representation of CCLME stakeholders at the Forum where the project would support the participation of key local and private sector stakeholders.

d) Effective project management

84. Project management structures & mechanisms in place and operational - A Regional Coordination Unit (RCU) will be established and staffed with a Regional Coordinator, two thematic component leaders (1. Productivity & fisheries and 2. Habitat, biodiversity & water quality), a project administrator and administrative assistant supported as required by short term consultants and casual staff. The Regional Coordinator will be responsible for coordination of component 1 (TDA/SAP processes). The RCU, which will be based at the main SRFC offices or in a nearby annex, will be supported by a budget, which would include the resources needed for a town vehicle, travels in the

³⁸ for the composition of the Steering Committee refer to Annex 10 on project implementation arrangements

region, reporting, translation and operating expenses. The RCU will assure project reporting and translation and will coordinate periodic financial auditing.

e) Project Monitoring & Evaluation

85. Project monitoring and evaluation processes implemented – The project coordination function would ensure implementation of the project M&E plan using a combination of performance and impact indicators. Impact indicators will be process and stress reduction indicators as required by the most recent GEF IW guidelines (see Annex 5). M&E would provide monitoring and evaluation of project execution, performance, milestones & delivered outputs, outcomes and impacts. Key M&E functions will include project activity reporting (inception, quarterly & semi-annual progress reports, annual project implementation review (PIR), technical reports and terminal-report), financial reporting (6-monthly, annual, final) and independent evaluation (mid-term review, final evaluation). Monitoring & Evaluation are described in detail in Part IX and Annex 5.

Component 2: Marine Living Resources - Strengthened policies and management, and demonstration actions to address priority transboundary concerns on declining marine living resources of the CCLME_ (GEF: US\$2,960,000, co-financing: US\$5,915,000)

86. Component objective & outcomes - The objective of this component is to strengthen the capacity of countries, through a combination of improved knowledge, policies and management instruments and demonstration actions, to address priority concerns on marine living resources. The component will deliver trans-boundary assessment & management of marine living resources to inform the TDA/SAP processes. Specifically, this component will: (a) improve knowledge and capacity for management to address concerns on marine living resources; (b) strengthen policies, instruments and capacity for management to address priority transboundary concerns on marine living resources and (c) undertake a series of demonstration actions to address priority transboundary concerns on marine living resources. Activities under Component 2 will focus around the themes of sustainable trans-boundary cooperative assessment & management of marine living resources of the CCLME.

Component Activities:

a) Improved knowledge and capacity for management to address concerns on marine living resources

87. As a first step, the 1st International CCLME Symposium (see Component 1) will be used by the Component to identify available information and major gaps in knowledge in relation to priority concerns on marine living resources and to design, as part of the consolidated plan under Component 1, a general program of assessments and surveys to fill the knowledge gaps on marine living resources. Full use will be made of existing information and fisheries assessments conducted previously by the FIAS project, CECAF, the FAO Working Group on Small Pelagics of North West Africa and others.

88. As a second step, and organized to follow on directly from the 1st CCLME Symposium, a special planning forum will be organized in conjunction with the FAO-executed project “Strengthening the Knowledge Base for and Implementing an Ecosystem Approach to Marine Fisheries in Developing Countries – EAF Project” (GCP/INT/003/NOR) (including linked national survey vessel programs) and other program partners (SRFC (AGPAO, AFD etc.), PRCM and others) to confirm and specify the types of assessments to be undertaken using the *RV Dr. Fridtjof Nansen* platform (and participating national vessels where appropriate), to identify coordination arrangements with national research vessels and to establish a detailed survey schedule. The occasion will be used to establish a series of thematic working groups for the assessment & survey work (a total of five groups are expected on the themes of survey data analysis & planning, ecosystem interactions, demersal and pelagic resources and fisheries trade – the final designations are flexible and will depend on the perceived need at the time). Component 3 personnel would also participate in order define

survey needs for habitat, biodiversity and water quality issues (see below under Component 3 activities). As part of the planning forum, the training schedule for local researchers participating in assessments on board the *RV Dr. Fridtjof Nansen* will be established. Further, a protocol for calibration between *RV Dr. Fridtjof Nansen* and national research vessels will be developed to ensure comparability and synthesis of survey results.

89. Following the planning steps, the *RV Dr. Fridtjof Nansen* and national research vessels, with support and guidance from the FAO/EAF-*Nansen* project, will carry out a coordinated ecosystem assessment program with coverage of the entire CCLME from Morocco to Guinea including Cape Verde, focusing on the identified priority themes. Survey work will be strictly focused on information needs enabling countries to address priority transboundary concerns. Surveys are nevertheless expected to include certain overarching studies relevant to both components 2 and 3 and which are budgeted under Component 1 above (see under Component 1 activities).

90. The surveys using the *Nansen* will include an evaluation of CCLME productivity and its carrying capacity for living marine resources and possibly a number of specialized surveys including effects of oil pollution on fish, identification of pelagic or demersal spawning areas and fish stock variability in response to climate and hydrology. The *Nansen* and national ship-based surveys will also contribute to specialized assessments of marine litter, alien and invasive species in the marine environment under Component 3. These specialized surveys will fill important knowledge gaps in relation to trans-boundary concerns of perceived importance but which have never been quantified. The final agreement on the number and type of specialized surveys will be reached jointly between the countries at the *Nansen/CCLME* planning forum.

91. Improved capacity for transboundary assessment of marine living resources On-land and on-board training for national scientists participating in the regional fisheries surveys and ecosystem assessments will form an important part of this sub-component of the project and will contribute substantially to: 1) the cross-cutting capacity building objective of the project and 2) sustainability of project impacts. The training schedule for scientists will include both on-land training before and after the field surveys and on-board training. While the CCLME project will support the personal participation of specific scientists, the project will benefit from significant in-kind support through the FAO/*Nansen* EAF program through interaction with participating scientists and on-board experts.

b) Strengthened policies, instruments and capacity for management to address priority transboundary concerns on marine living resources

92. Strengthened policies to address priority transboundary concerns – This sub-component aims to build capacity for sustainable trans-boundary management of fisheries, putting in place appropriate policy instruments and developing regional management approaches. The activities will begin by launching and supporting, with SRFC and development partners, the process to develop a concerted sub-regional management policy including minimum conditions for access, management of foreign fishing effort and introduction of the ecosystem approach to fisheries (EAF). Training will be provided to national management institutions for addressing transboundary fisheries management issues using an ecosystem-based approach (working closely with the FAO/*Nansen*-EAF project. Management guidelines will be developed for spawning areas and other critical fish habitat areas, and trade policy proposals and market mechanisms will be designed as potential future measures to promote sustainable fisheries. Finally, CCLME countries with an interest in Atlantic tuna will receive training and other support for effective participation in ICCAT.

c) Demonstration actions to address priority transboundary concerns on marine living resources

93. Under Component 2, the following demonstration projects will be conducted:

- Policies and plans for sustainable trans-boundary ecosystem-based management of shared small pelagic stocks in North West Africa;

- Reduction of the impact of shrimp trawling through by-catch reduction and management changes;
- Trans-boundary co-management of migratory coastal pelagics of importance to artisanal fisheries (mulletts, bluefish and meagre);

The demonstration projects will: 1) test model approaches; 2) feed into the LME assessment and TDA/SAP process; 3) make concrete progress towards stress reduction on the ecosystem and 4) provide part of the basis for replication within and beyond the CCLME. All projects have been developed in close consultation with the countries and development partners, and all benefit from a substantial degree of co-financing. Coordination of the demonstration projects will be assured by partner organizations through letters of agreement. Summaries of the projects are provided in Annex 8. Detailed descriptions of the demonstration projects and of the selection procedure have been considered in the independent technical review and can be provided on request.

Component 3: Biodiversity, habitat & Water Quality - Strengthened knowledge, capacity and policy base for trans-boundary assessment & management of habitat & biodiversity and water quality critical to fisheries (GEF: US\$2,000,000, co-financing US\$6,637,000)

94. Component Objective and outcomes: The objective of this component is to strengthen the knowledge, capacity and policy for transboundary assessment and management of habitat & biodiversity and water quality critical to fisheries. In particular, the project will aim to: 1) fill knowledge gaps in relation to critical habitat, biodiversity and water quality for the purpose of the TDA and SAP; 2) deliver capacity building, policy making and planning for the SAP and 3) undertake demonstration actions to address priority transboundary concerns on declining biodiversity and water quality. The component corresponds closely to the 3rd LME Module (Pollution & Ecosystem Health) and will focus on the identification and management of habitat and water quality parameters that are critical to the productive ecosystem functions of the CCLME, such as demersal habitats (including seamounts), estuarine habitats (including mangroves), ocean acidity & pollution, estuarine salinity, sediment loading, dissolved oxygen and nutrient levels (nitrogen, phosphorous, organic carbon etc.). The component will assist countries to implement the Global Plan of Action for Protection of the Marine Environment from Land-based Activities (GPA).

Component Activities:

a) Knowledge gaps filled in relation to critical habitat, biodiversity and water quality for the purpose of the TDA and SAP

97. As a first step, during the 1st International CCLME Symposium (see Component 1), a general working group for Component 3 will be established, together with thematic groups. The Component 3 working group and thematic groups will use the occasion to undertake a general assessment of data and information including policy and legislation gaps for the TDA and compilation of existing data in relation to pollution & ecosystem health in the CCLME region and prepare a report of the findings.

98. As a second step, based on the identified gaps, the component will make use of the special survey planning forum to be organized jointly with the FAO/Nansen/EAF program under Component 2 where component 3 personnel would also participate in order define survey needs for habitat, biodiversity and water quality issues (see under Component 2 activities) as well as to decide on participation and sampling and analysis protocols for the survey and results. [

99. In a subsequent step, a geo-referenced data base on habitats and biodiversity will be developed with a view to storing and analyzing data and generating the necessary maps for the component. This database will play an important role throughout the component in analysis and will be linked as early as possible to the CCLME interactive website to enable national teams and experts to access the data.

100. Assessments under component 3 - A next important step will be to assess key biodiversity of the CCLME, making maximum use of existing information and earlier assessments (such as one undertaken by WWF). Assessments will also be undertaken of critical habitats including MPAs and, threatened species of global concern (cetaceans, turtles, manatees, sawfish, monk seals, waterbirds etc.). An assessment will also be undertaken of the water quality needs of estuaries for essential ecosystem functions to be maintained (such as nursery of reproduction areas and productivity functions) in order to understand the impacts of altered flow regimes as produced by dams, water extraction and coastal works. An assessment will also be undertaken of the impact of land-based activities on water and sediment quality in the LME.

(b) Capacity building, policy making, and planning for the SAP: trans-boundary assessment and management of critical habitat & biodiversity and water quality

102. This sub-component aims to build capacity for sustainable trans-boundary assessment and management of critical habitat & biodiversity and water quality, putting in place appropriate policies and plans and testing regional management approaches through demonstration actions. Activities will take account of the existing emergency protocol to the Abidjan Convention and the new protocol on land-based activities which is under negotiation. Firstly, an LME-wide plan for the management and monitoring of critical habitat will be developed, to include a regional plan for the development and management of the regional MPAs network. Plans will also be developed in close consultation with the river basin authorities for setting minimum water flow regimes and water extraction guidelines, so as to maintain as far as possible the important ecological function of estuaries.

103. With regard to land based activities affecting the CCLME (including pollution), following completion of the above assessments, a plan would be drawn up, benefiting from the assistance of UNEP and the GPA in The Hague, and in line with the recently adopted Abidjan Convention protocol for the protection of the marine and coastal environment from land-based sources and activities. The plan would be drawn up as a regional plan under the GPA. The land-based activities plan would be a collective response of CCLME countries to a WSSD target.

104. During the PDF-B phase, an issue of considerable concern to CCLME countries was the risk of oil pollution due to offshore petroleum exploitation. Cape Verde, for example, was particularly concerned because of its dependence on desalination for freshwater and its downstream position in relation to the identified oil fields. Guinea Bissau also expressed concern because of its extensive areas of sensitive habitat. Using information derived from the assessments (including an oil pollution risk assessment based on modeling conducted with the petroleum industry itself), countries of the CCLME would develop a common contingency plan. The support of IMO would be enlisted to assist with plan formulation and to ensure linkages to maritime traffic regulation and other relevant factors.

105. Finally, and in the interests of promoting an integrated and ecosystem-based approach, a draft master plan will be drawn up for the overall management of water quality on the CCLME, integrating both land-based and marine-based activities affecting water quality in the CCLME. This draft instrument will be discussed as a possible instrument for further development as part of SAP implementation.

c) Implementation of demonstration stress reduction measures: assessment & management of critical habitat & biodiversity and water quality

106. Under Component 3, the following demonstration projects will be conducted:

- Multi-country demonstration of MPAs as tools for multiple resource management benefits
- Development of a regional mangrove conservation plan with pilot restoration actions

The above demonstration projects will contribute substantially to the project objective and to the long-term project goal. The demonstration projects will both: 1) test model multi-country approaches; 2)

feed into the LME assessment and TDA/SAP process; 3) make concrete progress towards stress reduction on the ecosystem and 4) provide part of the basis for replication within and beyond the CCLME. All demonstration projects have been developed in close consultation with the countries and development partners, and all benefit from a substantial degree of co-financing. Coordination of the demonstration projects will be assured by partner organizations through letters of agreement. Brief descriptions of the demonstration projects are provided in Annex 8. The MPA project will aim to demonstrate the potential of MPAs to generate multiple-resource management benefits, especially in the context of artisanal demersal fisheries in close partnership with the AFD project on co-management in artisanal fisheries for SRFC countries, also to be coordinated from the SRFC. The mangrove conservation project will help develop the required knowledge, capacity and instruments needed to ensure the conservation of one of the most important fish habitats of the CCLME, measure the benefits of mangrove conservation and demonstrate an approach to be replicated or adapted for other critical habitats.

PART VII – IMPLEMENTATION

Project implementation arrangements

107. The project will be jointly implemented by FAO and UNEP which will together assure overall integrity of the project. FAO will be specifically responsible for project components 1 and 2 as well as demonstration projects no. 1, 2, 3 under Component 2 and demonstration no. 4 (*Demonstration of MPAs as tools for multiple resource management benefits*) under component 3. UNEP will be responsible for component 3, and demonstration number 5. As the lead GEF agency, FAO, in close consultation with UNEP, will be responsible for overall project implementation to ensure consistency with GEF policies and procedures. The project will be implemented as a comprehensive program and not as two separate projects. The Sub-regional Fisheries Commission (SRFC) in Dakar, Senegal will continue to serve as the main counterpart organization for the overall project and will host the Regional Coordination Unit.

108. FAO will be responsible for the overall global administration and co-ordination of the project, in close consultation with UNEP and specifically responsible for the execution of project components 1, 2 and demonstration project no. 4 (*Demonstration of MPAs as tools for multiple resource management benefits*), given its primary focus on fisheries management. This demonstration project will be carried out in close collaboration with the Agence Française de Développement (AFD) in accordance with a pre-existing agreement between FAO and AFD and in close consultation with UNEP. As the executing agencies of these components, FAO will be responsible for, *inter alia*, the overall financial management of the project, ensuring that the necessary human resources and inputs are provided in a timely manner to ensure smooth implementation of the project and delivery of project outcomes, and the submission of project progress and financial reports to GEF. FAO will facilitate and ensure the sharing and flow of information and linkages among project partners as well as with other major on-going initiatives in the region. FAO will provide technical support to the project in a very broad sense, tapping into the expertise from its programs on fisheries, forestry, land and water, sustainable development, legal, biodiversity, among others. UNEP will be primarily responsible for Component 3 (habitats, biodiversity & water quality), and will collaborate actively in the other components of the project. The Secretariat for the Abidjan Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment will execute component 3 of the project on behalf of UNEP.

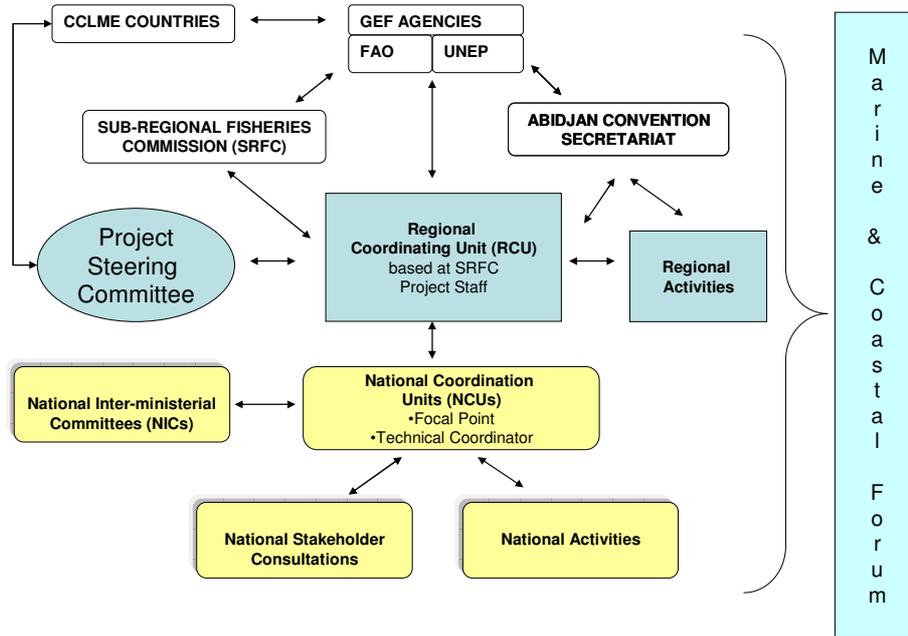
109. Regional and national coordination arrangements for this project are presented in Figure 1. The organizational arrangements include a Project Steering Committee, the Regional Coordinating Unit, National Interministerial Committees, National Coordination Units, the stakeholders, and other parties in the project. The project will be driven by a Project Steering Committee composed of representatives from the seven project countries and one representative each from UNEP, FAO, SRFC, the Abidjan Convention Secretariat. Other collaborating institutions, such as COMHAFAT, IUCN,

NOAA, NEPAD, CECAF, PRCM, IMR and the World Bank, will be invited as observers on an *ad hoc* basis.

110. The Regional Coordination Unit (RCU) will be based at SRFC, Dakar, Senegal. The role of the RCU is to ensure the coordination and execution of the project and implementation of the work plan, both at the regional and national levels. The RCU will consist of a Regional Project Coordinator (RPC), component leaders for Component 2 (fisheries) and Component 3 (biodiversity & water quality), an Administrative Assistant, and other personnel as required on a part time basis. Outside consultants may be recruited to support the team on specific matters.

111. Each country will designate a National Project Focal Point (NPF) and National Technical Coordinator (NTC) who will serve as the main liaison persons between the project and the national technical experts and the broad range of stakeholders. NPFs will normally be from the environment ministries and NTCs from the fisheries ministries. National Coordination Units (NCUs) will be established in each country, housed in a suitable government building, where the NPF and/or NTC will be located. The NCUs will coordinate activities at the national level including acting as secretariat to the National Interministerial Committees (NICs) and for organizing stakeholder consultations. NCUs may also contribute to coordinating demonstration projects at the national level.

Figure 1 – Project implementation arrangements



112. The Sub-regional Fisheries Commission (SRFC)³⁹ will continue to serve as the main counterpart agency within the region and will host the Regional Coordination Unit. The SRFC will facilitate access by the CCLME project to the SRFC participating countries' fisheries administrations on a daily basis and through its Conference of Ministers responsible for Fisheries and a Coordinating Committee composed of the Directors of Fisheries meeting. The SRFC is also a common partner with the Regional Coastal and Marine Conservation Program for West Africa (PRCM). By locating the RCU at SRFC, the CCLME project would also benefit from the presence of important project partners and projects based at the commission, in particular the AFD/SRFC project on co-management & MPAs, the IAC/Wageningen (Netherlands funded) project on small pelagics, the GTZ project of institutional support to the SRFC and others (see Annex 8).

Project Steering Committee

113. The Project will be guided by a Project Steering Committee. The Project Steering Committee (PSC) will be responsible for providing general oversight of the execution of the CCLME Project and will ensure that all inputs and processes required for the development of the Trans-boundary Diagnostic Analysis (TDA), the Strategic Action Programme (SAP) and any additional activities agreed upon under the Project Brief are adequately prepared and carried out. In particular, it will:

- Provide overall guidance to the Regional Coordination Unit in the execution of the project.
- Ensure all project outputs are in accordance with the CCLME Project Brief.
- Review, amend if appropriate, and approve the draft Annual Regional Work Plan of the project for submission to the GEFSEC and UNEP.
- Facilitate the “mainstreaming” of relevant project findings and recommendations into national policy.

114. The PSC will be comprised of one representative from each of the eight Project countries: Morocco, Mauritania, Senegal, Cape Verde, Gambia, Guinea Bissau, Guinea)⁴⁰ and one representative each from UNEP, Abidjan Convention Secretariat, FAO, and SRFC. Other collaborating institutions, such as COMHAFAT, IUCN, NOAA, NEPAD, CECAF, PRCM, IMR and the World Bank who would ensure representation of World Bank-executed coastal and fisheries projects in the region (GIRMaC, CBMP, PGIRN, ICAM Gambia) and the Strategic Partnership project for fisheries in the African LMEs), will be invited as observers on an *ad hoc* basis. The GCLME project would be invited to send a representative to promote effective coordination between CCLME and GCLME in overlapping countries (Guinea, Guinea Bissau). The PSC will meet annually to monitor progress in project implementation, provide strategic and policy guidance, and review and approve work plans and budgets. In exceptional circumstances, extraordinary meetings of the SC may be called to consider urgent questions. The Project Steering Committee will also maintain oversight of the implementation of the demonstration projects. The PSC meetings will be chaired in rotation by national representatives.

Regional Coordination Unit

115. The Regional Coordination Unit (RCU) will be based at SRFC, Dakar, Senegal. The role of the RCU is to ensure the coordination and execution of the project and implementation of the work plan. The RCU will consist of a Chief Technical Adviser (CTA), two project component managers responsible for Marine living resources and Critical habitats, biodiversity and water quality, an information and communications officer, a project financial administrator, an administrative assistant and a driver. The component managers and the Information and Communications officer positions would be the subject of competitive regional recruitment. The financial administrator, administrative assistant and driver would be competitively recruited nationally (Senegal). The RCU will closely follow the implementation of project activities, handle day-to-day project issues and requirements,

³⁹ In French CSRP or Commission Sous-régionale des Pêches

⁴⁰ With the potential addition of Spain and Portugal if these countries join the project

coordinate them and ensure a high degree of transnational and inter-institutional collaboration (international and regional organizations and donors). It will be responsible for the production of six-month progress reports and annual expenses reports. It will also assist in the preparation of the mid-term and final evaluations of the project.

National Focal Points & Technical Coordinators

116. For the purposes of the PDF-B, each country designated a National Project Focal Point (NPF) and a National Technical Coordinator (NTC) who served as the main liaison persons between the project and the national administration and national technical experts and stakeholders. NPF's, mostly from the environment ministries, were responsible for overall leadership of the national preparation process while NTCs, mostly from fisheries ministries, were responsible for coordination of preparation activities, reporting to the NPF. For the full project it is proposed to maintain the existing arrangement, while recognizing that countries are free to revise the existing designations of NPFs and NTCs should they consider necessary.

National Interministerial Committees (NICs)

117. For the purposes of the PDF-B, each participating country established a National Interministerial Committee comprising the ministries for environment and fisheries with additional ministries according to country context. The main roles of NICs were to approve plans for the national consultations and approve the national assessment report. For the purposes of the main project the NICs will be maintained and extended to include additional ministries as appropriate. The main task of the NICs is to promote and give validity to the cross-sector approach implied in the LME concept at the national level.

National Coordination Units

118. National Focal Points and Coordinators will be mandated to establish in their respective countries a National Coordination Unit (NCU) in order to provide a single center for coordinating national project activities. The NCU will be composed of the NPF, the NTC and resource persons from different Ministries involved in the project's activities. Each NCU will be equipped with a desk top and one laptop computer, office furniture, telephone and internet connection. NCUs will be located in a suitable government or official building, and basic services provided by the country in question (which will represent a part of the national in-kind contribution to the project). The NCU should be permanently staffed by either the NPF or the NTC. A budget will be provided to cover the incremental cost associated with establishment of the NCUs.

West African Marine & Coastal Forum

119. One of the major initiatives of the PRCM program has been to establish and finance the West African Marine & Coastal Forum. The Forum meets approximately every 18 months, and has been convened in 2004, December 2005 and most recently April 2007. The forum brings together the principal actors concerned with activities under the PRCM program, including representatives of governments, intergovernmental bodies (e.g. SRFC), international NGOs, research organizations and stakeholder groups e.g. fishers' association representatives. The composition of the forum is determined by the composition of the PRCM program itself (based on five components – protected areas, fisheries, research, ecotourism, hydrocarbons and communication) and its zones of geographical intervention. GEF incremental support would be used to extend and re-direct the coverage of issues and stakeholder representation to ensure the forum's adequacy as platform to address transboundary issues affecting the CCLME. The forum will also serve as the principal open platform for presenting and debating the TDA, the first LME Assessment and SAP before they go forward for formal adoption by the countries.

Thematic Technical Working Groups

120. The project will establish *ad hoc* Technical Working groups where necessary for the steering of the assessment and survey work. An estimated total of seven (7) working groups will be established (in addition to the special working groups on climate change and evaluation of CCLME goods and services), including an estimated seven groups for Component 2 (marine living resources) and an estimated three groups for Component 3 (critical habitats, biodiversity and water quality). This estimate assumes the some grouping of associated topics where group members may be expert in several related topics. The precise number of working groups will be decided during the initial CCLME symposium and EAF-Nansen planning forum. For the purposes of project budgeting technical working group meetings, an average group size of 25 members has been assumed, but this is likely to vary considerably between topics.

PART VIII – COORDINATION WITH IAs & EAs

Core commitments & linkages

121. Linkage to FAO's and UNEP's programs – The project will benefit from the extensive array of linkages that FAO and UNEP can bring as international organizations both extensively involved in international waters issues and activities at the country, sub-regional, regional and global levels, including both GEF and non-GEF activities (Table 13).

122. Linkages brought by FAO – FAO has good working relationships with the national fisheries agencies and numerous other institutions, programs and projects within the CCLME region and around the world relevant to the CCLME project. This excellent network will help bring added value to the CCLME project through transfer and exchange of information and experience and promoting political will to adopt the necessary governance reforms and investments. At the global level, the FAO Committee on Fisheries (COFI) is a forum for all the fisheries administrations of the world and ensures that the Organization is in touch with the developing and critical issues in fisheries, while also providing guidance to the programme of work of the FAO Fisheries and Aquaculture Department. FAO through its mandate is involved in various global programmes such as FISHCODE and all its components and information programmes such as GLOBEFISH and INFOPÊCHE. FAO also has existing, or recently completed, projects with GEF relevant to the issues for the CCLME, such as a global project with UNEP as implementing agency on the reduction of the impacts of shrimp trawling, and a core project of the Benguela Current LME program entitled “Ecosystem Approaches for Fisheries (EAF) Management in the BCLME: LMR/EAF/03/01, for which FAO acted as an Associated Agency and provided international coordination and leadership as well as technical and in-kind support.

123. FAO has also been responsible for a major project entitled ‘Sustainable Fisheries Livelihood Project’ (SFLP) funded by DIFID covering most countries in West Africa and which has included activities in several of the CCLME countries (Cape Verde, Mauritania, Senegal & Guinea). FAO, together with WWF and the World Bank, helped in the establishment the Strategic Partnership for a Sustainable Fisheries Investment Fund in Sub-Saharan Africa and continues to participate in the World Bank/GEF initiative. Another global project of relevance is the NORAD funded project on Strengthening knowledge base for and implementing EAF in developing countries FAO is also involved in a suite of very relevant projects supported by Japan, including projects on factors of unsustainability in fisheries, sea turtle / fisheries interactions and building capacity for the ecosystem approach to fisheries. Within the region, FAO has been directly supporting the SRFC through the Technical Cooperation program in development of its strategic action plan and works with the member countries of CECAF in implementation of scientifically-based and effective management in the CECAF region. FAO also participates in meetings of ATLAFCO and collaborates with ICCAT,

NEPAD and WACAF. Other linkages are referred to in Table 13. Full details of the above linkages are provided in the project document.

124. Within FAO, the project is linked on a daily basis to the Fisheries and Aquaculture Department where the Fisheries Management and Conservation Service (FIMF) will lead and coordinate its execution with the involvement of other services within that department as well as with other departments within FAO (the Technical Cooperation Department with GEF Focal Point (TCAP) and the investment centre, the Legal Office, the Natural Resources Management and Environment Department, etc.) and the appropriate FAO Regional, Sub-regional and Country Office. Through these linkages the project will interact with a range of national, regional and global activities within the Department, benefiting from the wide and dynamic experiences and expertise available at FAO. In order to facilitate interaction with these various departments, FAO established at the outset of the PDF-B, and will maintain throughout the project, an internal multidisciplinary Task Force which will be called upon as a group or individually to consider project progress and advice on specific questions that arise.

125. Linkages to UNEP's programs – The project will also benefit from linkages to UNEP's extensive range of programs in the relevant areas, including in particular the UNEP Regional Seas Program, the Global Plan of Action in relation to Land-based Activities affecting the marine and coastal environment (GPA) (The Hague), the Global International Waters Assessment (GIWA) and as supporting agency to the Secretariat to the Abidjan Convention. UNEP also has an extensive array of relevant linkages at the global, regional and national levels that will benefit the project, including. Through these linkages, the project will be able to identify and benefit from all the major opportunities for linkages to programs and projects within the UNEP global networks.

Table 13 – Linkages to relevant programs involving UNEP and FAO (non-exhaustive)

Level	UNEP GEF	UNEP other	FAO GEF	FAO other
Global	Regional Seas - Marine litter project (GEF MSP) GEF SIDS project (includes Cape Verde) Reduction of the Impact of Shrimp Fisheries Capacity support to Global Invasive Species Program	Regional Seas Program Abidjan Convention and WACAF Global Program of Action for the Protection of the Marine Environment from Land-based Activities (GPA) GIWA	Strategic Partnership for a Sustainable Fisheries Investment Fund in Sub-Saharan Africa (PROFISH) WB-WWF-FAO GCP/INT/956/WBG Reduction of the Impact of Shrimp Fisheries GF/FP/1100-98-15	COFI GLOBEFISH INFOPECHE Review of Factors Contributing to Over-Exploitation and Unsustainability in Fisheries (GCP/INT/788/JPN) Interaction between Sea Turtles and Fisheries within an Ecosystem Approach to Fisheries Management (GCP/INT/919/JPN) Capacity Building for Ecosystem Approach: Considering Interactions, including with Marine Mammals (GCP/INT/920/JPN) CITES and Commercially-exploited Aquatic Species including the Evaluation of Listing Proposals (GCP/INT/987/JPN) Various projects under the FISHCODE Umbrella including: Improving Information on Status and Trends of capture fisheries EAF-Nansen project (Strengthening knowledge base for and implementing EAF in developing countries) (GCP/INT/003/NOR).
Regional	Guinea Current LME	Support to Abidjan		Assistance in the Management

	Program (GCLME) (GEF/UNEP/UNIDO) Support to NEPAD Environmental Action Plan Sustainable Coastal Tourism project (GEF/UNEP/UNIDO)	Convention Secretariat Support to Convention on Migratory Species (Sirenians)	Ecosystem Approach to Fisheries in the Benguela Current LME UNDP/GEF RAF/002/G32 – UNOPS Ref. LMR/EAF/03/01 Guinea Current LME Program (GEF/UNEP/UNIDO)	and Development of the Fisheries of the Eastern Central Atlantic (CECAF Area)- GCP/RAF/397/SWE Support to CECAF Working Groups on Pelagics & Demersals in CECAF area Sustainable Fisheries Livelihoods Program (SFLP) (GCP/INT/735/UK)
Sub-regional				FAO Support to SRFC Strategic Action Plan International Cooperation with the <i>Nansen</i> Program (GCP/INT/730/NOR)
National				Coastal Zone Fisheries (SFLP pilot projects in Guinea & Mauritania) Improved livelihoods in post-harvest fisheries sector (SFLP in Senegal)

126. Linkages to specific UNEP programs - CCLME would coordinate with UNEP over the conduct of a marine litter assessment for the CCLME, benefiting from UNEP's experience of other regions. CCLME will link to the UNEP/UNDP SIDs program in order to ensure that information relating to Cape Verde informs the TDA/SAP process. The UNEP Regional Seas program is a partner with NOAA and IUCN in a global LME program that seeks to monitor global progress on LMEs, to which CCLME will contribute. In addition, the Regional Seas program possesses valuable data on the CCLME that would be reviewed for the TDA-SAP process. The GPA program, in The Hague, also possesses information relevant to the CCLME and would be requested to assist with ensuring coherence between the GPA and the CCLME SAP. Information exchange would be maintained with the GIWA process. UNEP is also co-implementing agency for the Guinea Current LME project (GCLME) and supports the NEPAD environment program, which is linked to the African LMEs. The CCLME project will develop active coordination with GCLME in relation to shared countries (Guinea Bissau and Guinea). Finally, linkages with UNEP will facilitate synergy between CCLME and the Abidjan Convention.

Consultation, coordination and collaboration with other IAs & ExAs

127. Linkages to World Bank – The World Bank is responsible for the GEF-supported Strategic Partnership for a Fund for Sustainable Fisheries for the LMEs of Sub-Saharan Africa for which CCLME is a council member. The Bank has recently initiated a concept for a regional fisheries project in West Africa that would seek to draw upon GEF funds from the Strategic Partnership with co-finance from IDA loans, with which CCLME would coordinate closely. At the national level, CCLME has established a specific collaboration agreement with the World Bank-supported GIRMaC ICZM project in Senegal, to be extended during implementation to the other major World Bank-supported ICZM projects in the sub-region (ICAM Gambia, PGBZCGB Guinea Bissau and PGIRN Guinea). Linkages have been initiated and will be further developed with the Senegal River Basin Program (BFS) along with linkages to the Senegal River Basin Authority itself (OMVS). These linkages will be specifically maintained, developed and monitored as part of the project activities.

128. Linkages with UNDP – The UNDP is engaged in activities relevant to CCLME at the global, and sub-regional and levels, and in certain national activities in CCLME countries. At the global level, UNDP is the IA for the Globallast project (Phase 2) executed by IMO. CCLME will cooperate with Globallast in undertaking a ballast water assessment for the CCLME. Senegal's selection as Globallast country partner will encourage further interaction. Also at the global level (although focused initially on Africa), UNDP will act as IA for the project 'Strengthening the knowledge base for application of the Ecosystem Approach to Fisheries (EAF)' executed by FAO which will develop a program using the *Nansen* research vessel as a platform for building capacity of African countries in applying the

Ecosystem Approach to Fisheries (EAF). UNDP is also the IA for the Benguela Current LME (BCLME) and the Agulhas & Somali Current LMEs (ASCLMEs) projects with which (along with GCLME) CCLME will interact at a technical level. Within the CCLME sub-region, UNDP is IA for the IOC-UNESCO-executed climate change adaptation project (ACCC) which will cooperate closely with CCLME on issues of common interest, particularly the conservation of mangroves. Finally, UNDP supports a small project of UNESCO on MPAs in Cape Verde of possible relevance to the CCLME project.

Table 7 - Linkages to UNDP and World Bank programs (non-exhaustive)

Project level	UNDP	World Bank
Global	Globalst Program GEF/UNDP/IMO Strengthening knowledge and capacity for implementing the Ecosystem Approach to Fisheries (EAF) (GEF/UNDP/FAO) (request to GEF pending) (Project to focus mostly on Africa)	PROFISH Partnership (World Bank and development partners) ⁴¹
Regional (all Africa)	Guinea Current LME Program (UNIDO/UNDP/UNEP/NOAA/IOC/UNESCO) Benguela Current LME Program (GEF/UNEP/UNOPS) Agulhas & Somali Currents LMEs Program (GEF/UNDP/UNOPS)	Strategic Partnership for a sustainable fisheries fund for the LMEs of Sub-Saharan Africa (GEF/WB/FAO/WWF)
Sub-regional (West Africa)	Climate change adaptation through ICZM (GEF/UNDP/IOC-UNESCO)	Senegal River Basin Project (BFS) (OMVS) Regional fisheries project for West Africa (IDA) (new initiative)
National	Support to National Environment program in Cape Verde (UNESCO) MPAs in Cape Verde (executed by UNESCO)	<u>National ICZM projects:</u> GIRMaC (Senegal), CBMP (Guinea Bissau), ICAM (Gambia), PGIRN (Guinea)

Implementation/execution arrangements

129. The proposed implementation and execution arrangements will ensure a high quality of technical and financial implementation. UNEP and FAO have extensive complimentary experience in the domain of the project and of collaborating together on GEF projects (including LME projects). FAO has specific expertise to contribute in fisheries and marine ecosystems, while UNEP is able to mobilize expertise in relation to land-based activities affecting the marine & coastal environment and fostering integrated approaches. The project will recruit an international project coordinator and a project coordination team with relevant qualifications and experience. FAO has established an internal Task Force to monitor the project and provide advice where needed, and UNEP will make use of in-house expertise within GPA, the Regional Seas Program and the Abidjan Convention Secretariat. Rigorous standards of financial and technical reporting and M&E will be applied and the project will be the subject of an independent mid-term review which will enable corrective steps to be taken well before project end if necessary.

PART IX – STAKEHOLDER INVOLVEMENT

Identity of major stakeholders

130. A broad range of stakeholders are concerned with LME projects, ranging from the various end users benefiting from goods and services of the LME to the intergovernmental agencies that are concerned with the management or governance of marine and coastal ecosystems and resources. The stakeholders and beneficiaries of the project include communities and populations, the private sector,

⁴¹ PROFISH is a global partnership of developing coastal countries and their development partners including Iceland, France, Norway & Finland, Japan, FAO, IUCN, World Fish Center and the World Bank.

NGOs, national government departments and institutions, intergovernmental organizations, international agencies and multi-lateral and bi-lateral development partners. For the CCLME, stakeholder involvement began with the project preparation process. The project will systematically involve stakeholders as part of its support to TDA/SAP development and implementation, and as part of the support to the specific objectives.

131. National level stakeholders - As part of the project preparation process, national stakeholders were identified by the national coordinating teams and invited to participate in the National Consultations (as summarized in Table 8). Each country prepared a stakeholder inventory (see Annex 3 for stakeholder lists from each country). There was considerable variation between countries in the structure of ministries, requiring a functional approach to identifying those most concerned. Based on this initial stakeholder assessment, country focal points and coordinators determined 1) the optimal composition of National Inter-ministerial Committees, comprising representatives of the administration and 2) the list of stakeholders to include in a National Consultation. At the National Consultations all stakeholders were invited in turn to express their concerns and then participated in working groups and plenary discussion.

Table 8 – Categories of stakeholders identified and participating in national consultations

Category	Stakeholder groups
Direct users and beneficiaries of CCLME goods & services	Fishers & fishing communities Fish product processors Middlemen & fish merchants Fish product exporters Industrial fishing companies Maritime transporters Salt makers Sand miners (for construction) Mangrove wood exploiters & users Consumers of products from the CCLME Coastal populations & inhabitants Tourist & tourism operators
Civil society actors	Professional associations (artisanal & industrial fishers) NGOs
Sector ministries or agencies responsible for:	Fisheries Environment Forests Agriculture Energy & Mines Tourism Water Public Health Transport Defense Education & Research Finance Foreign Affairs Planning & lands etc.
Other government actors	MPA management authorities Port Authorities Coastguard District Authorities
Assessors of resources	Fisheries, oceanographic & environmental research institutes University marine science departments
Private sector	Fishing companies Petroleum companies Tour Operators, hotels

132. International & regional institutional stakeholders - In parallel, the project coordination unit sought to identify regional and international institutional stakeholders concerned with the CCLME, as summarized in Table 9. Most of these stakeholders were consulted, leading in most cases to participation on the CCLME project preparation process and in some cases the identification of synergies and cost-sharing arrangements. The majority of International and regional stakeholders were invited to participate at the 1st Sub-regional Consultation of the CCLME project in October 2005 and again at the Preliminary TDA workshop of July 2006 and/or the Final Sub-regional Consultation in September 2006. All stakeholders identified in Table 9 participated in one or other workshop with the exception of the following: FFEM, DfID, KfW, IMO, AfDB, UBC, Ruitgers University, RED-AFRIMAR, ICCAT, Ramsar Convention, UNEP-GPA, IUCN-SSC, CMS, The Group (Holland) and Woodside Petroleum. Of these, all have been consulted directly with the exceptions of DfID, ICCAT, Ramsar Convention, CMS and The Group (Holland). Of these, contacts have been established with linked projects or organizational members with the exception of The Group (Holland). Contact with this important private sector stakeholder (and other industrial fishing companies) will be established upon onset of project implementation.

Table 9 – International and regional stakeholders concerned with the CCLME

Level	Sub-category / interest area	Stakeholder	Synergies identified
International	Multilateral donor agencies	GEF, FFEM, EU, IDA	GEF, FFEM, EU and IDA (via World Bank)
	Bilateral donor agencies	AFD, DfID, KfW/GTZ, Switzerland, Spanish Cooperation, Holland (Embassy, Dakar & Ministry of Agriculture), JICA	AFD, GTZ, Spain, Holland
	GEF Implementing agencies	World Bank, UNDP & UNEP	All IAs
	GEF Execution agencies	FAO, IMO, UNIDO, IOC-UNESCO, AfDB, IUCN	IMO, UNIDO, IOC-UNESCO, IUCN (AfDB under discussion)
	Technical / scientific organizations	NOAA	NOAA
	Institutes / research organizations	IEO, IRD, IFREMER, UBC, Ruitgers, IMR Norway, CEMARE,	IEO (as part of RED-AFRIMAR), IRD, UBC, Ruitgers, IMR,CEMARE
	Fisheries organizations	FAO, ICCAT	FAO
	Habitat, species & water quality	Ramsar Convention, UNEP/GPA, CMS, IUCN-SSC	GPA, IUCN-SSC, CMS
	International NGOs	IUCN, WWF, FIBA & Wetlands International (PRCM)	All (via PRCM)
	Industrial fishing companies	The Group (Holland)	-
	Industrial petroleum companies	Woodside Petroleum (Australia)	Discussed, to be confirmed
Regional	Fisheries organizations	SRFC, ATLAFCO, CECAF, AGC, ADEPA	All
	River basin organizations	OMVS, OMVG	Discussed, to be confirmed
	Habitat, species & water quality	Abidjan Convention, PRCM, AGC	All

Approach to stakeholder involvement

133. The identified stakeholders will be directly involved in various ways in the future project. Under Component 1 (Regional coordination for LME Assessment & the TDA/SAP process), as a first step, representatives of users of CCLME goods and services will participate at national level meetings, either at special forums or as resource persons at National Interministerial Committee meetings (NICs). Representatives of user groups will be designated (through a transparent process) to represent

resource users at regional meetings. A particular effort will be made to ensure that fishers provide ecological information to the 1st International CCLME Symposium on the state of resources and to the forum with the FAO/Nansen-EAF project to design a program of surveys to fill knowledge gaps. Resource users will be consulted to ensure that the CCLME information management system is accessible to, responds to the needs of, and encourages contributions from, resource users. Resource user representatives will also be encouraged to participate in the SAP formulation process, and will be represented at the West African Marine & Coastal Forum. Under Component 2, resource users will be consulted in the design of fish stock assessments, specialized assessments, participate at science/management forums, debates on resource access etc., and participate directly in the demonstration projects. Under Component 3, resource users are expected to make a significant contribution to the identification and assessment of critical habitat such as spawning areas), in the design of a regional MPA network, the assessment of endangered species and in the demonstration projects. The Public Involvement Plan (Annex 3) sets out in greater detail how stakeholders and the interested public will be involved in project activities.

134. Sector ministries and other government actors will be involved primarily through the National Interministerial Committees (NICs) which are designed to ensure that the different sectors are consulted and that an integrated approach is taken to stewardship of the CCLME. Under Component 1, sector ministries will participate at the 1st International CCLME Symposium and will be represented as appropriate in the thematic working groups, the special assessment groups on climate change and valuation of CCLME goods & services and in the SAP formulation group itself. Sector ministries will have the opportunity to contribute to the design of a CCLME information system that responds to their needs and encourages their contribution to the system. Appropriate ministry personnel will receive training in use and maintenance of the system. Finance ministry personnel, in particular, will be involved in the valuation of CCLME goods & services and in the development of sustainable finance mechanisms for LME monitoring and SAP implementation. Under Component 2, sector personnel will participate as necessary in forums and planning for the filling of knowledge gaps, in training for survey work, in the conduct of assessments and in the harmonization of data collection. Fisheries managers will participate in the science/management forum and relevant sector personnel will participate in legal reviews, policy formulation and developing management plans. Finance ministry experts will be consulted in relation to market and fiscal mechanisms to encourage sustainable practices and the relevant personnel will be involved in the demonstration projects, including park managers in the case of the project on MPAs for fisheries. Under Component 3, sector personnel will enjoy similar involvement as for Component 2. Of particular significance will be the participation of energy sector personnel in the assessment of risks from offshore petroleum and the formulation of contingency plans, and the involvement of agriculture and water personnel concerning the assessment of the impacts of river flow regimes on marine and coastal ecosystems and identifying options for corrective action. As for Component 2, sector personnel will be involved in demonstration projects.

135. Resource assessors will enjoy extensive involvement in this LME project, given the emphasis on assessment and the TDA and LME Assessment. Under Component 1, experts from the national research institutes (in oceanography, fisheries and environment) will contribute extensively to assessment design and implementation, to the composition of technical working groups, LME Assessment report and preparation of the TDA itself. Resource assessors will participate in the design of the information system and benefit from training for its operation and maintenance. Assessors will also contribute to the SAP working group, especially in identifying EcoQOs for the SAP and will participate at the West African Marine & Coastal Forum. Under component 2, resource assessors will make a particular contribution to survey design and implementation and developing linkages to external information systems (GOOS-AFRICA etc.). Fisheries scientists will participate in the science/management fisheries forum and the formulation of policies and plans for transboundary resource management.

Involvement of marginal groups

136. 'Marginal groups' is taken to refer to those stakeholders whose influence over the issues addressed by the project is slight, while their interest or potential contributions may be great. Marginal stakeholders include in particular coastal communities of the CCLME region who depend directly upon the goods and services of the CCLME and who often possess considerable knowledge about resources, but yet are rarely consulted or given the opportunity to contribute. Other marginal groups with potentially important information to contribute include the crews of industrial fishing vessels and foreign researchers, for whom provision will be made in the final methodology. In order to address the involvement of such stakeholders, FAO mandated IUCN during the PDF-B phase to develop a coastal stakeholder strategy, based on its extensive experience of coastal zone communities in the CCLME region. In response an IUCN consultant animated a stakeholder working group at the Preliminary TDA workshop (July 2006) and the Final Sub-regional consultation (September 2006) and, based on results of those working sessions, prepared a preliminary stakeholder consultation methodology (which is integrated into Annex 3). The methodology will be developed into a specific strategy in the early stages of project implementation (see Component 1 Sub-component c). In addition to mandating IUCN, the project preparation phase hosted a masters' degree researcher who contributed a paper on the potential for trans-boundary community-based management areas, particularly for deltas such as the Casamance & Senegal River (see References). Conclusions of the study are also included in Annex 3.

137. Stakeholder participation will be of particular importance in several of the demonstration projects. One demonstration project, on participatory monitoring of the impacts of MPAs on fisheries, will actively seek to involve artisanal fishers in monitoring on the impacts of MPAs in the context of co-management of fisheries. Projects on reducing the by-catch of trawl fisheries, migratory coastal pelagic fisheries and development of a mangrove conservation plan will all need to directly involve coastal stakeholders.

West African Marine & Coastal Forum

138. An important part of stakeholder participation strategy for the CCLME is incremental support to and extension of the existing West African Marine & Coastal Forum, developed by PRCM. The forum, which meets every 18 months (it has met three times so far, most recently in April 2007), brings together actors involved in the PRCM program including representatives of governments, SRFC, NGOs and fishers' organizations. GEF resources would be used to extend coverage and participation of the Forum to include priority transboundary concerns of the CCLME countries and adequate representation of stakeholders, particularly CCLME national focal points & coordinators, resource users & managers, environmental managers, research institutes and to enable the Forum to serve as a platform to debate the TDA, LME Assessment and SAP (including its vision statement and EcoQOs).

PART IX – SUSTAINABILITY, REPLICABILITY & RISKS

Sustainability

139. The present project is based on established models developed within the GEF IW portfolio and capitalizes on the most recent experience of GEF IW projects and LME projects in particular, while taking proper account of the regional context. The foundation for sustainability in the case of the CCLME is to build upon existing fisheries and environmental regional institutional networks (SRFC and the Abidjan Convention) and related structures and to reinforce these frameworks through sustainable financing mechanisms and appropriate economic policies and incentives. SAP implementation would be founded on the combination of the SRFC, Abidjan Convention and other appropriate sub-regional or regional mechanisms, while the results of the demonstration projects would provide a basis for replication within the CCLME through this governance foundation.

140. The strategy for securing country commitment to SAP implementation is threefold: 1) basing the SAP on an institutional framework which combines existing institutions to which CCLME countries are already committed (SRFC, Abidjan, ATLAFCO etc.); 2) using a suite of multi-country demonstration projects to show the benefits of multi-country cooperation and 3) to adopt a partnership approach with other projects and programs in order to develop a common program of support based on the ecosystem approach.

141. Assuming that the above approach succeeds, implementation of the SAP will generate real benefits that will serve to reinforce political commitment to continued action. SAP implementation will lead to more efficient, sustainable use and restoration of the CCLME's natural resources, resulting in improved livelihoods, including economic and nutritional benefits from the resources over the long term. Improved distribution of benefits developed under component 1 (as part of the sustainable financing mechanisms) will result in increased government revenues, improved fishers' incomes, improved human nutrition in the region and the creation of new livelihoods. Several factors intrinsic to project design further favor sustainability of the outcomes including:

- Inclusive nature of project preparation and implementation, giving a sense of ownership of the project in the region;
- Project component structure reflecting the actual groupings of stakeholders, which will lead to greater regional cohesion across each component;
- The TDA/SAP process is highly inclusive across the region and highlights the international nature of the objectives;
- The project seeks to build from existing regional institutions for transboundary management rather than creating new ones;
- The project will engage other development partners;
- Support from UNEP and FAO and GEF backing provides political reassurance;
- From early on in the project means will be sought to secure sustainable finance for the SAP and for LME monitoring.

Perhaps a key factor favoring sustainability will be the aimed for stabilization or improvement in national incomes derived from sustainable management of fish stocks, giving countries a financial incentive to continue with the process. Development and fostering of regional institutional links is also a key element of the strategy for sustainability of project outcomes.

142. Sustainability will be further promoted through strengthening national/regional institutions, in terms of knowledge (assessments) and capacity building (training etc.), and achieved through the establishment of permanent interministry structures. Capacity development will enable governments to implement SAP and National Action Plans (NAPs) beyond the life of the proposed project, through legislative, policy and institutional reforms and sustainable financing mechanisms will be identified for SAP/NAP implementation. Active participation of civil organizations in project activities is a key element for gaining social sustainability. Sustainability will be further favored through implementation of the demonstration projects achieving stress reduction and other long term benefits. Finally, involvement the Abidjan Convention (which will endorse the SAP and related national action plans) and the Sub-Regional Fisheries Commission will provide a sustainable institutional foundation for the project.

143. The principal benefits of the project will be the production of a full TDA and the regional adoption of a SAP with accompanying regional coordination framework and thematic instruments to address the identified problems and with the associated assembled knowledge and human and institutional capacities for their implementation. The main factors that will influence the continuation of these benefits after completion of the project will be: 1) project success and maintenance of the momentum of the overall process; 2) political will of the participating countries; 3) availability of the

necessary resources; and 4) absence of intervening *force majeure* that might frustrate progress (such as political instability, civil unrest or natural disasters).

144. Project success & momentum of overall process – success of the project interventions and maintenance of the momentum depend on project design, implementation and the commitment of IA and EA. Particular features of project design expected to favor project success include the inclusive nature of the project preparation process and of project implementation, with the delegation of responsibility to national level and to project partners. The project component structure reflects the actual groupings of actors (project coordination working with regional partners for the TDA/SAP coordination, fisheries and research actors for component 2 (marine living resources) and environmental and conservation actors for critical habitat, biodiversity and water quality. Demonstration activities will enjoy a substantial degree of decentralization for improved effectiveness. Actions under all components are based on what experienced regional actors considered to be feasible within the project time frame and available resources. The project design features for success will also assist with sustained momentum in particular the inclusive nature of project implementation with responsibilities spread between motivated actors. FAO has significant activities in the sub-region complimentary to the project, providing continuity, while UNEP is piloting Regional Seas processes and supporting the Abidjan convention, providing some continuity of presence in the region.

145. Political will of participating countries – Securing and maintaining political will was identified as one of the major factors determining success at the LME breakout groups of the GEF IW Biennial Conference in Bahia, Brazil, in 2005. The approach of the project to fostering and maintaining political will is founded on the TDA/SAP process itself, which engages decision making in an inclusive process, complimented by highlighting the international nature of the global movements on LMEs, sustainable fisheries, climate change, the ecosystem approach and international instruments and plans such as WSSD, GPA, FAO Code of Conduct etc. The demonstration projects are designed to demonstrate the advantages of the cooperative approach, accompanied by objective valuation of the benefits to help politicians to justify their commitment to SAP implementation. The express linkage to NEPAD highlights the importance of CCLME to Pan-African sustainable development while linkage to the SRFC serves to highlight linkage of the project to sub-regional issues and concerns. The fact that the project seeks to build from existing institutional frameworks (SRFC, Abidjan Convention, ATLAFCO etc.) rather than develop new and potentially vulnerable institutions for trans-boundary management should favor political support for the project. During the preparation phase, the project has sought to engage other development partners, so as to create a united approach in supporting participating countries, a further factor in maintaining political will. Finally, the fact that two UN agencies, UNEP and FAO, with GEF backing, are supporting the initiative, should reassure politicians that their efforts will be recognized and supported.

146. Availability of resources - Securing continuation of support upon project completion will be critical to sustaining the benefits achieved. To address this, efforts will begin early on in the project to identify sustainable financial mechanisms to support LME monitoring and other ongoing activities that will be needed for implementation of the SAP. During the preparation phase, the project began the effort of mobilizing other development partners to bring their support behind the project approach, securing valuable synergies and substantial co-financing. From onset of the main project these efforts will continue and intensify and will lead to a donor conference to present the prospective SAP and the types of support that will be needed to implement it. Demonstration projects and some other actions are designed to secure benefit flows for the future that can be used to sustain the necessary levels of management.

147. Absence of intervening force majeure – while the project cannot avoid *force majeure*, it can anticipate and plan accordingly. In relation to political stability, the project has taken the approach that concerns affecting two or more countries may be considered trans-boundary and that all countries are not obliged to contribute to every activity. This is especially so for the demonstration projects that concern in some case just two or three countries. Thus, the inability of one country to participate should not jeopardize implementation of the entire project. In relation to civil unrest, the same argument

applies, while in relation to natural disaster, the diversity of project actions reduces the chance that all project activities would be affected by natural disaster.

Replicability

148. The CCLME project has considerable potential for generating replicable and transferable experience within the region and for other LME programs. During the PDF-B phase, transferable experience has been gained of the project preparation and a Preliminary TDA/SAP process. Publication of the workshop reports and Preliminary TDA (as FAO Technical Documents) and presentations to meetings will have facilitated transfer of the PDF-B experience. Under component 1 of the full project, further transferable experience will be gained of numerous aspects of the planned TDA/SAP process (stakeholder participation, holding LME symposium, survey planning forum, information management system, TDA formulation, LME Modular assessment, formulation of SAP and its elements (vision, EcoQOs), valuation of LME goods & services etc.) much of which would be published and thus transferable. The planned economic valuation of CCLME goods & services and climate change assessment should be of particular interest. Under Component 2, information of international interest and publications are likely to arise in relation to marine living resources, upwelling systems etc., while useful transferable experience will accrue of science/management forums, elaboration of shared stock management agreements, training in EAF, designing fiscal and other incentives for sustainable fisheries practices and through the demonstration projects (reduced trawling by-catch, MPAs as fisheries' management tools etc.). Under Component 3, information of regional and international interest and publications will emerge in relation to critical habitats, endangered species, impacts of river basin management etc.) while useful experience will be obtained of formulating minimum management standards, water quality assessment & control and from the demonstration projects (mangrove management and restoration). All such experience will be documented in project reports and publications. To ensure the replication of demonstration activities covering only parts of the CCLME, a replication strategy and mechanism are included as part of the SAP development under Component 1.

149. To facilitate the transfer of experience, the CCLME project would organize two international symposia, one at the start of the project and one upon completion of the TDA, assessment work and demonstrations. Representatives of other African LME projects and representatives of the global LME community would be encouraged to attend. Lessons would also be transferred through attendance of CCLME representatives at international forums (e.g. GEF IW Biennial conference). Reports and publications would form an additional and important form of experience transfer. FAO has established a series of technical documents relating to the CCLME and will publish significant technical and workshop reports as the project proceeds. The CCLME information system and website will constitute a further means of dissemination. The CCLME project would also support the participation of CCLME actors and experts in IWLEARN and other experience-sharing programs.

Risks & their mitigation

150. Risk is a function of the probability of a condition for project success not being satisfied and the consequential impact on project performance. Maximum risk occurs where such probability is highest and the potential consequences most severe. Mitigation measures can serve either to reduce the probability of a condition not being satisfied or to attenuate the impact in where the condition is not satisfied. Project conditions subject to uncertainty include the following:

- Political stability of the CCLME countries;
- Political adoption of scientists' recommendations;
- Political commitment to regional cooperative action;
- Synergy and co-financing commitments are honoured;
- Countries are willing to share data as necessary e.g. on fish stocks;
- Continued engagement of stakeholders in the process;
- Willing participation of the private sector in project activities.

151. The indicated areas of uncertainty could impact the project in various ways including:

- Hinder or prevent implementation of project activities in countries affected by instability and cooperation between the countries affected and other countries;
- Prevent achievement of a science-based approach to addressing trans-boundary concerns;
- Prevent the political recognition of the TDA or adoption of the SAP or any of the planned transboundary management agreements;
- Prevent or compromise implementation of certain activities dependent upon co-finance commitments;
- Hinder the adequate assessment of transboundary issues and the development of multi-country cooperation on fisheries resources;
- Limited participation of stakeholders in the project, particularly at the field level;
- Prevent full implementation of demonstration activities requiring private sector participation (by catch reduction project and coastal pelagics fisheries project).

152. Based on the above analysis, and minimizing redundancy or duplication, the following aspects of project design will help to mitigate against the identified risks:

- The project is located within an intergovernmental organization (SRFC) that will continue to function despite political instability in participating countries recognized to be at risk;
- The project design reflects three distinct zones of the CCLME (upwelling, coastal/estuarine and oceanic/islands) – activities reflect these ecological realities and thus the effective participation of all countries is not critical to securing global environmental benefits;
- The demonstration projects link groups of countries, rather than the entire set of countries – it is highly unlikely that all demonstration projects would be affected by one or more risks;
- The project includes measures to engage and include the political decision making levels, thus reducing risk of alienation and political objection;
- Component 1 includes an economic valuation of CCLME goods & services addressed to finance and foreign affairs ministries;
- All key ministries are represented on the National Interministerial Committees, thus reducing risk of conflicts developing;
- The project includes a comprehensive stakeholder participation sub-component to be driven by a specific strategy and to include a communication function that will reach out to all major stakeholder groups (including marginal stakeholders, decision makers, private sector etc.);
- The project includes the development of socio-economic and fiscal approaches to resource management in addition to purely ecosystem / science-based approaches;
- Socio-economics and governance will be integrated as cross-cutting themes in the TDA/SAP process and highlighted in the periodic LME Assessment;
- Project partners are given a place on the Project Steering Committee and also given coordination responsibility and resources for certain project activities (such as demonstration projects);
- Support to the West African Marine & Coastal Forum will provide a forum of open debate large enough to accommodate all CCLME stakeholders and to place endorsement of the TDA and SAP on a broad and secure foundation;
- The project includes development of an information system that will promote information exchange and demonstrate the benefits of sharing information when addressing trans-boundary concerns;
- The project includes a series of multi-country demonstration projects that will demonstrate and value the benefits of a cooperative approach, including information sharing;
- The project has developed links with projects working on data-poor management and will exploit those links and the relevant capacities in the design of robust management plans;
- Activities involving the private sector (e.g. regional petroleum spill risk assessment, reduced by-catch in shrimp trawling) will remain feasible even if the private sector does not participate.

153. It will be seen that the aspects most affected by risk concern the science-management interface and political commitment to cooperative action between states. In a worst case scenario, the risk to the knowledge-gathering and capacity building functions of the CCLME project would be at relatively little risk. Thus, provided that the knowledge gathering and capacity building benefits are durable, the project will create the potential for eventual multi-country cooperation even if this cannot immediately be realized. Thus, the project includes measures to secure the knowledge gathering and capacity-building benefits, as follows:

- Establishment of a broad and visible constituency of information holders and providers for the CCLME through international symposia;
- Development of an information system to store or provide access to all information useful to CCLME stewardship;
- Capture and publication of relevant information in a series of thematic assessments and the TDA itself;
- Design of an organized training program for resource assessors based on needs assessment and formal accountable delivery mechanism (the FAO/Nansen-EAF project);
- Design of an organized training program for resource managers similarly based on need and formally delivered through the FAO/Nansen-EAF project;
- Specific training and assistance in TDA/SAP to be provided to national focal points, coordinators and TDA and SAP-working group members.

154. Political instability would have the greatest impact on project performance, at least in the affected countries. However, while several CCLME countries have experienced recent political problems, the risk now appears to be receding with reconstruction efforts, democratic elections and greater regional integration through trade organizations such as CDEAO and BCEAO.

155. Perhaps the major risk of the CCLME project is that stakeholder consensus on the necessary cooperative actions for addressing trans-boundary problems will not be supported by the requisite national and regional political commitment. This risk will apply particularly to certain of the demonstration projects that seek to achieve regional commitments before adoption of the SAP but will also apply at the critical step of putting the SAP forward for political adoption. The risk of failure is considered relatively low in relation to the CCLME because of well established political and technical cooperation (Abidjan Convention, Sub-Regional Fisheries Commission, AGC⁴², CECAF, FAO/CECAF working groups etc.) and the recognition by decision makers of the regional nature of fisheries and other issues affecting the CCLME, such as petroleum pollution.

156. Most of the identified risks are mitigated by intrinsic aspects of CCLME project design, particularly the TDA-SAP process, stakeholder participation strategy and the demonstration projects. The CCLME project preparation phase has made progress in building a political constituency through involving decision making levels (director-level in the relevant ministries) in project design and engaging ministers (from both fisheries & environment) in various aspects of the preparation process (appointment of national focal points, establishment of inter-ministry committees, participation at meetings etc.). The partnership approach taken by the project should also help to reduce the impacts of the identified risks.

157. The project is subject to the usual range of risks and problems that affect the developing countries of the region, including political uncertainty and logistical problems such as the breakdown of services, heavy traffic, heat and dust and so on. The project is located in Senegal which in recent history is the most stable country of the region. Dakar, where the project is located, has good telecommunications compared with other countries of the sub-region and is in the lowest risk category according to the UN security classification system.

⁴² AGC is the Agence de Gestion Commune (common management agency) established by Senegal and Guinea Bissau for cooperation on petroleum exploitation and fisheries in a shared area of EEZ).

158. Finally, a very specific risk that has been identified concerns the uncertain political status of waters between Morocco and Mauritania, managed by Morocco but which are claimed by Polisario (exiled authority of the former Western Sahara) and disputed by Algeria. The UN does not recognize Moroccan authority over Western Sahara, although Morocco administers the territory and issues fisheries agreements to the EU to exploit small pelagic stocks in these highly productive waters. At the scientific level, the risk of interference with project activities is considered low – scientists regard any scientific data as held in trust for any future state that may be established and survey vessels can operate without hindrance in the disputed zone. Furthermore, current indications are that the other countries most likely to be concerned with agreements relating to small pelagic stocks (Mauritania, Senegal & Gambia) do not contest Moroccan authority over these waters and resources. However, at the political level, the authority of Morocco to enter into shared stock agreements relating to fish stocks within the disputed waters may be questioned, thus potentially limiting the geographical scope of any cooperative management arrangements. In the event of problems arising, this risk would be mitigated by limiting the scope of trans-boundary management plans to exclude resources of the disputed area. Given that several species are involved, with differing ranges, global benefits could still be secured even where management arrangements did not specifically cover the disputed zone.

PART X – INCREMENTAL COSTS & PROJECT FINANCING

Incremental cost analysis

159. The CCLME project is a foundational initiative which will support an innovative multi-country process to identify and assess trans-boundary environmental concerns relating to a globally important marine ecosystem and develop the necessary information base, capacity, institutional frameworks and plans to address those problems, complemented by a series of multi-country demonstration stress measures to head-start the cooperative approach. None of these activities form part of the projected baseline without GEF intervention and thus the project can be considered primarily as delivering global environmental benefits for a cost that is incremental upon the mainly national baseline. However, in the light of the domestic benefits, not easily quantifiable, that will necessarily accrue to the participating countries through the foundational process (information, capacity, institutions, frameworks & demonstrations), the aim of the project designers has been to secure at least a 1:1 cost-sharing ratio from countries and other donors to cover the “additional” costs of the “alternative course of action” facilitated by the GEF. In the event, the ratio obtained is a little above 3:1, reflected in a project with a total value of \$27.456 million for a GEF investment of \$8.79 million. A detailed Incremental Cost Analysis is presented in Annex 1.

Baseline costs

160. Baseline costs refer to the projected costs of the “business as usual” activities that would be undertaken irrespective of GEF intervention and which constitute the broad foundation upon which the GEF alternative is constructed. Given the considerable influence exerted by GEF IW intervention during the PDF-B phase over other projected regional initiatives, several of which have chosen to adopt the GEF IW supported TDA/SAP process (in particular MAVA and AFD), the baseline cost comprises primarily recurrent national expenditures together with projected national investments that will continue to focus primarily on achieving domestic environmental benefits. As will be seen from Annex 8, many of the existing regional or national-level initiatives are coming to a close during 2006 or 2007 whereas most future projected initiatives (other than those with which the CCLME project has negotiated synergies and co-finance) are not yet fully defined or lack committed funding, and are therefore difficult to quantify. An important exception is the series of GEF Biodiversity/World Bank ICZM projects being developed in certain CCLME countries (PGIRN in Guinea, ICAM project in Gambia, PBGZCGB in Guinea Bissau, GIRMAC in Senegal, MPAs & wetlands project in Morocco) and non-GEF ICZM initiatives in countries where there are no equivalent GEF projects (PDALM in Mauritania, Coastal Management Project in Cape Verde, both under PRCM). The total baseline value

of these ICZM projects is conservatively estimated at \$70 million over the 5-year span of the CCLME project.

161. As part of the preparation process, countries were requested to identify the national institutions most concerned with activities related to the project objectives (see Table 4 above on baseline cost activity centers). Based on the figures provided, and allowing some adjustment, the national baseline costs for the 5-year time frame of the project are estimated at \$230 million. The total baseline cost is therefore estimated at \$300 million (\$70 million of national projects + \$230 million of national recurrent costs), or around 10 times the incremental cost of the GEF alternative. The project baseline and incremental costs summary is presented in Table 10.

Table 10 CCLME Project Baseline and Incremental Costs summary

Component	Baseline \$	Alternative \$	Increment \$	GEF \$
1. TDA/SAP Process - Multi-country process and frameworks for understanding and addressing priority trans-boundary concerns	150,267,946	159,062,196	8,794,250	3,130,000
A. Multi-country understanding and agreement on transboundary issues (TDA)	45,080,384	47,145,384	2,065,000	800,000
A1. Multi-country TDA	22,540,192	24,130,192	1,590,000	700,000
A2. Interactive CCLME information website	22,540,192	23,015,192	475,000	250,000
B. Sustainable legal/institutional frameworks and plans for regional cooperation on the CCLME	45,080,384	47,730,384	2,650,000	700,000
B1. Regional legal/institutional framework for CCLME stewardship developed	22,540,192	23,015,192	475,000	250,000
B2. Multi-country SAP	11,270,096	12,945,096	1,675,000	300,000
B3. Sustainable financing and investment / partnership plan for SAP implementation	11,270,096	11,770,096	500,000	150,000
C. Stakeholder involvement in transboundary priority setting and strategic planning	21,037,512	23,056,762	2,019,250	600,000
C1. Regional & national institutional stakeholder participation mechanisms established & operational	15,778,134	17,028,134	1,250,000	300,000
C2. Local and private stakeholder participation mechanisms established and operational	5,259,378	6,028,628	769,250	300,000
D. Effective project management	30,053,589	31,733,589	1,680,000	810,000
E. Effective Monitoring & Evaluation	9,016,077	9,396,077	380,000	220,000
2. Marine Living Resources - Strengthened policies and management, and demonstration actions to address priority transboundary concerns on declining marine living resources of the CCLME	90,160,768	98,433,768	8,273,000	2,960,000
A. Improved knowledge & capacity for management to address concerns on marine living resources	24,042,871	27,647,871	3,605,000	1,650,000
A1. Transboundary assessment of priority concerns on marine living resources for the CCLME	22,365,462	25,515,462	3,150,000	1,400,000
A2. Improved capacity for transboundary assessment	1,677,410	2,132,410	455,000	250,000
B. Strengthened policies, instruments & capacity for management to address priority concerns on marine living resources	30,053,589	31,253,589	1,200,000	200,000
C. Demonstration management actions to address priority transboundary concerns on marine living resources	36,064,307	39,532,307	3,468,000	1,110,000
Demo1 - Policies and plans for sustainable trans-boundary management of shared small pelagic stocks	10,819,292	12,283,292	1,464,000	460,000
Demo2 - Reduction of the impact of shrimp trawling through by-catch reduction and management changes	10,819,292	11,703,292	884,000	400,000
Demo3 - Trans-boundary co-management of migratory coastal pelagics of importance to artisanal fisheries	7,212,861	8,332,861	1,120,000	250,000
3. Biodiversity, habitat & Water Quality - Strengthened knowledge, capacity and policy base for trans-boundary assessment & management of habitat & biodiversity and water quality critical to fisheries	60,107,179	68,744,179	8,637,000	2,000,000
A. a. Knowledge gaps filled in relation to critical habitat, biodiversity and water quality for the purpose of the TDA and	21,037,512	24,557,512	3,520,000	1,000,000

SAP				
B. Capacity building, policy making and planning for the SAP	24,042,871	26,997,871	2,955,000	400,000
C. Demonstration actions to address priority trans-boundary concerns on declining biodiversity and water quality	15,026,795	17,188,795	2,162,000	600,000
Demo4 - Demonstration of MPAs as tools for multiple resource management benefits	6,261,164	7,113,164	852,000	250,000
Demo 5 - Regional mangrove conservation plan	8,765,730	10,075,630	1,310,000	350,000
Project Sub-total	300,535,893	326,240,143	25,704,250	8,090,000
Project Preparation	0	1,752,000	1,752,000	700,000
TOTAL	300,535,893	327,992,143	27,456,250	8,790,000

Project financing

162. Project costs are summarized in Table 9. The total cost of the full size project is estimated at US\$25,704,250 made up of a GEF contribution of \$8,090,000 and estimated co-finance of US\$17,716,250 or a co-finance ratio of about 2.2:1. The co-finance includes an estimated US\$4,052,000 of in-kind contribution from the seven participating countries.

Table 11 - Project Summary Cost (US\$ million)
Table 9 - Project cost summary (US\$)

Component	Total \$	GEF \$	Co-finance\$
1. <u>TDA/SAP Process</u> - Multi-country process and frameworks for understanding and addressing priority trans-boundary concerns	8,794,250	3,130,000	5,664,250
a. Multi-country understanding and agreement on transboundary issues (TDA)	2,065,000	800,000	1,265,000
b. Sustainable legal/institutional frameworks and plans for regional cooperation on the CCLME	2,650,000	700,000	1,950,000
c. Stakeholder involvement in transboundary priority setting and strategic planning	2,019,250	600,000	1,419,250
d. Effective Project management	1,680,000	810,000	870,000
e. Effective Monitoring & Evaluation	380,000	220,000	160,000
2. <u>Marine Living Resources</u> - Strengthened policies and management, and demonstration actions to address priority transboundary concerns on declining marine living resources of the CCLME	8,273,000	2,960,000	5,915,000
a. Improved knowledge & capacity for management to address concerns on marine living resources	3,605,000	1,650,000	1,955,000
b. Strengthened policies, instruments & capacity for management to address priority concerns on marine living resources	1,200,000	200,000	1,000,000
c. Demonstration management actions to address priority transboundary concerns on marine living resources	3,468,000	1,110,000	2,358,000
3. <u>Biodiversity, habitat & Water Quality</u> - Strengthened knowledge, capacity and policy base for trans-boundary assessment & management of habitat & biodiversity and water quality critical to fisheries	8,637,000	2,000,000	6,637,000
a. Knowledge gaps filled in relation to critical habitat, biodiversity and water quality for the purpose of the TDA and SAP	3,520,000	1,000,000	2,520,000
b. Capacity building, policy making and planning for the SAP	2,955,000	400,000	2,555,000
c. Demonstration actions to address priority trans-boundary concerns on declining biodiversity and water quality	2,162,000	600,000	1,562,000
Full-size Project Total	25,704,250	8,090,000	17,716,250
Project Preparation (PDF-B)	1,752,000	700,000	1,052,000
TOTAL	27,456,250	8,790,000	18,768,250

Project management cost

163. The project management cost is estimated at US\$1,680,000 made up of GEF (US\$810,000) and other sources (US\$870,000) (Table 12).

Table 12 – Project management costs*

Component	Est. staff weeks	GEF \$	Other sources \$	Project total \$
Project Assistant **	130	60,000	0	60,000
Regional Project Coordinator***	104	480,000	0	480,000
Office facilities, equipment, vehicles & communications (regional & national)		168,750	370,000	538,750
Regional Travels		101,250	500,000	601,250,000
Total project management cost		810,000	870,000	1,680,000

*preliminary draft budget subject to change as preparation proceeds

** 50% of project assistant time is attributed to management and 50% to technical assistance

*** 40% of project manager time is attributed to management and 60% to technical assistance

Consultants working for technical assistance components

164. Details of consultants working on technical assistance components are given in Table 11. Project personnel in the Regional Coordination Unit will dedicate the major part of their time to technical assistance, amounting to an estimated total of 700 weeks over the duration of the project. Remaining technical assistance will be provided by local consultants (115 weeks) and international consultants and sub-contractors (400 weeks).

Table 13 – Consultants working for technical assistance components (estimate for entire project)

Component	Est. staff weeks	GEF\$	Other sources\$	Project total\$
Regional Project Coordinator*	156	720,000	0	720,000
Project Assistant **	130	60,000	0	60,000
Component leaders (2)*	520	480,000	0	480,000
Regional/local consultants	115	212,000	0	212,000
International consultants	400	670,000	200,000	870,000
Total	1,321	2,142,000	200,000	2,392,000

* project personnel engaged in technical assistance including Regional Coordinator (at 60% time), Project Assistant (50% time) and component leaders (at 100% time)

Co-financing

165. The total co-financing for the main project is estimated at \$17,716,250. The contribution of countries is estimated at US\$4.052 million (in-kind) or about 15 % of the total project cost (Table 14).

Table 14 CCLME - Projected sources of co-financing

Name of Co-financier (source)	Classification	Type	Amount (US\$)	
			Confirmed	Unconfirmed
PRCM (MAVA)	Private foundation	Cash	7,000,000	
Agence Française de Développement	Bilateral	Cash	3,120,000	
EU (AGPAO)	Bilateral	Cash		3,225,000
SIDA (Sweden)	Multilateral	Cash		2,000,000
Norway/FAO (EAF-Nansen)	Multilateral	Cash	2,205,000	
Norway/FAO (Nansen cooperation)	Multilateral	Cash	60,000	
Holland (small pelagics)	Bilateral	Cash	500,000	
French GEF (FFEM)	Multilateral	Cash		Discussions
Participating Governments	Government	In-kind	4,052,000	

FAO	Lead GEF Agency	In-kind	350,000	
UNEP	Support GEF agency	In-kind	279,250	
NOAA	Collaborating organization	In-kind	150,000	
TOTAL CONFIRMED CO-FINANCING			17,716,250	

166. The major source of co-financing is the MAVA foundation which supports the PRCM coalition of INGOs. The PRCM coordination unit has estimated that its donors will be willing to commit an estimated \$5 million per year over 5 years (2008-2013). The leading PRCM donor, MAVA, has been able to issue a co-finance letter, committing to \$7 million of co-finance over the 5 years 2008-2013. Co-finance from PRCM donors relates primarily to shared incremental activities under Component 3 of the project (biodiversity and water quality). PRCM contribution to component 1 (TDA/SAP) is also important, particularly as regards shared support to the TDA/SAP process and to the West African Marine & Coastal Forum. Further important co-finance comes from AFD, which has agreed to develop its project on artisanal fisheries co-management (including MPAs for fisheries) in accordance with the GEF alternative. A letter of co-finance for \$5 million has been provided, although analysis indicates that only \$3,120,000 of this will actually be required. Finally, the highly important support of the FAO/Nansen/EAF project (funded by Norway) is conservatively estimated at \$2,205,000. An existing Norway funded project (International cooperation with the Nansen) has agreed to adapt to the GEF alternative and to divert \$60,000 towards the initial CCLME symposium, specifically to cover working sessions on small pelagic fisheries. In-kind support by FAO during the project has been estimated at \$350,000 and corresponding support from UNEP at \$279,250. Finally, NOAA has agreed to support the TDA/SAP aspects through technical assistance with an estimated value of \$150,000.

PART IX – MONITORING & EVALUATION

Incorporation of past lessons

167. The design of the project M&E system incorporates lessons learned from the GEF IW portfolio, LME projects globally and from specific LME projects. Global lessons learned from the GEF IW portfolio are incorporated into recent GEF guidelines for IW projects⁴³ which have been adopted for the purposes of this project. Account has also been taken of lessons in M&E identified during the LME breakout sessions of the GEF IW Biennial Conference held at Bahia in June 2005 which included: 1) M&E is critical for the adaptive management approach; 2) M&E must link project interventions to environmental impacts; 3) M&E indicators must be of sufficient scope (e.g. including governance); 4) M&E indicators must link to global indicator frameworks (e.g. WSSD). The M&E design for this project has also incorporated lessons learned from other LME projects in the African region (in particular the Benguela Current LME project – GEF/UNDP/UNOPS) and from the Mediterranean LME project (GEF/UNEP/FAO).

Approach of M&E system

165. The CCLME project is a Type 1 GEF IW project focusing on foundational work and capacity building. For this reason, the CCLME project will primarily deliver *process* outcomes (e.g. multi-country agreements, institutional strengthening) whose achievement will be measured by the appropriate process indicators. *Stress reduction* outcomes (e.g. by-catch reduction, reduced pressure on over-fished stocks) will be limited to certain of the demonstration projects (see Volume 2 of this document). As part of the suite of *process* indicators, the project will report on capacity building outcomes for trans-boundary management of resources, habitats and water quality and on contributions to the achievement of Millennium Development Goals (MDGs) and the World Summit on Sustainable Development (WSSD) Plan of Implementation (PoI) targets for marine and coastal ecosystems. As a specific innovation, the project includes provision for the establishment of a periodic

⁴³ GEF International Waters Annual Performance Results Template – Guidance Information. July, 2006.

LME 5-modular assessment (with a baseline assessment to be undertaken during the life of the project and repeat assessments to be continued as part of the SAP) in order to promote harmonization with other LMEs.

Objective & outcome indicators

166. The outcome indicators to be used by the project are based on those recommended by GEF IW guidance for IW projects and are presented in the project logical framework (Annex 2). Indicators of the project objective include eight *process* indicators (1. Multi-country agreement on transboundary priority concerns, impacts and causes; 2. Multi-country Agreement on governance reforms and investments to address priority transboundary concerns; 3. Sustainable legal/institutional framework for the CCLME; 4. Strengthened existing transboundary waters institutions; 5. Stakeholder involvement in transboundary waterbody priority setting and strategic planning; 6. Seven functioning National Interministry Committees; 7. Three multi-country policy proposals (as annexes to the SAP); 8. Five management instruments for maintaining fish stocks, associated biodiversity and water quality (as annexes to the SAP) and 9: Five demonstrations implemented and costs/benefits evaluated). Stress reduction indicators will be defined for certain of the demonstration projects that are expected to bring about changes to exploitation of resources during the life of the project.

Intermediate benchmarks and means of measurement

167. Indicators are qualified in the logical framework according to the expected date of achievement. Thus, under the project objective, intermediate process outcome benchmarks would include: 1) continuing effective national coordination (an indicator to be reviewed annually); 2) multi-country agreement on the TDA (by end Year 03) and 3) stakeholder involvement in the TDA/SAP process (again, an indicator to be reviewed annually). Given that these benchmarks reflect process steps towards either more complete processes or stress reduction, their achievement can be measured by the existence of the relevant instruments.

Stress reduction indicators & baseline

168. The project aims to achieve stress reduction through a series of demonstration projects. Certain demonstration projects aim to deliver management instruments that would create the conditions for physical stress reduction in the ecosystem upon implementation (e.g. signed shared-stock management agreements) while others will generate local stress reduction impacts at pilot sites during the life of the project (e.g. MPAs for multiple resource management benefits; pilot mangrove restoration schemes). In all cases, baseline stress indicators for the demonstration projects will be identified during the early part of project operation, e.g. immediately following the initial symposium on information about the CCLME, following the various planning forums or at the latest during the thematic assessments to be conducted under the TDA such that all baseline stress values will be established by the time of completion of the TDA (end Year 03) if not before.

Establishing a baseline

169. The inception period of the project (Year 1) will be used to review and fine tune the proposed process and stress reduction indicators for both the main project and each demonstration project. Wherever possible, initial project condition will be determined by indicators. This will be a straightforward task for most of the process indicators, while baseline stress indicators are likely to be more problematic, particularly for the projects which are expected to achieve physical stress reduction at pilot sites. While the RCU will assume overall responsibility for this task, demonstration project managers will be detailed to review and refine indicators during the first year of operation. This process of indicator refinement and establishment of the baseline will be closely linked to the process of establishing baseline values for the LME as a whole (which will include a set of indicators for each of the five modules).

Monitoring & Evaluation arrangements

170. Project monitoring and evaluation will be conducted in accordance with established UNEP, FAO and GEF procedures. Overall FAO will take the lead in the monitoring and evaluation of the project, and UNEP will provide specific inputs related to the monitoring and evaluation of Component 3 and issues related to biodiversity, habitat and water quality. In the monitoring process, half-yearly activity and demonstration reports will be submitted to the RCU by the responsible partners, and will include the status of activities and results from the monitoring of M&E indicators. These results will be compiled by the RCU and a yearly report will be sent to the Project Steering Committee (PSC) one month prior to the PSC meeting. One of the aims of the PSC will be to review the following inputs for the Annual Implementation Review (PIR):

- An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome
- The constraints experienced in the progress towards results and the reasons for these
- The three (at most) major constraints to achievement of results
- Annual Work Plans and related expenditure reports
- Lessons learned
- Clear recommendations for future orientation in addressing key problems in lack of progress

171. A monitoring and evaluation plan is provided in Annex 5. Monitoring and Evaluation will take place principally at two levels: *project execution* and *project performance*. Evaluation of environmental *impacts* will be confined to the demonstration projects which seek to achieve stress reduction measures. The Project Logical Framework in Annex 2 provides indicators for project implementation along with the corresponding means of verification. The reports and other sources identified in the logical framework will enable stakeholders to provide feedback and observations. Reports will also be used to monitor performance of the actors/structures involved in implementing the project. The project M&E plan includes an Inception Workshop which will include a review of project objective, outcomes and activities which will include review and refinement of the project's indicators and elaboration of development of a project work plan (including putting into operation the M&E plan itself). The indicative cost of M&E for the project is \$380,000 over the life of the project, of which \$220,000 is requested from GEF, the remainder comprising in-kind support from the countries and the major co-finance partners who would coordinate closely with the CCLME project on M&E. A simplified M&E framework presenting the main outcome related indicators and the allocation of responsibility between FAO and UNEP is provided in Table 15.

Table 15: CCLME simplified M&E framework

Main outcome indicator	M&E approach	FAO	UNEP
Multi-country agreement on transboundary priority concerns, impacts and causes	The project will monitor not only production of the TDA report, but also the requirements for a TDA of high quality including stakeholder participation mechanisms, NICs, information system etc.	FAO will monitor aspects relating to overall TDA/SAP process (Component 1) and marine living resources (Component 2).	UNEP will monitor aspects relating to biodiversity and water quality (Component 3)
Multi-country Agreement on governance reforms and investments to address priority transboundary concerns	Similarly to the TDA, the project will monitor not only SAP preparation, but also stakeholder involvement, demonstration actions, policy development etc.	FAO will monitor aspects relating to overall TDA/SAP process (Component 1) and marine living resources (Component 2).	UNEP will monitor aspects relating to biodiversity & water quality (Component 3).
Sustainable legal/institutional framework for the CCLME	This is perhaps the most complex outcome, dependent upon multiple institutions, programs and processes, the	FAO will monitor aspects relating to overall TDA/SAP process (Component 1) and	UNEP will contribute particularly to monitoring involvement of the Abidjan convention and

Main outcome indicator	M&E approach	FAO	UNEP
	precise form of which cannot be predicted prior to project implementation. The project will monitor progress and dynamics of the linkages between concerned institutions and respond adaptively to steer the process to an optimal institutional arrangement for the CCLME.	marine living resources (Component 2). FAO will make a particular contribution with regard to the involvement of fisheries institutions.	biodiversity & water quality institutions (e.g. CBD, GPA, CMS etc.)
Strengthened existing transboundary waters institutions	Monitoring and evaluation of institutional strengthening will make use of beneficiary and stakeholder evaluations (done within the M&E framework) corroborated by progress on other indicators that may be indicative of institutional functionality to draw the best assessment possible.	FAO will contribute particularly to monitoring strengthening of the SRFC, ATLAFCO, CECAF and ICCAT.	UNEP will contribute particularly on monitoring strengthening of the Abidjan Convention as a transboundary waters institution.
Stakeholder involvement in transboundary waterbody priority setting and strategic planning	As for institutional strengthening, use will be made of stakeholder and beneficiary evaluations within the M&E framework corroborated by progress on other indicators that help to measure or characterize stakeholder involvement.	FAO will monitor aspects relating to overall TDA/SAP process (Component 1) and marine living resources (Component 2). FAO will contribute particularly to involvement of fisheries stakeholders.	UNEP will monitor stakeholder involvement in aspects relating to biodiversity and water quality. UNEP will contribute particularly to involvement of land-based actors.
7 functioning National Interministry Committees	While the primary indicator for functional NICs will be NIC documentation, more qualitative information will be obtained through project reporting and evaluations, stakeholder evaluations and indirectly from progress on other indicators sensitive to the quality of NIC function.	FAO will monitor NIC functioning in relation to the overall TDA/SAP process (Component 1) and marine living resources (Component 2) and will contribute particularly to monitoring participation of the fisheries sector.	Input will provided to FAO on function of committees in relation to biodiversity & water quality concerns. UNEP will contribute particularly to involvement of the environment and land-based sectors.
3 multi-country policy proposals (as annexes to the SAP)	The primary indicator will be the production of policy papers and their adoption in the SAP, but other indicators, such as the TDA report and stakeholder evaluations will contribute to assessment of the quality of the policy outputs.	FAO will monitor policy outputs from the TDA/SAP process (Component 1) and marine living resources (Component 2) and will help monitor particularly policy outputs on the fisheries sector.	UNEP will monitor policy outputs relating to biodiversity & water quality (Component 3)
5 management instruments for maintaining fish stocks, associated biodiversity and water quality (as annexes to the SAP)	The primary indicator will be the instruments themselves, and their adoption as part of the SAP, whereas other useful measurement will be provided by working group documentation, demonstration project periodic reports and monitoring of stakeholder involvement in the development	FAO will monitor aspects relating to overall TDA/SAP process (Component 1) and marine living resources (Component 2) and will contribute especially to monitoring the fisheries instruments that are intended.	UNEP will have responsibility to monitor instruments on biodiversity and water quality (Component 3)

Main outcome indicator	M&E approach	FAO	UNEP
	of plans.		
5 demonstrations implemented and costs/benefits evaluated	The primary indicator will be the demonstration project reports, outputs and costs-benefits evaluations, while useful corroboration will come from monitoring stakeholder involvement, the NICs and independent mid-term evaluation.	FAO will monitor demos 1-3 and contribute to demo 4 monitoring (fisheries aspects of MPAs). FAO will also contribute to monitoring of the fisheries dimensions of Demo 5 (mangroves).	UNEP will monitor Demo 5 (mangroves)

Monitoring

172. Monitoring will consist of continuous or periodic review and surveillance of activities with respect to management and the implementation of the work plan. Day-to-day monitoring of implementation progress will be the responsibility of the Regional Project Coordination Unit, in consultation with CSRP, based on the project's annual Work Plan and its indicators. The Project Coordinator will advise FAO and UNEP of any delays or difficulties faced during implementation so that appropriate support or corrective measures can be adopted.

Reporting

173. Reporting will comprise the following:

- Project Inception Report to be prepared within the first three months of the project. It will include a detailed first year annual work plan, detailed project budget and M&E requirements for year 1 to be discussed at the first meeting of the steering committee.
- Project progress reports will be prepared every six months and which will contain, *inter alia*, an account of actual implementation of project activities compared to those scheduled in the Annual Work Plans and the achievement of outputs and progress towards achieving the project objectives, an identification of any problems and constraints encountered in project implementation and a detailed Work plan for the next reporting period.
- Project Implementation Review (PIR) is an annual monitoring process mandated by the GEF. Each year the independent GEF Monitoring and Evaluation Unit provides the scope and contents of the PIR. The PIR is an essential management and monitoring tool and will be an important median for extracting lessons learned from ongoing projects.

Evaluation

174. Evaluation is a process for determining systematically and objectively the relevance, efficiency, effectiveness, progress and impacts of the activities in light of their objectives and inputs, both during the project lifetime and beyond. Mid-Term and Terminal Evaluations of the project will be conducted. FAO Evaluation Services in consultation with UNEP will take the lead in organizing the evaluations. The Mid-Term Evaluation will be undertaken at the end of the second or beginning of the third year of project implementation. The Mid-Term Evaluation will determine progress being made towards achievement of outcomes and will provide recommendations for corrective actions if necessary and improved implementation of the project in the remaining project duration. It will, *inter alia*:

- review the effectiveness, efficiency and timeliness of the project implementation;

- analyze effectiveness of implementation and partnership arrangements;
- identify issues requiring decisions and remedial actions;
- propose any mid-course corrections and/or adjustment to the work plan as necessary.

175. A Terminal Evaluation will take place three months prior to the final Steering committee. The final evaluation will review project impact, analyze sustainability of results and whether the project has achieved the outcomes and objectives. It will furthermore provide recommendations for follow-up actions (including SAP implementation). The recommendations of the Terminal Evaluation will be shared with the final Steering Committee. The terminal evaluation will *inter alia*:

- identify lessons learned about project's design, implementation and management;
- highlight technical achievements and lessons learned;

