

Project Proposals on Sustainable Use of Living Resources

STRENGTHENING MANAGEMENT AND MONITORING, CONTROL AND SURVEILLANCE (MCS) CAPACITY OF FISHERIES MANAGEMENT ORGANISATIONS IN SUB-SAHARAN AFRICA

1. IDENTIFIERS

Project Number: RES-4

Project Title: Strengthening management and monitoring, control and surveillance (MCS) capacity of fisheries management organisations in sub-Saharan Africa

Requesting Countries: Côte d'Ivoire, The Gambia, Ghana, Kenya, Mauritius, Mozambique, Nigeria, South Africa, Senegal, and Tanzania

Requesting National Organization (s):
Côte d'Ivoire: Ministry of Agriculture and Natural Resources; Ministry of Higher Education and Scientific Research
The Gambia: Department of State for Fisheries, Natural Resources and the Environment
Ghana: Ministry of Environment and Science; Ministry of Food and Agriculture
Kenya: Ministry of Agriculture and Rural Development
Mauritius: Ministry of Environment, Ministry of Economic Development
Mozambique: Ministry of Fisheries
Nigeria: Federal Ministry of Environment
Senegal: Ministry of Environment
South Africa: Department of Environmental Affairs & Tourism
Tanzania: Division of Fisheries

Executing Agencies:
Côte d'Ivoire: Direction de l'Aquaculture et des Pêches
The Gambia: National Environment Agency, Department of Parks and Wildlife Management
Ghana: Marine Fisheries Research Division, Directorate of Fisheries
Kenya: Fisheries Department
Mauritius: Ministry of Fisheries
Mozambique: National Directorate for Fisheries Administration / Ministry of Fisheries
Nigeria: Federal Ministry of Agriculture, Federal Department of Fisheries, Federal Ministry of Environment, Nigerian Institute of Oceanography and Marine Research (NIOMR)
Senegal: Direction des Pêches (DOPM), Centre de Recherche Océanographique (CRODT)
South Africa: Department of Environmental Affairs & Tourism (DEAT), Coastal Provincial Departments
Tanzania: Division of Fisheries, Dar es Salaam, Division of Fisheries, Zanzibar

Required National Partners:

Côte d'Ivoire: Ministry of Higher Education and Scientific Research, Ministry of Equipment
Ghana: Marine Fisheries Research Division, Department of Oceanography and Fisheries (University of Ghana)
Kenya: National Environment Management Authority, Kenya Marine and Fisheries Research Institute (KMFRI),
Mauritius: Ministry of Tourism, AHRM and other NGOs

Mozambique: Institute for Fisheries Research (IIP0, Institute for the Development of Small Scale Fisheries (IDPPE), Universidade Eduardo Monlane (UEM)
South Africa: Department of Defence (Navy), Department of Safety and Security (Water Wing Unit), Institute for Maritime Technology (IMT)
Nigeria: Federal Ministry of Environment, Niger Delta Development Authority –Oil Producers Section
Senegal: Ministry of Environment and Classified Establishments
Tanzania: University of Dar es Salaam
Ministry of Defence and Ministry of Foreign Affairs of each of the requesting countries

Priority Issue Addressed: GIWA issue(s): Overexploitation of fisheries and other living resources
Regional Scope: Côte d’Ivoire, Ghana, The Gambia, Kenya, Mauritius, Mozambique, Nigeria, Senegal, South Africa and Tanzania
Project Location: Coastal and marine areas in all participating countries
Project Duration: Four (4) years
Working Group of the African Process Sustainable Use of Living Resources

2. SUMMARY:

The focus of this project is addressing overexploitation of fishery resources in Sub-Saharan Africa (SSA) through effective monitoring, control and surveillance (MCS) of fishing operations. The capacity of the requesting countries to assess stocks of fishery resources in their maritime waters and to address issues of illegal, unregulated and unreported (IUU) catches and to manage marine fisheries is addressed. The emphasis is on regional or sub-regional approaches to enforcing fisheries regulations through a co-ordinated approach of monitoring, control and surveillance.

The Project aims at facilitating the development of mechanisms for improved fisheries monitoring, control and surveillance (MCS) as a basis for, and complementary to, improved management of transboundary fish stocks in SSA, some of which are of extremely high value. The focal problem is a lack of efficient and effective MCS of fishing activities, stemming from lack of institutional capacity to develop and operate efficient MCS systems. This lack of capacity makes it difficult to detect illegal fishing activities (e.g. poaching, non-compliance with fishery regulations) and to enforce measures for the proper environmental and fish stock conservation.

The project will assist the requesting countries to build national MCS capabilities and legal structure in support of improved fisheries management. The project will also assist the participating states towards fulfilment of national and international obligations resulting from the United Nations Convention on the Law of the Sea (UNCLOS) and subsidiary international legal instruments. In this regard, the project will assist in the adoption of management obligations of signatories to these UN laws and agreements, including the Code of Conduct for Responsible Fisheries, including countries where these have yet to be adopted.

The **Project Objective** is to (a) enhance national capabilities for efficient, cost-effective and sustainable fisheries and environmental monitoring; and (b) establish mechanisms for effective regional co-operation in fisheries and environmental monitoring.

Project activities will include regional surveys of fishery resources, national and regional training of fisheries trainers, inspectors, observers and managers; long-term and short-term technical assistance; workshops at regional and national levels; planning and cost control of MCS activities and monitoring of operational effectiveness. The project will provide support for more effective and regionally

harmonised fisheries legislation on MCS and improved regional communication with a view to enhanced control of shared stocks and international fisheries. New technologies for MCS (such as vessel monitoring/ tracking systems) will be employed in addition to placement of observers and inspectors aboard as many industrial-fishing vessels as possible.

Monitoring, control and surveillance (MCS) activities are to be undertaken at all levels starting from enforcement of present national fisheries laws and regulations as applied to indigenous artisanal fisheries to the control of national and international industrial fishing fleets operating within the Exclusive Economic Zone (EEZ) of the requesting countries and within the sub-region.

The **results** of the project will include a more efficient and cost effective national MCS capacity as a basis for the creation of regional co-operation on the management of common stocks and fisheries. Approaches to the monitoring and control of activities of international fishing vessels will be harmonised. National fisheries legislation will be strengthened so as to better provide for MCS, fisheries management and conservation. Modern standards such as the principles enshrined in the FAO Code of Conduct for Responsible Fisheries will be incorporated. Marine environmental protection will be improved and regional fisheries co-operation, communication and training enhanced.

Several benefits are expected from strengthening management, regulation and monitoring of natural resources like fisheries through this project. Measurable benefits, which could be realised within a decade or so and could, in part, be attributed to the project, include recovery of fish stocks that would ensure sustainability of fisheries and avoidance (or minimisation) of conflicts between various sectors of the fishing industry.

3. COSTS AND FINANCING (MILLION US \$)¹

International & bilateral sources:		
	Subtotal international financing	: 18.470
Co-financing:	Governments in cash & kind	: 8.108
	Subtotal Co-financing	: 8.108
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Total Project Cost:		: 26.578
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4. GOVERNMENT ENDORSEMENT (S)

Côte d'Ivoire: Minister, Ministry of Agriculture and Natural Resources

Ghana: Professor Dominic Fobih, Minister of Environment and Science; Ishmael Ashitey, Minister of State for Fisheries

Kenya: The Permanent Secretary, Ministry of Agriculture and Rural Development

Mauritius: Ministry of Economic Development

Mozambique: Ministry for Co-ordination of Environmental Affairs

South Africa: Department of Environmental Affairs and Tourism

Nigeria: Chief (Dr) I. Okopido, Minister of Environment (State)

Senegal: Ministry of Environment

Tanzania: Permanent Secretary, Ministry of Natural Resources & Tourism

5. GOVERNMENT FOCAL POINT(S)

Côte d'Ivoire: Direction des Pêches; Centre de Recherches Océanologiques

Gambia: Department of Parks and Wildlife Management

Ghana: Professor Dominic K. Fobih, Minister of Environment and Science

¹ This budget is preliminary and has not undergone a full consultation process with the respective countries. Therefore, it does not indicate the actual financial commitment that would be provided by participating countries once the project proposal and its components are finalised.

Kenya: Director: Fisheries Department

Mauritius: Ministry of Fisheries, Ministry of Environment

Mozambique: Mrs. Lidia Abiba, National Director of Fisheries Administration

Nigeria: Dr. Solarin, Director of Federal Fisheries Department, Abuja

Senegal: Fatima Dia Toure, Direction de l'Environnement et des Etablissements Classés

South Africa: Department of Environmental Affairs and Tourism

Tanzania: The Director, Institute of Marine Sciences

6. AFRICAN PROCESS WORKING GROUP FOCAL POINTS

Co-ordinator and experts of the Sustainable Use of Living Resources Working Group on the Programme of Interventions of the Partnership Conference of the African Process were:

Co-ordinator: Dr Barry Clark, Zoology Department, University of Cape Town, South Africa

Experts: Mr Jacob Ochiewo, Kenya Marine and Fisheries Research Institute, Kenya
Dr Kwame Koranteng, Marine Fisheries Research Division, Ministry of Food and Agriculture, Ghana

PROJECT DESCRIPTION

1. Background & Justification

Throughout sub-Saharan Africa, resources in coastal waters are overexploited or are under severe stress from exploitation. It is obvious that the demand of people living in coastal areas in Africa exceeds the capacity of available resources.

Overexploitation of living resources was identified by virtually all of the eleven countries that participated in the first phase of the African Process as being amongst the top five GIWA issues in terms of their impacts on the coastal zone and the livelihood of coastal communities. In Kenya, overexploitation was identified as a contributing factor in the impact of prawn trawling in the Malindi-Ungwana Bay. A review of existing policies and regulations governing trawling was envisaged as one of the activities necessary to address the problem. For Mozambique, a proposal was put forward to improve management capacity to address over-fishing. In Ghana, the country report indicated that the collapse of a fishery resource like the sardinella would not only bring economic hardships but would also dislocate important socio-cultural activities such as annual festivals of many of the ethnic groups which derive their successes largely from incomes generated during the peak sardinella season.

Fishing is an important economic activity that provides livelihood for many coastal communities in the requesting countries. There are both artisanal and industrial fisheries with the former contributing over 60% of landings in many of the countries, especially in West Africa. The multiplicity of gears in the artisanal fisheries and the sophistication of certain industrial fishing vessels often result in conflicts between the sectors and overexploitation of the fishery resources.

The issue of loss of biodiversity or changes in species assemblage structure as a result of overexploitation is also highlighted in some of the country reports. However, given the absence of any data on the impact of modification of ecosystems on biodiversity and given the difficulties involved in valuing the existence and option values, it is not possible to assess the socio-economic impact of loss of biodiversity.

The underlying cause of over-exploitation of fishery resources, especially by artisanal fishers, is poverty. For industrial fisheries, overcapitalisation of the fishing industry is the primary cause of overexploitation. It is common practice for excess capacity in fisheries of developed countries to be directed to developing countries. Poaching of fishery resources by unlicensed vessels (usually from countries outside SSA) is widespread as a result of lack of operational or effective Monitoring Control and Surveillance.

In many of the SSA countries, fishing licence fees are low and not commensurate with the value of the catches. This means that where industrial (especially foreign-flag) fishing fleets operate in the fishery, direct benefits to the coastal States is usually minimal and consequently governments do not have sufficient money to put management measures in place to regulate the fisheries.

To address over-fishing, effective monitoring, control and surveillance (MCS) of fishing operations at several levels is imperative. MCS is the mechanism for implementation of agreed policies, plan or

strategies for fisheries management. It is an integral and key component for the implementation of fisheries management plans.

Fish do not know or respect national boundaries hence management of the fishery resources and control of exploitation is best done on sub-regional basis. For this reason, the Food and Agriculture Organization (FAO) of the United Nations has statistical regions within which fish stocks are shared by the countries. For example, the western Gulf of Guinea area (FAO Statistical Division 34.3.4) made up of Côte d'Ivoire, Ghana, Togo and Benin is one such sub-region that has a number of fish stocks shared by the four countries, especially of pelagic fish species.

The UN Convention on the Law of the Sea (UNCLOS) and the FAO Code of Conduct for Responsible Fisheries enjoin neighbouring States to cooperate and collaborate efforts in the management of the resources that they all exploit. MCS is an expensive venture and collaboration between States in this management measure ensures efficiency of resource use and minimises costs of operations.

2. Objective & Expected Results

The overall objective of this project is to assist the requesting countries to build or strengthen their capacity to manage living marine resources, especially fisheries, through the preparation and implementation of fisheries management plans and enhanced monitoring, control and surveillance activities. The immediate objective of the project is to facilitate the development of mechanisms for improved fisheries monitoring, control and surveillance (MCS) as a basis for, and complementary to, improved management of transboundary fish stocks in Sub-Saharan Africa.

The project would facilitate the introduction of a vessel monitoring system (VMS) at national and sub-regional levels and the compilation of a sub-regional register of fishing vessels. It is expected that these activities would lead to stock recovery, sanity in exploitation, avoidance of conflicts and control of illegal, unreported and unregulated catches.

The MCS would be a combination of sea-borne patrols and inspection, shore-based inspection and possibly aerial surveillance. This will result in an integrated means of monitoring licensed fishing vessels, enforcing compliance of fisheries laws and regulations and providing deterrence against poaching and other illegal and unregulated fishing activities.

Each licensed fishing vessel will be equipped with a transponder that will transmit information about its coordinates at any time to a control centre to be manned by fisheries enforcement agents and military personnel). The vessel would also be fitted with a catch-reporting device that is now required to meet regulatory reporting requirements within the VMS. Fisheries patrol vessels and aircrafts, to be equipped with interrogator devices, will be put in operation to monitor activities of the licensed vessels and intercept and arrest unlicensed ones. It is anticipated here that the vessels will be provided by the Navy and the aircraft by the Air Force of each participating country wherever possible. Consequently, only operational costs of these crafts have been accounted for in costing the project. Where such vessels or aircrafts are not available, it is anticipated that neighbouring states could assist through a sub-regional collaborative arrangement whereby an aircraft from one country would also carry out fisheries surveillance activities in the neighbouring country.

Fisheries inspectors and observers will board vessels on fishing expeditions, inspect vessels in port and police designated areas of ecological importance. The expected output of this combined operation is the provision of a system to implement MCS, resources management and conservation measures.

3. Project Components/Activities

The project would have the following five components with a number of activities:

Component 1: Assessment of Stocks of Fishery Resources within the Jurisdiction of the Requesting Countries

- Activity 1.1: Undertake annual sub-regional surveys of fishery resources and establish optimum exploitation levels
- Activity 1.2: Preparation and implementation of national and sub-regional fisheries management plans and annual reviews
- Activity 1.3: Exchange of information amongst the countries to assess regional stocks and trends

Component 2: Development of Sustainable Fisheries Management Systems

- Activity 2.1: Review of national laws and regulations on fisheries management and MCS to conform to FAO Code of Conduct for Responsible Fisheries
- Activity 2.2: Preparation of sub-regional guidelines for licensing and control of fishing vessels and access agreements
- Activity 2.3: Capacity building activities (including training) for fisheries authorities to adapt the guidelines to national practices and regulations

Component 3: Strengthening Institutional Framework for Monitoring, Control and Surveillance of Fishing Operations and Exploitation

- Activity 3.1: Review of systems and assessment of needs for Monitoring, Control and Surveillance (MCS) in the project countries
- Activity 3.2: Formation of national MCS operational committees and regional/sub-regional consultative bodies
- Activity 3.3: Compilation/revision/updating of national register of licensed fishing vessels and fishing companies
- Activity 3.4: Preparation of composite sub-regional register of licensed fishing vessels
- Activity 3.5: Establishment of MCS fund (national)
- Activity 3.6: Upward revision of fishing licence fees
- Activity 3.7: Annual review meetings of sub-regional coordinating committee

Component 4: Capacity Building for MCS Activities

- Activity 4.1: Identification of appropriate Vessel Monitoring Systems (VMS) at country level with linkages between base stations in the sub-regional via the Internet.
- Activity 4.2: Acquisition and installation of VMS hardware and software (including catch reporting device), training of operatives and support for 4 years
- Activity 4.3: Recruitment and training of fisheries inspectors and observers
- Activity 4.4: Acquisition of other logistics (vehicles, computers, communication equipment, etc)
- Activity 4.5: Field operations of Fisheries Observers and Inspectors

Component 5: Deployment of Fisheries Patrol Vessels and Surveillance Aircrafts

- Activity 5.1: Consultation with national navy, air force, and other law enforcement agencies
- Activity 5.2: Equipping surveillance (military) vessels and aircrafts with interrogators
- Activity 5.3: Sea and aerial field operations

4. Linkages to Other National or Regional Activities / Transboundary Aspects

Some countries in the project area have had projects in the past that bear some resemblance to this project. For example Ghana secured a loan from the World Bank to implement a Fisheries Sub-Sector Capacity Building project that included some aspects of MCS. Nigeria utilized a similar facility for a dedicated MCS project. Some countries in the SADC region (e.g. South Africa, Mozambique and Namibia) have recently acquired vessel-monitoring systems of the type envisaged in this proposal.

The project would have links with the Project RES-1: “Assessment and mitigation of the ecological and socio-economic impacts of destructive fishing practices in Sub-Saharan Africa” (especially in the

area of provision of alternative sustainable livelihoods to mitigate the social cost of enforcing fisheries laws and implementing fisheries management measures.

The project would also have links with a number of ongoing or planned initiatives in the participating countries, especially with the Benguela Current Large Marine Ecosystem (BCLME) Initiative (South Africa), the Western Indian Ocean Large Marine Ecosystem (WIOLME) Initiative (South Africa, Mozambique, Kenya and Tanzania), the Guinea Current Large Marine Ecosystem project (Côte d'Ivoire, Ghana, Nigeria) and the Canary Current Large Marine Ecosystem project (The Gambia and Senegal). Others are the Marine and Coastal Programme of IUCN East Africa Region and the IUCN project on "Advancing the understanding and management of small-scale fisheries".

Experiences gained in some of these projects and the data collected would be beneficial in the direction of implementation of this project. The project can also benefit from capacities built through the projects mentioned above and critical analysis of some of the results can pass as pilot study for this project.

5. Demonstrative Value & Replicability

Almost all coastal areas in west and east Africa are characterised by overexploited fisheries. Poaching of fishery resources by unlicensed vessels is widespread as a result of non-existent or weak fishery management policies and lack of operational MCS. This project will address these issues to ensure that fishery resources are rationally exploited and the benefits to coastal states granting access to foreign fishing fleets will be maximised.

Because of the widespread nature of overexploitation of fishery resources, this project can be replicated in every country in sub-Saharan Africa.

6. Risks and Sustainability

A project of this nature does not lend itself to a full conventional economic evaluation. As an institution-strengthening project, direct correlation between quantifiable benefits and project activities cannot be established. However, measurable benefits, which could be realised within a decade or so and could, in part, be attributed to the project, include recovery of fishery resources. A second type of benefits would be of a socio-cultural nature. The collapse of artisanal fisheries, which account for over 60% of fish catches in the project area, would have devastating effect on the socio-economic fabric in coastal communities where alternative employment possibilities are rather limited.

The MCS activities would introduce sanity and controls in exploitation that would ensure sustainability of a number of fisheries in the project area. A fishing licence fee in the amount of at least 5% of the value of catch would generate substantial incomes to the requesting countries. Fines that would be imposed as a result of infractions of the law, could also contribute significantly to project cost recovery. However, this is an unreliable source of revenue and is likely to shrink with sensible fisheries management by the licensing and management authorities and compliance on the part of fishers.

The following risks are likely to affect the project and undermine the project objectives:

- Failure by governments to provide political support for the necessary measures including implementation of fisheries management plans and to apply appropriate sanctions on offending fishing vessels and companies.
- Lack of motivation of staff of the implementing agencies, especially the fisheries inspectors; this could lead to bribery and corruption on the part of the inspectors.
- Non-release of counterpart funding by governments of the participating countries.
- Non-availability of vessels and aircraft from the Navy and Air Force respectively of the participating countries.

- A country without an operational surveillance aircraft or vessel may not feel comfortable to allow such vessel or aircraft from a neighbouring country to operate in its waters.

In addition, increasing fishing licence could also be a risk in itself as fishermen are likely to contest such increases, at least initially. The project will not achieve its set objectives if:

- activities at the national and regional levels are not co-ordinated with all participants; and
- there is no broad agreement on the respective roles and responsibilities of service providers.

The level of risks associated with the proposed project is considered “acceptable” in the context of the clear need to support this valuable renewable natural resource in Sub-Saharan Africa and the stated commitment to this process. A number of measures have been incorporated into the project design to mitigate these risks where possible:

- The objectives of the project are clear and endorsed by the requesting countries as realistic in the project time frame.
- The use of pilot phase during implementation will allow a flexible approach to project management;
- An emphasis on both internal and external monitoring should reduce the risk of failure.

To assist in the assessment of risk, a table of risks and assumptions are identified in the Logical Framework. From this it is clear that the project should be considered to be “low ” risk.. It is expected that the national governments and other parties (donors, private sector, NGOs) will ensure that their participating institutions are provided with adequate budgetary means in the future to maintain the activities and approaches established through project support.

7. Stakeholder Participation

The stakeholders in this project are fishers, fisheries managers and administrators, fisheries and oceanographic research institutes, CBOs and NGOs. The research institutes will undertake scientific assessment of the resources and lead in the preparation of fisheries management plans.

The various Fisheries Departments and relevant ministries will undertake the review of laws and regulations, control licensing and direct monitoring, control and surveillance activities. The Ministry of Foreign affairs in each country will facilitate international linkages within the sub-region. NGOs and CBOs will facilitate organisation of user groups and will be included in national and sub-regional steering committees.

8. Project Management & Implementation Arrangements

It is envisaged that this project would have a number of sub-regional nodes, e.g. Senegal to Guinea, Côte d’Ivoire to Benin, Nigeria to Gabon, Angola to South Africa (on the Atlantic side of Africa), Mozambique to Kenya and the Island States (on the Indian Ocean side). All countries within each sub-region would benefit from participating in the project. The project nodes on the Atlantic side would be under the umbrella of the Abidjan Convention and the Indian Ocean nodes would be under the Nairobi Convention. Coordination roles could be assigned to the Regional Co-ordination Unit of each Convention.

In each country, the project would have a project co-ordinator, a project steering committee and an implementing/executing agency as indicated under Project Identifiers. The steering committee will be a cross-sectoral body and would include persons from the Ministries of Environment, Foreign Affairs, Defence, Agriculture, civil society and stakeholders.

At the sub-regional level, a committee made up of representatives from the various project countries will ensure parallel implementation, co-ordination and evaluation. Regular (annual) consultation of the regional committee will be essential.

Activity centres will need to be identified in the project area. For assessment of resources, institutes like CRO in Abidjan, MFRD in Ghana and NIOMR in Nigeria (for countries in west Africa) and Institute of Marine Sciences in Tanzania, KEMFRI in Kenya (for east Africa) may be considered. Also organisations like the Western Indian Ocean Marine Science Association and OAU-STRC can play important roles in the project.

Initially, the following skills and expertise will be required for successful implementation of the project: marine and fisheries scientists (including stock assessment experts), resource economists, MCS experts, maritime lawyers, and fisheries administrators. Persons with such expertise are available in some of the countries in the project area. Also required is paramilitary training for fisheries inspectors and observers. For the design of fishery management plans, review and harmonisation of laws and regulations, and technical aspects of designing and setting up MCS operations, it may be essential to contract consultants from both within and outside the project area.

9. Project Financing & Duration

This project is to be implemented over a four-year period with the various components and activities being carried out in parallel and/or in sequence.

In Table 1, each activity is costed separately although some activities will be implemented jointly and by the same experts. For this reason, no costs have been allocated to some activities. The operational cost of each patrol vessel, estimated at US\$300,000 annually, will depend on the size of vessel which could differ from country to country. For the air-borne surveillance, an estimated cost of US\$600 per hour of flying has been used although the actual cost using a military aircraft could be lower than this.

For the research vessels, it may be essential initially to charter from countries that already have vessels. In the long term, the African Union (ex- Organization of African Unity) may look for funding to purchase a vessel that could be used for fisheries surveys throughout SSA. Alternatively, sub-regional political bodies could acquire research vessels for fisheries and oceanographic work in their coverage areas. Acquisitions of such vessels have not been considered in the costing of this project.

Funding for the project would be from both external and internal sources both in cash and in kind. Co-financing by project countries could be in the form of secondment of paid staff of the relevant institutions, provision of office accommodation and direct cash contributions. External financing would be sought from IFIs donors and development agencies and partners.

Table 1: Component & Activity Financing²

	External Source of Funds			National Government		Total
	Source 1	Source 2	Source 3	Cash	In-kind	
Component 1						2,500
Activity 1.1		1,600			800	2,400
Activity 1.2	40			40	20	100
Activity 1.3						
Component 2						203
Activity 2.1	58				25	83
Activity 2.2						-
Activity 2.3	80			20	20	120
Component 3						212
Activity 3.1	34				10	44
Activity 3.2	12				10	22
Activity 3.3						-
Activity 3.4	10				10	20
Activity 3.5						-
Activity 3.6						-
Activity 3.7	86				40	126
Component 4						17,458
Activity 4.1	5				3	8
Activity 4.2	11,250				5,000	16,250
Activity 4.3	500				300	800
Activity 4.4	300				100	400
Activity 4.5 ³						-
1 Component 5						6,205
Activity 5.1					10	10
Activity 5.2	495				200	695
Activity 5.3	4,000				1,500	5,500
Total	16,870	1,600		60	8,048	26,578

Note: This budget is preliminary and has not undergone a full consultation process with the respective countries. Therefore, it does not indicate the actual financial commitment that would be provided by participating countries once the project proposal and its components are finalised.

10. Monitoring, Evaluation & Dissemination

Monitoring and evaluation would take many forms. Firstly, this would be through half-yearly implementation support missions of the IFI or donor agencies. The World Bank, for example, has such monitoring and evaluation mechanism. The team for the implementation assistance missions would include both international and national experts and stakeholders. It would be necessary also to institute review meetings of the project steering committee at national and sub-regional levels. Sub-

² All figures are in 1,000 US\$. External Source 2 has been identified as NORAD

³ Cost included in Activity 4.3

ANNEX 1: LOG FRAME

Summary	Objectively Verifiable Indicators	Means of Verification (Monitoring Focus)	3 Critical Assumptions
<p>Overall Goal of the Intervention: To address overexploitation of fishery resources in Sub-Saharan Africa through management and effective fisheries monitoring, control and surveillance (MCS)</p>	<ul style="list-style-type: none"> i. Increase in the catch per unit effort (CPUE) ii. Increase in mean size of fish landed iii. Decrease in conflicts in the industry 	<ul style="list-style-type: none"> i. Stock assessment and fishery statistics reports ii. Assessment reports, observations and Interviews of operators iii. Arbitration reports and interviews 	<p>Political and financial commitments of governments</p>
<p>Objective of project</p>	<ul style="list-style-type: none"> i. Fish stocks assessed and Fishery Management Plans produced ii. National MCS systems established and operational in requesting countries iii. Cooperation in MCS increased in all sub-regions covered by the project 	<ul style="list-style-type: none"> i. Reports of stock assessment surveys undertaken and Management Plans ii. Reports on installation and operation of national MCS systems iii. Reports of sub-regional MCS meetings 	<p>Availability of funds; Political commitment of governments in the sub-region</p>
<p>Component 1: Assessment of Stocks of Fishery Resources within the Jurisdiction of the Requesting Countries</p>	<ul style="list-style-type: none"> i. Stock biomass of fishery resources estimated, and Total Allowable Catch established for various fisheries ii. National and sub-regional Fishery Management Plans prepared and implemented iii. Reduction in incidence of irresponsible fishing practices 	<ul style="list-style-type: none"> i. Scientific reports of stock assessment surveys ii. Reports on Management Plans and Legislative Instruments backing the Plan iii. MCS Reports; Interviews of operators 	<p>Availability of research vessel and funds; Governments will grant permission for foreign research vessels to work in their territorial waters; Political commitment of governments; cooperation of fishing operators</p>

Summary	Objectively Verifiable Indicators	Means of Verification (Monitoring Focus)	4 Critical Assumptions
Component 2: Development of Sustainable Fisheries Management Systems	<ul style="list-style-type: none"> i. Reports of reviews and revisions of fisheries laws and regulations ii. Regional Guidelines for licensing of fishing vessels in place 	<ul style="list-style-type: none"> i. Published Reports ii. Report on guidelines for licensing of fishing vessels 	
Component 3: Strengthening institutional framework for Monitoring, Control and Surveillance of fishing operations and exploitation	<ul style="list-style-type: none"> i. Reports of review of national MCS systems ii. National needs for MCS operations identified iii. National MCS committees and sub-regional consultative bodies established and operational iv. Baseline information on licensed fishing companies and vessels at national and sub-regional level compiled v. Account details of MCS fund vi. Increase in revenue from fishing licence fees 	<ul style="list-style-type: none"> i. Reports of review of national MCS systems ii. Reports of national needs assessments for MCS operations iii. Reports of national MCS committees and sub-regional consultative bodies iv. Registers of national and sub-regional licensed fishing companies and vessels v. Reports on and statement of account of the MCS fund vi. Publicised revised list of fishing licence fees 	Commitment of Governments and cooperation of operators
Component 4: Capacity Building for MCS activities	<ul style="list-style-type: none"> i. National VMS system identified ii. VMS installed and operational iii. Trained personnel operating VMS iv. Inspection or inventory of logistics 	<ul style="list-style-type: none"> i. Reports of consultants ii. Installation reports, MCS reports and observation iii. Training reports and observation of trained personnel performing iv. Inspection of store vouchers, invoices, inventory report 	
Component 5: Deployment of Fisheries Patrol Vessels and Surveillance Aircrafts	<ul style="list-style-type: none"> i. Establishment of consultative group ii. Procurement of interrogators for vessels and aircraft iii. Vessels and aircrafts in operation iv. Observers and inspectors placed on fishing vessels 	<ul style="list-style-type: none"> i. Reports of consultative meetings ii. Installation Reports; inspection of equipment on vessel and aircraft iii. Cruise and flight reports iv. Observer reports 	Cooperation of Navy, Air Force and other agencies; Availability of patrol vessels and aircrafts; willingness of countries to admit military aircrafts from neighbouring countries at short notice; cooperation of operators