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MINISTERIO DAS PESCAS

Instituto Nacional de Desenvolvimento da Pesca de Pequena Escala

"Artisanal Fisheries and Climate Change Project (FishCC)"

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

Prepared by: **Mario Souto**

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LIST OF ACRONYMS

ADNAP	National Administration for Fisheries
AFD	French Development Agency
CAADP	Comprehensive Africa Agriculture Development Program
CBNRM	Community-Based Natural Resource Management
CDAP	Community Development Action Plans
CPS	Country Partnership Strategy FY12-15
DA	District Administration
DCC	District Consultative Council
DNA	National Directorate for Water
DNE	National Directorate for Energy
DNPO	National Directorate for Planning
DNAPOT	National Directorate for Land Planning
DNPA	National Directorate for Environmental Promotion and Education
DPA	Provincial Directorate of Agriculture
DPCA	Provincial Directorate for the Coordination of Environmental Affairs
DPPF	Provincial Directorate of Planning and Finances
DPP	Provincial Directorate of Fisheries
DPOPH	Provincial Directorate of Public Works and Housing
EA	Environmental Assessment
EDM	Electricity Company/Electricidade de Moçambique
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EP	Fisheries School
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FAO	Food and Agriculture Organization
FFP	Fund for Fisheries Development
FIPAG	Urban Water Supply Asset Fund
FISHCC	Artisanal Fisheries and Climate Change Project
FMP	Fisheries Master Plan/Plano Director das Pescas 2010-2019
GDP	Gross Domestic Product
GOM	Government of Mozambique
IDA	International Development Association
IDPPE	National Institute for the Development of Small-Scale Fisheries
IIP	National Institute for Fisheries Research
INAQUA	National Institute for Aquaculture Development
INIP	National Institute for Fish Inspection
IOC	Indian Ocean Commission
MAE	Ministry of State Administration
MF	Ministry of Finance
MICOA	Ministry for the Coordination of Environmental Affairs
MINAG	Ministry of Agriculture
MISAU	Ministry of Health
MOPH	Ministry of Public Works and Housing
MP	Ministry of Fisheries
MPA	Marine Protected Areas
MSME	Micro Small and Medium Enterprises
NAPA	National Adaptation Program of Action
NCSD	National Commission for Sustainable Development
NEMP	National Environmental Management Program
NEPAD	New Partnership for Africa's Development

NGO	Non-Governmental Organization
PARPA	Action Plan for the Reduction of Absolute Poverty
PCU	Project Coordination Unit
PDD	District Development Plans (Plano Distrital de Desenvolvimento)
PDUT	District Land Use Plan
PEPA	Environmental Quality Standards of Mozambique Projects
PF	Process Framework
PLPP	Provincial level project personnel (with monitoring responsibilities)
PPU	Provincial Project Unit
PQG	Government Five Year Plan
PRS	Poverty Reduction Strategy
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SDAE	District Services of Economic Activities
SDMAS	District Services of Women, Social Affairs and Health
SDPI	District Services of Planning and Infrastructure
ToR	Terms of Reference
UCA	Coordination and Support Unit
UNDP	United Nations Development Program
VMS	Vessel Monitoring System
WB	World Bank
WHO	World Health Organization

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EXECUTIVE SUMMARY

Introduction

This Environmental and Social Management Framework (ESMF) is prepared for the **Artisanal Fisheries and Climate Change Project** (**FishCC**). In addition to the Government of Mozambique FishCC is co-financed by the Nordic Development Fund (NDF), the World Bank (WB) and an NGO, Rare, as a way of supporting the Government of Mozambique (GOM) to achieve three important objectives subdivided into an equal number of time horizons, namely: (i) **long term**: "to sustainably increase the economic benefits generated by South West Indian Ocean (SWIO) marine resources, and the proportion of those benefits captured within the region"; (ii) **medium term**: "to strengthen Mozambican capacity for management of resources and to reduce poverty among coastal artisanal fisheries of Mozambique supported by policies and institutions at national, provincial, district and local levels; and (iii) **immediate (short term) objective**: "to *identify/demonstrate a scalable approach that will reduce Mozambique's vulnerability to climate change, while improving fisheries and natural resource management outcomes*.

The above-mentioned objectives will be achieved through a combination of interventions aimed at facilitating the development of community-based, coastal natural resources management groups (CCPs – Community Fisheries Councils) to manage and steward Territorial User Rights for Fishers (TURF) - reserves.

Rare's Theory of Change and Pride Social Marketing Campaigns will be adopted as the main approaches to work with the involved communities. IDPPE (National Institute for the Development of Small Scale Fisheries) staff from the Ministry of Fisheries (MF) is expected to play a crucial role in the delivery process.

Communities and their rights to natural resources and particularly marine resources as well as their rights to manage them will be at the center of the intervention. It is expected that the above-mentioned approaches will assist in the achievement of important development objectives such as (i) reestablishment of the health of ecosystems in coastal waters, which will increase ecological resilience to climate change and expand opportunities for tourism, and (ii) significantly and intensely increase catch and catch value and ultimately contribute to reducing poverty and increasing social resilience within fishing communities.

It is believed that once the communities start having a better understanding of the reasons behind the need to adopt sustainable principles in marine resources management they will be the best advocates of these principles and related practices that in most cases are seen as alien to them as they are often brought into the communities following top-down approaches.

Project Components

The Project Development Objective (PDO) is to improve the management effectiveness of selected priority fisheries at regional, national and community level. Overall, the project intends to build the capacity and leadership required and address core economic governance issues to establish a well-founded basis for shared economic growth based on fisheries. It will do so by supporting the improvement of the management of the most economically important fisheries, improving co-management of small-scale fisheries, and facilitating public and private investments to increase the contribution of fisheries to national economies. The project comprises these main outcomes:

- **Outcome 1**: Rights Based Management Enhanced and Social Resilience to Climate Change Strengthened. This will support the establishment and institutionalization of CCPs, including the establishment of six TURF Reserves as well as undertake extensive capacity building of communities to increase climate change and social & ecological resilience. This

will also demonstrate that fishers at each of the sites can achieve efficiency gains through cooperative management techniques.

- **Outcome 2**: Fisheries Management Improved through the Use of a TURF-reserve Approach. Under this outcome the project will search for the improvement of local fisheries (catch biomass, value, management gains) through a rights-based management approach (to include protection and monitoring) leading to better fisheries production and reduction of poverty.
- **Outcome 3**: Marine Ecosystems, Habitats, and Biodiversity Improved (Ecological Resilience to Climate Change. Under this outcome a series of surveys that demonstrate ecosystems and habitats show improvement in biodiversity and ecological resilience will be conducted.
- **Outcome 4**: Livelihoods Improved. This outcome will deal with the livelihoods options for fishers (aquaculture, agriculture, tourism, etc.) by conducting and publishing a series of socioeconomic analyses on livelihoods of fishing communities including the role of women.
- **Outcome 5**: Capacity of IDPPE Increased. This outcome will focus on social marketing techniques to be taught to field staff of IDPPE for some of them to apply this knowledge in the field to effect social change. In addition to capacity building on Pride, relevant IDPPE staff will also receive capacity building in other areas for them to be able to work with the communities in the improvement of fisheries interventions.
- **Outcome 6**: New Fisheries Law is reinforced with respect to rights-based management being a preferred approach to coastal fisheries. Ensure that National Policy and Legislation directly supports rights-based management as a transformative approach to improve coastal fisheries and reduce poverty.
- **Outcome 7**: Technical Assistance, Reporting and Auditing Provided for Project). This output will ensure that technical assistance is provided to IDPPE and other relevant entities to competently carry out the various functions of project implementation and management.

Development Context

FishCC happens when Mozambique is experiencing economic growth rates of an annual average situated above 7%1 in real terms and continues to be one of the fastest growing economies in Africa and the world, with reduced inflation, which, due to sound macro-economic policy management.

In the last few years, extensive reserves of coal, gas and other minerals have been discovered and are beginning to be exploited. The current and future developments associated with mineral resource exploitation have the potential to radically change the structure of Mozambique's economy and society at the same time that pose serious challenges to the country's capacity to embark on an inclusive economic growth as espoused by the approved and on-going poverty reduction strategy or PARP III (2011-2014).

However, despite the remarkable ongoing growth progress, the country continues to be among the world's poorest and heavily dependent on foreign aid. On the 2013 United Nations' human development index (HDI), Mozambique ranks as the 185th of 187 countries. A number of institutional constraints and other constraints continue to obstruct the delivery of basic services (e.g. water supply, sanitation, education and health services) and there are many challenges that remain. In 2010, MPD data indicated that between 2002-3 and 2008-9 there was a slight increase in the incidence of poverty (consumption), which rose from 54.1% to 54.7%. Rural poverty has been the worst although in recent years urban poverty is increasingly becoming a serious concern.

[1] The World Bank estimates that Mozambique's economic growth averaged 8.1% over the period 1995–2010 (WB, 2013)

The Government is in the process of implementing a second set of structural reforms that will take advantage of the prevailing macroeconomic climate. The main targets of these reforms are: (i) the public sector, (ii) fiscal policy, (iii) governance and, (iv) the business environment, including the creation of an enabling environment for the establishment and development of small and medium-sized enterprises (SMEs).

Another aspect that needs to be addressed in the Mozambican economy has to do with the fact that due to historical factors a significant number of development sectors (roads, railways, energy, telecommunications, etc.) have focused mainly on serving the region in detriment of domestic needs. The largely functional corridors of Maputo, Beira and Nacala, which link Mozambique to South Africa, Swaziland, Botswana, Zimbabwe, Malawi and Zambia, respectively, are a good illustration of this phenomenon.

There is also a growing fear from various sectors inside and outside the country that the availability of foreign investment in mega-projects in areas such as mining, power generation, petrochemicals, smelting and transport infrastructure has created easy growth options that diminish the incentive for the government to undertake the more challenging reforms that would remove structural obstacles to broad-based growth. This could also influence negatively the attention to be given to agriculture and fisheries.

Under such a context, the project is highly relevant. Focusing on the fisheries sector at the grassroots level and through its major components and subcomponents, and particularly those dealing with community empowerment and some infrastructure development, linkages and general improvement of the business environment it will support government's efforts in the establishment of the necessary institutions at the grassroots level, pilot and demonstrate viable socioeconomic interventions, assist in capacity building and provide adequate monitoring and evaluation mechanisms that will benefit the project areas in particular, and country as a whole.

The government has developed a Fisheries Master Plan (2010-2019) to deal with most of the constraints that interfere negatively with the realization of the sector's potential and to boost such a potential.

The fisheries sector contributes significantly directly and indirectly to poverty alleviation and socioeconomic development in general. At around 4%, the direct contribution of the sector to the GDP might be moderate, but it has a considerable weight in food security and particularly access to animal protein (i.e. 50% of animal protein consumed in the country) by a significant proportion of the country's population in rural and urban areas, balance of payment, public revenues, employment and gender equity. Around 850,000 households, or about 20% of the population, rely on fisheries for part of their income and a larger proportion relies on fishing for subsistence and food security.

The country's coastline of about 2,700 km, is divided into three zones, each with differing ecological conditions, two large bodies of inland water (Lake Niassa and the Cahora Bassa dam lake) and small lakes and rivers scattered throughout the country. The distribution of fishery resources is dependent on these differing conditions: in the estuaries and bays small pelagic fish, soft bottom demersal fish, abundant crustaceans, bottom demersal species and some large pelagic fish in the vicinity of the near-shore islands, tilapia, catfish (Niassa) and tiger-fish, tchenga are found in the in the large inland water bodies as well as catfish and tilapia in Cahora Bassa.

Of the close to 150,000 tons of annual marina catches 91% are in the hands of artisanal fishing, 2% semi-industrial for local consumption, and 7% industrial fishing. The industrial catch, consisting mostly of crustaceans for export, represents about 52% of the total value, while artisanal fishing is situated around 42%, and the remaining 6% comes from semi-industrial fishing.

The FMP is aimed at addressing six main issues:

i. Restructuring the industrial and semi-industrial shrimp fishing fleets;
ii. Diversification and growth of industrial and semi-industrial fisheries production;
iii. The growing role of private initiative as the engine driving national development and the corresponding reduction in State intervention in the productive sphere;
iv. Construction of a Fisheries Public Administration focusing on policies and strategies, development plans, fisheries legislation, creation of an economic environment favorable to investment and conflict arbitration;
v. Improved standard of living for artisanal fishermen
vi. Human resource development

The vision for the development of the sector acknowledges that in the years to come artisanal fisheries, which is the most significant in terms of volume and contribution to the economy will continue to be undertaken by forms of artisanal subsistence. However, the same has to be increasingly linked to the country's markets, and integrated into communities where social services have made substantial progress.

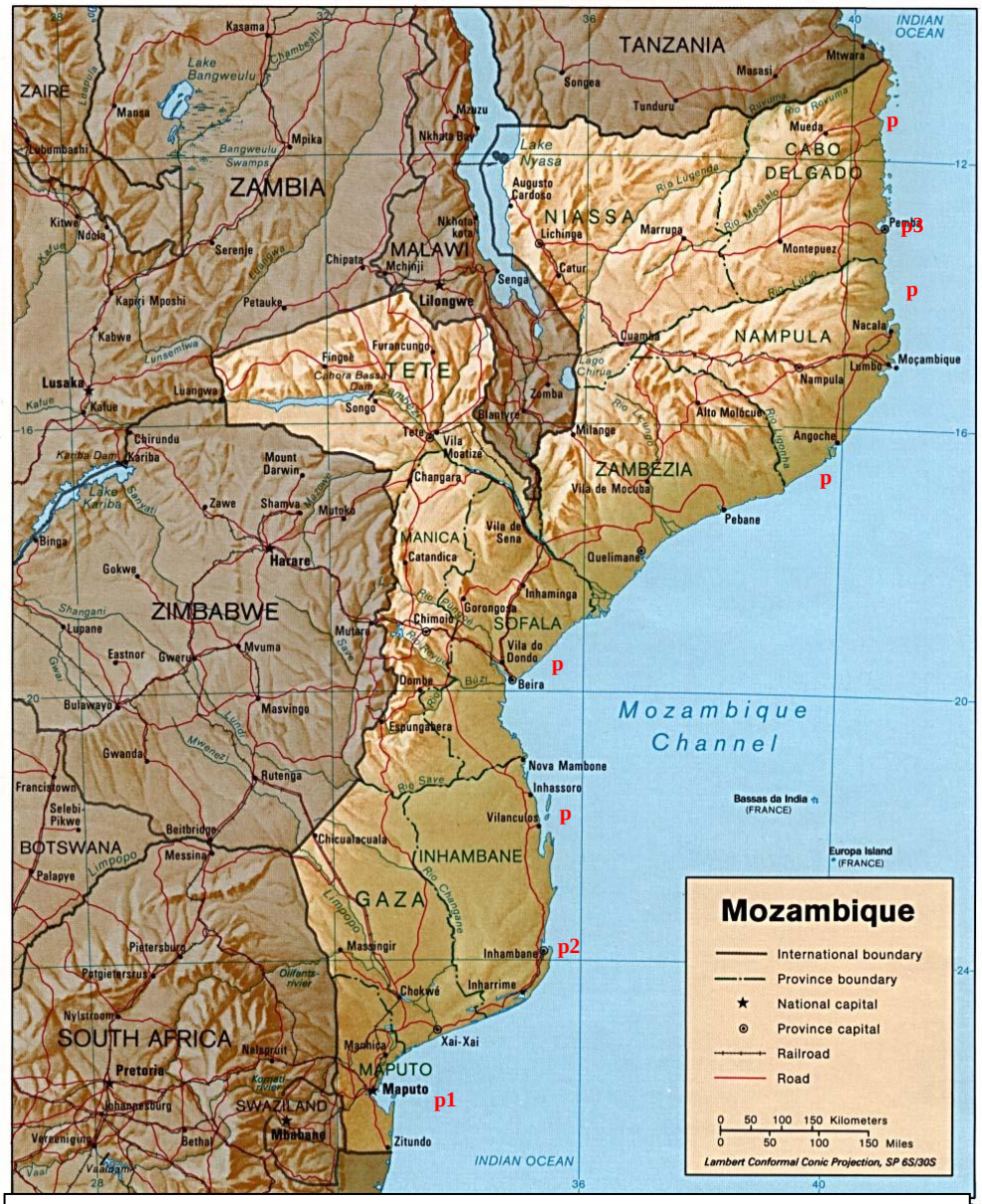
Project Targeted Areas

Figure 1 depicts the geographical distribution of potential areas for FishCC Project implementation. The project will support six pilot sites, each comprising 5-10 communities. If the pilot sites are successful, the approach will then scale up to include the majority of the country's coastline. Rare and IDPPE have already done some preliminary assessment of areas in Ponta do Ouro Partial Marine Reserve, Inhambane Bay, and Pemba Bay, but specific sites cannot be selected until the grant is in its implementation phase. Early in the project, a series of scientific criteria will be used by IDPPE and Rare to determine the placement of the first six pilot sites.

Activities under the seven outcomes in these areas will affect the different environmental and social components in different ways. The ESMF for this project focuses mainly on all the interventions that will be translated into infrastructure development with the aim of ensuring that all aspects related with those interventions such as site selection, design, construction and operation are done in a way that does not impact negatively on the natural and social receiving environment. Interventions will consist of minor construction such as the rehabilitation and operation of fish markets (for confirmation), training facilities and social facilities for fisher associations and women's groups; other small size infrastructures (e.g. small ponds for aquaculture; small wells for water supply; and small infrastructure for ice machines).

The generalized identification of the project potential environmental and social impacts was and will be done considering the environmental and social components that are likely to be affected by the project activities. This involves literature review of projects implemented in the same areas in the past, similar projects and through preliminary consultations with key stakeholders, particularly MF, IDPPE, INAQUA representatives, local leaders, fishing people and communities in general and key informants and professional judgment.

Figure: FishCC Map



Possible Sites: 1 – Ponta do Ouro Partial Marine Reserve, Ilha dos Portugueses and Delagoa Bay; 2 – Inhambane area; 3 – Pemba Bay; p – other possible sites

World Bank Safeguards Policies and GOM Regulations

The objective of the ESMF is to ensure that relevant World Bank Safeguards Policies and GOM environmental and social regulations are strictly adhered to. The Project has triggered three of the World Bank's 10+2 Safeguards Policies, namely, Environmental Assessment (OP/BP 4.01), Involuntary Resettlement (OP/BP 4.12), and Physical Cultural Resources (OP/BP 4.11), as well as adhered to the World Bank Group General Environmental, Health and Safety Guidelines (EHS), and the applicable Agribusiness/Food Production EHS Guidelines from April 2007. The ESMF has made provision to address potential concerns afferent to both OP/BP 4.04 (Natural Habitats) and OP/BP 4.11 (Physical Cultural Resources). A Process Framework (PF) has been prepared to satisfy the Involuntary Resettlement (OP/BP 4.12) Safeguard Policy requirements and specifically to deal with restrictions to access to natural resources by local people and communities. The latter document has been prepared separately and should be used together with this ESMF.

The Project will also be implemented in light of the GOM reform in the environmental sector in terms of: (a) adherence to and adoption of a series of international and regional environmental protection and conservation conventions and protocols; (b) approval of a significant set of legislations with direct and indirect implications to environmental and social protection; (c) creation of specific public institutions and/or strengthening of existing institutions dedicated to both environmental and social management in the country.

Both WB safeguards policies and GOM regulations will be applied to ensure that potential negative environmental and social impacts on important resources such as land, soils, water, biodiversity (including fish), vegetation, local communities and the society at large are adequately managed and positive impacts are enhanced.

Subproject Formulation and Selection

As part of the ESMF a social and environmental screening process will help (i) determine which construction or rehabilitation activities are likely to have potential negative environmental and/or social impacts; (ii) determine the level of environmental and social work required, including whether an ESIA/ESMF or a freestanding ESMF will be required or not; (iii) determine appropriate mitigation measures for addressing adverse impacts; (iv) incorporate mitigation measures into the subprojects financed by FishCC; (v) indicate the need for the preparation of a Resettlement Action Plan (RAP), which would be prepared in line with the Resettlement Policy Framework (RPF), that may be prepared for the Project if at some stage is found that the project will have significant implications in this area; (vi) facilitate the review and approval of the construction and rehabilitation proposals; and (vii) provide guidance for monitoring environmental and social parameters during the implementation and operation of subproject activities.

Given the multi-sector character of the project, (and to ensure appropriate implementation and monitoring of social and environmental issues, the ESMF recommends that, even if not employed on a full time basis, dedicated people be assigned to oversee and monitor the implementation of the (i) Social and Environmental Safeguards and (ii) Communication. The people assigned to conduct work in these areas should possess a good knowledge of environmental and social safeguards to timely liaise with the provincial safeguards specialists. These will work closely with MICOA at both central and provincial levels and be responsible for the proper handling of Environmental, Social and Communication dimensions of the project throughout its life cycle. These staff will be trained by WB Safeguards Specialists, and in close collaboration with MICOA.

Environmental and Social Management Plans (ESMP)

Where relevant, site specific Environmental and Social Impacts Assessment (ESIA) with a costed Environmental and Social Management Plan (ESMP) or just an Environmental and Social Management Plans (ESMP) will be prepared so that the Project **(i) avoids activities** that could result in adverse environmental and social impacts on resources or areas considered as sensitive; (ii) **prevents the occurrence** of negative environmental and social impacts; (iii) **prevents any future actions** that might adversely affect environmental and social resources; (iv) **limits or reduces the degree**, extent, magnitude or duration of adverse impacts by scaling down, relocating, redesigning elements of the project; (v) **repairs or enhances affected resources**, such as natural habitats or water resources, particularly when previous development has resulted in significant resource degradation; (vi) **restores affected resources** to an earlier (and possibly more stable and productive) state, typically 'background/pristine' condition; and (vii) **creates**, **enhances or protects** the same type of resources at another suitable and acceptable location, compensating for lost resources.

Moreover, the ESMF includes standard Environmental and Social Clauses (ESC), which will be included in all bidding documents and in the various contracts (contractual clauses) for the design, construction and appropriate operation of the interventions to be adopted for simple subprojects.

Contractors for simple projects will be responsible for the implementation of these Environmental and Social Clauses during construction and will need to recruit qualified staff, responsible for environment/social and health and safety issues, to do this. Once reviewed and cleared by ASPEN (the Africa Regional Safeguards Advisory Unit) the ESMF will be publicly disclosed both in-country and at the InfoShop prior to the project appraisal.

Process Framework (PF)

A separate Process Framework (PF) has been prepared to be used along with this ESMF. The ESMF and PF will also be reviewed and cleared by ASPEN and then publicly disclosed both in-country and at the InfoShop prior to project appraisal.

The PF outlines a number of principles, which include:

- A full understanding of the project components, particularly those that translate into restrictions to access to natural resources by local people;
- Public consultation and participation;
- Determination of land use and access to resources rights;
- Screening of the project sites and activities;
- Effective redress of complaints and grievances;
- Monitoring and evaluation of project effects on living standards of the project affected people and communities; and
- A budget to ensure that the Project has adequate resources to support the smooth and sustainable implementation of the participation process.

The PF principles will be applied throughout the entire project life cycle.

GOM Regulations

The GOM established the Ministry for the Coordination of Environmental Affairs (MICOA), in 1994. MICOA has been refining its approach to tackle environmental management by adopting medium to long-term strategies and policies. In more recent times, focus has been on (i) integration of land use planning into decentralized planning, (ii) reduction of the people living in environmentally risky and sensitive areas; (iii) environmental education and promotion; and (iv) regulation and supervision of natural resources management activities. These aspects are enshrined in the Environmental Strategy for Sustainable Development 2007-2017 (EADS). MICOA is a coordinating entity in recognition of the fact that environmental management is the result of a combination of interventions by a series of development sectors and stakeholders at various levels. Main areas of intervention include policy formulation, general promotion, planning, research/technologies, investment in infrastructures and other relevant areas, regulation, surveillance, extension/education/awareness creation, etc. The understanding of environment as a crosscutting subject coordinated by MICOA has led to the definition of environmental line ministries to integrate the other ministries/sectors that deal directly with the main environmental components, i.e. soil and subsoil, water, air and the biotic components (plant and animal). In general, these can also subdivided into two major categories:

(i) Those depending directly on natural resources as their main source of raw materials (inputs) comprise:

1. Agriculture (land and forests)
2. Fisheries (fishery resources)
3. Mines (mineral resources)
4. Public works and housing (water and land)

(ii) Those whose outputs depend largely on the supply of environmental services comprise:

5. Energy (water, mineral resources, biotic elements for bio fuels, etc.)
6. Tourism (landscape and wildlife)
7. Health (water and infrastructures)

At present, the list of environmental line ministries includes, but it is not limited to:

- **Energy**: Energy production and distribution (electricity, fuels and renewable energy);
- **Agriculture**: Plant and animal production, forests and wildlife, land and cadaster, agricultural irrigation and agricultural research and extension ;
- **Health**: health including environmental health as part of public health;
- **Mining/Mineral Resources**: Geology, mines and fossil fuels;
- **Public Works and Housing**: Water, buildings, roads and bridges, housing and urbanization;
- **Tourism**: Tourism and respective hotel industry as well as conservation areas related with tourism;
- **Fisheries**: Fisheries' management and inspection, fisheries research and technologies.

Overall, the Mozambican legal framework and the World Bank endorse community participation in the design and enforcement of conservation activities in order to help identify acceptable alternatives to unsustainable patterns of resource use and promote community support for such alternatives.

It should be mentioned that although there has been increased harmonization between the GOM Regulations and the WB Safeguards Policies, differences in a number of areas and aspects remain. **Under the Project whenever there is a conflict between national legislation and World Bank safeguards policies, the latter prevails**.

Subproject Formulation and Selection

Sub-project planning, implementation, monitoring and evaluation will be carried out in a participatory way in order to minimize negative impacts and where necessary, encourage voluntary resettlement and ensure that sub-project benefits accrue to the affected people, particularly women, the poor and most vulnerable.

The screening process[2] will also be used to determine the need for environmental and social impact assessments[3] when site specific physical development activities are planned. This participatory process will identify communities and/or individuals directly or indirectly affected by planned FishCC and sub-project activities. Impact assessments will detail the impacts and the exact numbers and categories of affected groups and individuals, and include or recommend mitigating actions designed through Action Plans such as a Community Development Action Plans (CDAP).

Existing District and Municipal Development Plans including District and Municipal Land Use Plans as well as CA Management Plans (where activities will be developed in CA) as well as other sector plans (tourism, agriculture, housing, etc.) will provide the bases for formulating CDAPs. Sustainable community fisheries activities and value adding activities to fisheries will be identified with government and private sector stakeholders together with communities.

To ensure local and full ownership CDAPs will be embedded in local communities, district authorities, non-government agents and provincial governments' structures. CDAP participatory process will assist in the identification of local priorities and adequate ways of addressing them, through local stakeholder consultation meetings and other working processes. These plans will

[2] The project intends to carry out detailed baseline studies.

[3] See the Project's Environmental and Social Management Framework for details.

include activities that mitigate or off-set the negative impacts of new or more stringent restrictions on the use of natural resources related with the project. These will include:

- the establishment and management of areas for multiple and consumptive use of fisheries and fisheries related resources;
- development of sustainable livelihoods alternatives and fisheries value adding activities that alleviate unsustainable, destructive use of natural resources and instead raise awareness and promote their conservation by local communities;
- best ways of dealing with closure and opening fisheries periods including alternative ways of offsetting the negative implications of those in people's livelihoods;
- how to derive maximum benefits from authorized fishing gear;
- post harvesting activities and value adding local opportunities (e.g. freezing, packaging, improved drying, smoking, transporting including cooking).

These activities should contribute to transforming passive community beneficiaries into active participants together with implementing agencies through co-management, benefit sharing projects and as active participants in mechanisms that reward conservation achievements. Community participation in a) the decision-making processes concerning their future use and access to local natural resources and b) activities to mitigate the impacts of loss of access, is expected to encourage their buy-in and commitment. Together with longer term capacity development and strengthening market linkages, active participation of community members in viable economic development activities should ensure longer term benefits.

Affected communities are expected to participate in the identification and implementation of priority sub-projects identified in the CDAPs. Once they have had their awareness raised through the planning process and potential or existing service providers have been identified, the facilitation of sub-project proposal development will be on a demand basis and financing awarded for a limited number of projects or limited volume of investment per area. The CDAP would identify priority areas where activities or clusters of activities would have more significant impact, or potentially be more sustainable and where communities would be mobilized to prepare proposals.

The following aspects should be taken into consideration in conducting community participation:

a. Individual consultation with local influential leaders and recognized religious and/or traditional authorities. Participatory methods such as participatory rural appraisal (PRA)/baseline studies[4] to identify local resources, mobility and existing resource use management, ranking importance and management preferences, locating and mapping land-use boundaries, and verifying customary procedures for decision-making, conflict resolution and identifying areas with resource use conflicts etc., should be encouraged.
b. A communication strategy that is responsive to the specific communication needs of the local people to disseminate project objectives, planning systems and procedures, opportunities and eligibility to participate in different livelihood development activities, and grievance communication mechanisms.
c. Consultation with groups of project affected people to raise awareness about the participatory planning process and objectives of the project, explain policy and procedures for sub-project applications and build trust in the participatory process.
d. Encourage and promote the creation of legal community associations, small, medium and micro community enterprises and other institutions to represent and lead communities in negotiating access to resources, including partnerships with the private sector in developing sustainable fisheries and conservation in which communities would benefit.
e. Building capacity of communities and business people and organizations to enable them to better interact with each other and in constructive and mutually beneficial ways.
f. Participatory processes should involve PRA methods, consensus decision-making or voting

[4] As already espoused by the project.

as appropriate, efforts to work with social groups (e.g. separate focus groups discussions with men, women, youth, elderly, leaders, etc.) to ensure they can express their own needs and priorities without inhibitions, use of interest groups drawn from territorially diverse locations to make consultative groups more representative, continuously improve representativeness and equitable attribution of benefits or rights to participation in livelihoods support activities.

g. Consultation should be carried out regularly through annual planning and participatory evaluation activities at community and interest group levels to verify progress. Monitoring through community structures linked to local authorities and fisheries and CA authorities should listen to, verify and respond to grievances as entitlements are understood and taken up or as they change over time.
h. District and local government teams should be involved in progress and impact monitoring as joint learning and development processes.
i. The status of women, youth and vulnerable groups should be regularly monitored through participatory and inclusive consultation.

A multi-media Communication Plan will be formulated and implemented to ensure that timely and accurate information is readily available to project managers and all stakeholders. This communication strategy will be an essential component in the whole process to help communities learn about opportunities and become involved in effecting sustainable livelihood changes.

Communication is the basis for creating awareness, for consensus building, for generating participation in processes of change and development, for making informed decisions and for resolving conflicts. A communication strategy at community level should focus on:

- The main social groups targeted by the communication strategy will potentially become involved in activities that promote local socio-economic development. The strategy should initially create awareness among communities about the Project and opportunities associated with it, the planning processes, eligibility and options for participating in development activities. Communication campaigns should consist of groups listening, seeing, discussing and analyzing among themselves what they should do in relation to processes (such as zoning, timing, pre and post harvesting, linkages with other economic sectors, etc.) and opportunities presented. This is the most solid way of promoting buy-in by local people and communities to the sustainable use of fisheries resources.
- Eligibility criteria for social groups to participate in potential sub-project development should be transmitted as part of the communication campaign. Criteria might include whether they are affected by the project (loss of access to resources), geographical quotas, gender criteria, and evidence of past or present commitment in similar undertakings. These kinds of criteria can ensure transparency and fair access to opportunities.

Intermediaries from local government and NGOs and/or private sector brokers should assist in this process. Non-government facilitators may be identified from existing projects and where necessary recruited and trained in interpersonal communication and facilitation.

By combining a communication approach with a focus on livelihoods development household livelihood security can be promoted and activities to develop early warning systems of difficulties developed. Redress should focus on improving the resilience of vulnerable groups. This might involve programs that focus on strengthening networking links with enterprise opportunities, income generating skills acquisition, adaptation to climate change, reproductive health awareness raising, institutional development and empowerment. Livelihood promotion activities should focus on the longer-term and use participatory methodologies with an empowerment perspective.

CDAP will be used as a tool that will give communities the power to voice their genuine interests vis-à-vis the final design and implementation of the project and its subprojects. The formulation of these plans will provide an opportunity for involvement of local NGOs/CBOs and the private

sector in empowering local communities and building capacity to sustain interventions over time. Once developed, a CDAP, should become part of the FishCC Management Plan, and be approved by the World Bank.

This document describes the participatory consultation and integration process by which:

- impacts and measures to assist affected groups in their efforts to restore and improve their livelihoods will be determined;
- the criteria for eligibility of affected groups or displaced persons to benefit from project assistance will be determined;
- natural resources conservation and sub-projects will be implemented with local communities;
- a complaints and grievance redress mechanism is developed for resolving disputes that may arise relating to resource use restrictions, dissatisfaction with eligibility criteria, community planning measures or actual implementation;
- Monitoring and Evaluation will be carried out, and,
- An estimated budget to support the peaceful and sustainable implementation of the participation process.

Initial contacts with central level institutions in Maputo city have been carried out as a way of getting project stakeholders involved in the identification of issues that can affect the project and devising ways of better managing them. In the subsequent phases of the preparation of the environmental and social safeguards more consultation will be conducted in the three areas of the project that have already been defined and other to be defined later on. At this stage use is made of the results of community consultation conducted for two similar fisheries projects (SWIOFISH and PPACG), which also in some cases coincide with the same implementation areas to get an initial understanding of the issues that are likely to come out to be addressed.

The details about the public consultation process will be captured in subsequent PF versions by site as each is chosen. This will include a standalone report on the public participation process for each site.

Extensive literature review was also carried out and will continue to be done with the purpose of identifying key environmental and socioeconomic concerns in the project areas.

The consultative approach should continue in the subsequent stages of project development and implementation, monitoring and evaluation.

Training and Capacity Building

In using the CDAP approach, many techniques call for capacity building and training for local communities – these are indicated below:

A communication strategy that is responsive to the specific communication needs of the local people to disseminate project objectives, planning systems and procedures, opportunities and eligibility to participate in different livelihood development activities, and grievance communication mechanisms.

Consultation with groups of project affected people to raise awareness about the participatory planning process and objectives of the project, explain policy and procedures for sub-project applications and build trust in the participatory process.

Encourage and promote the creation of legal community associations, small, medium and micro community enterprises and other institutions to represent and lead communities in

negotiating access to resources, including partnerships with the private sector in developing sustainable fisheries and conservation in which communities would benefit.

Building capacity of communities and business people and organizations to enable them to better interact with each other and in constructive and mutually beneficial ways.

Participatory processes should involve PRA methods, consensus decision-making or voting as appropriate, efforts to work with social groups (e.g. separate focus groups discussions with men, women, youth, elderly, leaders, etc.) to ensure they can express their own needs and priorities without inhibitions, use of interest groups drawn from territorially diverse locations to make consultative groups more representative, continuously improve representativeness and equitable attribution of benefits or rights to participation in livelihoods support activities.

Consultation should be carried out regularly through annual planning and participatory evaluation activities at community and interest group levels to verify progress. Monitoring through community structures linked to local authorities and fisheries and CA authorities should listen to, verify and respond to grievances as entitlements are understood and taken up or as they change over time.

The status of women, youth and vulnerable groups should be regularly monitored through participatory and inclusive consultation.

Monitoring

MICOA is responsible for external monitoring of environmental management and land use plans compliance.

Participatory tools will be used wherever feasible so that communities take responsibility for verifying the impact of the project and alternative livelihoods activities on affected communities and individuals.

Community consultation and participation will build community capacity to identify indicators and together with planning facilitators they will develop participatory monitoring tools. These will be used to formulate project proposals, and for participatory monitoring and feedback to external monitors during the implementation of these plans. Communities will also participate in external evaluation of outcomes of implemented plans.

At community level, the co-management committees will be the main *fora* involved in participatory monitoring. They will identify indicators for Action Plans developed with their participation, and will be trained on how to manage the information for the project's and committee use. All community management structures should listen to, verify and respond to grievances as entitlements are understood and taken up or as they change over time.

Existing knowledge and additional social research and monitoring will be used and done to understand the aspirations and livelihood strategies of local affected communities in order to design practical, acceptable and mutually beneficial conservation and development interventions including adaptation to climate change.

Via the adaptive management model the quality of monitoring processes should be regularly reviewed and improved. Issues such as leadership, representation, equity, and treatment of individuals vulnerable to specific adversities must be adequately addressed through identifying sensitive indicators and their monitoring. Training of all participants in how to use monitoring and evaluation for adaptive management decisions and how to use it as a basis for good communication flow will be essential in project management

Estimated Budget for the Implementation of the ESMF for FishCC Project

The total cost of preparing and implementing PF, and the RAPs under this document stands at **US$ 358,000** (**Three Hundred, Fifty Eight Thousand American Dollars**)

SUMÁRIO EXECUTIVO

Introdução

Este Quadro de Gestão Ambiental e Social (QGAS) foi preparado para o **Projecto de Pesca Artesanal e Mudanças Climáticas (FishCC)**. Para além do Governo de Moçambique, o FishCC é co-financiado pelo Fundo Nórdico de Desenvolvimento (NDF), o Banco Mundial (BM) e uma ONG, RARE, como forma de apoiar o Governo de Moçambique (GOM) para atingir três objectivos importantes subdivididos em igual número de horizontes de tempo, nomeadamente: (i) **a longo prazo**: "aumentar de forma sustentável os benefícios económicos gerados pelos recursos marinhos do Sudoeste do Oceano Índico (SWIO), e a proporção desses benefícios a ser capturados na região"; (ii) **médio prazo**: "fortalecer a capacidade de Moçambique para a gestão dos recursos e para reduzir a pobreza entre os pescadores da pesca artesanal na zona costeira de Moçambique apoiados por políticas e instituições a nível nacional, provincial, distrital e local"; e (iii) **objectivo imediato (curto prazo)**: "identificar/demonstrar uma abordagem a escala crescente que irá reduzir a vulnerabilidade de Moçambique às mudanças climáticas, melhorando as pescas e os resultados da gestão dos recursos naturais".

Os objectivos acima mencionados serão alcançados através de uma combinação de intervenções que visam facilitar o desenvolvimento de grupos de gestão dos recursos naturais na zona litoral baseados na comunidade (CCPs – Conselhos Comunitários de Pescas) para gerir e orientar as áreas de reservas dos Direitos Territoriais dos Usuários para os Pescadores (DTUP/TURF).

A Teoria de Mudança da RARE e as campanhas de marketing social Pride (Orgulho) serão adoptadas como sendo as principais abordagens para trabalhar com as comunidades envolvidas. Os funcionários do IDPPE (Instituto Nacional para o Desenvolvimento da Pesca de Pequena Escala) do Ministério das Pescas (MF) deverão desempenhar um papel crucial no processo da prestação dos serviços.

As comunidades e os seus direitos sobre os recursos naturais e especialmente sobre os recursos marinhos, bem como os seus direitos para geri-los vão estar no centro da intervenção. Espera-se que os dois métodos acima, possam ajudar na realização dos importantes objectivos de desenvolvimento, tais como (i) restabelecimento da vitalidade dos ecossistemas em águas costeiras, o que irá aumentar a resiliência ecológica às mudanças climáticas e ampliar as oportunidades para o turismo, e (ii) significativamente e intensamente aumentar a captura e valor das capturas e, finalmente, contribuir para reduzir a pobreza e aumentar a resiliência social nas comunidades pesqueiras.

Acredita-se que assim que as comunidades começarem a ter um melhor entendimento sobre as razões por trás da necessidade de adoptar princípios sustentáveis na gestão dos recursos marinhos elas passem a ser as melhores defensoras destes princípios e práticas relacionadas que na maioria dos casos são vistos como estranhos a elas já que muitas vezes os mesmos são trazidos para as comunidades seguindo abordagens de "cima para baixo".

Componentes do Projecto

O Objectivo de Desenvolvimento do Projecto (ODP) é o de melhorar a eficácia de gestão das pescas prioritárias a nível regional, nacional e comunitário. No geral, o projecto pretende desenvolver a capacidade e liderança necessárias e abordar questões de governação económica essenciais para estabelecer uma base bem fundamentada para o crescimento económico partilhado com base nas pescas. Isto vai ser feito através do apoio à melhoria da gestão das pescas economicamente mais importantes, melhorando a co-gestão da pesca de pequena escala, e facilitando os investimentos públicos e privados para aumentar a contribuição das pescas para as economias nacionais. O projecto compreende os seguintes resultados principais:

- **Resultado 1:** Melhoramento da Gestão Baseada em Direitos e Resiliência Social às Mudanças Climáticas Reforçada. Isto irá apoiar a criação e institucionalização dos CCPs, incluindo a criação de seis reservas DTUP/TURF, bem como proceder à ampla capacitação das comunidades para aumentar a resiliência às mudanças climáticas, sociais e ecológicas. Isso também irá demonstrar que os pescadores em cada um dos locais podem obter ganhos de eficiência através de técnicas de gestão cooperativas.
- **Resultado 2**: Gestão das Pescas Melhorada por intermédio da utilização de uma abordagem de áreas de reserva DTUP/TURF. De acordo com este resultado o projecto irá procurar atingir a melhoria da pesca local (biomassa da captura, valor, ganhos de gestão) através de uma abordagem de gestão baseada nos direitos (para incluir a protecção e monitoria), levando a uma melhor produção das pescas e à redução da pobreza.
- **Resultado 3**: Ecossistemas, Habitats e Biodiversidade Marinhos Melhorados (Resiliência Ecológica às Mudanças Climáticas). Sob este resultado será realizada uma série de pesquisas que demonstrem que os ecossistemas e habitats mostram melhoria na biodiversidade e resiliência ecológica.
- **Resultado 4**: Melhoria dos meios de vida. Este resultado vai lidar com as opções de meios de subsistência para os pescadores (aquacultura, agricultura, turismo, etc.) através da realização e publicação de uma série de análises socioeconómicas sobre os meios de vida das comunidades pesqueiras, incluindo o papel das mulheres.
- **Resultado 5**: Aumento da Capacidade do IDPPE. Este resultado vai se concentrar sobre técnicas de marketing social a ser ensinadas à equipa de campo do IDPPE para que alguns dos seus membros possam aplicar esse conhecimento no campo para levar a cabo a mudança social. Para além da capacitação sobre PRIDE, o pessoal do IDPPE relevante também receberá capacitação em outras áreas para que seja capaz de trabalhar com as comunidades na melhoria das intervenções de pesca.
- **Resultado 6**: A Nova Lei das Pescas é reforçada no que diz respeito ao facto de a abordagem de gestão baseada em direitos passar a ser preferida para a pesca costeira. Assegurar que a Política e Legislação nacionais apoiem directamente a gestão baseada em direitos como sendo uma abordagem transformadora para melhorar a pesca costeira e reduzir a pobreza.
- **Resultado 7**: Assistência Técnica, Prestação de Contas e Auditoria Prestados ao Projecto. Este resultado irá assegurar que a assistência técnica seja fornecida ao IDPPE e outras entidades pertinentes para realizar com competência as várias funções de implementação e gestão de projectos.

Contexto de Desenvolvimento

O projecto FishCC acontece numa altura em que Moçambique está a ter taxas de crescimento económico de uma média anual situada acima dos 7%[5] em termos reais, e continua a ser uma das economias de mais rápido crescimento em África e no mundo, com uma inflação reduzida, o que acontece devido à boa gestão da política macroeconómica.

Nos últimos tempos, vastas reservas de carvão, gás e outros minerais foram descobertas e estão a começar a ser exploradas. Os desenvolvimentos em curso e futuros relacionados com a exploração dos recursos minerais têm o potencial de mudar radicalmente a estrutura da economia e da sociedade moçambicanas, ao mesmo tempo que colocam sérios desafios à capacidade do país para embarcar num crescimento económico inclusivo, em consonância com a estratégia de redução da pobreza em curso, ou seja, o PARPA III (2011-2014).

No entanto, apesar do seu notável crescimento contínuo, o país continua a estar entre os mais pobres do mundo e fortemente dependente da ajuda externa. O mesmo ocupa a posição 185 de entre 187 países no que respeita ao Índice de Desenvolvimento Humano, de 2013, das Nações

[5] O Banco Mundial calcula que o crescimento económico de Moçambique esteve em media nos 8.1% no period de 1995-2010 (BM, 2013).

Unidas (IDH). Uma série de constrangimentos institucionais e outras restrições continuam a obstruir a prestação de serviços básicos (por ex. serviços de abastecimento de água, saneamento, educação e saúde) e há muitos desafios que permanecem. Em 2010, dados do MPD indicaram que entre 2002-3 e 2008-9, houve um ligeiro aumento na incidência de pobreza (de consumo), que passou de 54,1% para 54,7%. A pobreza rural foi a pior embora nos últimos anos a pobreza urbana seja cada vez mais uma preocupação séria.

O Governo está em processo de implementação de um segundo conjunto de reformas estruturais que se aproveitam do clima macroeconómico prevalecente. Os principais alvos dessas reformas são: (i) o sector público, (ii) política fiscal, (iii) governação e, (iv) o ambiente de negócios, incluindo a criação de um ambiente favorável à criação e ao desenvolvimento de pequenas e médias empresas (PME).

Um outro aspecto que precisa de ser tratado na economia moçambicana tem a ver com o facto de que, devido a factores históricos um número significativo de sectores de desenvolvimento (estradas, linhas férreas, energia, telecomunicações, etc.) têm se centrado principalmente em atender a região em detrimento das necessidades domésticas. Os corredores de Maputo, Beira e Nacala, em grande parte funcionais, que ligam Moçambique à África do Sul, Suazilândia, Botswana, Zimbabwe, Malawi e Zâmbia, respectivamente, são um bom exemplo desse fenómeno.

Existe igualmente um receio crescente, por parte de vários sectores dentro e fora do país, em como a disponibilidade de investimento estrangeiro em megaprojectos em áreas tais como mineração, geração de energia, petroquímica, fundição e infra-estrutura de transportes possa criar opções de crescimento fáceis que diminuam o incentivo para o governo realizar as reformas mais complicadas que removeriam os obstáculos estruturais ao crescimento de base ampla. Isso também poderia influenciar negativamente a atenção a ser dada à agricultura e às pescas.

Sob um tal contexto, o projecto é altamente relevante. Incidindo sobre o sector das pescas ao nível da base e por intermédio das suas principais componentes e sub-componentes, e especialmente aquelas que lidam com a capacitação das comunidades e desenvolvimento de algumas infra-estruturas, ligações e melhoria geral do ambiente de negócios vão apoiar os esforços do governo na criação das instituições necessárias ao nível de base, pilotar e demonstrar intervenções socioeconómicas viáveis, auxiliar na capacitação e oferecer mecanismos de monitorização e avaliação que irão beneficiar as áreas do projecto, em particular, e o país como um todo.

O governo desenvolveu um Plano Director das Pescas (2010-2019) para lidar com a maioria dos constrangimentos que interferem negativamente na realização do potencial do sector e para aumentar esse potencial.

O sector das pescas contribui significativamente directa e indirectamente para a redução da pobreza e para o desenvolvimento socioeconómico em geral. Com cerca de 4%, a contribuição directa do sector para o PIB pode ser moderado, mas tem um peso considerável na segurança alimentar e especialmente no acesso à proteína animal (ou seja, 50% da proteína animal consumida no país) por parte de uma proporção significativa da população do país em áreas rurais e urbanas, para a balança de pagamentos, as receitas públicas, emprego e igualdade de género. Cerca de 850 mil famílias, ou cerca de 20% da população, dependem das pescas para uma parte de sua renda e uma maior proporção ainda depende das pescas para a subsistência e segurança alimentar.

O litoral de cerca de 2,700 km do país, é dividido em três zonas, cada uma com diferentes condições ecológicas, duas grandes massas de águas interiores (Lago Niassa e a albufeira da barragem de Cahora Bassa) e pequenos lagos e rios espalhados por todo o país. A distribuição dos recursos pesqueiros é dependente destas condições diferentes: nos estuários e baías pequenos peixes pelágicos, peixes demersais de barriga macia, crustáceos abundantes, espécies demersais de fundo do mar e alguns grandes peixes pelágicos nas proximidades das ilhas perto da costa, tilápia,

bagre (Niassa) e peixe tigre, tchenga encontram-se nas grandes massas de água interiores assim como bagres e tilápias em Cahora Bassa.

Das cerca de 150.000 toneladas das capturas marinhas anuais 91% estão nas mãos da pesca artesanal, 2% nas da pesca semi-industrial para o consumo local, e 7% na pesca industrial. A captura industrial, que consiste principalmente de crustáceos para a exportação, representa cerca de 52% do valor total, enquanto a pesca artesanal está situada perto de 42% e os 6% restantes vêm da pesca semi-industrial.

O PDP aborda seis temas principais:

i. Reestruturação das frotas de pesca industrial e semi-industrial de camarão;
ii. Diversificação e crescimento da produção pesqueira industrial e semi-industrial;
iii. O crescente papel da iniciativa privada como motor de promoção do desenvolvimento nacional e a redução correspondente da intervenção do Estado na esfera produtiva;
iv. A formação de uma Administração das Pública Pesqueira centrada sobre as políticas e estratégias, planos de desenvolvimento, legislação pesqueira, criação de um ambiente económico propício ao investimento e arbitragem de conflitos;
v. Padrão melhorado de vida para os pescadores artesanais
vi. Desenvolvimento dos recursos humanos

A visão para o desenvolvimento do sector reconhece que, nos próximos anos, a pesca artesanal, que é a mais significativa em termos de volume e de contribuição para a economia continuará a ser realizada de forma artesanal e de subsistência. No entanto, a mesma tem de ser cada vez mais ligada aos mercados do país e ser integrada em comunidades onde os serviços sociais testemunham um progresso substancial.

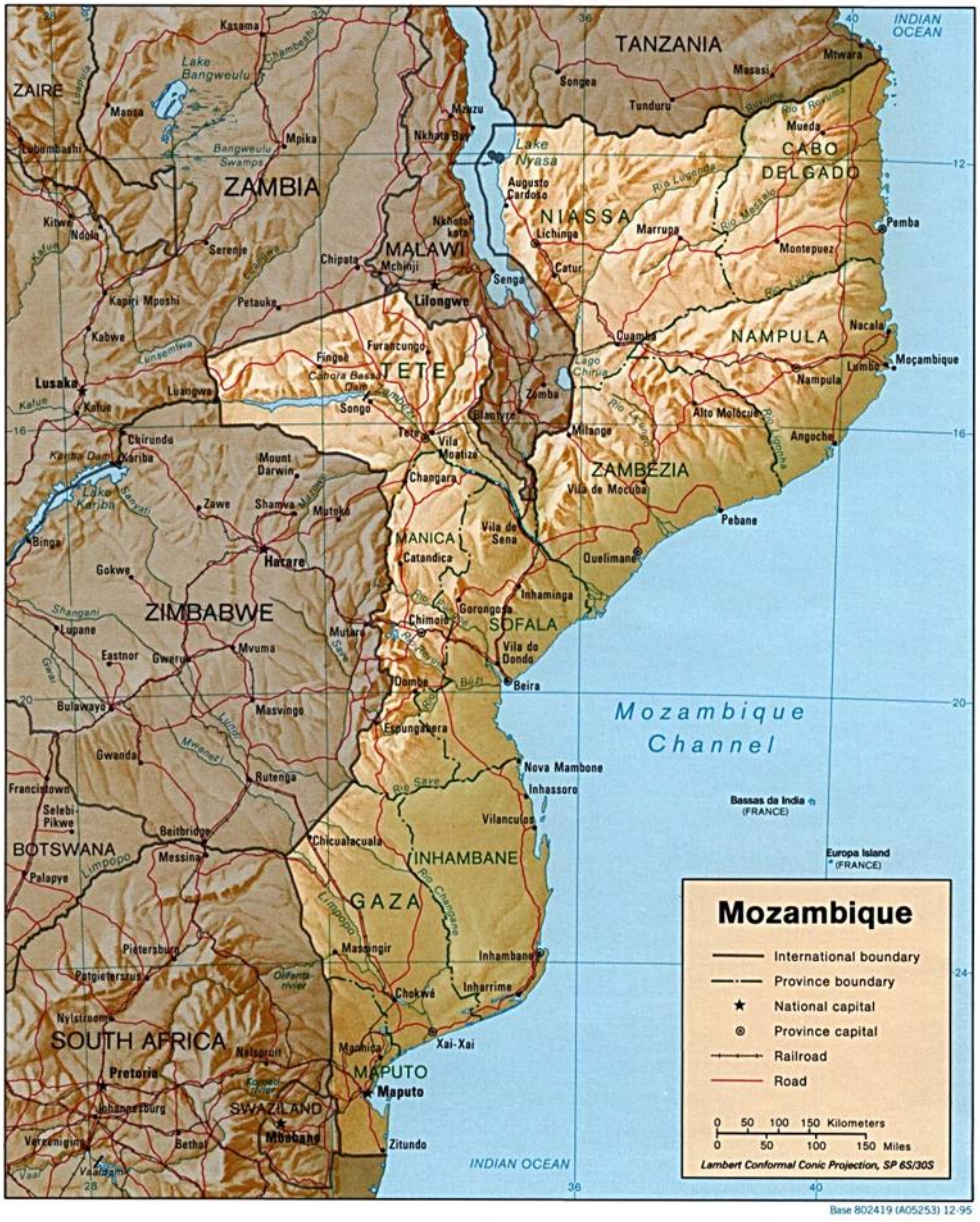
Áreas de Incidência do Projecto

A Figura 1 mostra a distribuição geográfica das áreas potenciais para a implementação do Projecto FishCC. O projecto apoiará seis áreas piloto, cada uma composta por 5-10 comunidades. Se os locais piloto forem bem-sucedidos, a abordagem será em seguida alargada em escala até incluir a maioria das zonas do litoral do país. A RARE e o IDPPE já fizeram alguma avaliação preliminar sobre as áreas da Reserva Parcial Marinha na Ponta do Ouro, Baía de Inhambane e Baía de Pemba, mas os locais específicos não podem ser seleccionados até que a concessão esteja em fase de implementação. No início do projecto, uma série de critérios científicos serão utilizados pela IDPPE e pela RARE para determinar a localização das primeiras seis áreas piloto.

As actividades no âmbito dos sete resultados nestas áreas vão afectar as diferentes componentes ambientais e sociais de diferentes maneiras. O QGAS para este projecto visa garantir que as intervenções do mesmo na área de infra-estruturas seja feita de tal forma que não tenha implicações negativas sobre o ambiente natural e social receptor. As intervenções previstas compreendem pequenas obras tais como a reabilitação e funcionamento dos mercados de peixe (a ser sujeitos a confirmação), centros de formação e equipamentos sociais para as associações de pescadores e grupos de mulheres; outras infra-estruturas de pequena dimensão (por exemplo, pequenas lagoas para aquicultura; pequenos poços de água; e pequenas infra-estruturas para máquinas de gelo).

A identificação generalizada dos potenciais impactos ambientais e sociais dos projectos foi e será feita considerando-se as componentes ambientais e sociais que possam vir a ser afectadas pelas actividades do projecto. Trata-se de revisão da literatura sobre projectos implementados nas mesmas áreas, no passado, projectos similares e através de consultas preliminares com as principais partes interessadas, em especial representantes do MP, IDPPE, INAQUA, líderes locais, pessoas e comunidades pesqueiras em geral e informantes-chave assim como julgamento profissional.

Figura 1: Mapa do FishCC



Políticas de Salvaguardas do Banco Mundial e Regulamentos do GDM

O objectivo do QGAS é o de garantir que as políticas e salvaguardas ambientais e sociais do Banco Mundial e regulamentos ambientais e sociais do GDM relevantes sejam rigorosamente respeitados. O projecto desencadeou três das 10 + 2 políticas de salvaguardas do Banco Mundial, ou seja, a Avaliação Ambiental (OP / BP 4.01), Reassentamento Involuntário (OP / BP 4.12), e Recursos Culturais e Físicos (OP / BP 4.11), bem como a adesão às Directrizes de Gerais sobre o Ambiente Saúde e Segurança (EHS) e às Directrizes aplicáveis sobre o Agro-negócio/Produção de Alimentos Abril de 2007, do Grupo do Banco Mundial. O QGAS tomou providências para resolver potenciais problemas referentes quer à OP/BP 4.04 (Habitats naturais) quer à OP / BP 4.11 (Recursos Culturais Físicos). Foi preparado um Quadro Processual para satisfazer as existências do OP / BP 4.12 sobre Reassentamento Involuntário. Este último documento foi preparado separadamente e deve ser utilizado em conjunto com este ESMF.

O projecto também será implementado à luz da reforma do GDM no sector do ambiente em termos de: (a) adesão e adopção de uma série de convenções e protocolos internacionais e regionais de protecção ambiental e de conservação; (b) a aprovação de um conjunto significativo de legislação com implicações directas e indirectas para a protecção ambiental e social; (c) criação de instituições públicas específicas e/ou fortalecimento de instituições existentes dedicados à gestão ambiental e social no país.

Quer as políticas de salvaguardas do BM quer os regulamentos do GDM serão aplicados para garantir que os impactos ambientais e sociais negativos sobre a recursos como terra, solos, água, biodiversidade (incluindo a pesqueira), vegetação, comunidades locais e a sociedade em geral sejam adequadamente geridos e para que os impactos positivos sejam reforçados.

Formulação e Selecção de Subprojectos

Como parte do QGAS haverá um processo de revisão social e ambiental das intervenções que vai ajudar a (i) determinar que actividades de construção ou reabilitação sejam susceptíveis de ter potenciais impactos ambientais e/ou sociais negativos; (ii) determinar o nível de acção ambiental e social necessário, incluindo se uma AIAS/PGAS ou um PGAS autónomo será necessário ou não; (iii) determinar medidas de mitigação apropriadas para lidar com os impactos adversos; (iv) incorporar medidas de mitigação para os subprojectos financiados pelo FishCC; (v) indicar a necessidade da elaboração de um Plano de Acção de Reassentamento (RAP), que seria elaborado em conformidade com a regulamentação pertinente, que seria igualmente preparada para este projecto caso se verifique que o mesmo possa ver a ter implicações consideráveis nessa esfera; (vi) facilitar a análise e aprovação das propostas de construção e de reabilitação; e (vii) fornecer orientações para a monitorização de parâmetros ambientais e sociais durante a implementação e operação das actividades de subprojectos.

Dado o carácter multissectorial do projecto, e para assegurar a implementação e acompanhamento das questões sociais e ambientais adequados, o QGAS recomenda que, mesmo que não sejam empregues a tempo inteiro, existam pessoas designadas e dedicadas para supervisionar e monitorizar a implementação de (i) salvaguardas sociais e ambientais, e (ii) Comunicação. As pessoas a ser designadas para trabalhar nestas áreas devem ser dotadas de bons conhecimentos de salvaguardas ambientais e sociais para entrar em contacto atempado com os especialistas provinciais de salvaguardas. Estes irão trabalhar em estreita colaboração com o MICOA, tanto a nível central e provincial e serão responsáveis pelo tratamento adequado das dimensões de comunicação ambiental e social do projecto durante todo o seu ciclo de vida. Esses funcionários serão formados pelos especialistas de salvaguardas do BM em estreita colaboração com o MICOA.

Foram levados a cabo contactos iniciais com as entidades ao nível central em Maputo como uma forma de envolver as partes interessadas e envolvidas na identificação das questões que podem afectar do projecto e delinear as formas de melhor geri-las. Nas fases subsequentes mais trabalho

será feito nesse sentido nas áreas que já foram identificadas e nas outras que ainda serão definidas. Nesta fase faz-se uso dos resultados da consulta comunitária levada a cabo no âmbito de outros dois projectos de pescas (SWIOFISH e PPACG) que em alguns casos também incidem sobre área similares para obter um entendimento inicial das questões que poderão emergir e sobre como tratar deles.

Planos de Gestão Ambiental e Social (PGAS)

Com recurso a financiamento para o efeito, onde se apresentar relevante, vai se preparar Avaliações de Impacto Ambiental e Social (AIAS) e Planos de Gestão Ambiental e Social (PGAS) ou simplesmente Planos de Gestão Ambiental e Social (PGAS) em locais de intervenções específicas de modo a que o projecto (i) **evite** actividades que podem resultar em impactos ambientais e sociais negativos sobre recursos ou áreas consideradas sensíveis; (ii) **previna** a ocorrência de impactos ambientais e sociais negativos; (iii) **evite** acções futuras que possam afectar negativamente os recursos ambientais e sociais; (iv) **limite ou reduza** o grau, extensão, magnitude ou a duração dos impactos negativos por intermédio de redução das escalas das intervenções, mudança de localização, reformulação dos elementos do projecto; (v) **repare ou reabilite** recursos afectados, tais como habitats naturais ou recursos hídricos, particularmente quando o desenvolvimento anterior tiver resultado na degradação significativa dos recursos; (vi) **restaure** recursos afectados a um estado anterior (e, possivelmente, mais estável e mais produtivo), que se equipare à condição inicial mais pura; e (vii) **crie, melhore ou se proteja** o mesmo tipo de recursos em outro local adequado e aceitável, compensando os recursos perdidos.

Para além disso, o QGAS inclui cláusulas ambientais e sociais comuns (CAS), que serão incluídas em todos os documentos de concurso e nos vários contratos (cláusulas contratuais) para a concepção, construção e operação adequada das intervenções a serem adoptadas para os subprojectos. Uma vez revistos e aprovados pelo ASPEN (Assessoria de Salvaguardas Regionais para a África) o QGAS será divulgado publicamente, tanto dentro do país como no InfoShop antes da avaliação do projecto.

Quadro Processual (QP)

Em separado foi preparado um Quadro Processual para ser usado em conjunto com este QGAS. O QGAS e o QP também serão revistos e aprovados pelo ASPEN e depois divulgados publicamente, tanto dentro do país como no InfoShop antes da avaliação do projecto.

O QP descreve uma série de princípios, que incluem:

- Uma compreensão abrangente das componentes do programa, particularmente aquelas que se traduzem em restrições ao acesso a recursos naturais pelas populações locais;
- Consulta e participação públicas;
- Determinação do uso da terra e acesso aos direitos de recursos;
- Investigação inicial dos locais e actividades do programa;
- Tratamento eficaz de queixas e reclamações;
- Acompanhamento e avaliação dos efeitos do programa sobre os padrões de vida das pessoas e comunidades afectadas pelo programa; e
- Um orçamento para garantir que o Programa tenha recursos adequados para apoiar a aplicação harmoniosa e sustentável do processo de participação.

Formação e Capacitação

Vai haver extensiva formação e capacitação com o objectivo de preparar as instituições relevantes aos vários níveis para planificar, implementar, monitorizar e avaliar os diferentes aspectos envolvidos numa boa gestão ambiental e social, como se explica no QGAS em particular, e no QP.

Com base na identificação das necessidades será desenvolvido um programa de capacitação institucional e humano específico para a gestão ambiental e social, bem como para a saúde e a segurança humanas como parte do Projecto FishCC. Para além do Ministério das Pescas as instituições beneficiárias desse programa incluirão o Ministério para a Coordenação da Acção Ambiental (MICOA), especialmente aos seus níveis provincial e distrital, os ministérios sectoriais relevantes a nível provincial e distrital (por exemplo, agricultura, obras públicas, energia, saúde, educação, MMAS e MPD, etc.), incluindo as autoridades locais (por exemplo, municípios e outros, tais como organizações da sociedade civil). Os detalhes do programa de capacitação e as instituições a serem apoiadas a nível provincial e/ou local, ainda têm que ser desenvolvido.

Será necessário conceber maneiras práticas de se chegar a todos os grupos-alvo para a formação e avaliações de necessidades de capacitação, bem como para a prestação dessa formação. Será dada prioridade máxima à abordagem que consiste em "aprender a fazer fazendo".

Monitorização

A monitorização também será fundamental para garantir que os objectivos estabelecidos no QGAS/QP e nas AIASs/PGASs/PARs estejam a ser alcançados de forma satisfatória e onde existirem discrepâncias para que sejam introduzidas acções correctivas oportunas. A Equipa de Gestão do Programa SWIOFish Moçambique terá a responsabilidade geral pela coordenação e acompanhamento da execução do QGAS.

Estimativa de Orçamento para a Implementação do QGAS para o Projecto FishCC

O custo total da preparação e implementação do QP ao abrigo deste documento é de **EUA$ 358,00** (**trezentos cinquenta oito dólares norte-americanos**).

1- INTRODUCTION

This Environmental and Social Management Framework (ESMF) is prepared for the **Artisanal Fisheries and Climate Change Project** (**FishCC**). In addition to the Government of Mozambique, FishCC is co-financed by the Nordic Development Fund (NDF), the World Bank (WB) and an NGO, Rare as a way of supporting the Government of Mozambique (GOM) to achieve three important objectives subdivided into an equal number of time horizons, namely: (i) **long term**: "to sustainably increase the economic benefits generated by South West Indian Ocean (SWIO) marine resources, and the proportion of those benefits captured within the region"; (ii) **medium term**: "to strengthen Mozambican capacity for management of resources and to reduce poverty among coastal artisanal fisheries of Mozambique supported by policies and institutions at national, provincial, district and local levels; and (iii) **immediate (short term) objective**: "to *identify/demonstrate a scalable approach that will reduce Mozambique's vulnerability to climate change, while improving fisheries and natural resource management outcomes*.

The above-mentioned objectives will be achieved through a combination of interventions aimed at facilitating the development of community-based, coastal natural resources management groups (CCPs – Community Fishers' Councils) to manage and steward Territorial User Rights for Fishermen (TURF) - reserves.

Rare's Theory of Change and Pride social marketing campaigns will be adopted as the main approaches to work with the involved communities. IDPPE (National Institute for the Development of Small Scale Fisheries) staff from the Ministry of Fisheries (MF) is expected to play a crucial role in the delivery process.

Communities and their rights to natural resources and particularly marine resources as well as their rights to manage them will be at the center of the intervention. It is expected that the above-mentioned approaches will assist in the achievement of important development objectives such as (i) reestablishment of the health of ecosystems in coastal waters, which will increase ecological resilience to climate change and expand opportunities for tourism, and (ii) significantly and intensely increase catch and catch value and ultimately contribute to reducing poverty and increasing social resilience within fishing communities.

It is believed that once the communities start having a better understanding of the reasons behind the need to adopt sustainable principles in marine resources management they will be the best advocates of these principles and related practices that in most cases are seen as alien to them as they are often brought into the communities following top-down approaches.

In all stages of project development, prominence will be given to communication and capacity building with the aim of turning communities and local people into agents of change. For this to happen, a series of agents in the fisheries sector with emphasis on IDPPE relevant personnel and other related institutions within the Ministry of Fisheries and outside will in their turn receive adequate and necessary training for them to be able to convey the right messages to the fishing communities on the ground and to competently undertake all stages of the project such as baseline definitions, participatory planning, implementation, monitoring and evaluation with a strong focus on clearly defined results.

The support will also address poverty issues that the government is struggling to tackle through three fundamental pillars that form the country's Strategy to Reduce Poverty (PARP, 2011-2014) that consist of (i) increasing agricultural (and fisheries) production/productivity; (ii) increasing employment through targeted interventions to strengthen the dynamism of the private sector to drive economic growth and accelerate job creation; and (iii) good governance.

The climate change dimension of the process will also be an important component as Mozambique is and particularly its coastal areas are profoundly threatened by this phenomenon. Reliable

historical data analyses undertaken by INGC and other agencies indicate that the country's climate is becoming warmer and drier. The beginning of the rainy season is becoming less predictable, heavy rain events are more frequent and intense with episodes of drought occurring as well (INGC 2009). Mean annual temperature has increased between 1960 and 2006 and from 1960 to 2006 mean annual rainfall over the country has been decreasing, which is largely due to decreases in rainfall during the traditionally wet season (i.e. December, January and February) (INGC, 2009). With 60% of the country's population living in coastal areas and half of the country with an altitude of not more than 100 m above sea level, people and assets are increasingly vulnerable to episodes of sea level raise (SLR) and frequent and severe floods and cyclones. All facts combined also contribute to reducing ecological resiliency to climate change and threaten food security.

The project is expected to be implemented at six pilot sites along the coast of Mozambique to be confirmed after the signing of the Grant Agreement. Some preliminary scoping has begun at Pemba Bay, Inhambane, and Ponta do Ouro. These sites are estimated to contain one to three CCPs, or about 5-10 fishing-based communities.

If the pilot sites are successful, the approach will then increase the scale along the majority of country's coastline.

Among other interventions the project may deal with investments in infrastructures, notably rehabilitation or upgrading of fish markets and training facilities and social facilities for fisher associations and women's groups and other small size infrastructures that might be found fit and the project rolls out such as small ponds for aquaculture; small wells for water supply, construction of small buildings; small infrastructure for ice machines, etc. These interventions will be determined once the project is underway and will be partially based on research provided by the World Bank on livelihood options.

These interventions will have positive and negative implications on the receiving natural and socioeconomic environment. In line with the GOM and WB principles and guidelines related to environmental and social management, such interventions should be designed, implemented and operated in such a way as to avoid causing harm to both the natural and social environment.

The Environmental and Social Management Framework (ESMF) is meant to be a guide to the screening of the proposed Project interventions (sub-projects) to ensure that they do not affect negatively the natural and social environment. The ESMF is particularly relevant in a situation where project interventions and related details are not yet clear, as is the case of the project this stage. The ESMF outlines a number of principles, which include:

- A systematic procedure for participatory screening for sub-project sites and sub-project activities for environmental and social considerations;
- A step-by-step procedure for predicting the main potential environmental and social impacts of the planned sub-project activities;
- A typical environmental and social management plan for addressing negative externalities in the course of sub-project implementation (planning, construction and operation);
- A step by step monitoring and evaluation system for implementation of mitigation measures;
- An outline of recommended capacity building measures for environmental and social planning and monitoring of the sub-project activities; and

A budget to ensure that the Project has adequate resources to meet its own interests, especially financial resources for the preparation and implementation sub-projects The ESMF basic principles and requirements will be applied throughout the entire Project life cycle.

2 PROJECT DESCRIPTION

2.1 Project Components

The Project Development Objective (PDO) is to improve the management effectiveness of selected priority fisheries at regional, national and community level. Overall, the project intends to build the capacity and leadership required and address core economic governance issues to establish a well-founded basis for shared economic growth based on fisheries. It will do so by supporting the improvement of the management of the most economically important fisheries, improving co-management of small-scale fisheries,. The project comprises these main outcomes:

- **Outcome 1**: Rights Based Management Enhanced and Social Resilience to Climate Change Strengthened. This will support the establishment and institutionalization of CCPs, including the establishment of six TURF Reserves as well as undertake extensive capacity building of communities to increase climate change and social & ecological resilience. This will also demonstrate that fishers at each of the sites can achieve efficiency gains through cooperative management techniques.
- **Outcome 2**: Fisheries Management Improved through the Use of a TURF-reserve Approach. Under this outcome the project will search for the improvement of local fisheries (catch biomass, value, management gains) through a rights-based management approach (to include protection and monitoring) leading to better fisheries production and reduction of poverty.
- **Outcome 3**: Marine Ecosystems, Habitats, and Biodiversity Improved (Ecological Resilience to Climate Change. Under this outcome a series of surveys that demonstrate ecosystems and habitats show improvement in biodiversity and ecological resilience will be conducted.
- **Outcome 4**: Livelihoods Improved. This outcome will deal with the livelihoods options for fishers (aquaculture, agriculture, tourism, etc.) by conducting and publishing a series of socioeconomic analyses on livelihoods of fishing communities including the role of women.
- **Outcome 5**: Capacity of IDPPE Increased. This outcome will focus on social marketing techniques to be taught to field staff of IDPPE for some of them to apply this knowledge in the field to effect social change. In addition to capacity building on Pride, relevant IDPPE staff will also receive capacity building in other areas for them to be able to work with the communities in the improvement of fisheries interventions.
- **Outcome 6**: New Fisheries Law is reinforced with respect to rights-based management being a preferred approach to coastal fisheries. Ensure that National Policy and Legislation directly supports rights-based management as a transformative approach to improve coastal fisheries and reduce poverty.
- **Outcome 7**: Technical Assistance, Reporting and Auditing Provided for Project). This output will ensure that technical assistance is provided to IDPPE and other relevant entities to competently carry out the various functions of project implementation and management.

The project will be implemented by the World Bank and led by the AFTN1 unit in the Sustainable Development Department - Africa Region of the World Bank. The local implementation agencies will be IDDPE and RARE, working in close collaboration and with the Ministry of Fisheries as a whole. Liaison with relevant ministries such as Environment and Tourism, will be done through the Ministry of Fisheries. The World Bank will be represented by a technical assistance specialist who be attached to IDPPE.

The WB will establish agreements with IDPPE and Rare for the implementation of the project. Relevant IDPPE departments will be involved in the project implementation in line with their

mandates. The Social Development Department will be the lead department. Rare will work to provide technical assistance and to facilitate work with the IDPPE at HQ and at field levels.

There will be a Technical Working Group representing IDPPE government officials, RARE staff, WB staff and other practitioners as necessary that will be formed to plan and implement the project. The working group will interact directly with the broader community involved in coastal development, conservation and monitoring and evaluation. The Bank will report back to NDF on the use of funds and achieved results. Where feasible, NDF will participate in monitoring and evaluation activities.

There will be a Rare office in Maputo with five employees, which will work alongside the IDPPE in all field settings. Rare staff will be responsible for selecting the Pride Campaign Managers and sites, helping to plan and implement campaigns, and to assist the Managers as they train local CCPs to develop their TURF-reserves. They will be also be supported by Rare's international staff for training (university phases of the Pride campaign training) and for all monitoring and evaluation activities.

IDPPE, as the recipient agency, will have a number of responsibilities in this project. An IDPPE staff member will be chosen as the Pride Campaign Manager for each site. S/he will be responsible for designing and executing the Pride Campaign, and assisting the CCP to design and implement its TURF-reserve (including protection and monitoring). IDPPE staff will also be responsible for all financial support going to the CCPs. The latter will include office and equipment supplies, the office rent, support for meetings such as travel and accommodations, and administrative and legal support for management planning.

2.3 Anticipated Sub-project Types under the Project

Possible physical interventions will be in the form of:

- Rehabilitation of fish markets;
- Training facilities and social facilities for fisher associations and women's groups
- Other small size infrastructures that might be found fit as the project rolls out such as:
    - Small ponds for aquaculture;
    - Small wells for water supply,
    - Small infrastructure for ice machines.

3. DEVELOPMENT CONTEXT IN MOZAMBIQUE AND THE PROJECT AREAS

3.1 General Country Development Context and Project Relevance

FishCC is being implemented when Mozambique is experiencing economic growth rates of an annual average situated above 7%6 in real terms and continues to be one of the fastest growing economies in Africa and the world, with reduced inflation, which, due to sound macro-economic policy management.

In the last few years, extensive reserves of coal, gas and other minerals have been discovered and are beginning to be exploited. The current and future developments associated with mineral resource exploitation have the potential to radically change the structure of Mozambique's economy and society at the same time that pose serious challenges to the country's capacity to embark on an inclusive economic growth as espoused by the approved and on-going poverty reduction strategy or PARP III (2011-2014). These developments also further compound the existing challenges of promoting sustainable development as they will exacerbate the needs for human and institutional capacity for management of traditional and new sectors of the economy such as water, agriculture and forests, mining, fisheries, tourism, energy, transport (roads/bridges, airports and ports), tourism, etc. and their inter relationships including the recent challenges related with climate change adaptation and mitigation. Some of these sectors are directly related with fisheries development and also translate into additional challenges to this sector.

Mozambique has a total area of approximately 800,000 km^2 and a population of 20.4 million inhabitants (INE, 2007) of which over 64% continue to live in rural areas, with more than 60% living in coastal regions. Its GDP per capita is now estimated at USD 590[7], significantly below the average for developing countries in sub-Saharan Africa (USD1,424) and very close to the average for low-income countries worldwide (USD 581).

After about a decade of centralized economy and just over 16 years of armed conflict from the mid-1990s, the accelerated growth rates that the Mozambican economy has been recording are supported by high levels of assistance from Development Partners. They result from the efforts in the field of macroeconomic policy management and strengthening the enabling environment for promotion of domestic and foreign private investment. Notwithstanding the effects of external shocks with negative impacts on the economy and society, the country tends to register high rates of economic growth, which is accompanied by a climate of political and macroeconomic stability with average inflation rates in the order of a single digit. Economic growth has been driven by (i) foreign direct investment in mega projects[8] and operating large-scale high-value agricultural products such as cotton, sugar and tobacco, (ii) the favorable agricultural growth at the family sector level, and (iii) infrastructure rehabilitation projects, including roads.

However, despite the remarkable ongoing growth progress, the country continues to be among the world's poorest and heavily dependent on foreign aid. On the 2013 United Nations' human development index (HDI), Mozambique ranks as the 185th of 187 countries. A number of institutional constraints and other constraints continue to obstruct the delivery of basic services (e.g. water supply, sanitation, education and health services) and there are many challenges that remain. In 2010, MPD data indicated that between 2002-3 and 2008-9 there was a slight increase in

[6] The World Bank estimates that Mozambique's economic growth averaged 8.1% over the period 1995–2010 (WB, 2013)

[7] It was estimated at USD 318 inn 2012 (Ernest & Young, 2013).

[8] e.g. Aluminium Smelter (Mozal), gas exploration (SASOL), Moma heavy minerals and coal in Tete province for a number of actors.

the incidence of poverty (consumption), which rose from 54.1% to 54.7%. Rural poverty has been the worst although in recent years urban poverty is increasingly becoming a serious concern.

The Government is in the process of implementing a second set of structural reforms that will take advantage of the prevailing macroeconomic climate. The main targets of these reforms are: (i) the public sector, (ii) fiscal policy, (iii) governance and, (iv) the business environment, including the creation of an enabling environment for the establishment and development of small and medium-sized enterprises (SMEs).

More recent analyses have highlighted the fact that the Mozambican economy is characterized by a very small number of mega projects on the one hand, and the family and informal sector, on the other. This encourages imbalances in development and particularly with respect to the diversification of production and access to the benefits of the development by a significant proportion of the population[9]. Among other things, investments in infrastructure such as roads, ports, water supply and sanitation, energy, telecommunications, etc. should continue to play a role in this process of stabilization and gradual elimination of imbalances.

Strengthening small and medium size enterprises (SMEs) is seen as key to changing the prevalent situation.

SMEs (both formal and informal) represent about 98.6% of all enterprises, employing 43% of the workers and accounting for 76% of the total sales. Trade and service sectors form the bulk of business units, with commerce and retail businesses accounting for close to 60%, restaurants and accommodation 20% and manufacturing less than 10%. Most of these SMEs typically grow informally and as a reaction to immediate market deficiencies.

Studies show that despite the SMEs' importance in national economic development and poverty alleviation they lack growth perspectives, due in part to the entrepreneurs' and workers' poor education and training skills, cumbersome regulations, high cost of credit and poorly developed basic socioeconomic infrastructure.[10] As a result, local entrepreneurs tend to diversify into a large number of relatively small and uncompetitive businesses rather than grow promising small businesses into large ones that could reach out to more people and offer more income generation opportunities (job creation, gender mainstreaming, etc.).

In 2007, the government approved the "Strategy for the Development of Small and Medium Size Enterprises in Mozambique." The strategy underscores the central role SMEs are expected to play as drivers of employment, competitiveness, diversification and innovation, including SMEs' role in mobilizing social resources. The strategy relies upon three major pillars:

- Improve the business environment for SMEs
- Strengthen SMEs' technological and management capacities (capacity building)
- Give strategic support (e.g. to exporters and high-tech firms, etc.)

The reduction of transaction costs for SMEs is also given high priority. It also advocates simplification of the arbitrary inspection and tax systems. The subsequent "Strategy for Improving the Business Climate", approved in 2008, deals with these issues in more detail.

Another aspect that needs to be addressed in the Mozambican economy has to do with the fact that due to historical factors a significant number of development sectors (roads, railways, energy, telecommunications, etc.) have focused mainly on serving the region in detriment of domestic

[9] Carlos Nuno Castel-Branco (2008) "The Mega Projects in Mozambique: What Contribution to National Economy?" Civil Society Forum on Extractive Industries, Natural History Museum (Maputo), 27 and 28 November 2008.

[10] M. Krause and F. Kaufman, "*Industrial Policy in Mozambique*", 2011.

needs. The largely functional corridors of Maputo, Beira and Nacala, which link Mozambique to South Africa, Swaziland, Botswana, Zimbabwe, Malawi and Zambia, respectively, are a good illustration of this phenomenon.

There is also a growing fear from various sectors inside and outside the country that the availability of foreign investment in mega-projects in areas such as mining, power generation, petrochemicals, smelting and transport infrastructure has created easy growth options that diminish the incentive for the government to undertake the more challenging reforms that would remove structural obstacles to broad-based growth. This could also influence negatively the attention to be given to agriculture and fisheries.

Under such a context, the project is highly relevant. Focusing on the fisheries sector at the grassroots level and through its major components and subcomponents, and particularly those dealing with community empowerment and some infrastructure development, linkages and general improvement of the business environment it will support government's efforts in the establishment of the necessary institutions at the grassroots level, pilot and demonstrate viable socioeconomic interventions, assist in capacity building and provide adequate monitoring and evaluation mechanisms that will benefit the project areas in particular, and country as a whole.

3.2 Country's Reliance on Agriculture and Fisheries and Poverty Reduction

In Mozambique more than 70% of the population relies upon subsistence agriculture and fisheries for their livelihood with women being the majority. Thus, agriculture and fisheries are the key sectors in the country's development strategy, which focus on poverty alleviation and are translated into 5-year government plans (PQG). The ongoing poverty reduction strategy (PARP III, 20111-14) focuses on (i) increased agrarian and fisheries production; (ii) promotion of employment; (iii) human and social development; (iv) governance; and (v) macroeconomic and fiscal management. One of the biggest challenges is the promotion of equity in development. Among other the strategy is aimed at addressing imbalances in development, particularly with respect to the diversification of production and access to the development benefits by a significant proportion of the population. Significant investments in infrastructure such as roads, water supply and sanitation as well investment in the adding of value to the primary sectors of the economy where the majority of the country's population is active (i.e. agriculture and fisheries) should continue to play a vital role in the stabilization and gradual elimination of imbalances.

At the macroeconomic level, PARP III[11] defines the main policy guidelines leading to the integration of the economic, social and environmental issues into the poverty alleviation strategy. One of the biggest challenges is the promotion of equity in development. Agriculture and fisheries are seen as the base of the economy that should be used and at the same time be assisted to (i) provide opportunities for productive employment for a large part of its population including direct access by such people to the income arising from such occupation; (ii) ensuring food security; (iii) the diversification of food production and a series of productive sectors and sub-sectors (e.g. industry, trade, tourism, etc...); (iv) improve the balance of payments through a reduction in imports and increase in exports, etc.

Mozambique has a wealth of natural resources to rely upon to promote the development of the above-mentioned primary sectors of its economy. Current estimations, and according to an AFD study (AFD, 2009), are that 49% of the country's total wealth is natural capital, as opposed to 24% in the other sub-Saharan African countries. Existing resources, which include fisheries, can serve as a platform for economic growth and poverty alleviation. Due to its current level of socioeconomic and technological development the country relies heavily on its natural resource base.

[11] Poverty Reduction Action Plan 2011-2014

The subsistence and well-being of the majority of people depend largely on access to land, water resources, forestry products, fisheries, mineral resources and other natural resources. At present more than half of the Mozambican population, respectively, lies below the national poverty line. About 64% of Mozambicans live in rural areas. Mozambican ecosystems are also highly vulnerable.

Fisheries, forests and mining sectors offer a series of concrete examples of opportunities that do not match their potential profitability through national revenues. The economic implications of the potential gaps and failures of the sector policies and regulatory approaches are very significant[12]. The government is seen as abdicating significant revenues with unclear benefits, while not inducing an efficient use of resources. This also applies to fisheries resources.

3.2.1 The Fisheries Sector

More specifically the fisheries sector contributes significantly directly and indirectly to poverty alleviation and socioeconomic development in general. At around 4%, the direct contribution of the sector to the GDP might be moderate, but it has a considerable weight in food security and particularly access to animal protein (i.e. 50% of animal protein consumed in the country) by a significant proportion of the country's population in rural and urban areas, balance of payment, public revenues, employment and gender equity. Around 850,000 households, or about 20% of the population, rely on fisheries for part of their income and a larger proportion relies on fishing for subsistence and food security.

The country's coastline of about 2,700 km, is divided into three zones, each with differing ecological conditions, two large bodies of inland water (Lake Niassa and the Cahora Bassa dam lake) and small lakes and rivers scattered throughout the country. The distribution of fishery resources is dependent on these differing conditions: in the estuaries and bays small pelagic fish, soft bottom demersal fish, abundant crustaceans, bottom demersal species and some large pelagic fish in the vicinity of the near-shore islands, tilapia, catfish (Niassa) and tiger-fish, tchenga are found in the in the large inland water bodies as well as catfish and tilapia in Cahora Bassa.

Of the close to 150,000 tons of annual marina catches 91% are in the hands of artisanal fishing, 2% semi-industrial for local consumption, and 7% industrial fishing. The industrial catch, consisting mostly of crustaceans for export, represents about 52% of the total value, while artisanal fishing is situated around 42%, and the remaining 6% comes from semi-industrial fishing.

There are indications[13] to the effect that, if effective measures are taken, economic rents from the shrimp fishery could be increased by about $30 million per year. Linking sustainable community fisheries to urban markets, industrial growth poles and export markets can strengthen rural employment and growth.

Notwithstanding the potential of the activity fishing communities are among the most vulnerable, isolated and marginalized. Some of them are landless and situated in the front line of climate change, subject to flooding, erosion, changes in fish resource distribution, extreme weather events and sea-level rise.

The sector as a whole faces a number of threats such as weak management of the significant shrimp fisheries combined with rising fuel prices and reduced demand for high value shrimp which translate into the decline of the sector's economic performance in recent years. The concentration

[12] Mozambique: Economic Analysis of Natural Resources Sustainability. The World Bank, 2005.

[13] IIP, ADNAP, Ministry of Fisheries. 2011. Report on the possible conversion of the Sofala bank shrimp fishery to a TAE/ ITE management system. November 2011; Agence Française de Développement 2009. Enhancing National Economic Welfare from Mozambican Fisheries - Policy and Management Implications. Discussion Paper.

of the shrimp fishing into two majority foreign-owned industrial companies has impacted on the distribution of benefits from the fishery, eliminating smaller and economically less robust Mozambican operators. The number of artisanal fishers involved in marine fisheries doubled[14] from 2002 to 2007 leading to overexploitation of artisanal fisheries. Declining terms of trade, low, or negligible domestic value added to fish products and recent outbreaks of farmed shrimp diseases that contribute to weak sector growth. The prevailing unattractive business climate including poor access to investment capital and credit translate into low private sector investment, and with real interest rates in the order of 18-30 percent and a weak network of rural and micro-credit organizations, financing sustainable fisheries and aquaculture remains a challenge.

In line with what happens in other sectors of the economy there is increasing interest from SMEs in 'semi-industrial' fisheries for snapper, tuna, swordfish and other high-value species. About 80 percent[15] of the rural fisheries labor is fishing (harvesting); less than 10 percent is processing and marketing, while over 80 percent of artisanal fish production is taken to market on foot. This offers significant opportunities for women to add value to the harvests. Moreover, a rapidly expanding tourism industry offers opportunities for diversification of the coastal economy along Mozambique's 2,700 kilometers of coastline and related coastal lakes, lagoons and wetlands which harbor a rich diversity of wildlife.

The government has developed a Fisheries Master Plan (2010-2019) to deal with most of the constraints that interfere negatively with the realization of the sector's potential and to boost such a potential.

The FMP grouped the major issues affecting the sector in the following manner:

i. The supply of fish products to the population is low and uneven throughout the country;
ii. Industrial fisheries, aquaculture and small-scale fishing are not contributing all they could to the country's economic and social development, i.e. the fight against poverty;
iii. The sector's contribution to the Balance of Payments has not reached its potential and communities of small-scale artisanal fishermen and aquaculture farmers are still poor;
iv. Simultaneously, the public administration of fisheries does not have the necessary capacity to eliminate these problems and address other crosscutting issues both within the sector (Environment, Lake and Marine Conservation Areas) and outside it (Governance, HIV/AIDS and Gender).

The FMP is aimed at addressing six main issues:

vii. Restructuring the industrial and semi-industrial shrimp fishing fleets;
viii. Diversification and growth of industrial and semi-industrial fisheries production;
ix. The growing role of private initiative as the engine driving national development and the corresponding reduction in State intervention in the productive sphere;
x. Construction of a Fisheries Public Administration focusing on policies and strategies, development plans, fisheries legislation, creation of an economic environment favorable to investment and conflict arbitration;
xi. Improved standard of living for artisanal fishermen
xii. Human resource development

The vision for the development of the sector acknowledges that in the years to come artisanal fisheries, which is the most significant in terms of volume and contribution to the economy will continue to be undertaken by forms of artisanal subsistence. However, the same has to be

[14] Some of the increase may be attributable to an expansion of the statistical cover.
[15] IDPPE, 2011. Resultados do inquérito sobre as condições de vida nas comunidades pesqueiras. Resultados preliminares.

increasingly linked to the country's markets, and integrated into communities where social services have made substantial progress.

It is also anticipated that there will be relative progress in the types of commercial artisanal fishing in defined fishing centers, closely linked to domestic markets and increasingly to regional markets with more services that complement fishing (maintenance, marketing, financial services, ice supply, conservation, etc.), consequently providing greater quality and variety of fishing products, encouraging a greater concentration of artisanal fishing and therefore higher incomes for all stakeholders. This should take place within a framework of greater environmental stability where the role of local initiative for development and the administration of artisanal fisheries will be progressively strengthened. This vision about development is not unique of the fisheries sector. It also applies to agriculture and other primary sectors of the economy.

The FMP is informed among other by the following strategies and medium to long term planning instruments in the sector and related sectors:

- Aquaculture Development Strategy in Mozambique aimed at ensuring that aquaculture potential is used to the full and sustainably, respecting the environment and promoting economic and social development by creating a sustainable, competitive and diversified aquaculture. It should be said that the country has a strong aquaculture potential which is presently underutilized;
- Development plan for Small-Scale Aquaculture
- Fisheries Research Development Strategy
- Management Plan for the Sofala Bank Shrimp Fisheries (not yet approved)
- National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, which is aimed at obtaining knowledge about the extent and impact of its occurrence in the most important or most vulnerable national fisheries

The main objectives of the FMP are to achieve:

- A stronger sector contribution to improving food security and nutrition in fish for the population;
- Improved living conditions for artisanal fishing and small-scale aquaculture communities;
- Increased contribution by industrial and small-scale fisheries and aquaculture to achieving the country's economic and social development objectives, and
- An increased net sector contribution to greater equilibrium in the country's balance of payments;

The development of fisheries infrastructures and other infrastructures aimed at adding value to the industry is given particular importance. Among other these infrastructures include:

- ports, fishing quays and wharves;
- public markets for selling fish products that are part of marketing circuits, whether the first point of sale or sale to the consumer;
- experimental and training/extension centers dedicated to aquaculture

3.3 The Climate Change Challenge

A significant proportion of Mozambique territory has favorable natural conditions to the occurrence of natural disasters, notably floods, droughts and cyclones. In recent times sea-level rise (SLR) and temperature increases are being added. Losses of lives, public and private assets which translate into GDP losses are a direct consequence of these disasters. These offset the country's efforts to eliminate poverty and promote development.

Vulnerability in general and particularly to flooding and SLR is related to heavy rainfall, hypsometry which explains that extensive plains are lower in relation to the rivers and sea levels, high flood flows from neighboring countries, in shared river basins, changes in vegetation cover and land use.

The occurrence of different categories of extreme events (i.e. floods, droughts and cyclones, SLR, etc.) and related impacts is reasonably well mapped in Mozambique. It is a well-documented fact that the country's river basins prone to major flooding and impacts are Maputo, Umbeluzi, Incomati, Limpopo, Save, Buzi, Pungwe, Zambezi, Licungo and Messalo. Those with the largest number of displaced people, flooded areas, loss of crops are the Limpopo and Zambezi. The basins where there are the greatest damages in road infrastructure are Limpopo, Incomati, Umbeluzi and Pungwe. Hypsometry and geographical location (e.g. coastal vs hinterland) are also important determinants of the geographical location of these extreme events. Accordingly, while floods are a phenomenon of the southern and central regions cyclones are most frequent in coastal and marine areas. The southern and central regions also experience more droughts than the northern, where rains tend to have a more regular pattern. The provinces with the highest incidences of cyclone occurrence are Inhambane in the south, Sofala in the center, and Nampula in the northern region of the country.

Over the years different sectors (agriculture, fisheries, water, public works, transport and communication (mainly because of meteorology/INAM that is within this ministry), tourism, energy, mining, forestry and fauna) have gathered solid data to allow the country to competently tackle recurrent natural disasters, including developing adaptation in terms of finding ways of developing economic and social activities under conditions caused by climate change and preventing and mitigating negative impacts on socioeconomic activities.

If properly organized and coordinated institutions and systems in place are also well positioned to provide early warning through a network of information, prediction models and response.

However, even though since independence successive governments have sought to establish adequate mechanisms for reducing vulnerability through development and adoption of policies, strategies, action plans and setting up adequate institutional arrangements to manage disasters, poor coordination and lack of effective leadership have been offsetting the existing potential and delaying the use of existing institutional base, knowledge and data to establish clear lines of response articulating all levels (central, provincial, district, municipal, local, community, etc.). Prevailing isolated and every so often overlapping initiatives have translated into dispersion and inadequate use of the scarce resources.

The inclusion of the CC component into the project is highly relevant as it will be implemented in coastal areas involving poor communities, which are both, more vulnerable to climate change and particularly to SLR, cyclones, inundations and resulting disruptions in the form of losses of lives and other fundamental household and community assets. These communities should not be seen as passive agents of these phenomena. They need to be made aware of the issues and to be adequately equipped to actively and creatively undertake adaptation measures.

Awareness of the CC dimension of development can be expected to assist in the (i) identification of critical areas of intervention which harmoniously should combine mainstreaming environmental management and climate change adaptation with overall socioeconomic development and be consistent with interventions in those areas. Evidence shows that extreme events are often made worse by poor land use planning. Recurrently floods and inundations due to rainfall or SLR are made worse by inadequate siting and design of public and private infrastructures that extend to situations in which well mapped and demarcated flood plains and water lines are used for wrongly setting up infrastructures including roads, dikes, water supply and sanitation, drainage systems and others. Planning for any occupation of floodplains is one of the best tools available to minimize the damage caused by major floods. In Mozambique, it is found that there are four major types of floodplain occupation: rural settlements linked to the practice of traditional and family farming,

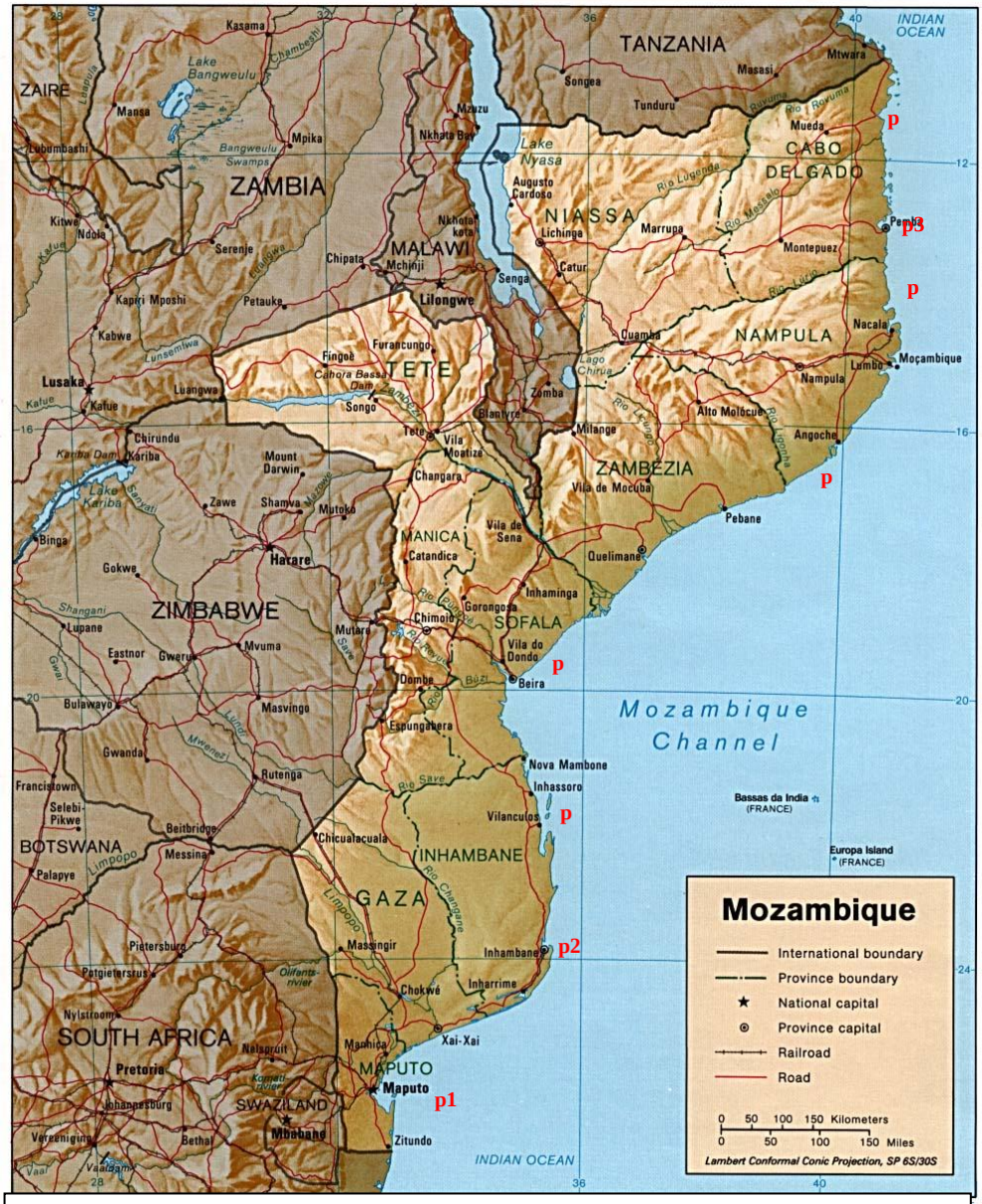
irrigation areas for commercial agriculture, urban settlements, and roads/railways crossings and power transmission lines. Direct negative impacts of flooding happen around these types of land occupations, which in turn originate other negative indirect impacts. The existing land use planning legal and regulatory instruments need to be systematically implemented and enforced at the same time that they are complemented by other instruments, such as awareness raising for the importance of being proactive towards extreme events. This seems to be an area with long reaching potential that has been misrepresented in environmental management and CC mitigation and adaptation; (ii) capacity building to develop human and institutional capacity to understand and intervene in sound environmental management and CC adaptation and mitigation mainstreaming in development. The levels responsible for implementing mainstreaming interventions (provinces and mainly districts, municipalities and communities) need to be provided with solid science-based data and knowledge by the sectors and where relevant in combination.

4. PROJECT TARGETED AREAS

4.1 Location

The map below is a graphic representation of the geographical distribution of potential areas for FishCC Project implementation.

Figure 1: FishCC Map



Possible Sites: 1 – Ponta do Ouro Partial Marine Reserve, Ilha dos Portugueses and Delagoa Bay; 2 – Inhambane area; 3 – Pemba Bay; p – other possible sites

The project will support six pilot sites, each comprising 5-10 communities. If the pilot sites are successful, the approach will then scale up to include the majority of the country's coastline. Rare and IDPPE have already done some preliminary assessment of areas in Ponta do Ouro Partial Marine Reserve, Inhambane bay, and Pemba Bay, but specific sites cannot be selected until the grant is in its implementation phase. Early in the project, a series of scientific criteria will be used by IDPPE and Rare to determine the placement of the first six pilot sites..

4.2 Physical Environment

The country's long coastal line of about 2,700 km comprises natural different conditions from the northern areas encompassing Cabo Delgado Province to Maputo Province, in the South. In terms of water bodies and fishing, the North-South trend of the cost creates conditions for the subdivision of the country in three main zones, each with different ecological conditions (North, Centre, South) and a separate group forming the inland water (Lake Niassa and the Cahora Bassa Dam lake and a series of small lakes and rivers scattered throughout the country). These natural conditions determine the distribution of fishery resources in these areas. For more details for types of fish in Mozambique refer to the *Strategic Plan for the Artisanal Fisheries Sub-sector (PESPA), published in* 2006,*by the Ministry of*

4.3 Biological Environment

Mozambique's coastline of about 2,770 km has a wide diversity of habitats, which include sandy beaches, coral reefs, estuarine systems, bays, mangroves and sea grass beds. There are four coastal eco-regions in Mozambique: the coral coast, which spans from the Rovuma river in the north to Pebane in the South (at latitude 17˚20'S) comprising 770 km, characterized by dominance of limestone and corals, the swamp coast which extends from Angoche (16˚ 14'S) in the north to Bazaruto Archipelago (21˚ 10'S) in the south, with the length of 978 km characterized by occurrence of several estuaries and extensive mangrove formation. This part of the coast has the largest continental shelf and the very turbid water highly influenced by the sediment discharged by river and an intense wave action. The third eco-region is the parabolic dune coast stretching from Bazaruto Archipelago to Ponta do Ouro and beyond into South Africa (28˚57'S). It has a length of 850 km. It has high parabolic dunes and north oriented capes and barrier lakes. These dunes which may attain 120 m are the highest vegetated dunes of the world. The Delta coast is the fourth eco-region observed at the Zambezi and Save River Deltas, and consists of mangrove forests and adjacent inland inundated grassland and palm woodlands.

Mozambique coast is influenced by the water from the Equatorial current which hits the east Africa at Tanzania and the coast of Cabo Delgado flowing southward. Between Mozambique and Madagascar, at Davis Ridge (off the coast of Nampula) the Mozambique channel narrows its length to 400 km and therefore the southward currents flow form cyclonic and anti-cyclonic eddies that move to the south until reaching the South African coast, they feed the Agulhas current (Hoguane). Near the shore, these eddies generate large counter currents at the right of Sofala and Maputo, forming northward oriented peninsulas, most notably the Machangulo, Inhambane and São Sebastião which were also responsible for the formation of the Archipelagos of Inhaca and Bazaruto (Lundin and Linden 1996). The tidal range pattern achieves a maximum of 6.3 m at Beira, Sofala Bank, reducing to 2m in Maputo and 3m in Cabo Delgado. In Inhambane, Zambezia and Nampula and Pemba the tidal range attains a maximum of 4 m (Lundin and Lindén 1996).

The major part of Mozambique coast has a tropical humid to sub-humid climate and the rainfall is experienced in summer between November and March. The highest recorded annual rainfall has been recorded at central Mozambique between Pebane (1209 mm) and Beira (ca. 1418 mm/yr) and the lowest along the southern sector of the coast (Maputo 775 mm). The northern section between Mozambique is frequently affected by tropical cyclones originated in the Mozambican Channel or to the east of the Channel, depending upon the atmospheric conditions. In general, the high intensity tropical cyclones are those that originate to the southeast of the Mozambican Channel. These cyclones move to the west, crossing Madagascar and, as they cross the Mozambican Channel, are fed by the hot waters that intensify them.

Mozambique is endowed with fairly rich fisheries resources, both marine and freshwater. The marine waters cover an area of about 100 000 km^2 with an exclusive economic zone (EEZ) of 200 nautical miles while inland waters cover an area of about 13 000 km^2.

The marine fisheries resources are mostly located in the two major shelves, the Sofala Bank in the center and the Delagoa Bay in the south. The main fishing areas are located at the Sofala Bank, Inhambane, Vilankulos, Chiluane and Beira.

The most important marine species include:

- Deep water crustaceans
- Crustacean (prawns, deep water shrimp, crayfish, lobsters and crabs)
- Marine finfish (demersal and pelagic species mainly grouper, snapper, emperor and sea bream also high migratory tuna species of yellow fin, big eye and albacore, swordfish and shark)
- Cephalopods and Molluscs (squid, octopus, sea cucumbers, bivalves)

The most valuable stocks of prawn, demersal fish and kapenta, have been assessed to be highly or fully exploited while the remaining including large and small pelagic are lightly exploited or underutilized in remote areas along the coast. Prawns are the most important species for the fishing sector in Mozambique and are caught primarily in the Sofala Bank area. Deep-water prawn fishing is still not well developed.

Marine fisheries account for more than 90% of Mozambican total fish production. In average, the annual catch from marine resources is about 150,000 tons of which 90% are caught by artisanal fishers. The main marine resource comprises of crustaceans (prawns, deep water shrimp, crayfish, lobsters and crabs), marine finfish (demersal and pelagic species mainly grouper, snapper, emperor and sea bream also high migratory tuna species of yellow fin, big eye and albacore, swordfish and shark) and cephalopods and mollusks (squid, octopus, sea cucumbers, bivalves). Inland water bodies include Lake Niassa/Malawi, the third largest in Africa and third deepest worldwide, the manmade Cahora Bassa Lake and a great number of rivers. Lake Cahora Bassa and the Mozambican part of Lake Malawi provide fishing-related livelihood to about 20,000 people. A total of about 10,000 tons of small pelagic are caught, processed and marketed from Lake Cahora Bassa each year, of which 4,000 tons is caught by artisanal and small-scale fishers. Inland fisheries are dominated by small pelagic - kapenta, tilapia and carps and are the most important freshwater species harvested for human consumption.

The small-scale and artisanal fisheries in Mozambique play a significant role in the national economy. The sector accounts for about 90% of the total marine catches. The artisanal fisheries consist of individuals or small groups of fishermen with very weak economic power. They make use of non-motoric fishing vessels/boats of 3-8 m in length. They use beach seine, gillnet and long line to catch fish. The sector also consists of fish collectors and divers. It is estimated that the number of fishing boats and canoes are approximately 15,000, of which 3% are equipped with engines, using beach seine and gillnet fishing gears.

Given the importance of the coastal and marine areas and resources the country's entire coastal line is under a series of measures to protect and conserve the marine and coastal environment, particularly in terms of preventing and combating pollution and the protection of the regions' flora and fauna against the growing threats caused by many human activities including fisheries, navigation, tourism, urban and industrial development, etc. Efforts have been underway to harmonize the interests of a series of stakeholders including local communities with the ultimate goals of protection and preservation of recognized special areas and living species. Particular importance is being given to the Community Based Natural Resources Management (CBNRM) in partnership with the public and private sector. Among other the ratification, by the GOM, of the Convention on the Protection, Management and Development of Marine and Coastal Environment in East Africa (Resolution n.º 17/96, of 26 of November) embodies this commitment. It should be pointed out that ten of the eighteen priority areas for investment in tourism, identified within the national tourism strategy, ten are in coastal areas.

The integrated coastal zone management as such is not embodied in a single legal document. It is rather spread over a series of laws and regulations that will be better described in Chapter 6, of this document.

The project's approach is expected to contribute significantly to the sound management of fisheries and marine resources by focusing on community entitlements to those resources as well as to their responsibility to protect them. The Process Framework (PF), which has also been prepared as part of the project's environmental and social safeguards, deals in more detail with the interface between restrictions of access to resources resulting from a series of considerations related with the development of activities in conservation areas, marine and coastal environment and the fisheries sector per se and the active involvement of the communities to develop ways of compensating for such restrictions.

4.4 Socio-economic Situation

The project proposes to work at six sites, which might encompass as many 40-50 fishing villages and approximately 20 landings. This may represent 5,000-10,000 fishers as well as a considerable number of people in urban settings who will be reached by the sensitization efforts of the project.

Urban areas

Mozambique's urban areas grew considerable in the last three decades as a combination of the natural rural emigration to the urban areas but also due to the war that lasted for approximately sixteen years (1976-1992). In 2011 it was estimated that close to 35% of the country's population lived in urban areas. For various reasons the growth (unprecedented) has not been accompanied by adequate implementation of key public services with a view to achieving an adequate quality of life. The daily life of most cities and towns has been marked by rapid occupation of the territory, with a predominance of the informal sector and other business activities, which have created serious structural problems relating to deficiencies in basic infrastructure.

Among other things urban development has not been accompanied by the necessary land use planning which has resulted in an almost chaotic occupation of spaces including the spaces surrounding the roads, ports and other facilities where the legal protection of reserved areas is not adhered to. It is normal to see these areas being encroached by walls, pavements, including structures and temporary buildings that are used to trade in a range of household products, building materials and motor vehicle parts, structures used as workshops for the manufacture/maintenance of a variety of goods. Due to the weak development of the agriculture and industry sectors and the consequent limitation of job opportunities, reliance on informal trade has become, for some years, an increasingly important subsistence activity for many families in Mozambique particularly in urban centers. This forms one of the faces of urban poverty.

Due to inadequate and/or total lack of drainage systems; coastal protection and sanitation the coastal cities and towns are even worse and subject to serious problems such as physical erosion, regular floods, widespread diseases (e.g. malaria, cholera and diarrheas) and other socioeconomic problems. This is further compounded by extreme weather events associated with global climate change.

Rural areas

It is in the rural areas that poverty is more prevalent in Mozambique, with women and vulnerable groups (households headed by women, the elderly, children and people with disabilities) being the hardest hit. In those areas and in many parts of Mozambique a vicious cycle made of natural conditions, lack of capital and adequate financial services, production technologies and services responsible for development and dissemination of such technologies, poor marketing systems and other factors that define the environment in which local economic activities are carried out, explain the prevalence of the subsistence economy. The economy is based on direct and integrated

exploitation of natural resources, with very little transformation. Plant and animal production, forests and fisheries are integrated in a single economic system of multiple relationships. These are combined to guarantee the survival of the individuals, the families and the communities. Notwithstanding the weight of other sectors in the family economy agriculture tends to be the dominant economic activity, followed by fisheries.

Some of the aspects that define the practice of agriculture in rural areas, which are typical of the so-called "family sector" are:

- Cultivation of very limited areas: 0.5 to 1 ha is the common size of most of the farms in the project area16.
- Use of farming technologies that are rudimentary: cultivation is primarily undertaken using hoes and virtually no external inputs, such as improved seed, fertilizers and chemicals are used17.
- Over the years the family sector farmers have developed livelihood strategies oriented towards minimising risk through crop diversification, which takes place in a variety ways including:
    - Growing several crops and the dominance of intercropping;
    - Preferring to grow two or more consecutive crops rather than just one of a longer cycle, even if the potential total yield is higher for the latter, to obtain advantage of moisture availability during the short rainy season; and
    - Growing crops in as many diverse environments (topography/relief/soil) as possible, e.g., in sandy flat areas, in medium textured alluvial deposits of slopes (transition zones), in the fine textured dark colored soils of the river beds (dambos) and in open valleys and alluvial soils.

This results in a combination of plots on different soil types and in different crop preferences, each with different fallow and cropping patterns.
Diversification is also extended to embracing a multitude of activities across sectors, including fisheries, in detriment of specialization that would lead to elevated production and productivity.

Small-scale and artisanal fisheries play an important role in the country's economy. It represents close to 85% of the total marine catches. Artisanal fisheries consist of individuals or small groups of fishermen with very weak economic power. They make use of non-motoric fishing vessels/boats of around 3-8 m in length. They also use beach seine, gillnet and long line to catch fish. Fish collectors and divers are yet other important ways of practicing this activity. It is estimated that the number of fishing boats and canoes reach approximately 15,000, of which only 3% are equipped with engines, using beach seine and gillnet fishing gears. Most of the marine artisanal activities take place along the entire coastline.

[16] The informal character of agriculture and animal production, which are dominant economic activities in the project-related areas, explains the present land use and land tenure patterns. Ancestral laws establish the distribution and use of land by existing families. Lineage plays a crucial role in the process. Each family and groups of families do their best to secure enough land and to have direct access to areas for housing, fauna, forests, pastures, fertile grounds and water.

[17] Due to the monopolistic structure of the market for these products, they are rather very expensive in Mozambique.

5- WORLD BANK SAFEGUARDS POLICIES

In line with the project characteristics, it is to be expected that fisheries, public works and private investments including public-private partnerships will have expressive weight within FishCC. It is particularly in the fisheries sector, in the same way as in agriculture, that the inability to take advantage of the vast natural and social opportunities offered by the country to diversify its economy, create employment and income opportunities for a large majority is most felt. Due to its focus on fisheries and basic general infrastructure and systems development FishCC will finally trigger only four of the 10+2 World Bank Operational Safeguards Policies, namely, Environmental Assessment (OP/BP 4.01), Involuntary Resettlement (OP/BP 4.12), , and Physical Cultural Resources (OP/BP 4.11). These Safeguard Policies are briefly reviewed and described below.

Table 1: Safeguard Policies Triggered by the Project

Safeguard Policies Triggered	Yes	No
Environmental Assessment (OP/BP 4.01)	X	
Natural Habitats (OP/BP 4.04)	X	
Forests (OP/BP 4.36)		X
Pest Management (OP 4.09)		X
Physical Cultural Resources (OP/BP 4.11)	X	
Indigenous Peoples (OP/BP 4.10)		X
Involuntary Resettlement (OP/BP 4.12)	X	
Safety of Dams (OP/BP 4.37)		X
Projects on International Waterways (OP/BP 7.50)		X
Projects in Disputed Areas (OP/BP 7.60)		X

5.1 Environmental Assessment (OP/BP 4.01)

The World Bank's environmental assessment operational policy requires that all proposed Bank-funded projects, no matter the source of funding be screened for potential environmental and social impacts. The policy is triggered if a project is likely to have adverse environmental and social risks and impacts in its area of influence. Likewise, any proposed subproject activity is required to undergo the same social and environmental screening process to be qualified for funding, i.e. the systematic use of both the Environmental and Social Screening Form (ESSF) and the Check-list. Moreover, according to OP/BP 4.01 the Bank classifies proposed projects into one of four categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental and social impacts:

Category A: A proposed project is classified as Category "**A**" if it is likely to have significant adverse environmental and social impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works. EA for a Category A project examines the project's potential negative and positive environmental and social impacts, compares them with those of feasible alternatives (including the "without project" situation), and recommends any measures needed to prevent, minimize, mitigate or compensate for adverse impacts and improve environmental and social performance. For a Category A project, the borrower is responsible for preparing safeguards documents, normally either an Environmental and Social Management Framework (ESMF) when the physical footprint of a project is unknown by appraisal, or an Environmental and Social Impact Assessment (ESIA with an Environmental and Social Management Plan [ESMP]), or an Environmental Audit/Risk Assessment whenever the physical footprint of a project activity is known prior/by appraisal.

Category B: A proposed project is classified as Category "B" if its potential adverse environmental and social impacts on human populations or environmentally and socially important areas, including wetlands; forests, grasslands, and other natural habitats, are less adverse than those of

Category "A" projects. These impacts are site-specific and easier to deal with; few if any of them are irreversible; and in most cases appropriate mitigation measures can be readily designed. The scope of ESIA for a category "B" project may vary from project to project, but it is narrower than that of a category "A" ESIA. Like Category A ESIAs, it examines the project's potential negative and positive environmental and social impacts and recommends any measures needed to prevent, minimize, mitigate or compensate for adverse impacts while improving the project environmental and social performance. For simple Category B projects with very limited/low social and environmental impacts the preparation of Environmental and Social Management Plan (ESMP) that builds upon an ESMF might be sufficient. Likewise, the preparation of an abbreviated RAP that builds upon an RPF might suffice; but this will be further dealt with under OP/BP 4.12 below.

Category C: A proposed project is classified as Category "C" if it is likely to have minimal or no adverse environmental and social impacts. Beyond screening, no further ESMF/ESIA or ESMP or RPF/RAP action is required for a Category "C" project. Nonetheless, being a category C project doesn't necessarily prevent a project to ensure adequate monitoring of both environmental and social aspects of projects that are beyond safeguards.

Category FI: A proposed project is classified as Category FI if it involves investment of Bank funds through a financial intermediary, in sub-projects that may result in adverse environmental and social impacts."

Mainly because of its limited environmental and social impacts the Project had been classified as a Category "B" project.; and since the sub-projects have not yet been clearly identified the World Bank required the preparation of an ESMF, which is a screening tool to screen sub-projects for potential environment and social impacts. Subprojects will fall under Category B and some under Category C. Based on the outcome of the social and environmental screening, to be done by the Environmental, Social, Health and Safety Specialists, which will work in the provinces in which the project will be implemented, once defined, sub-projects will need to prepare a simple ESIA/ESMP, a freestanding ESMP, and an abbreviated RAP or no-action needed. The costs for the preparation of these ESIAs/ESMPs, freestanding ESMPs or RAPs need to be included into the Project budget. The outcome of the screening and the determination of the subproject Category will need to be confirmed and approved by MICOA to verify compliance with Mozambique's EIA Policy. Though World Bank policies and procedures are those to be followed, the TORs for these ESIAs would also need to be approved by both MICOA and the World Bank.

Furthermore, to ensure good compliance with OP/BP 4.11 (Physical Cultural Resources), the ESMF has made some provisions to ensure that adequate measures are taken to minimize any potential negative impacts. Like for this ESMF, OP/BP 4.01 also requires that prior to sub-project appraisal, both the GOM through the Ministry for the Coordination of Environmental Affairs (MICOA) and the World Bank will approve and disclose the ESIA/ESMP, freestanding ESMP and RAP documents, which need to have an Executive Summary in English and Portuguese in publicly accessible places in the sub-project areas and on the website of the MF, as well as on the Infoshop website of the World Bank in Washington DC. The disclosure will need to be announced in the local newspapers and on the local radio (the transcripts of these disclosure announcements need to be sent to the World Bank for records keeping). The disclosure will provide beneficiaries, affected groups and local NGOs the chance to comment on the sub-projects. A notebook and pencils need to be present at the disclosure sites as means for stakeholders' comments.

The time for providing comments will be a minimum of 1 month. Relevant comments need to be included in the final ESIA, ESMP or RAP documents. The GOM, as the owner of the safeguards documents, must officially submit the approved and disclosed safeguards instruments/documents to the Bank and authorize IDA to disclose the documents at its Infoshop in Washington DC. By making the ESMF, PF and any ESIA/ESMP documents available to the public prior to project appraisal, the proposed project will be in compliance with the World Bank Access to Information Policy, and hence ready for Board approval for funding.

Subprojects also need to be in compliance with the applicable World Bank Environmental, Health and Safety (EHS) Guidelines of April 2007. These are i) General EHS Guidelines; ii) some of the Agribusiness/Food Production EHS Guidelines; iii) Tourism and Hospitality Development EHS Guidelines; and iv) Electric Power Transmission and Distribution EHS Guidelines.

5.2 Involuntary Resettlement (OP/BP 4.12)

Under the World Bank Safeguard Policy (OP/BP 4.12 - "Involuntary Resettlement") resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs. Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources and means to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in the planning and implementation of resettlement programs.

Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

The World Bank also adopts a broader view on involuntary resettlement by not restricting it to its usual meaning, i.e. "physical displacement". Depending on the cases, a resettlement action may include (i) loss of land or physical structures on the land, including business; (ii) the physical movement, and (iii) the economic rehabilitation of project affected persons (PAPs), economic displacement, in order to improve (or at least restore) the levels of income or livelihood prevailing before the action causing the resettlement has taken place". The policy applies whether or not the person has to move from the area.

No significant displacement is expected under the project thus a Resettlement Policy Framework (RPF) was not seen as necessary. However, the subproject screening procedure described in this ESMF should also screen for resettlement issues and determine if OP/BP 4.12 will need to be further triggered by any of the subprojects.

5.3 Natural Habitats (OP/BP 4.04)

This policy applies to sub-projects, which could have a potential impact on important natural habitats outside protected areas as well as in protected areas as such. Significant conversion of natural habitat is allowed under this policy if there are no viable alternatives, but the affected natural habitats need to be compensated by an ecologically similar area of the same or larger size and the area needs to be better managed and protected. Subprojects involving the significant conversion of critical natural habitat, i.e. protected areas or critical natural habitat areas outside protected areas where endemic or endangered species mentioned on the IUCN Red List species are living and which could be severely affected or made extinct cannot be financed. Nevertheless, the project does not contemplate significant conversion of natural habitats. Main actions included in this project should have a positive impact on marine habitats where the project is going to be implemented. Some of these positive impacts would be, increase marine biodiversity, biomass and fish size as well as fish abundance at higher trophic levels or increase spawning areas, coral cover, and sea grass bed cover in the project areas. Even so, the ESMF has made some provisions to ensure that adequate measures are taken to minimize potential negative impacts that may occur.

5.4 Physical Cultural Resources (OP/BP 4.11)

This policy applies to sub-projects where important physical cultural resources (i.e. archeological sites, special architecture, important cemeteries or where unique immaterial cultural resources) exist or are affected. In case none of these physical cultural resources exist in a sub-project area, the bidding documents and the contractor contracts need to include a "Chance Find Procedure", which

specifies that in case that during construction an important arte-fact is found, construction is stopped and the responsible Mozambican authorities are warned and involved in an investigation of the site. Construction can only resume after the green light has been given by the responsible Mozambican authorities. The ESMF has made some provisions to ensure that adequate measures are taken to minimize the negative impacts that may occur.

6 LEGAL AND INSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL MANAGEMENT IN MOZAMBIQUE

Similar to what happened in most countries in Africa after the Rio Conference on Sustainable Development in 1992; Mozambique has been undertaking an enormous legal and institutional reform trend. The reform extends to the environmental sector. It has been under implementation in the form of: (a) adherence to and adoption of a series of international and regional environmental protection and conservation conventions and protocols; (b) approval of a significant set of legislation with direct and indirect implications to environmental protection; (c) creation of specific public institutions or strengthening of existing institutions dedicated to both environmental and social management.

6.1 Legal Framework

6.1.1 Adherence to International and Regional Conventions and Protocols

In terms of adherence to and adoption of a series of international and regional environmental protection and conservation conventions and protocols the following should be mentioned:

General principles:

Mozambique has been adhering to a series of international legal instruments that relate to the need of being proactive in environment protection and conservation. Under line 2 of article 18 of the country's Constitution, the rules of international law have the same value in domestic law and once ratified by the Parliament and Government they become constitutional normative acts. In light of line 1 of article 18, "*treaties and international agreements duly approved and ratified, are enacted in the Mozambican legal order*".

Important international and regional treaties and conventions ratified so far include:

- The UN Convention on Biodiversity ratified by Resolution n.º 2/94, of 24 of August: this is aimed at "the conservation of biological diversity, the sustainable use of its components and fair and equitable sharing of benefits arising from the use of genetic resources, including by appropriate access to genetic resources and appropriate transfer of relevant technologies, taking into account all rights over those resources and technologies, as well as through adequate funding". This international instrument, advocates the conservation of ecosystems and natural habitats and maintenance and recovery of viable populations of species in their natural surroundings. It is an essential foundation for the creation, development and protection of conservation areas in the country, which sometimes can be endangered by carrying out oil and gas operations and other industrial operations without due regard to the provisions of environmental legislation
- Convention on the Protection, Management and Development of Marine and Coastal Environment in East Africa, ratified by Resolution n.º 17/96, of 26 of November: it highlights a series of measures to protect and conserve the marine and coastal environment of the Party States, particularly in terms of preventing and combating pollution and the protection of the regions' flora and fauna against the growing threats caused by many human activities.
- African Convention on Nature and Natural Resources Conservation ratified by the Parliament's Steering Committee through Resolution n.º 18/81, of 30 December: is aimed at ensuring the conservation, use and development of land, water, forest and

wildlife resources of Member States, bearing in mind not only the general principles of nature conservation, but also the best interests of the communities themselves

- Protocol related to Wildlife Conservation and its application in the SADC, ratified by Resolution n.º 14/2002, of 5 of March: it is aimed at establishing common approaches and support to conservation and sustainable use of wildlife resources relating to the effective enforcement of laws in the region and within the domestic laws of each Party State.
- Resolution n.º 21/81, of 30 of December, by the Cabinet that turns Mozambique into an UICN member: among other it is aimed at encouraging and facilitating cooperation amongst governments, international organizations and people interested in nature conservation and its resources.
- September 2000 and Millennium Development Goals of September 2000, through which the GOM accepted and reiterated that the country's development depends on a variety of factors influencing each other mutually. Eight goals were selected to be achieved by 2015 (see MDG). Health, education, water and sanitation occupy a central position in the commitments.

Other important international and regional conventions and protocols ratified by the Mozambican State include:

- Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer (Resolution No. 8/93 of 8 December);
- United Nations Framework Convention on Climate Change – UNFCCC (Resolution No. 1/94 of August 24, 1994);
- Kyoto Protocol (Resolution No. 10/2004 of 28 July);
- Convention on International Trade in Endangered Species – CITES (Resolution No. 20/81 of December 30);
- Cartagena Protocol on Biosafety (Resolution No. 11/2001 of 20 December);
- United Nations Convention to Combat Desertification and Drought (Resolution No. 20/96 to November 26);
- Stockholm Convention on Persistent Organic Pollutants and (POPs) (Resolution No. 19/96 of November 26, 1996);
- Basel Convention on the Control of Trans boundary Movements of Hazardous Wastes and Their Disposal (Resolution 18/96 to November 26, 1996);
- Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Resolution 10/2009 of 29 September. The Convention entered into force in Mozambique in July 2010)

6.1.2 Approval of Domestic Policy and Legal Instruments

General Legislation

The Constitution

Mozambique's 2004 Constitution includes two fundamental environmental pylons, namely: "the right of every citizen to live in a clean environment and the responsibility to protect this right" as well as recognition of environmental protection as a public interest.

The country's fundamental law contains a series of general legal provisions aimed at preventing and controlling pollution and erosion; integration of environmental concerns into sectorial policies; promotion of the integration of environmental values in educational policies and programs; ensuring the rational use of natural resources while maintaining their capacity for renewal, ecological stability and human rights of future generations. It is also concerned with the promotion of land use planning with a view to ensure an adequate location of activities and a sensible socio-economic development.

Poverty reduction strategies[18]

At the macroeconomic level, PARP III[19] defines the main policy guidelines leading to the integration of the environment, social and environmental health issues into the poverty alleviation strategy. As part of those priorities for the environment, sanitation ranks first, highlighting the *direct relationship between conditions of access to water and sanitation, poverty and the health status of the population*. Poor health and poverty are seen as closely linked. Under "sanitation, health and environmental", the health subsector has been placed at the top of the agenda in the fight against poverty.

Fisheries Laws and Regulations

The most important is the **Fisheries Act** (Law 03/90, of 26th September), which is currently under revision, establishes the legal framework for fisheries management in the country. The law defines the type of fisheries, according to the fishing zone, complexity of vessels used and their autonomy, as well fishing gears by artisanal, semi-industrial and industrial fishers. It also addresses management and organization of fisheries, regime of fishing licenses, conservation measures, quality of fish products, and surveillance of fishing activities, and applies to all vessels operating in waters under Mozambican jurisdiction and all Mozambican vessels engaged in fishing on the high seas or in the national waters of third party states. Natural resource management measures include minimum weight of fish, closed seasons, limited or forbidden fishing areas, minimum mesh size, regulation of fishing gears, maximum catch limits by boat or person in certain fishery or zone, prohibited fishing gears, and schemes for limitation of access and fishing effort, prohibition of fishing of marine mammals and other international protected species, and adoption of conservation measures necessary for preservation of fisheries resources.

The **Fisheries Policy and Implementation Strategy** (1996) deals with the general issues related with the maximization of economic benefits whilst ensuring sustainable harvesting of the resource.

The Environmental Law n.º 20/97, of 1 of October 1997

This Act is "*aimed at defining the legal bases for a correct use and management of the environment and its components for the realization of a system of sustainable development in the country*".

Article 4 of the Environment Law establishes a range of basic legal principles, which highlight: the principle of rational use and management of environmental components, with a view to further improve the quality of life of citizens and the maintenance of biodiversity and ecosystems; the precautionary principle, whereby the environmental management should prioritize the establishment of systems to prevent acts that could be harmful to the environment, to prevent the occurrence of significant negative environmental impacts or irreversible damage, regardless of the existence of scientific certainty about the occurrence of such impacts, and the principle of global and integrated vision of the environment as a set of interdependent natural ecosystems, which must be managed so as to maintain their functional balance.

This law has formed the basis for defining specific environmental laws and regulations.

The Environmental Impacts Assessment (EIA) Regulation, approved by Decree n.º 45/2004, of 29 of September

Mozambique has developed comprehensive regulations to cover the EIA process, which are included in the Regulation of the Process for Environmental Impact Assessment[20]. The regulations

[18] There have been three poverty reduction strategies guiding the country's development since 1996.
[19] Poverty Reduction Action Plan 2011-2014
[20] Decree 45/2004 of September 29, 2004 and Decree 42/2008 of November 04, 2008.

are in line with the world's environmental and social management best practices, including World Bank recommendations and procedures.

There are three main specific objectives of any EA exercise:

- Screening and scoping of the proposed developments in terms of their potential impacts on the natural and social receiving environment, indicating both its beneficial outcomes and adverse effects. The initial screening is meant to determine the scope of the Environmental and Social Impacts Assessment (ESIA) required prior to approval of interventions. If any investment is likely to have significant adverse environmental impacts that are sensitive, diverse or unprecedented (Category A), the ESIA will be more stringent than if the investment has impacts which are less adverse, site-specific, mostly reversible and where adequate mitigation measures can be designed (Category B). For investments with multiple sub-projects, this screening is often done in the form of a checklist of potential impacts included in standard Environmental and Social Management Frameworks (ESMFs).
- The actual Environmental Impacts Assessment (ESIA), which assesses the potential impacts of the investment in detail and evaluates alternatives.
- Proposal of measures to be taken in order to avoid, mitigate and/or eliminate adverse effects both at the planning, design and installation stages, and during operation and eventual decommissioning of the project. This is generally done in the form of an Environmental and Social Management Plan (ESMP), which is normally an intrinsic part of the ESIA.

The Scoping Exercise, ESIA and the Environmental and Social Management Plan (ESMP) are components of particular importance in any EA process. Scoping primarily explores fundamental issues and identifies any potentially significant positive and negative environmental (and social) impacts associated with the proposed development, helping to determine the scope of the Environmental and Social Impacts Assessment. An ESMF and an ESMP include in an annex Environmental and Social Clauses (ESC), which serves as a guide for the contractor during construction. One of these clauses is the "Chance Find Procedure" mentioned earlier. These ESC should be included in the bidding documents and in Constructions Companies Contracts for systematic compliance during project construction.

The ESIA regulation also foresees that the Draft Scoping/TOR and Draft ESIA/ESMP should be subject to public debate with the objective of:

- Keeping Interested and Affected Parties (PI&As) informed about key issues and findings of each stage of the ESIA;
- Gathering concerns and interests expressed by various project stakeholders;
- Obtaining contributions/opinions from stakeholders in terms of avoiding/minimizing possible negative impacts and maximize positive impacts of the project; and
- Supporting the social dialogue and identifying from the onset, stakeholders' perceptions and expectations. This can contribute to the action planning and effective communication in order to minimize the impacts of the project. The process also allows for rethinking the project's technical aspects

Specific public participation aspects are regulated by Diplomas 129/2006 and 130/2006 and other related regulatory instruments.

Regulation to Prevent Pollution and Protect Marine and Coastal Environment, approved by Decree n.º 45/2006, of 30 of November

This instrument has, as its aim: to prevent and limit pollution from illegal discharges from ships, platforms or land-based sources, off the coast of Mozambique and the establishment of legal bases for the protection and conservation of areas in the sea, lake and river, beaches and fragile

ecosystems that are public domain. It also categorizes the various activities and determines the levels of their acceptability. It also deals with land-based sources of marine pollution.

The Forests and Wildlife Law (Law n.º 10/99, of 7 of June) and specific regulations

Among other aspects, the law defines the protection and conservation of specific biodiversity components as well as certain flora and fauna species found in certain places. It also elaborates on the rights of the communities to share on the benefits accruing from the exploitation of forests and wildlife resources.

The Land Law (Law n.º 19/97, of 1 of October)

The law and its Regulation 66/98, provide the basis to define access rights, land use rights and procedures for the acquisition and use of land title by the communities and individuals. The same law and the regulation embodies key aspects defined in the constitution in relation to the land such as the maintenance of the land as state property and that land cannot be sold as well as the absence of a "land market" per se in the country. Among other aspects it defines "areas meant to meet public interest" as belonging to public domain. It also protects customary and community rights over land.

The Land Planning Law (Law n.º 19/2007 of 18 of July) and its regulation

It establishes a number of important principles for environmental protection in the context of regional planning. Line 1 of article. 5 of this Act, states "land use planning aims to ensure the organization of national space and sustainable use of natural resources, noting the country's economic legal, administrative, cultural and material conditions favorable to social development and, to promote the quality of life, the protection and conservation of the environment. It establishes hierarchical responsibilities among central, provincial, district and local governments in land use planning processes.

National Water Law in 1991 and the National Water Policy from 1995[21]

Under the water law and policy the following principles are adhered to: (i) water supply and sanitation services should be provided in accordance with the demand and economic capacity of the users; (ii) tariffs should allow for the recovery of operational and maintenance costs, and later contribute to investment and sustainability of the systems; and (iii) in as far as possible water supply and sanitation services should be decentralized to autonomous local agencies. Under the water law and policy, water and sanitation are formally dealt with as a unity although sanitation is seen as still being in a situation of relative disadvantage.

A process of separation of functions and roles and responsibilities of the various role players has been underway. In water, water resources and bulky water production roles have been separated from water supply asset holding and from water services management. A regulatory entity has also been established with the mandate of keeping a balance between government and private sector management at the same time that consumers are given a voice in infrastructure planning and management. The government retains the role of policy formulation and general promotion. However, in practical terms the country is still going through a transition process with government interfering across the entire sector doing cumulatively policy formulation, regulation, implementation and management of services. Nonetheless, there has been enormous progress made in both implementation and institutional adaptation.

The Law on Local State Administration nº 8/2003 and Decree nº 15/2000 on Local Authorities

[21] Updated in 2007

These legal instruments expand the level of control and responsibility to local authorities for local development and decentralization.

Mine (14/2002) and Oil (3/2001) Laws

The Law n. º 14/2002 of 26 June regulates the terms of exercising the rights and duties relating to the use and exploitation of mineral resources with respect for the environment, considering their rational use and benefit to the national economy. The same law stipulates that "the right to use and exploit mineral resources shall be exercised in accordance with the best and safest mining practices, in compliance with the environmental quality standards established by law and with a view to developing a long-term sustainability". Specific areas in which sustainability should be materialized include: a) reconnaissance b) exploration and research; c) mining; d) treatment and processing, e) marketing or other uses of the mineral product, and f) other related purposes. In its turn Law 3/2001 of February 21 is governed by the same principles as stipulated above and regulates oil production in the country.

Pesticides Regulation (Ministerial Diploma nr 153/2002, of 11 of September)

This is a joint regulation between the ministries of agriculture, health and environment aimed at regulating the importation, distribution, production, disposal and use of agrarian pesticides for the protection of animal and public health purposes. It requires all operators active in the importation, distribution, production of pesticides to be registered. It also classifies the various pesticides in three major categories, where those of Class III and II are the least lethal and those of Class I are the most lethal. It also regulates the labeling and packaging of pesticides, as ways of facilitating identification and protecting the environment and particularly public health.

Regulation on Environmental Quality and Effluents' Emissions. Approved by Decree No. 18/2004 of 18 June, amended by Decree 67/2010 of 31 December.

This Decree approves the Regulation on Environmental Quality and Effluents' Emissions. The aim is to define environmental quality patterns for granting an effective control and management of pollutant concentration levels in environmental components. It defines air quality standards and emission requirements, water classification according to the uses and related quality control requirements with special regards to potable water. Moreover, it rules on soil quality and noise emissions. The Annexes provide technical requirements and standards.

Occupational Health and Safety

Occupational health and safety combine provisions from different legal instruments namely: the Constitution, the Labor Law and a series of provisions from subordinate legislation, much of it inherited from the colonial period. ILO conventions, especially Convention no 17, related with compensation for workplace accidents as well as ILO Convention no 18, regarding compensation for occupational illnesses, also apply.

The Constitution (Article 85) states that all workers have a right to a fair wage, rest and vacation and to a safe and hygienic work environment. The Labor Law (Articles 216 through 236) indicates that workers have the right to work under hygienic and safe conditions and that employers have the obligation to create such conditions and to inform workers regarding the risks associated with specific tasks that they are supposed to perform. This could be in the form of safety equipment and work clothing to prevent accidents and negative effects on workers' health. Under the Labor Law employers and workers are expected to work together to ensure health and safety at the work place. Companies with high risk of accidents or occupational hazards are required to establish workplace safety committees to ensure compliance with health and safety norms investigate the causes of accidents and organize preventive measures. Such committees must include representatives of both the employer and the workers.

The Labor Law also stipulates that industry-specific regulations on health and workers' safety may be established by ministerial diploma, by the Minister of Labor, the Minister of Health or the Minister in charge of the specific sector. It is worth mentioning that in 2008 (December) the Ministry of Health approved its specific guidelines in this regard (MISA/DNAM (December 2008) – "Guidelines on Safety and Health in the Workplace", Maputo, Mozambique).

Large size companies (i.e. with more than 100 employees) and companies carrying out strenuous, unhealthy or highly dangerous activities must have health units on site. Medical professionals are supposed to regularly examine workers to determine, among others, if they are well enough to do the work called for in their contracts. HIV/AIDS tests fall outside such a provision. For certain sectors and in line with their specific provisions regular health checks are mandatory. Such is the case of workers dealing with food and beverages.

6.2 Institutional Framework

The GOM established the Ministry for the Coordination of Environmental Affairs (MICOA), in 1994. MICOA has been refining its approach to tackle environmental management by adopting medium to long-term strategies and policies. In more recent times, focus has been on (i) integration of land use planning into decentralized planning, (ii) reduction of the people living in environmentally risky and sensitive areas; (iii) environmental education and promotion; and (iv) regulation and supervision of natural resources management activities. These aspects are enshrined in the Environmental Strategy for Sustainable Development 2007-2017 (EADS). MICOA is a coordinating entity in recognition of the fact that environmental management is the result of a combination of interventions by a series of development sectors and stakeholders at various levels. Main areas of intervention include policy formulation, general promotion, planning, research/technologies, investment in infrastructures and other relevant areas, regulation, surveillance, extension/education/awareness creation, etc. The understanding of environment as a crosscutting subject coordinated by MICOA has led to the definition of environmental line ministries to integrate the other ministries/sectors that deal directly with the main environmental components, i.e. soil and subsoil, water, air and the biotic components (plant and animal). In general, these can also subdivided into two major categories:

(i) Those depending directly on natural resources as their main source of raw materials (inputs) comprise:

8. Agriculture (land and forests)
9. Fisheries (fishery resources)
10. Mines (mineral resources)
11. Public works and housing (water and land)

(ii) Those whose outputs depend largely on the supply of environmental services comprise:

12. Energy (water, mineral resources, biotic elements for bio fuels, etc.)
13. Tourism (landscape and wildlife)
14. Health (water and infrastructures)

At present, the list of environmental line ministries includes, but it is not limited to:

- **Energy**: Energy production and distribution (electricity, fuels and renewable energy);
- **Agriculture**: Plant and animal production, forests and wildlife, land and cadaster, agricultural irrigation and agricultural research and extension ;
- **Health**: health including environmental health as part of public health;
- **Mining/Mineral Resources**: Geology, mines and fossil fuels;
- **Public Works and Housing**: Water, buildings, roads and bridges, housing and urbanization;
- **Tourism**: Tourism and respective hotel industry as well as conservation areas related with tourism;
- **Fisheries**: Fisheries' management and inspection, fisheries research and technologies.

The fisheries sector management

The services of the Fisheries Administration at central and provincial level have a key role in the fisheries management process, for example in the licensing, supervision and management of resources. The management of artisanal fisheries, and especially the beach seine, is based on a small number of measures required by national general rules:

- Period of closure for industrial and semi-industrial shrimp fishing at the Sofala Bank is between November to February. This period has been changed from zone to zone. This closure is valid only for industrial and semi-industrial fisheries. For artisanal fishing the closure period is restricted to only 1 month, usually in January. The other fishing gear such as gillnets and line, are not subject to this measure.
- Minimum mesh size permitted is 38 mm. However, for conservation fisheries resources and fisheries management reasons, the mesh size can be changed (extended) for each fishing area.
- Preservation of endangered species. Catches are not allowed to mammals and sea turtles, rare or endangered species and other internationally protected species and of interest to the investigation. These species once captured should be according to the law, released back to the sea.

In addition to these general rules specific local rules may be established at the provincial level, which may include e.g. limiting the number of gear, or gear type, allowed in a particular area or period. These verifications are, however, rarely exercised. Similarly, compliance with general rules on closure and mesh is usually low or variable, largely due to lack of effective inspection.

The fisheries research is done by the National Institute of Fisheries Research (IIP), which is also represented at provincial level. IIP recommends management measures to the Fisheries Administration. However, to date, the level of formalized advice on tactical planning of artisanal resources has been quite modest compared to industrial fisheries. The latter are under a strict control production targets (quotas) regime. This contrast is due, in part, to the short history of routine monitoring of artisanal resources, and the dispersed nature of these fisheries.

The general regulations for small scale fishing also include intervention in the management process by users of fishery resources (local fishing community), provided they are integrated into community-based organizations named Community Fisheries Councils (CCP). However, the efficiency and dynamism of these organizations varies from region to region. As regards the surface gillnet, it is also recommended to reduce fishing pressure by improving the selectivity of net and/or the identification of periods/areas suitable for the major species caught off-season. Actions should include review of mesh and frame coefficients of the net in order to adjust them.

FishCC planning, implementation, monitoring and evaluation can substantially benefit from this institutional arrangement for sustainable management of environmental and social factors.

It should be mentioned that although there has been increased harmonization between the GOM Regulations and the WB Safeguards Policies, differences in a number of areas and aspects remain. **Under the Project whenever there is a conflict between national legislation and World Bank safeguards policies, the latter prevails**.

7 ENVIRONMENTAL AND SOCIAL CONCERNS OF TARGETED AREAS

Initial contacts with central level institutions in Maputo city have been carried out as a way of getting project stakeholders involved in the identification of issues that can affect the project and devising ways of better manage them. In the subsequent phases of the preparation of the environmental and social safeguards more consultation will be conducted in the six areas where pilot sites will be developed.

At this stage, extensive literature review was also carried out with the purpose of identifying key environmental and social concerns in the project areas.

From all the elements that were gathered, the following issues seem to deserve special attention:

Land use planning: In compliance The Land (Territorial) Planning Law (Law n.º 19/2007 of 18 of July) and its respective regulation the districts have been instructed to prepare and have been preparing district and inter-district land use plans, while towns and cities and respective governments including municipalities work on urban plans within the areas under their jurisdiction. In line with the law, the plans are aimed at:

(i) guaranteeing the right to land occupation for people and local communities;
(ii) re-qualifying urban areas, which due to a combination of factors, including the war that ended in 1992, have been growing in an unplanned way in many places;
(iii) identifying and enhancing capabilities;
(iv) preserving the ecological balance of soil quality and fertility;
(v) ensuring compatibility and coordinate environmental and social policies and strategies and socio-economic development;
(vi) optimizing management of natural resources; and
(vii) managing land conflicts.

In some cases, these plans have not yet been completed but they are seen as important instruments in deciding the siting of interventions including those falling and/or expected to fall under the Project. Local and central level stakeholders are of the opinion that in a practical way, the Project should endeavor to support the smooth completion of the land use plans as part of the process of deciding the best location and/or design of the various interventions. The project should try to align its interventions with the existing land use plans. Annex 1 presents *the status quo* of the preparation of District Land Use Plans (PDUT), which can be used to enlighten the Project approach. The annex does not include municipal and urban/town land use plans but during project implementation the status of these should also be ascertained before deciding on the siting of interventions.

No resettlement processes: the project can be developed in such a way as to ensure that people living in a number of areas within the project boundaries e.g. in and around project cities and towns where different fisheries and other related infrastructures will be rehabilitated and/or built (e.g. training facilities and social facilities for fisher associations and women's groups, fish markets, water wells, aquaculture ponds, etc.) do not translate into the need for resettlement processes by adopting a careful selection of the location of such infrastructures. By adopting a careful selection of the locations for such infrastructures, it will be possible to avoid physical and/or resettlement. Additionally, a careful but transparent consultation process is recommended to assess the current use of the location and potential PAP, such as fish vendors amongst other commercial activities.

Protection of areas of special importance (conservation/protected areas and wetlands): as seen in the description of the receiving natural environment one example of the project areas could be located in and/or close to a conservation area or in sensitive areas (mangroves, coral reefs,

wetlands, including protect species, etc.). WB and GOM requirements for managing those areas in a sustainable manner will have to be adhered to in all project interventions. A list of protected, sensitive areas and species, including those in the IUCN red-list will be compiled as part of the ESMF to serve as the guide for the project in terms of conservation.

Enough room to assist all categories of fishing people and communities to increase their production and productivity: for fisheries promotion including aquaculture a rapid assessment indicates that finding areas to locate the different fisheries activities can be done without exacerbating any land conflicts.

8 POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS AND MITIGATION MEASURES

1. As stated in Chapter 2 of this document the project will have seven main outcomes with the following preliminary allocation of funds:

- **Outcome 1**: Rights Based Management Enhanced and Social Resilience to Climate Change Strengthened (US$ 264,476).
- **Outcome 2**: Fisheries Management Improved through Use of TURF Reserve Approaches (US$ 219,819).
- **Outcome 3**: Marine Ecosystems, Habitats, and Biodiversity Improved (Ecological Resilience to Climate Change) (US$ 133,643).
- **Outcome 4**: Livelihoods Improved (US$ 500,000).
- **Outcome 5**: Capacity of IDPPE Increased (US$ 551,073).
- **Outcome 6**: New Fisheries Law is reinforced with respect to rights-based management being a preferred approach to coastal fisheries (US$ 120,000).
- **Outcome 7**: Technical Assistance, Reporting and Auditing Provided for Project (US$ 2,165,045).
- Activities under these outcomes will affect the different environmental and social components in different ways, most of which will likely to translate into a number of small scale infrastructures in the form of: Rehabilitation of small fish markets;
- Training facilities and social facilities for fisher associations and women's groups;
- Other small size infrastructures that might be found fit as the project rolls out such as
    - Small ponds for aquaculture;
    - Small wells for water supply,
    - Construction of small buildings;
    - Small infrastructure for ice machines.

This ESMF does not deal specifically with the issues of fisheries management as such including aspects such as closure periods, minimum mesh, fishing quotas, preservation of endangered species, and adequate regional exploitation of fisheries resources. It is assumed that there is a clear line of operation that deals with these aspects, to which should consistently adhere to. The project will constantly complement those and contribute to their improvement

The environmental components likely to be directly affected include:

- land resources on which the proposed small-scale infrastructure will be built;
- air quality, which has the potential to be negatively affected by dust generated from the various construction/rehabilitation and project operations;
- soils which may be polluted with oils and lubricants;
- water resources including freshwater and seawater which may be affected by diversions, and debris from civil works, oil spills, etc.;
- vegetation which may have to be cleared to pave the way for new installation of facilities; and
- communities, which will generally benefit from the project, but at times could be negatively affected, e.g. the risk of reduced assets.

The generalized identification of the project potential environmental and social impacts was and will be done considering the environmental and social components that are likely to be affected by the project activities. This involves literature review of projects implemented in the same areas, similar projects and through preliminary consultations with key stakeholders, particularly MF, IDPPE, INAQUA representatives, local leaders, fishing people and communities in general and key informants and professional judgment. It also involves assessing any potential cumulative negative (as well as positive) impacts likely to be caused by this project in those areas

8.1 Potential adverse environmental and social impacts

The environmental and social impacts relate to the final design, construction and operation of small projects such as rehabilitating fish markets; training facilities and social facilities for fisher associations and women's groups; other small size infrastructures (e.g. small ponds for aquaculture; small wells for water supply; and small infrastructure for ice machines).

For all environmental and social impacts the applicable World Bank Group Environmental, Health and Safety (EHS) Guidelines of April 2007 will need to be applied. Especially the General EHS Guidelines and the Agribusiness and Food Production EHS Guidelines will need to be applied. The applicable Agribusiness and Food Production EHS Guidelines will be applied to the fisheries facilities to be developed.

Although the expected environmental and social impacts will be limited, there are some potential negative environmental and social impacts that must be avoided or mitigated:

Soil

During construction activities, soil erosion may be caused by exposure of soil surfaces to rain and wind during site clearing, earth moving, and excavation activities. Improper grading of land may also cause drainage and erosion problems. The resulting soil particles may be transported into surface drainage networks and rivers, thus, affecting the quality of natural water systems and ultimately the biological systems using the waters. Water may accumulate in excavated pits potentially leading to the breeding of insects and other infectious organisms, which could increase the prevalence of malaria and bilharzia. Accidental spill of oil or lubricant may infiltrate into the soil and enter surface or groundwater.

Boat wakes, which lap at the shoreline, can contribute to increased shore erosion. Most of these relate to boats moving at or near maximum speed through waterways. If boats are moving at a speed slow enough to avoid leaving a wake, there will not be shoreline erosion. There was little found in the literature that pertained specifically to boats maneuvering near docks or landing areas.

Air Emissions

Construction and rehabilitation activities are usually associated with the release of dust generated from land clearing, excavation and movement of earth materials, cut and fill operations, contact of construction machinery with bare soil, and exposure of bare soil and soil piles to wind. The use of construction equipment and power generators is expected to release exhaust related pollutants such as carbon dioxide (CO2), nitrogen oxides (NOx), sulfur oxides (SOx), particulate matter (PM) and hydrocarbons (HCs). The air emission standards in the applicable World Bank Group Agribusiness and Food Production Environmental, Health and Safety Guidelines, as well as the General Environmental, Health and Safety Guidelines need to be applied. The cleaning and rehabilitation of fuel oil tanks in oil storage facilities may generate volatile organic compound (VOC) emissions. For small operation as might occur in this poroct air emissions during rehabilitation/construction and operation phases tend to be confined to the immediate vicinity of the rehabilitation/construction and operation sites and will have insignificant impacts on air quality. Adequate preventive, design and management measures will suffice to prevent such emissions from being harmful to people and surrounding biophysical setting.

Noise and Vibration

During potential construction/rehabilitation and operation activities, noise may be caused by the operation of small equipment. The increased noise level may impact on construction workers and nearby residential areas. However, any potential impact will be limited to the works' implementation phase and will end when the works are complete. Noise levels may not exceed 55

dB during day time and 45 dB during the night in residential areas and 70 dB in industrial areas during all times during the day and night, or whatever standards might be found as relevant after conducting a baseline survey in order to compare and follow OMS standards or Decree 18/2004 on noise emission standards.

During construction and operation the use of certain machinery and equipment can result in vibration. This is a mechanical phenomenon whereby oscillations occur about an equilibrium point. In most cases vibration is undesirable, and among other aspects it creates unwanted sound – noise and can cause infrastructures and/or their specific components to break (e.g. walls, glass, etc.), resulting in community disturbances and losses. Sound/noise and vibration are closely related and should be managed carefully.

Solid and Liquid Wastes

Solid and liquid wastes may be produced during construction and operation. This solid and liquid waste needs to be managed. Non-dangerous wastes can be disposed of in urban landfills. Hazardous wastes, such as used oils need to be disposed in an environmentally sound manner. They are normally disposed off through a contractual arrangement with the oil suppliers, who will take the waste oils away for recycling.

Rehabilitation of fuel storage facilities may involve the removal of contaminated soils around fuel dispensers, piping, and tanks. Depending on the type and concentration of contaminants present, such soils may need to be managed as hazardous wastes. In addition, bulky, inert and contaminated solid waste items are likely to be generated during the rehabilitation of fuel storage facilities such as damaged tanks. If improperly managed such wastes may constitute an environmental problem. These facilities will need to be removed and disposed of in an environmentally sound manner by the contractors.

Any construction at or near the water edge, or where debris can be washed or blown into the water, should be surrounded by silt screens, which must be placed in the water before the work starts. The screens should also be placed around storage areas, to prevent waste from blowing away and to prevent sediment run-off into the sea. Cement used to make concrete can be carried to nearby reefs with local currents. Because cement raises the pH of the surrounding seawater considerably, cement used to construct the docks has the potential to affect coral communities.

Water Quality

Surface water pollution may result from uncontrolled discharges into freshwater or brackish water rivers. Accidental spills of oil, polluted runoff from polluted areas and sediment transport. The latter impact is particularly significant when rehabilitation and/or construction activities occur within or in close proximity to surface water such as in the case of the rehabilitation and/or construction of heavy fuel oil supply facilities on the coastal strip. Polluted water flowing into surface water bodies could impact the aquatic organisms and affect the quality of life of downstream water users when river waters are involved. Many people are still using river water as a source for drinking water. Groundwater contamination may occur from percolation of oil and lubricants into soil. Nevertheless, waters disturbed by rehabilitation and construction activities are likely to recover when sediment or other pollution is controlled and natural processes are permitted to stock up. The effluent standards in the applicable World Bank Group Agribusiness and Food Production Environmental, Health and Safety Guidelines, as well as the General Environmental, Health and Safety Guidelines need to be applied.

Flora and Fauna

Marsh plants and submerged aquatic vegetation are ecologically critical as a source of food and nursery habitat for fish, shellfish, amphibians, reptiles, birds and mammals that live in coastal waters

or the adjacent marsh and uplands. Vegetated areas also stabilize shoreline and bottom sediments against erosion. Impacts to plant health and productivity from docks generally occur in one of the following ways:

- Short-term construction impacts: activities during construction can destroy plants either above the tide line or below by pulling them from the substrate or destroying their root systems. Placement of the pilings using a vibratory pile driver rig destroys any vegetation within the footprint of the pilings.
- Chronic impacts from shading: both marsh grasses and sea grasses have adapted to living in extended periods of sunlight. Therefore, shading can have significant impacts on the health and productivity of these plants, shoot density, biomass, and overall plant growth. Changes in vegetation density and hardiness may lead to increasing sediment erosion and re-suspension, and increased undercutting of the marsh shoreline near the dock because robust healthy marsh and sea grass vegetation is no longer present to hold the sediments in place.
- Chronic impacts from storage of floats and boats and associated foot traffic. Floats, boats, or any other solid structure stored, either permanently or seasonally on the marsh face will significantly shade, and therefore destroy, any vegetation present.

Stream pollution by sediments from rehabilitation and construction activities often consists of suspended and settable solid particles that may coat, bury, suffocate or abrade living organisms such as eggs, larvae, fish, etc. Many aquatic invertebrates and fish may undergo changes in population density and community composition if high concentrations of suspended solids occur. Aquatic vegetation may be adversely affected by a reduction in photosynthesis due to high turbidity. Accidental oil spills in aquatic ecosystems can cause significant mortality in aquatic organisms. These spills need to be prevented at all means by locating fueling and machine maintenance stations at least 100 meter from rivers and sea.

Health and Safety

Safety issues may arise during the rehabilitation and construction phases if community's access to works' sites is not controlled. People may be injured by construction machinery or may fall in open trenches.

Health and safety measures at the construction sites, as described in the World Bank Environmental, Health and Safety Guidelines need to be applied and enforced by the contractors. These include the wearing of protective clothing, masks, construction site boots, helmets, gloves and others.

Socio-Economic

Small rehabilitation and construction subprojects can generate a number of short-term job opportunities for the local people, as well as new opportunities to improve livelihoods for local communities and reduce poverty.

Equally important, a project such as this could be responsible for negative socio-economic impacts. The development of the small project components in agricultural, housing and commercial lands could potentially damage to cultivated crops, housing components (e.g. fences, walls, etc.) informal businesses (kiosks/vending stalls and barracas), including on components of other public and private utilities (e.g. telecommunication and electricity poles). The indirect impact on women, youth and other the vulnerable groups should also be considered.

At the social level, there could be increased tensions between farmers and fishing communities with regard to land issues or between pastoralists and farmers related to wandering livestock. In some

areas of the country this is already a serious problem, which, if not adequately managed, could get worse as the project progresses.

Although not likely given the small scale of the project, project activities could potentially have negative impacts on certain aspects of local livelihoods, housing, social and economic infrastructure and natural resources because of the influx of local and regional investors and workers.

Physical Cultural Resources

In Mozambique projects such as this can interfere negatively with sites of cultural, religious or historic importance (e.g. family and community cemeteries and other sacred places). Upon discovery of graves, cemeteries, cultural sites of any kind, including ancient heritage, relics or anything that might or believed to be of archeological or historical importance during any stage of project development, such findings should be immediately reported to the Project Management in order to ascertain the measures to be taken to protect such historical or archaeological resources. All forms of inappropriate removal/disposal should be avoided.

8.3 Potential positive impacts

Improvement of local infrastructure and particularly freezing rooms, fish markets, processing units, water supply, aquaculture, etc. meant to connect fisheries producers to markets and to increase production will lead to the adding of value to local fisheries products and economy in general.

Implementation of the Project will, among others, stimulate private investment in the fisheries sector. Serious constraints may be lifted by the establishment of basic infrastructure while providing considerable support to the private sector institutions and national as well as foreign initiatives throughout value chains.

Due to its nature and characteristics and particularly the component of awareness creation and community involvement and empowerment, in environmental terms, the project will result in better management and sustainability of natural resources surrounding planned interventions.

In social terms, the positive impacts of project activities could be brought by external investors introducing new production systems, technologies and practices. It is expected that these investments will contribute to improved technology and fish farming and production systems (e.g. aquaculture), reduction of post-harvest losses, improving revenue and marketing conditions, a better utilization of production processing; broadening the range of products, strengthening the skills of the various actors in the fisheries sectors (producers, traders, processors, packagers, conservation, transporters, etc.).

At the community level, in addition to the availability, accessibility and affordability of transport and telecommunication services, the expected impacts will be: improved food security, reducing the risk of hunger, improving nutrition and increased protein intake, and the creation of new and development of employment in fisheries value chain (reduction of unemployment and the exodus of young people, the creation of local employment opportunities, improved living conditions) and increased rights over natural and marine resources.

The project will provide opportunities for development of aquaculture in some of the project areas: (i) private and/or community actors will develop aquaculture subsector - including high value-added products for export, (ii) models of win-win partnership between local urban and rural communities and private investors can be expected to emerge, including strengthening linkages of fisheries with other sectors, e.g. tourism.

In summary, the following positive impacts can be expected, and hence further expanded:

- Positive impacts of rural and urban markets for fisheries and the entire value chain.
- Positive impacts of processing, storage and packaging facilities.
- Improved sense of community ownership and responsibility over surrounding natural resources.
- Improved livelihoods
- Improved social resilience and adaptive ability with respect to the effects of climate change
- Improved natural resources, biodiversity, and fisheries recovery leading to sustainable methods of fishing.

8.4 Measures to mitigate negative impacts

A preliminary list of measures to be adopted to mitigate potential and significant negative impacts of the project is presented in the table below. Due to the small, localized and temporary nature of rehabilitation and construction works, fast recovery of the minor impacts will take place after construction is completed. Nonetheless, it is suggested that a very well defined livelihood restoration plan to ensure mitigation of negative risks and/or impacts be considered. An M&E program with an allocated budget should also be considered.

Table 2: Measures to mitigate negative impacts

Potential negative impacts	Mitigation measures
Soil and groundwater: During any kind of small construction and rehabilitation: accidental discharge of on-site wastewater, hydrocarbons and chemicals can adversely affect groundwater and soil in the area;	During construction: Mitigation measures include proper storage of hydrocarbons and dangerous chemicals on site and the installation of natural, concrete or synthetic liners beneath oil and chemical storage tanks and the placement of these structures within a bounded impermeable concrete structure of 110% the volume of the largest tank. Other important measures include proper surface drainage during both the construction and operation phases, minimization of on-site water and chemical usage (oil, lubricants and fuel), as well as limiting the exposure of the soil to accidental releases of pollutants. Chemicals used on-site should preferably be non-toxic and readily biodegradable. Fueling areas should have a concrete slab so that petrol and oil cannot escape into the environment. Drainage systems in maintenance areas should be equipped with an oil/water separator;
Top soil management	During construction put the top-soil apart and place it back on top after construction has finished. During operation: ▪ Awareness and training of fisher communities
Soil erosion problems associated with construction	Focus on existing quarries and construction areas: Rehabilitation of affected areas, e.g. quarries and other construction areas. Put in place vegetative filters to filter sediments out of run-off. Rehabilitation works should start as soon as possible after the construction work is finished.
Air emissions: release of dust from land clearing, excavation and movement of earth materials, cut and fill operations, contact of construction machinery with bare soil, and exposure of bare soil and soil piles to wind.	Control techniques for minimizing PM emissions involve watering of surfaces, chemical stabilization, or reduction of surface wind speed with windbreaks or source enclosures. Covering the road surface with a new material of lower silt content, such as covering a dirt road with gravel or slag has also proved to be efficient. Regular maintenance practices, such as grading of gravel roads, also help to retain larger aggregate sizes on the traveled portion of the road and thus help reduce emissions. Low cost measures also include: ▪ Proper site enclosure through appropriate hoarding and screening; ▪ On-site mixing and unloading operations; ▪ Proper handling of cement material; ▪ Maintaining minimal traffic speed on-site and on access roads to the site; ▪ Covering all vehicles hauling materials likely to give off excessive dust emissions; ▪ Ensuring adequate maintenance and repair of construction machinery and vehicles; ▪ Avoiding burning of material resulting from site clearance; ▪ Covering any excavated dusty materials or stockpile of dusty materials entirely by impervious sheeting; ▪ Proper water spraying when necessary;

Potential negative impacts	Mitigation measures
Fish processing facilities	▪ The provision of water troughs at entry and exit points to prevent the carryover of dust emissions, beyond the construction site Measures to reduce truck traffic emissions include proper truck maintenance and the adoption of a traffic management plan while avoiding congested routes. Regarding on-site construction equipment, proper maintenance procedures and the quality of diesel fuel used are important to reduce emissions. Equipment should also be turned off when not in use, to reduce power needs and emissions of pollutants. Fish processing facilities can cause air pollution. The air emission standards in the applicable World Bank Group Agribusiness and Food Production Environmental, Health and Safety Guidelines, as well as the General Environmental, Health and Safety Guidelines need to be applied.
Noise and vibrations: noise and vibration levels emitted during any construction/rehabilitation and operation may exceed acceptable noise level standards Construction machinery and fish processing facilities	Mitigation measures to be adopted mainly during construction and operation to minimize noise levels include but are not limited to: ▪ Enclosing the site with barriers/fencing ▪ Effectively utilizing material stockpiles and other structures, where feasible, to reduce noise from on-site construction activities ▪ Choosing inherently quiet equipment ▪ Operating only well-maintained mechanical equipment on-site ▪ Keeping equipment speed as low as possible ▪ Shutting down or throttling down to a minimum equipment that may be intermittent in use, between work periods ▪ Utilizing and properly maintaining silencers or mufflers that reduce vibration on construction equipment during construction works ▪ Restricting access to the site for truck traffic outside of normal construction hours ▪ Proper site logistics and planning ▪ Limiting site working hours if possible ▪ Scheduling noisy activities during the morning hours ▪ Informing the locals when noisy or vibrating causing activities are planned ▪ Enforcing noise and vibration monitoring Fish processing facilities can cause noise pollution and unwanted vibration. The noise emission standards in the applicable World Bank Group Agribusiness and Food Production Environmental, Health and Safety Guidelines, as well as the General Environmental, Health and Safety Guidelines need to be applied. Fish processing that relies on smoking, salting, and drying fish can also be explored; none of these would cause any noise
Solid and liquid wastes: during small construction/rehabilitation and operation, there will be generation of construction and operation debris as a result of various construction and operation activities	The generated solid materials can be used for reclamation purposes whenever applicable. However, care should be taken to ensure the absence of contaminated fill material and the adequacy of the physical and chemical properties of such material to limit potential adverse impacts on water and soil and ensure project safety. Construction and demolition wastes can also be minimized through careful planning during the design stage, by reducing or eliminating over-ordering of construction materials to decrease waste generation and reduce project costs. The contractor should carry out sorting of construction and demolition wastes into various categories and adopt re-use/recycle on site whenever deemed feasible.

Potential negative impacts	Mitigation measures
	Chemical wastes generated during the construction phase include containers that were used for storage of chemical wastes on site, the chemical residue as well as contaminated material. Rehabilitation of fuel storage facilities may involve the removal of contaminated soils around fuel dispensers, piping, and tanks, as well as bulky, inert and contaminated solid waste items such as damaged tanks. Storage of hazardous waste should take place in a separate area that has an impermeable floor, adequate ventilation and a roof to prevent rainfall from entering. In addition all chemical wastes should be clearly labeled in Portuguese and, stored in corrosion resistant containers and arranged so that incompatible materials are adequately separated. General refuse generated on-site during the construction phase should be stored in enclosed labeled bins or compaction units separate from construction and chemical wastes. General refuse is generated largely by food service activities on site, therefore, where feasible, reusable rather than disposable dishware should be promoted. Aluminum cans, glass, plastics, wood and metals may be recovered from the waste stream by individual collectors if they are segregated and made easily accessible, so separate, labeled bins for their storage should be provided.
Hydrocarbons (waste oils)	Hydrocarbons should be stored on an impermeable concrete floor with concrete bundling. It should be negotiated with the new oil supplier to take back the waste oils for recycling by a MICOA authorized recycler. When rehabilitating areas where, at present, oil storage are located and sites are hydrocarbon contaminated, it will be necessary to clean up the site completely before starting any rehabilitation activities. A rapid environmental audit will need to be conducted to identify the action plan for site clean-up.
Fish processing facilities	Fish processing facilities can cause solid waste pollution. The solid waste management practices in the applicable World Bank Group Agribusiness and Food Production Environmental, Health and Safety Guidelines, as well as the General Environmental, Health and Safety Guidelines need to be applied.
Water quality: the primary sources of potential impacts to water quality will be from pollutants from site runoff, accidental spills, which may enter surface waters (marine and river) directly or through the storm drainage system	Surface run-off from the construction site should be directed into storm drains through adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. If oil is present, oil/water separators should be installed, which should be regularly cleaned. Channels, earth bunds or sand bag barriers should be provided onsite to properly direct storm water to silt removal facilities before discharge into the surrounding waters. Silt removal facilities should be maintained with deposited silt and grit being regularly removed after each rainstorm to ensure that these facilities are functioning properly at all times. Moreover, the rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities and not directly to the aquatic environment. Open stockpiles of construction materials on site should be covered with tarpaulin or similar fabric during rainstorm events to prevent the washing away of construction materials, while earthworks should be well compacted as soon as the final surfaces are formed to prevent erosion especially during the wet season. Water used in vehicle and plant servicing areas, vehicle wash bays and lubrication bays should be collected and connected to foul sewers via an oil/grease trap. Oil leakage or spillage should be contained and cleaned up immediately. Spent oil and lubricants should be collected and stored for recycling or proper disposal and should be stored on impermeable and bounded surfaces. All fuel tanks and chemical storage areas should be provided with locks. Fuel tanks should be placed in concrete bounded areas of 110% of the volume of the largest fuel tank.

Potential negative impacts	Mitigation measures
Fish processing facilities	The contractor should also prepare guidelines and procedures for immediate cleanup actions following any spillages of oil, fuel or chemicals. Sewage from toilets, kitchens and similar facilities should be contained in sanitary cesspools before being transported by trucks to a nearby wastewater treatment plant. As for the wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, it should undergo large object removal by bar traps at drain inlets. Fish processing facilities can cause water pollution. The water effluent standards in the applicable World Bank Group Agribusiness and Food Production Environmental, Health and Safety Guidelines, as well as the General Environmental, Health and Safety Guidelines need to be applied.
Flora and fauna: stream and coastal pollution by sediments from rehabilitation and construction activities by suspended and settable solid particles that may coat, bury, suffocate or abrade living organisms. Many aquatic invertebrates and fish may undergo changes in population density and community composition if high concentrations of suspended solids occur. Aquatic vegetation may be adversely affected by a reduction in photosynthesis due to high turbidity. Accidental hydrocarbon spill will have a detrimental impact on aquatic life. Deforestation, soil degradation through erosion,	To minimize stream pollution by sediments, it is recommended to reduce or prevent soil erosion from the construction site by: ▪ Scheduling construction/rehabilitation to avoid heavy rainfall periods (i.e., during the dry season) to the extent practical ▪ Contouring and minimizing length and steepness of slopes ▪ Protecting to stabilize exposed areas ▪ Install sediment traps, e.g. reed screens ▪ Re-vegetating areas promptly ▪ Designing channels and ditches for post-construction flows Additional measures include: ▪ Carefully select right-of ways/corridors of impact to avoid important natural areas such as wild lands and sensitive habitats ▪ Utilize appropriate clearing techniques (hand clearing vs. mechanized clearing) ▪ Maintain native ground cover beneath lines ▪ Replant disturbed sites soon after construction/rehabilitation ▪ Manage right-of-ways/corridors of impact to maximize wildlife benefits General implementation and enforcement of good agricultural practices and crop management, e.g. contour line farming, in order to reduce erosion. Prevent accidental hydrocarbon spills by storing hydrocarbons into concrete bounded areas and equip areas where hydrocarbons are used with oil/grease/water separators. Compensate lost trees in the same area. Install erosion prevention and control measures as mentioned above. Avoid sensitive habitat by fencing the area, so that the habitat cannot be entered by trucks and workers.

Potential negative impacts	Mitigation measures
habitat destruction may occur during clearing	
Health and safety: occurrence of accidents (direct and indirect) to workers on-site, pedestrians, and machine operators or passengers during construction/rehabilitation and operation	Occupational health and safety measures should include: ▪ Restriction of access to the construction site by proper fencing with site boundaries adjoining roads, streets or other areas accessible to the public should undergoing high enough fencing along the entire length except for a site entrance or exit ▪ Establishment of buffering areas around the site ▪ Provision of guards on entrances and exits to the site ▪ Installation of warning signs at the entrance of the site to prohibit public access ▪ Provision of training about the fundamentals of occupational health and safety procedures ▪ Provision of appropriate personal protective equipment (PPE) (impermeable latex gloves, working overalls, safety boots, safety helmets, hearing protecting devices for workers exposed to high noise levels, and lifesaving vests for construction sites near water bodies) ▪ Ensuring that workers can swim (at work sites near water) and that lifesaving rings are available at the worksite, near water ▪ Ensuring that the protective material is being used wherever it is required ▪ Ensuring that especially sensitive or dangerous areas (like areas exposed to high noise levels, areas for especially hazardous work etc.) are clearly designated ▪ Ensuring that all maintenance work necessary for keeping machines and other equipment in a good state will be regularly carried out. ▪ Ensuring that the workers (and especially those doing hazardous work or otherwise exposed to risks) are qualified, well trained and instructed in handling their equipment, including health protection equipment ▪ In case blasting is required the Contractor should work according to an approve Blasting Plan, which need to be approved by the Supervising Engineer and the Client ▪ Provision of adequate loading and off-loading space ▪ Development of an emergency response plan ▪ Provision of on-site medical facility/first aid ▪ Provision of appropriate lighting during night-time works ▪ Implementation of speed limits for trucks entering and exiting the site Regarding hazardous substances, the following measures should be implemented: ▪ Ensuring that hazardous substances are being kept in suitable, safe, adequately marked and locked storing places ▪ Ensuring that containers of such substances are clearly marked, and that material safety data sheets are available ▪ Ensuring that all workers dealing with such substances are adequately informed about the risks, trained in handling those materials, and trained in first aid measures to be taken in the case of an accident. ▪ Designating an area where contaminated materials and hazardous waste can be stored for proper disposal according to environmental guidelines in force in the country and as specified in the applicable World Bank Group Environmental, Health and Safety Guidelines of April 2007. ▪ The adoption of good housekeeping practices for ensuring hygiene on site ▪ The elimination of pools of stagnant water, which could serve as breeding places for mosquitoes

Potential negative impacts	Mitigation measures
	The provision of bed nets for workers living on site. Ideally, these nets should be treated with an insecticide The appropriate elimination of waste of all types, including wastewater ▪ Monitor the prevalence of intestinal and urinary bilharzia and malaria. If the prevalence increases implement the following: ▪ Distribute long-lasting insecticidal impregnated mosquito bed nets (LLINs) to affected communities, to control malaria ▪ Mass treatment of high risk groups with praziquantel need to be carried out to control intestinal and urinary bilharzia ▪ Minimize contact with infected water by requiring people to wear boots and gloves ▪ Support to access to drinking water and autonomous sanitation facilities ▪ Reduce fecal and urinary pollution of surface waters by prohibiting defecation and urine in water and putting in place sanitation systems (latrines, etc.) ▪ Educate affected communities with regard to these water-borne diseases ▪ Follow WHO guidelines
Socioeconomic impact including resettlement, reduction of arable and pastoral land, prevention of HIV/AIDS and influx of external workers: potential loss of land or land use, interruptions to means of livelihood, disturbances to cultural resources, and influx of foreign workers	▪ Select project sites and rights-of-way (ROW) in a consultative and participatory manner so to avoid important social, agricultural, and cultural resources and avoid areas of human activity ▪ Utilize alternative designs to reduce land and ROW width requirements and minimize land use impacts ▪ Ensure a high rate of local employment to minimize influx of foreign contract workers: preferred preference to local people in order to avoid social conflicts ▪ Manage resettlement in compliance with the World Bank Safeguard Policy on Involuntary Resettlement OP/BP 4.12 ▪ Prevention of STDs, HIV/Aids: Create awareness and educate workers and nearby communities. Provide free, sufficient, good quality condoms for personnel. Provide treatment for infected personnel ▪ Supply and enforce wearing protective equipment (helmets, boots, dress, gloves, masks, goggles, etc.) by workers ▪ Strictly follow government instructions on the hiring of foreign workers and clarify criteria for hiring them ▪ Favor local labor where the required skills are available ▪ Environmental management of construction waste (installation of litter bins, regular collection and disposal in authorized sites) ▪ Awareness on respect for local customs ▪ Educate and training of local people and workers

The planning and implementation of mitigation measures will be done under the guidance and responsibility of safeguard staff at IDPPE and MF and contracted out on a competitive basis to be service providers.

Contractors for simple subprojects will be mainly responsible for the implementation of the SECs (Social and Environmental Clauses), which will be included in the bidding documents and will be part of their contractual obligations. An adequate budget should be considered for SEC internal and independent M&E program.

For any complex projects the Contractors will be required to prepare and implement their own Contractor Environmental and Social Management Plan (CESMP). For this purpose they will need to employ qualified staff. These requirements will need to be included in the bidding documents and in their contracts. These are not envisioned for the project at this time.

The Supervising Engineers will by contractual arrangements be made responsible for the adequate implementation of the SECs and CESMPs. The Supervising Engineer will need to employ qualified staff for this purpose.

9 GUIDELINES FOR SUB-PROJECT SCREENING, PREPARATION, APPRAISAL, APPROVAL AND MONITORING

There will be the need to ensure that potential environmental and social impacts are adequately addressed through the institutional arrangements and procedures used by the Project interventions for managing the identification, preparation, approval, environmental licensing, implementation, monitoring, evaluation and auditing of sub-projects.

The Project has been classified as Category B project. Most of the sub-projects will fall within this category, while some will be Category C. As per both Mozambican and WB regulations Category B projects require less stringent ESIA/ESMP processes due to the fact that the environmental and social impacts are easier to deal with; few if any of them have irreversible effects; and in most cases appropriate mitigation measures can be readily designed. As is the case with any intervention environmental and social best practices recommend that negative impacts be avoided and/or minimized and that adequate and implementable mitigation and management measures be put in place early enough where avoidance is not feasible.

The key to environmental and social management is the environmental and social screening process, which may or may not result in the preparation of a full ESIA/ESMP document, a freestanding ESMP or no action need to be taken. The screening process should follow the Safeguard Policy OP 4.01/BP on Environmental Assessment of the World Bank and the Mozambican Regulations for Environmental and Social Impact Assessment. The screening process will be carried out at specific sub-project sites in the field once they have been identified. The environmental and social screening process is necessary to identify if the subprojects will cause environmental and social impacts. The environmental and social screening is part of the preparation and approval process of subprojects financed by the Project.

The objectives of the ESMF screening process include:

a) determine which construction/rehabilitation and operation activities are likely to have potential negative environmental and social impacts;

b) determine the level of environmental and social work required, including whether an ESIA/ESMP or a freestanding ESMP is required or no action need to be taken;

c) determine appropriate mitigation measures for addressing adverse impacts;

d) incorporate mitigation measures into the development plans for the subproject;

e) ensure that no Resettlement activities are planned facilitate the review and approval of any small construction/rehabilitation and operation proposals; and

f) provide guidance for monitoring environmental and social parameters during the implementation and operation of project activities;

g) ensure the final environmental and social evaluation of the project.

The extent of environmental and social work that might be required, prior to the commencement of construction/rehabilitation works, and during operation will depend on the outcome of the screening process.

Below, critical aspects to be adopted to avoid/minimize negative impacts as well as mitigate and manage them correctly are suggested.

9.1 Screening of Project Activities and Sites

Depending on the size, nature and perceived environmental consequences of a project Mozambican Regulation for ESIA (Decree 45/2004 combined with is updated articles and clauses under Decree 42/2008) provides for three project categories, namely A, B and C. Where it is clear that project activities fall under Category B, a simplified ESIA needs to be carried out. The screening process will be used to determine the appropriate types of environmental follow-up measures, depending on the nature, scope, and significance of the expected environmental and social impacts from each of the subproject activities.

Both the Environmental and Social Screening Form (ESSF in Annex 2) and the Annex 3 of Decree 45/2004 will be completed by IDPPE Environmental, Social, Health and Safety staff. The screening forms, when correctly completed, will facilitate the:

- identification of potential environmental and social impacts and the identification of health and safety risks;
- determination of their significance;
- assignment of the appropriate environmental category; and
- determination of the need to conduct an ESIA/ESMP, a freestanding ESMP and/or a Resettlement Action Plans (RAPs) where required or determine that no action need to be taken.

The responsible MICOA structure at Provincial or District level will need to confirm the abovementioned screening process to comply with Mozambican environmental legislation, the screening process will be conducted in the following manner:

Preparation activities for the screening process will include a desk appraisal of the intervention (e.g. construction/rehabilitation and operation plans) for sub-project related infrastructure.

Subsequent to the desk appraisal of the interventions, the initial screening of the proposed sub-project activities will be verified in the field, with the Environmental and Social Screening Form (ESSF) prepared by the Project Safeguard staff. The District Environmental Officers, stationed at the SDPI and/or municipalities, will do the verification. Subsequently, they will oversee the preparation and implementation of the required measures.

9.2 Assigning the Appropriate Environmental and Social Categories

The ESSF, when completed, will provide information on the assignment of the appropriate environmental and social category to a particular subproject. The Provincial Departments of Environmental Impact Assessment in collaboration with the Environmental and Social Specialists from the Project Coordination/IDPPE will be responsible for categorizing a subproject as either A, B or C. It is not expected that any of the subprojects will be Category A through the application of OP/BP 4.01.

Category A and more complex Category B sub-project activities would have significant and long-term adverse environmental and social impacts and therefore would require an ESIA/ESMP and/or RAP, in accordance with Mozambican legal requirements. Category B projects are those with one or a few potentially significant adverse impacts, which would require an Environmental and Social Management Plan (ESMP) to address specific impacts during project construction or operation, but not a full ESIA. Category C projects would not involve any significant adverse environmental impacts; they would therefore not require an ESIA or a specific ESMP, but they would require adherence to good environmental practices, including any applicable Environmental and Social Clauses to be included in the Contractor's Contracts.

The assignment of the appropriate environmental category will be based on the provisions of the World Bank Operational Policy (OP 4.01/BP) on Environmental Assessment and the Mozambican ESIA Guidelines.

9.3 Carrying out Environmental and Social Work

After reviewing the information provided in the Environmental and Social Screening Form (ESSF) and the Preliminary Environmental Information Sheets and having determined the appropriate environmental and social category, the Provincial Directorate of Environment (DPCA) in close collaboration with the IDPPE National Office (NO) and the unit/team that will be dealing with environmental and social issues will determine whether (a) the application of simple mitigation measures outlined in the Environmental and Social Checklist (Annex 4) and Environmental and Social Clauses for Contractors (Annex 5) will suffice (Category C); whether (b) an Environmental and Social Management Plan (but no ESIA) needs to be prepared to address specific environmental impacts (Category B); or whether (c) a full ESIA/ESMP will need to be carried out (Category A or complex Category B). This will require IDPPE to designate an Environmental and Social Focal Point to follow up on this more closely with the one to be identified in each DPCA

9.4 Environmental and Social Checklist:

The Environmental and Social Checklist in Annex 4 will be completed by qualified Environmental and Social Specialists of the National Office and district project management unit (DPMU). Most of the subprojects will be categorized as Category B, which may not require a full ESIA, and will benefit from the application of mitigation measures outlined in the checklist. Some subprojects may also be subject to the Environmental Checklist under national EIA regulation. In situations where the screening process identifies the need for land acquisition, a RAP shall be prepared and disclosed consistent with OP/BP 4.12 guidelines.

If there is already an existing design for a subproject, the Provincial Directorate of Environment in collaboration with IDPPE and the NO will assess the potential environmental and social impacts on the chosen site and on the community and will recommend modification of the design or the location in order to mitigate or reduce these potential impacts. MICOA and/or MMAS Provincial Directorates should be also involved in the preparation of the environmental and social checklist. Thus, a focal point on each province should be identified and designated to look for the activities to be identified under those subprojects.

9.5 Environmental and Social Impacts Assessment (ESIA)

If certain subprojects are to be found to require an ESIA, this process would identify and assess the potential environmental and social impacts of the proposed activities, evaluate alternatives, as well as design and implement appropriate mitigation, management and monitoring measures. These measures would be captured in the Environmental and Social Management Plan (ESMP) which would be prepared as part of the ESIA Document.

Where required, preparation of the ESIA that includes an ESMP, will be carried out by the Borrower in consultation with the relevant stakeholders, including potentially affected persons. Environmental and Social Specialists of the Project Implementation Units, in close consultation with the Provincial Directorate of Environment and/or DNAIA and on behalf of the District Governments or Municipalities, will arrange for the (i) preparation of ESIA/ESMP or RAP terms of reference; (ii) recruitment of a consultant to carry out the ESIA/ESMP or RAP; (iii) public consultations and participation; and (iv) review and approval of the ESIA/ESMP or RAP following the national ESIA and RAP approval process. ESIAs, ESMPs and RAPs also need to be sent to the World Bank for approval and disclosure.

9.6 Subproject Review and Approval

The Environmental and Social Specialists at IDPPE will fill in the environmental and social screening forms and identify the mitigation measures presented in the environmental and social checklists or additional ones not mentioned in the checklists in order to classify the sub-project. Where an ESIA/ESMP or a freestanding ESMP has been carried out, the Environmental and Social Specialists in collaboration with the Provincial Directorate of Environment/DNAIA will review the reports to ensure that all environmental and social impacts have been identified and that effective mitigation measures have been proposed, including institutional arrangements for the implementation of the ESMP and a budget.

Based on the results of the above review process, and discussions with the relevant stakeholders and potentially affected persons, the IDPPE Environmental and Social Specialists, in case of sub-projects that do not require an ESIA/ESMP or a freestanding ESMP will make recommendations to the Municipal or District Government to go ahead with the project implementation.

9.7 Participatory Public Consultation and Disclosure

Local people and communities as well as their representatives need to be continuously involved in the decision-making related to the different facets and stages of Project interventions. The various pieces of Mozambican legislation on land and natural resource issues and project development place public consultation and participation at the top of the agenda. The Project will ensure that the provisions in those regulatory documents are strictly adhered to. Local people/communities and their representatives are properly placed to take care of the needs of local stakeholders and to promote the local resource management capacity.

The public participation process (PPP) is an intrinsic component of the ESIA/ESMP process with the following main objectives:

- Keep Project Interested and Affected Parties (PI&APs) informed about key issues and findings of each stage of the ESIA;
- Gather concerns and interests expressed by various project stakeholders;
- Obtain contributions/opinions of stakeholders in terms of avoiding/minimizing possible negative impacts and maximize positive impacts of the project.
- Finally, support the social dialogue and identify from the onset, stakeholders' perceptions and expectations, which can contribute to the action planning and effective communication in order to minimize the impacts of the project. The process also allows for rethinking the project's technical aspects.

For the PPP to be effective there are norms and procedures to be observed throughout.

The ESIA/ESMP process emphasizes the clear need for frequent interaction and communication between the general public, parties affected by the proposed Project, local NGOs, external interested and concerned organizations, as well as Project scientists and engineers.

Each aspect of the technical investigations generally includes a data collection and verification phase, followed by analysis and evaluation, then synthesis and conclusions. The findings of each phase have to be communicated as appropriate to external parties.

In terms of the ESIA Regulations in force in Mozambique (Decree 45/2004 and Diplomas 129/2006 and 130/2006 and other related regulatory instruments) mandatory public consultation meetings mark the end of each main phase, e.g. scoping and definition of terms of reference as well as a public consultation on the draft final ESIA document. Under Mozambican legislation, these should be announced at least 15 days prior to the meeting day. In addition to being invited by public notices, a certain number of participants to these meetings should be directly invited by

letters of invitation distributed by the project developers. In this case the NO and the district project management unit (DPMU) would be at the forefront in ensuring that relevant stakeholders are invited and participate in the meetings.

During the meetings, the ESIA team in collaboration with the developers' (IDPPE) representatives and the engineering team, maintain PI&APs informed of the main issues and findings of each phase and collect concerns and interests expressed by the various project stakeholders. Public meetings are non-technical in nature and are expected to contribute to get stakeholders' inputs in terms of avoiding/minimizing possible negative impacts and optimizing the positive impacts of the subproject.

It is fundamental that by all means the Project does not contribute in any way to create land conflicts and/or exacerbate any such conflicts. Projects, such as this, have as objective to empower communities, create jobs, construct infrastructure and introduce modern technologies, but if not planned and conducted properly they can also contribute to increase the number of landless people, make local food insecurity worse, cause environmental damages, stimulate rural-urban migration, etc., which are project outcomes to be avoided.

In compliance with both the GoM regulation and World Bank guidelines, before a sub-project is approved, the applicable documents (ESIA, ESMP and/or RAP) must be made available for public review at a place easily accessible to beneficiary communities (e.g. at a local government office, at the DNAIA/DPCA/SDPI/SDAE), and in a form, manner and language that can easily understood, including the non-technical summaries of the main documents. They must also be forwarded to the World Bank for approval and disclosure at the Public Information Center in Maputo and at the World Bank Infoshop in Washington DC. Especially as part of ESIAs/ESMPs and RAPs public consultation and participation processes, Mozambican guidelines also have similar pre-requisites, which should be strictly followed under the Project.

In light of this particular project it is critical to note that Rare has an extensive protocol for site evaluation and selection that depends on community receptivity or effectively vetting the project with local community members to determine whether they understand and would accept the project. There would be no community in which Rare implements the project that will have not had the project vetted with local stakeholders. The site selection process requires Rare determines that the community has the interest, receptivity, and actual baseline capacity to engage in implementation.

Independently of what has been done to elaborate this safeguard document, Rare and partners will conduct the vetting as part of the site evaluation process. Community consultation is one of the critical aspects of their site selection methodology. It is of great importance for Rare to lead this consultation in order to transmit precisely to the communities what the project is about, their methodology of work and to receive their comments for future analyses.

For the formulation of this ESMF and respective PF in addition to initial consultation at the central level use was made of community issues that came out during the consultation processes related with other two fisheries and similar projects to FishCC, namely SWIOFISH and PPACG, which in a number of cases are also implemented in the same potential areas to get an understanding of the issues that were arised and addressed, most of them aligned with FishCC project lines of action. For example, fishermen showed concerns in most of the consultations about the use of inappropriate fishing methods or lack of training, favoring unsustainable fisheries, a main problem for them. Part of the feedback provided to the fishermen concerns mentioned IDPPE or the Government in general should encourage the availability of fish in the sea by promoting ideas of co-management, favoring sustainable fisheries. Community representives showed interest on learning about techniques of sustainable fishing, in line with FishCC objective. The details are presented in Annex 6.

9.8 Annual Monitoring Reports and review

Monitoring of the compliance of project implementation with the mitigation measures defined in its ESMF, ESIA/ESMP, and/or PF will be carried out jointly with communities, the Environmental and Social Specialists of the National Office in close collaboration with the district project management unit (DPMU), MICOA's local representatives, extension workers and the Service Provider (i.e. CSO) responsible for implementing the Project.

District (SDPI) and municipal authorities should supervise the monitoring activities and are required to report annually on sub-project activities during the preceding year. The information to be included in these annual reports to capture experience with implementation of the ESMF procedures will be included in an annex to be prepared as part of the annual report, which will be used as a guide.

Compliance monitoring comprises on-site inspection of activities to verify that measures identified in the ESMF, ESIA/ESMP and/or RAP are being implemented. This type of monitoring is similar to the normal tasks of a supervising engineer whose task will be by contractual arrangement to ensure that the Contractor is adhering to the contractual obligations with regard to environmental, social, health and safety practices during construction, as prescribed in the Social and Environmental Clauses (SEC) included in the bidding documents and Contracts or as described in the Contractor ESMP.

MICOA, through DPCA and DNAIA (or an external consultant) will have the responsibility of conducting the environmental, social, health and safety inspection. An annual inspection report must be submitted (together with the monitoring report) to the MF and the World Bank for review and approval.

Independent local consultants, local NGOs or other service providers that are not otherwise involved with the Project, thus independent, may carry out annual reviews. Annual reviews should evaluate the annual monitoring report from district authorities and the annual inspection report from DPCA/DNAIA.

Annual reviews are not normal for ESIAs/ESMPs with the current practices. The National Office at central (NO) and provincial levels (IDPPE) as well as the environmental units/teams within the district project management unit (DPMU) need to make dedicated efforts to ensure that this work is done properly.

9.9 Environmental and Social Audit

An external independent environmental, social, health and safety audit will be carried out at mid-term of project implementation and at the end of the project. The audit team will report to the MF and the World Bank, who will deal with the implementation of any corrective measures that will be required. The audits are necessary to ensure that (i) the ESMF process is being implemented appropriately, and (ii) mitigation measures are being identified and implemented accordingly. The audit will be able to identify any amendments in the ESMF approach that are required to improve its effectiveness.

The Audit Reports will include:

- A summary of the environmental, social, health and safety performance of the sub-projects, based on the ESIAs, ESMPs, RAPs and the implementation of the Environmental and Social Clauses in the Contractor Contracts and Contractor ESMPs;
- A presentation of compliance and progress in the implementation of the sub-projects ESMPs;

- A summary of the environmental and social monitoring results from individual sub-projects monitoring measures (as set out in the sub-project ESMPs).

The main tasks of the audit will be to:

- Consider the project description;
- Indicate the objective, scope and criteria of the audit;
- Evaluate the developer's knowledge and awareness of and responsibility for the application of relevant legislation;
- Review existing project documentation related to all infrastructure facilities and designs;
- Examine monitoring programs, parameters and procedures in place for control and corrective actions in case of emergencies;
- Examine records of incidents and accidents and the likelihood of future occurrence of the incidents and accidents;
- Inspect all buildings, premises and yards in which processing, testing and transportation takes place within and without the project area, as well as areas where goods are stored and disposed of and give a record of all significant environmental, social, health and safety risks associated with such activities;
- Examine and seek views on health and safety issues from the project employees, the local and other potentially affected communities; and
- Prepare a list of health and safety and environmental and social concerns of past and on-going activities.

9.10 Other Important Issues

9.10.1 Integration and harmonization with the district land use plans

In addition to defining the district as the main territorial planning unit the GOM, through the Land Planning Law (Law n.º 19/2007 of 18 of July) and its regulation, requires all districts to have land use plans. As stated above district land use plans are meant to provide adequate zoning for interventions based on suitability of the different land areas and respective pre-conditions. These plans are a way of exercising holistic and integrated approach to land resources management, including strategic planning. The siting of subprojects will benefit immensely from being harmonized with the district land use plans. An adequate zoning at the district and/or municipal level should be able to provide sound guidance regarding the best siting for each specific subproject.

However, due to a multitude of reasons most of the districts are still in the process of finalizing these plans and/or of enforcing them. It is possible that by the time the Project will be implemented these plans will not yet be available in their final form and/or conditions will not be ready for enforcement. In some other cases existing plans will not be of the best quality and the Project should endeavor to assist in revising the plans to bring them up to standard.

10 GUIDELINES FOR ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN AND MONITORING REQUIREMENTS

10.1 Environmental and Social Management Plan (ESMP)

A site specific ESMP should be conducted as part of the ESIA process, as per the Regulamento do Processo de Avaliação do Impacto Ambiental (RPAIA)'s point (g) of Article 12, and should include the "monitoring of impacts, prevention plans, as well as accident contingencies".

In an ESMP, various mitigation measures are organized into a well-formulated plan to guide the planning, design, construction and operation of the planned interventions. Under the ESIA/ESMP process and particularly under this ESMF, what is described below should be viewed as dynamic, which may require updating or revision during the implementation of the activities.

An effective ESMP for specific sub-projects will be a practical document, which will precisely set out both the goals and actions required in mitigation.

The ESMP covers a set of measures that need to be taken to ensure that impacts are dealt with in the following hierarchical order[22]:

- **Avoidance**: avoiding activities that could result in adverse impacts. Avoiding resources or areas considered as sensitive
- **Prevention**: preventing the occurrence of negative environmental and social impacts and/or preventing such an occurrence from having negative environmental and social impacts
- **Preservation**: preventing any future actions that might adversely affect an environmental and social resource. Typically achieved by extending legal protection to selected resources beyond the immediate needs of the project
- **Minimization**: limiting or reducing the degree, extent, magnitude or duration of adverse impacts. This can be achieved by scaling down, relocating, redesigning elements of the project
- **Rehabilitation**: repairing or enhancing affected resources, such as natural habitats or water sources, particularly when previous development has resulted in significant resource degradation
- **Restoration**: restoring affected resources to an earlier (and possibly more stable and productive) state, typically 'background/pristine' condition
- **Compensation**: creation, enhancement or protection of the same type of resource at another suitable and acceptable location, compensating for lost resources

A series of steps to be followed to ensure that fisheries under the Project follow the best practices this document will also include an annex on Good Fisheries Practices - Hygiene and Safety (Annex 7), which should be creatively followed where the Project will be supporting fisheries and fisheries related sub-projects.

[22] Ref: The World Bank. Environment Department. January 1999. Environmental Management Plans. Environmental Sourcebook Update. Number 25

11 TRAINING AND CAPACITY BUILDING REQUIREMENTS

Successful implementation of the Project will depend among others on the effective implementation of the environmental and social management measures outlined in the ESIAs/ESMPs, (or RAPs as necessary). Training and capacity building will be necessary for the key stakeholders to ensure that they have the appropriate knowledge and skills to implement the environmental and social management plans. The fact that training and capacity building are already important elements in this project can be expected to facilitate the implementation of this requirement.

11.1 Institutional Capacity Assessment and Analysis

Descriptions made in Chapter 7 clearly show that there has been considerable progress in institutional, legal and regulatory processes related with environmental and social management in Mozambique. However, coordination and law enforcement remain a serious challenge.

The Ministry for the Coordination of Environmental Affairs (MICOA) is entrusted with the responsibility of "promoting sustainable development through the practical leadership and execution of the country's environmental policy". However, it is a Ministry that is relatively new compared to other traditional ministries (e.g. agriculture, public works, education, health, MPD and MMAS, etc.) and it has been facing real problems to advance its coordinating role and responsibilities.

The various institutions, development strategies, laws and regulations are still in need of harmonization to ensure that they achieve common goals within the sector. Human and material investments are required to translate the various provisions into concrete actions. This is further compounded by the fact that most of the country's inhabitants are active in the informal sector, which makes it very difficult to regulate them.

To deal with the various and complex issues related with communication, coordination, capacity building and institutional strengthening there will be qualified Safeguard Specialists and a Communication Officers in the relevant provinces stationed at IDPPE. Synergies between this project and other that the MF/IDPPE and INAQUA have (e.g. SWIOFish, PPACG, etc.) should be established to share experiences and lessons learned, including the sharing of resources.

11.2 Proposed Training and Awareness Programs

Stakeholders will need to be trained about the Safeguard instruments and processes; IDPPE project staff should participate in this training, which would have the following general objectives:

- sensitize the various stakeholders on the linkages between environment and social impacts and Project subprojects,
- demonstrate the role of the various key players in the implementation and monitoring of the safeguards instruments (ESMF-ESIA/ESMP, RPF/RAP, etc.);
- sensitize representatives and leaders of community groups and associations (who will in turn convey the message to their respective communities) on the implementation and management of the mitigation measures; and on their roles in achieving environmental and social sustainability;
- ensure that both provincial and district level personnel are able to provide leadership and guidance as well as supervise the implementation of their components in the ESIA/ESMP, RPF/RAP, etc.;

- ensure that participants are able to analyze the potential environmental and social impacts, and competently prescribe mitigation options as well as supervise the implementation of management plans;
- strengthen local NGOs and teams of extension workers to provide technical support to the farmers.

The stakeholders have different training needs for awareness raising, sensitization, and comprehensive training, namely:

- awareness-raising for participants who need to appreciate the significance or relevance of environmental and social issues, that go even beyond just safeguards (i.e. gender mainstreaming, social accountability and/or grievance redress mechanism, etc.);
- sensitization for participants who need to be familiar with the ESIA/ESMP and RAP and to monitor its implementation; and
- Comprehensive training for participants who will need to understand the potential adverse environmental and social impacts and who will at times supervise implementation of mitigation measures and report to relevant authorities.

Practical ways of reaching all target groups will need to be devised for training and capacity needs assessments as well as for delivery of the training. The "*Learning by Doing*"[23] approach in relative detriment of studies and other forms of advice and assistance will be given priority consideration. The training of trainers is also seen as a relevant approach as it will assist in the creation of basic conditions for sustainability and replication of the interventions. The outcomes of such a process will live beyond the life span of Project.

11.3. Technical Assistance (TA)

In addition to other forms of TA foreseen for the project efforts should be made to ensure that where and when necessary, TA is made available to tackle specific issues related with the adequate implementation of the ESMF requirements. In due course the need for short, medium and long term Technical Assistance will be assessed. The results will be used to devise the best approach to deploying TA to the project. A specific TA position will be added to IDPPE as a consultant supported by Bank funds; this person should have competency in interpreting, analyzing, and implementing ESMF requirements and can assist in the development of a training program (section 11.2).

[23] In which relevant personnel at the various levels are exposed to examples of good practices and/or where they learn by seeing and/or doing how things are approached and done.

12 ESMF MONITORING REQUIREMENTS

Monitoring will be fundamental to ensure that the objectives set forth in the ESMF and the ESIAs/ESMPs, and RAPs are being achieved satisfactorily and where there are nonconformities to, timely, introduce changes. This will be a continuous process and will include compliance and outcome monitoring. The aim is to verify key concerns on compliance with the ESMF, implementation progress and extent of effective consultation and participation of local communities.

National Office, especially the safeguard specialists, will have the overall responsibility for coordinating and monitoring the implementation of the ESMF. They will have to conduct sensitization programs to inform stakeholders about the framework, how it works and what will be expected of them. They will undertake continuous compliance monitoring and evaluation to ensure that:

- All project activities are implemented according to the environmental and social management requirements of this ESMF, and PF and, where applicable, specific Environmental and Social Management Plans (ESMPs);
- Problems arising during implementation are being addressed early enough to avoid any spill-over that could subsequently hinder the outcomes of the project (i.e. issues of Grievance Redress Mechanism); and
- Environmental and social mitigation or enhancement measures, designed as per this ESMF or additional environmental and social mitigation measures identified during project implementation and/or ESIA/ESMP preparation, are reflected within specific ESMPs, CESMPs and monitoring plans.

The National Office will consult and coordinate with the appropriate government agencies on social and environmental monitoring. Quarterly progress reports will be prepared and circulated to all relevant entities covering aspects such as:

- Implementation schedule;
- Extent of community involvement;
- Allocation of funds;
- Problems arising as well as solutions devised, during implementation; and
- Efficiency of contractors in fulfilling their environmental, social, health and safety management contractual obligations;
- Efficiency of Supervising Engineers in fulfilling their environmental, social, health and safety monitoring contractual obligations.

The Project will (i) conduct the monitoring and evaluation of the sub-project activities, and (ii) verify the effectiveness of measures for mitigation of negative impacts and enhancement of the positive ones. This may be conducted through procurement of an external independent consultant/firm, but should at a minimum include a monitoring and evaluation plan (including questionnaires and inventory forms) from terms of reference, based on the ESMPs and CESMPs submitted to and approved by the GOM and the WB/IDA.

13 PROPOSED ESTIMATED IMPLEMENTATION BUDGET.

Below is the itemized budget for preparing and implementing the ESMF and respective ESIAs/ESMPs, including monitoring, evaluation, auditing and capacity building.

Table 3: Estimated budget for ESMF implementation

Item	Total Amount in US$
ESMF Implementation	
Project start-up and preparation for implementation	$10 000
Contracting of ESMF service providers and mobilization	$40 000
Sub-project identification, preparation and monitoring assistance	$25 000
General technical assistance	$45 000
Specific technical assistance	$30 000
Monitoring	$25 000
Inspection	$20 000
Annual review	$8 500
Triennial audit	$10 000
Training and Capacity Building	
At central level	$7 500
At provincial level	$12 500
At district/municipal level	$15 000
Extension workers and other technical personnel at the grassroots level	$12 500
Producers' associations and SMEs	$40 000
NGO, CBO, Community Associations	$12 000
Preparation and implementation of ESIAs, ESMPs, RAPs	
Preparation and implementation of ESIAs, ESMPs	$45 000
Total	**$358 000**

The total cost of preparing and implementing ESMF, and the ESIAs/ESMPs under this document stands at **US$ 358 000** (Three Hundred, Fifty Eight Thousand American Dollars).

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Annexes

Annex 1: Status Quo of Preparation of District Land Use Plans in the Potential Project Area (provinces)[24]

[24] These might require an updating.

PROVÍNCIA	ORDEM	TOTAL DE PLANOS	DISTRITOS COM PLANOS ELABORADOS	ANO DE ELABORAÇÃO	DISTRITOS SEM PLANOS
CABO DELGADO	1	1	Pemba Metuge	2008	
	2	2	Mecufi	2008	
	3	3	Balama	2009	
	4	4	Montepuêz	2009	
	5	5	Macomia	2009	
	6	6	Chiúre	2009	
	7	7	Namuno	2009	
	8	8	Ancuabe	2009	
	9	9	Mueda	2010	
	10	10	Nangade	2010	
	11	11	Meluco	2011	
	12	12	Ibo	2011	
	13	13	Muidumbe	2011	
	14	14	Quissanga	2011	
	15	15	Mocimboa da Praia	2012	
	16	16	Palma	2012	
Total de distritos com planos = 16					

PROVÍNCIA	ORDEM	TOTAL DE PLANOS	DISTRITOS COM PLANOS ELABORADOS	ANO DE ELABORAÇÃO	DISTRITOS SEM PLANOS
NAMPULA	25	1	Mossuril	2009	Moma
	26	2	Ilha de Moçambique	2008	Mongicual
	27	3	Nacala - Porto	2009	Eráti
	28	4	Angoche	2008	Memba
	29	5	Nacala -a- Velha	2010	Nacarôa
	30	6	Mongovolas	2011	
	31	7	Murrupula	2011	
	32	8	Monapo	2010	
	33	9	Nampula Rapale	2011	Total Distritos Sem Planos = 5
	34	10	Muecate	2011	
	35	11	Mecuburi	2011	
	36	12	Malema	2012	
	37	13	Ribaúe	2012	
	38	14	Meconta	2012	
	39	15	Lalaua	2012	
Total de distritos com Planos = 15					

Source: MICOA (2012)

PROVÍNCIA	ORDEM	TOTAL DE PLANOS	DISTRITOS COM PLANOS ELABORADOS	ANO DE ELABORAÇÃO	DISTRITOS SEM PLANOS
ZAMBÉZIA	40	1	Mocuba	2009	Namarroi
	41	2	Pebane	2009	Gurué
	42	3	Alto Molócué	2009	Lugela
	43	4	Namacurra	2009	**Total de distritos sem Planos = 3**
	44	5	Mangaja da Costa	2009	
	45	6	Chinde	2009	
	46	7	Morrumbala	2011	
	47	8	Mopeia	2011	
	48	9	Gilé	2011	
	49	10	Nicoadala	2012	
	50	11	Ile	2012	
	51	12	Milange	2012	
	52	13	Inhassunge	2012	
Total de Distritos Com Planos = 13					

PROVÍNCIA	ORDEM	TOTAL DE PLANOS	DISTRITOS COM PLANOS ELABORADOS	ANO DE ELABORAÇÃO	DISTRITOS SEM PLANOS
SOFALA	62	1	Nhamatanda	2009	
	63	2	Muanza	2009	
	64	3	Machanga	2009	
	65	4	Cheringoma	2009	
	66	5	Chemba	2009	
	67	6	Buzi	2009	
	68	7	Maríngue	2009	
	69	8	Caia	2011	
	70	9	Marromeu	2011	
	71	10	Gorongoza	2012	
	72	11	Dondo	2012	
	73	12	Chibabava	2012	

PROVÍNCIA	ORDEM	TOTAL DE PLANOS	DISTRITOS COM PLANOS ELABORADOS	ANO DE ELABORAÇÃO	DISTRITOS SEM PLANOS
INHAMBANE	**81**	**1**	Inhassoro	2009	Govuro
	82	**2**	Vilankulos	2009	Homoine
	83	**3**	Zona Costeira de Tofo	2009	
	84	**4**	Jangamo	2009	
	85	**5**	Funhalouro	2010	**Total de Distritos sem Planos = 2**
	86	**6**	Massinga	2011	
	87	**7**	Mabote	2011	
	88	**8**	Morrumbene	2011	
	89	**9**	Panda	2011	
	90	**10**	Inharrime	2012	
	91	**11**	Zavala	2012	

PROVÍNCIA	ORDEM	TOTAL DE PLANOS	DISTRITOS COM PLANOS ELABORADOS	ANO DE ELABORAÇÃO	DISTRITOS SEM PLANOS
MAPUTO	105	1	Boane	2010	
	106	2	Matola	2010	
	107	3	Magude	2011	
	108	4	Moamba	2011	
	109	5	Matutuine	2011	
	110	6	Marracuene	2012	
	111	7	Manhiça	2012	
	112	8	Namaacha	2012	
Total de distritos com Planos = 8					

Annex 2: Environmental and Social Screening Form for subprojects

Nr of order :……	Date of filling

This ESSF form is designed to assist in the environmental and social screening of Project sub-projects to be executed in the field on-site.
Subproject Location:……
Project Leaders:……

Part A: Brief description of the subproject
……

Part B: Identification of environmental and social impacts

Environmental and social concerns	Yes	No	Remarks
Sector resources			
Will the subproject require large volumes of construction materials from the local natural resources (sand, gravel, laterite, water, wood construction, etc.)?			
Does it require vast clearing or acquisition of land areas?			
Biodiversity			
Will the subproject cause impacts on endemic, rare, vulnerable species (i.e. IUCN Red List species) and or important economic, ecological, physical cultural resources and components			
Are there any areas of environmental or ecological sensitivity that could be adversely affected by the subproject? E.g., forests, wetlands (lakes, rivers, seasonal floodplains), etc.			
Protected areas			
Does the subproject area (or its components) have impact on protected areas (national parks, national reserves, protected forests, a World Heritage Site, etc.)			
If the subproject is outside protected areas, but at a short distance from protected areas, could it adversely affect the ecology within the protected area? (e.g. interference with the flight of birds, migration of mammals)			
Geology and Soils			
From the geological or soil point of view are there unstable areas (erosion, landslide, collapse)?			
Are there any areas at risk of soil salinization?			
Landscape/aesthetics			
Will the subproject have any adverse effect on the aesthetic value of the landscape?			
Historical, archaeological or cultural sites			
Has the subproject the potential to change one or several historic, archaeological, cultural sites, or require excavations?			
Loss of assets and other			
Does the subproject trigger the temporary or permanent loss of natural or critical natural habitat, crops, agricultural land, grazing, fruit trees, houses and domestic infrastructure?			
Pollution			
Is the subproject likely to cause high levels of noise?			
Has the subproject the potential to generate significant amounts of solid and liquid wastes? (i.e. waste oils, high BOD effluents, heavy metals, other toxic chemicals, pesticides, fertilizer pollution, etc.)			
If "yes" has the subproject client prepared a plan for waste collection and disposal or management?			

Environmental and social concerns	Yes	No	Remarks
Is there Environmental and Social Management Capacity and Equipment?			
Is there any risk that subproject could affect the quality of surface water, groundwater, drinking water sources			
Has the subproject any potential of affecting the atmosphere and causing air pollution (dust, PM10, various gases such NOx, SO2, etc.)			
Lifestyle			
Does the subproject have any potential of causing alterations in the lifestyle of local people?			
Could the subproject lead to the accentuation of social inequalities?			
Does the subproject have the potential to lead to incompatible uses of resources or to social conflicts between different users or is there a risk that local communities could lose the access to their land or lose the use rights of their land?			
Health and Safety			
Does the subproject have the potential to lead to risks of accident for workers and communities?			
Does the subproject have the potential to cause risks to the health of workers and the communities? (i.e. HIV/Aids)			
Does the subproject have the potential to lead to an increase in the population of disease vectors? Malaria, Intestinal and Urinary Bilharzia and others			
Local Incomes			
Does the subproject create temporary or permanent jobs?			
Does the subproject promote the increase of agricultural production and/or create other income generating activities?			
Gender Concerns			
Does the subproject promote the integration of women and other vulnerable groups and provide them access to resources such as irrigated agriculture, markets, etc.?			
Does the subproject take into account the concerns of women and does it encourage their involvement in decision-making?			

Public Consultation and Participation
Have public consultation and participation been sought?
Yes____ No___
If "Yes", briefly describe the measures taken to this effect.

Part C: Mitigation
For all "Yes" given answers briefly describe the measures taken to that effect.

Part D: Project classification and environmental and social work

- No environmental and social work needed …….. ☐
- Freestanding ESMP or SECs) …….. ☐
- ESIA with an Environmental and Social Management Plan (ESMP) ☐
- Contractor ESMP

Project classified as category:

A ☐ B ☐ C ☐

Annex 3: Preliminary Environmental Information Sheet

FICHA DE INFORMAÇÃO AMBIENTAL PRELIMINAR

1. Nome da actividade:

2. Tipo de actividade:

a) Turística ☐ Industrial ☐ Agro-pecuária ☐ Outro ☐

Especifique

b) Novo ☐ Reabilitação ☐ Expansão ☐

3. Identificação do(s) proponente(s):

4. Endereço/contacto:

_____

_____

5. Localização da actividade:

5.1 Localização administrativa:

5.2 Meio de inserção:

Urbano ☐ Rural ☐

6. Enquadramento no zoneamento:

Espaço habitacional ☐ Industrial ☐ Serviço ☐ Verde ☐

7. Descrição da actividade:

7.1 Infra-estruturas da actividade, suas dimensões e capacidade instalada (juntar sempre que possível as peças desenhadas e escritas da actividade):

7.2 Actividades associadas:

7.3 Breve descrição da tecnologia de construção e de operação:

7.4 Actividades principais e complementares:

7.5 Tipo, origem e quantidade da mão-de-obra:

7.6 Tipo, origem e quantidades de matéria-prima :

7.7 Produtos químicos citados cientificamente a serem usados: (caso a lista seja longa deverá produzir-se em anexo)

7.8 Tipo, origem e quantidade de consumo de água e energia:

7.9 Origem e quantidade de combustíveis e lubrificantes a serem usados:

7.10 Outros recursos necessários:

_____
_____
_____

8. Posse de terra (situação legal sobre a aquisição do espaço físico):

_____
_____
_____

9. Alternativas de localização da actividade:

(Motivo da escolha do local de implantação da actividade e indicando pelo menos dois locais alternativos)

_____
_____
_____

10. Breve informação sobre a situação ambiental de referência local e regional:

10.1 Características físicas do local de implantação da actividade:

Planície ☐ Planalto ☐ Vale ☐ Montanha ☐

10.2 Ecossistemas predominantes:

Rio ☐ Lago ☐ Mar ☐ Terrestre ☐

10.3 Zona de localização:

Zona Costeira ☐ Zona do interior ☐ Ilha ☐

10.4 Tipo de vegetação predominante:

Floresta ☐ Savana ☐ Outros ☐ (especifique)___

A vegetação é dominada por gramíneas, pinheiros, casuarina, coqueiros e arbustos e árvores indígenas.

10.5 Uso do solo de acordo com o plano de estrutura ou outra política vigente:

Machamba ☐ Habitacional ☐ Industrial ☐

Protecção ☐ Outros ☐ (Especifique)_____

10.6 Infra-estruturas principais existentes ao redor da área da actividade:

11. Informação complementar através de mapas

- Outra informação pertinente que julgar relevante.

Local, data (dia/mês/ano)

Annex 4: Checklist for environmental and social impacts

Program Activities	Issues to be addressed	Yes	No	If yes,
Fisheries developments o rehabilitation and operation of fish markets, training facilities and social facilities for fisher associations and women's groups; other small size infrastructures (e.g. small ponds for aquaculture; small wells for water supply;; and small infrastructure for ice machines)	• Will there any loss of vegetation during the construction and operation of the fisheries subprojects? • Are there adequate services and plans for liquid and solid waste disposal during construction and operation? • Will the waste and trash generated during the construction and operational phases of the subprojects be cleaned up and disposed of? • Will there be fire equipment and safety equipment on-site in case of an emergency or accident during construction and operation? • Is there any risk of pollution of groundwater, surface water or soil by the subproject activities? • Is there any risk of air pollution by subproject activities, e.g. fish processing, packaging, storage, freezing, transportation, etc.? • Are there any environmentally sensitive areas in the vicinity of the area of operations that may be negatively impacted? • Are there impacts on the health of local residents and the implementing and operating staff? • Are there any impacts of waterborne diseases on local communities, e.g., malaria and bilharzia? • Are there visual impacts caused by construction and infrastructure? • Are there any odors that may come from the disposal of waste from fisheries activities? • Are there human settlements or sites of cultural, religious or historical importance near the subproject site? • Will there be any conflicts/disturbances between local people and external people working for the project? • Will the project interfere with any physical/cultural resources?			If yes, draw appropriate mitigation measures described in Chapter 9 and the Annex 7. Good Fisheries Practices

Annex 5: Environmental and Social Clauses

The environmental and social clauses presented below will be integrated into Contracts for the Design, Construction, Operation and Maintenance of Program subprojects.

a. Prior arrangements for carrying out works

Compliance with laws and regulations:

The Contractor and its subcontractors must: know, respect and enforce laws and regulations in force in the country in regard to the environment, disposal of solid and liquid waste, air emission and effluent standards and allowed noise levels, hours of work, etc.; take all appropriate measures to minimize harm to the environment and people; take responsibility for any claims related to environmental non-compliance.

Permits and approvals before work

Any work carried out must be preceded by obtaining information with regard to permits (e.g., environmental permit) and administrative permissions. Before starting work, the Contractor shall obtain all permits necessary for carrying out the work under the contract: authorizations are issued by local communities, forest services (in the case of deforestation, pruning, etc.), mining services (in case of quarries and borrow sites), hydraulic services (in case of use of public water points), the Labor Inspection, network managers, etc. Before starting any works, the Contractor shall consult with the residents with whom he can make arrangements to facilitate the progress of the subproject implementation.

Meeting before starting works

Before starting work, the Contractor and the Project Manager, under the supervision of the Client, shall hold meetings with government officials, representatives of the population in the project area and relevant technical services to inform them about the consistency and duration of works, routes involved and locations likely to be affected. This meeting will enable the Client to collect people's suggestions, raise awareness on environmental and social issues and their relationships with the workers.

Identification of concessionaire networks

Before starting works, the Contractor shall investigate a procedure for identifying concessionaire networks (water, electricity, telephone, sewer, etc.) on a plan that will be formalized by Minutes of Meetings signed by all parties (Contractor, works supervisor, concessionaires).

Release of public and private domain

The Contractor should be aware of the fact that the perimeter of a public utility related to the operation is the perimeter that may be affected by the works. Work can only begin in the affected areas by private companies when they are released as a result of an expropriation process.

Environmental and social management program

The Contractor shall prepare and submit for approval by the Project Manager a detailed project environmental and social management program including: (i) a site plan showing the location of the site and the various areas of the site for project components and locations, (ii) a site plan for waste management indicating the types of waste, the type of collection considered, the storage, the method and location of disposal; (iii) the information and awareness program specifying targets,

themes and selected consultation modality; (iv) a plan for accident management and health protection stating the risks of major accidents which endanger the health or safety of staff and / or public security measures and / or health protection to be applied in the context of an emergency plan. The Contractor shall also prepare and submit, for approval by the prime contractor, a plan to protect the environment of the site, which includes all security measures to protect the site and forward a site decommissioning plan at the end of works.

The environmental and social management program will also include: the organization of staff in charge of environmental, health and safety management with an indication of the officer in charge of the Project Environmental Health and Safety Department, description of the methods to reduce negative environmental, social, health and safety impacts, the water supply and sanitation management plan, the list of agreements made with the owners and current users of private sites, etc.

b. Construction Plant and Work Camp Rules

Location standards

The Contractor shall construct temporary construction facilities in order to cause the least disturbance possible to the environment, preferably in areas already cleared or disturbed when such sites exist, or on sites that will be reused at a later stage for other purposes. The Contractor shall strictly prohibit the establishment of a base camp within a protected area.

Display rules and staff awareness

The Contractor shall display a clearly visible internal regulation in the various camp facilities specifically prescribing: respect for local customs, protection against STI / HIV / AIDS, hygiene rules and safety and environmental measures. The Contractor shall educate its staff in regard to respect for customs and traditions of the people of the area where the works are being performed and the risks of STDs and HIV / AIDS.

Use of local labor

The Contractor shall engage (besides his technical staff) as much labor as possible from the area where the works are being performed. Failing to find qualified personnel on site, it is permitted to bring a workforce from outside the work area.

Child labor

Harmful Child Labor, which consists of the employment of children that is economically exploitative, or is likely to be hazardous to or interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral or social development should not be allowed.

Respect for working hours

The Contractor shall ensure that work schedules comply with the laws and regulations in force. Any waiver is subject to the approval of the project manager. Wherever possible (except in exceptional cases provided by the prime contractor), the Contractor shall avoid performing work during the rest hours, Sundays and holidays.

Protection of site personnel

The Contractor shall make available to site personnel prescribed working clothes and in good condition and all accessories and safety protection to their activities (helmets, boots, belts, masks, gloves, goggles, etc.). The Contractor shall ensure scrupulous use of protection equipment on site. Permanent monitoring should be carried out for this purpose and, in case of violation, enforcement actions (warning, layoff, dismissal) must be applied to personnel.

Person(s) Responsible for Health, Safety and Environment

The Contractor shall appoint Health / Safety / Environment Officer(s), who will ensure that the hygiene, safety and environmental protection rules are strictly followed by all and at all levels of performance, both for workers and the population as well as others in contact with the site. He will locate health centers closest to the site to allow its staff to have access to first aid in case of accident. The Contractor shall prohibit access to the site by the public, protect it with tags and signs, indicate different access and take all order and security measures to avoid accidents.

Appointment of staff on duty

The Contractor shall provide care, supervision and safety maintenance of the site including out of hours on-site presence. Throughout the construction period, the Contractor shall have personnel on call outside working hours, every day without exception (Saturday, Sunday and holidays), day and night, to take action with regard to any incident and/or accident that may occur in connection with the works.

Measures against traffic barriers

The Contractor shall avoid blocking public access. He must constantly maintain and guarantee the movement and access of residents during construction. The Contractor shall ensure that no excavation or trench is left open at night without proper signage approved by the Project Manager. The Contractor shall ensure that temporary deviations allow for passage without danger.

c. Decommissioning of construction sites

General Rules

Upon releasing a site, the Contractor leaves the premises to their own immediate use. He cannot be released from his obligations and responsibilities without ensuring that the site is in good condition. The Contractor shall carry out all the necessary works for rehabilitation of the site and restore it to its initial or almost initial state. All equipment, materials, polluted soil, etc. will be removed and cannot be abandoned on site or surrounding area.

Once the work is completed, the Contractor shall: (i) remove temporary buildings, equipment, solid and liquid waste, leftover materials, fences, etc. (ii) rectify faults in drainage and treat all excavated areas; (iii) reforest areas initially deforested with appropriate species in relation to local forest services; (iv) protect the remaining dangerous works (well, open ditches, slopes, projections, rehabilitate quarries, etc.); (vi) install functional pavements, sidewalks, gutters, ramps and other structures essential for public service. After the removal of all equipment, a report on the rehabilitation of the site must be prepared and attached to the minutes of the reception of the works.

Protection of unstable areas

During the execution of works in unstable environments, the Contractor shall take the following precautions not to accentuate the instability of the soil: (i) avoid heavy traffic and overload in the zone of instability; (ii) retain as much as possible the vegetation or restore it using native species where there are erosion risks.

Control the execution of environmental and social clauses

The Project Manager, whose team should include an environmental expert who is part of the mission control team, shall verify compliance and the effectiveness of the implementation of the environmental and social clauses by the Contractor.

Notification

The Project Manager shall notify the Contractor of any event of default or non-performance of environmental and social measures. The Contractor shall rectify any breach of the regulations duly notified to him by the Project Manager. Costs of restarts or additional works arising from non-compliance shall be borne by the Contractor.

Sanction

Pursuant to contractual non-compliance with environmental and social clauses, duly noted by the Project Manager, may be grounds for termination of the contract. The Contractor whose contract has been terminated due to non-implementation of environmental and social clauses may be subject to sanctions up to suspension of the right to bid for a period determined by the Client, with a reduction on the price and blocking the pay back of the guarantee.

Reception of the works

Failure to follow these terms exposes the Contractor to provisional or final refusal of acceptance of the works, by the reception Commission. The implementation of each environmental and social measure may be subject to partial acceptance involving relevant departments.

Obligations under the guarantee

The obligations of the Contractor run until the final reception of the works that will happen only after the complete execution of the works to improve the environment as stated in the contract.

d. Environmental and Social Clauses

Works signage

Prior to the opening of construction sites and whenever necessary the Contractor shall place, pre-signage and signage within an appropriate distance in line with the laws and regulations in force.

Measures for the movement of construction equipment

During the works, the Contractor shall limit vehicle speeds on site by installing signs and flag bearers. In residential areas, the Contractor shall establish the schedule and route for heavy vehicles, which must circulate outside the sites to minimize nuisances (noise, dust, risk of accidents and traffic congestion) and carry approval of the project manager.

Only strictly necessary materials will be tolerated on the site. Outside access, designated crossing places and work areas, it is prohibited to operate construction equipment.

The Contractor shall ensure that the speed limit for all vehicles on public roads, will be a maximum of 60 km/h on rural roads and 40 km/h in urban areas and through villages. Drivers exceeding these limits shall be subject to disciplinary action up to and including dismissal. The installation of speed humps or water spraying in settlements will be recommended in order to reduce the risk of accidents and reduce the nuisance of dust.

Vehicles of the Contractor shall, at all times, comply with the requirements of the Highway Code in force, particularly with regard to the weight of the laden vehicle.

The Contractor shall, during the dry season and depending on water availability, regularly spray water on dusty roads/tracks used by its transport equipment to avoid dust, especially in populated areas.

Protection of crossing areas and agricultural activities

The work schedule should be established in such a way as to minimize disruption of agricultural and fisheries activities. The main periods of activity must be known in particular to adapt the construction schedule to these important socioeconomic activities. The Contractor shall identify where crossings for animals, livestock and people are needed. Again, the involvement of the population is paramount.

Protection of wetlands, fauna and flora

It is forbidden for the Contractor to establish temporary installations (storage areas and parking, or paths to circumvent works, etc.) in wetlands, including the filling of existing temporary pools. In the case of vegetated areas, the Contractor must adapt to the local vegetation and be careful not to introduce new species without consulting the forestry services. For all deforested areas lying outside the ROW and required by the Contractor for the purposes of its works, the top soil must be kept separate and restored afterwards.

Protection of sacred sites and archaeological sites

The Contractor shall take all necessary measures to respect the cultural and cultural sites (cemeteries, sacred sites, etc.) existing in the vicinity of the works and not interfere them with. For this purpose he must first identify their type and location before starting the works.

If, during construction, remains of places of interest for worship, historic or archaeological value are discovered, the Contractor shall follow the following procedure: (i) stop work in the area, (ii) immediately notify the Project Manager who must take steps to protect the site to avoid destruction by defining a protection perimeter on the site within which no activity shall be carried on, and (iii) to refrain from removing and moving objects and relics. The work must be suspended within the scope of protection until the national body responsible for historic and archaeological sites has given permission to continue.

Measures for logging and deforestation

In the case of deforestation, felled trees must be cut and stored in locations approved by the Project Manager. Local residents should be aware of the possibility that they can make use of this timber at their convenience. Concrete measures should be in place to regulate that potential access to the timber as it may have a potential to cause conflicts between community members. Felled trees should not be left on site or burned or fled under the earth materials. Felled trees should be compensated in natura or in monetary value, depending on the existing applicable laws.

Liquid Waste Management

The Contractor shall prevent spills and wastewater discharge, oil and all kinds of pollutants in surface water or groundwater or on soils. The Project Manager will provide treatment methods, disposal procedures, disposal sites and drainage locations to the Contractor.

Solid waste management

The Contractor shall deposit the garbage in bins to be emptied and sealed periodically. In case of evacuation of the site by trucks, bins should be sealed to prevent the waste spillage. For hygiene reasons, and in order to not attract vectors daily collection is recommended, especially during hot periods. The Contractor shall dispose of or recycle the wastes in an environmentally sound manner. For this purpose the Contractor should store waste in labeled containers. The Contractor shall deliver the waste, if possible, to existing disposal sites. A specific and detailed national regulation on this is encouraged to be used as a guideline.

Protection against noise pollution

The Contractor shall limit construction noise in order not to disturb residents, either by excessively long duration, or by their extension outside of normal working hours. Thresholds are not to exceed 55 decibels (dB) during the day and 45 decibels at night.

Prevention against STD / HIV / AIDS and related diseases

The Contractor shall inform and educate staff on the risks of STD / HIV / AIDS. He must make sufficient and good quality condoms available to staff free of charge to be used against STDs and HIV / AIDS infections. Local communities should also be informed about the risks of STDs and HIV / AIDs.

The Contractor shall inform and educate employees on safety and health at work. He must maintain the safety and health of workers and local populations and take appropriate measures for this purpose. The Contractor shall provide the following preventive measures against the health and safety risks: (i) enforce the wearing of masks, uniforms and other appropriate footwear and equipment; and (ii) systematically install a medical clinic at the construction site and provide free medications necessary for emergency care on site for the staff.

Site journal

The Contractor shall maintain a log yard, which will record complaints, violations, accidents or incidents that have a significant impact on the environment or impacts on the local communities. The site log is unique to the site and notes must be written in ink. The Contractor shall inform the general public and local residents in particular, about the existence of this journal, with an indication of where it can be accessed.

Equipment maintenance and equipment projects

The Contractor shall comply with the maintenance standards for construction equipment and vehicles and conduct refueling and lubricant in a place designated for this purpose. Refueling should take place on a concrete slab. Fuel tanks should be placed within a concrete bund of 110% volume the volume of the fuel tank or tanks. Oil/water separators should be installed where there is a risk of pollution with hydrocarbons, e.g., at vehicle maintenance sites. On the site, provision of absorbent materials and insulators (pillows, sheets, tubes and peat fiber, etc.) as well as sealed containers clearly identified for receiving petroleum residues and waste, must be present. The Contractor shall perform, under constant surveillance, handling of fuel, oil or other contaminants, including the transfer to avoid spillage. The Contractor shall collect, process and recycle all waste oil, and waste in operations and maintenance or repair of machinery. It is forbidden to discharge any hydrocarbons or other dangerous chemicals into the environment or on the construction site.

The Contractor shall drain the waste oils in sealed drums and retain oils to return it to the supplier (recycling). Used spare parts must be sent to the landfill or disposed of in another environmentally acceptable manner.

Washing areas and areas for maintenance of equipment and vehicles must be from concrete and equipped with a collection system for oils and fats, with a slope oriented to prevent the flow of pollutants to areas with bare soil. Concrete mixers and equipment for the transportation and installation of the concrete should be washed in the areas provided for this purpose.

Dust control

The Contractor shall select the location of crushers and similar equipment based on noise and dust they produce. Goggles and dust masks are mandatory.

Annex 6: Summary of Main Issues from the Public Participation/Consultation Process

(Use is made of the results emanated from SWIOFISH and PPACG Projects)

REPUBLIC OF MOZAMBIQUE
MINISTRY OF FISHERIES
SUMMARY OF ISSUES RAISED DURING MEETINGS WITH STAKEHOLDERS

Minutes of public consultation meetings in the Districts of Morrumbene, Maxixe and Jangamo, on September 12, 2014.

To allow the project implementation in Inhambane to go according to the fishing needs of the beneficiaries and communities and in accordance with the principles of good environmental and social management, IDPPE headquarters, hired a consultant to prepare the environmental and social safeguards of the project on **Community Based Coastal Resource Management and Sustainable Livelihoods (PPACG).** As part of the consultancy public consultation meetings were held in 3 of the 4 major areas of project implementation. As foreseen in the legislation public meetings were guided by two main objectives, namely: (i) keep people informed about the project and safeguard instruments; and (ii) collect from beneficiaries and persons/entities potentially affected by the project their views, contributions and concerns regarding the project.

On September 12, 2014, Mr. Mário Souto (Consultant) and the local IDPPE technician from Maxixe District Mr. Faustino Miguel, worked with the following Fishing Communities:

- **CCP Cocane and Associatio of Morrumbene Fishermen (In the same district);**
- **CCP Chicuque, Ligoga Association of Fishermen and PCR (Savings and Revolving Credit Fund) Vuca Fisherman (District of Maxixe);**
- **CCP Paindane (In Jangamo)**

In the lines that follow is a summary of how the three meetings developed:

Morrumbene

CCP Cocane and Associa tio Fishermen Morrumbene (District Morrumbene)
When it was 08h 50 mn, at the headquarters of the Association of Fishermen of Morrumbene the team met with the community of fishermen, which was attended by 30 members of whom **22** were men and **8** women.

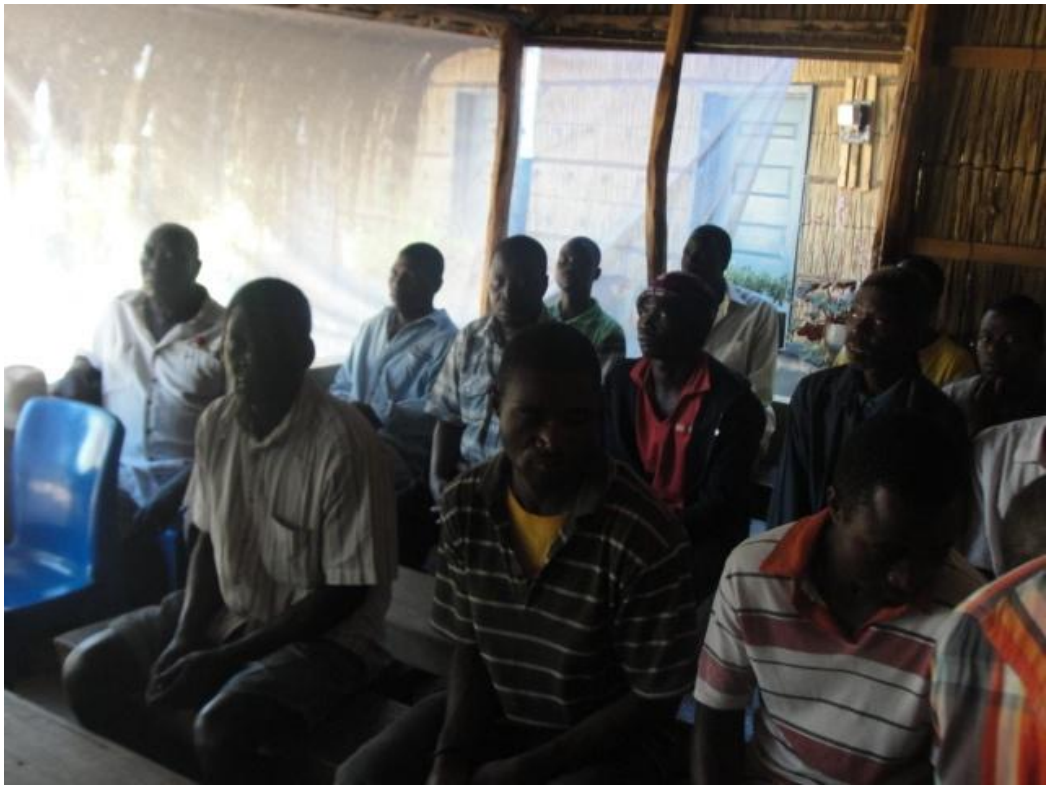
After the general introductions the Consultant started the meeting by presenting the project by highlighting that the same had the following objectives:

(i) raise environmental awareness and understanding of the value of community-based resource management planning,
(ii) create a pilot Coast-Watch Network,
(iii) provide training in alternative and more sustainable resource use (seaweed production and other mariculture) to local residents of coastal villages; and
(iv) provide training in microenterprise management.

The project will also endeavor to build capacity of the communities to undertake a diversity of adaptation measures to counteract the negative effects of climate change

After the presentation of the Project the Consultants invited participants to make their contributions, whereupon the following questions were presented:

Public meeting in Morrumbene



Issues raised (participants)	Feedback given
Mr. Pedro Lucas ▪ Catches are low due to wear of resources. Only fishermen with means for deep sea fishing (who re not so many) have some success ▪ Lack of conditions for conservations (when we can catch a lot of fish) from the months of December to April ▪ Possible effects of climate change that might explain the scarcity of resources ▪ Increased fisheries techniques and limited space for fishing. Increase sand banks due to erosion.	▪ The Institutes **(IDPPE)** or the Government in general should encourage the availability of fish in the sea by promoting ideas of co-management ▪ There must be good interaction between the fishermen and the Government and other government related institutions ▪ With proper knowledge and effective investments it is possible to derive many benefits from aquaculture, e.g. the **Vietnam** is similar to Mozambique in many aspects, but it has a turnover of about US$ 2 billion from fisheries (in which aquaculture plays an important role) based on good practices, techniques and necessary technical assistance will laugh, while Mozambique only produces close to 10% of that based

Issues raised (participants)	Feedback given
Mr. Raul Camba ▪ Damaged anchorage which makes landing difficult (f unfulfilled promises by the District Government to rebuild it) ▪ Conservation equipment was not purchases for local association (after it was damaged) and the beneficiary community was not adequately consulted	on techniques that are deficient and other barriers ▪ Ideally, the fishermen should not engage in many activities and they should specialize to work in their specific area of activity. In the long run specialization is associated with benefits. Dispersing through many activities prevents specialization from happening and in the end that creates a situation where people get little or nothing in each activity. The project will support aquaculture. It would be good to have a constructive interaction between promoters and the beneficiaries in order to translate the resources to be made available to tangible results. ▪ Another example that can be given although in another business sector, i.e. agriculture is that **Thailand** exports rice based on small farms owned by small producers. But for this to happen there is agricultural research and among other aspects the varieties of rice they use are more productive, with short-cycle, etc. so that in 1ha they produce 10 tons or more while we harvest about 1 ton in Mozambique. Again is a matter of research and investment ▪ These and more examples can be used to enlighten what needs to be done in our fisheries, notably: o We have to be specialized within the area. o Use the right varieties/species. o Adopt the right technologies. o Adopt the right periodization o There has to be effective collaboration or interaction between the fishing communities and the government (technicians in the sector).
Mr. Jacinto Romeo ▪ Lack of means of production (fishing nets); ▪ The Government of the District was deceived by ISEC in the amount of MZM 460,000.00 in regard to the purchase of conservation equipment after it was damaged after a short period of operation ▪ Fishermen dependent excessively on fisheries, there must be alternatives to fishing activities during the approximately 90 of the closure period ▪ Lack funds and practical knowledge to practice aquaculture	

Maxixe

CCP Chicuque and Ligoga Association of Fishers and PCR (Savings and Revolving Credit Fund) Vuca Fisher (District of Maxixe)

At 11h 09mn, the same technicians mentioned above started a meeting with the Fisheries Community Council of Chicuque, Ligoga Association of Fisherman and PCR Vuca Fisherman at their headquarters in Chicuque, City of Maxixe, where **23** members participated of which **21** were men and **2** where women. After the presentation of the objectives of the Project, the Consultant explained that fisheries is an activity that employs a lot of people, generates more money and greater net value in the country, more than what mines at Moatize Coal and Gas in Cabo Delgado can do. Together with agriculture fisheries is the basic activity for the Mozambican economy and should be more empowered technically and financially. This is one of the project justifications.

The Consultant then asked the group to present the problems they faced in their work, and among aspects the following was mentioned:

Public meeting in Maxixe

Issues raised (participants)	Feedback given
Mr. Alfredo Bernardo ▪ Weak technical capacity within the sector ▪ Lack of fisheries resources in the bay due to depletion ▪ Much effort undertaken and very few results or	▪ The Institute **(IDPPE)** or Government should encourage the availability of fisheries in the sea by promoting co-management ▪ There must be good interaction between the fishermen and the Government Institutes in order to reap effective results in various initiatives that are undertaken.

Issues raised (participants)	Feedback given
earnings ▪ Boats, practices and means used will to carry out the activity are inadequate to fish on the high seas, which is where a lot of fish can still be caught ▪ Lack of financing and technical support to effectively carry out aquaculture. Some time ago there was capacity building in the area but that was it. There was no follow up and people have already have forgotten what they learned ▪ Lack of support in specific aspects (e.g. fishing equipment, appropriate boats) allocated to fishermen in the form of credit that can be repaid gradually. ▪ **The Fisheries Institute,** based on a sample collected locally made an analysis of the existing situation in terms of availability of fisheries resources but it never disseminated the results in regard to reproduction period of the species, maturation status, spawning cycle, etc. to allow us to to choose the best closure period. **Hilario Eduardo Zacarias** ▪ Fisheries technologies are rudimentary ▪ Lack of direct financial support to fishermen **Zechariah Macassa**	Then again the Consultant went on to make use of the same examples that had presented at the meeting of Morrumbene on good cooperation between producers and government institutions, research, extension and financial institutions that occur in other countries that can be adapted to the reality of Mozambique. He gave the example of the volumes of fish in Vietnam and rice production in Thailand. He emphasize that: ▪ Fishermen should avoid dispersing through many activities and should be specialized in their main activity ▪ The Project has resources to support aquaculture ▪ In Mozambique there is a need to find ways of operationalizing all these aspects and transform our potential into wealth. ▪ He agreed that there is a need for financial institutions to be specialized to adequately deal with fisheries sector, and to give time and other facilities to those who are active in the sector. At the moment this is not happening and it can be a barrier. There is a need to continue working on it and to keep an active dialogue between producers and other agents. That is the reason why the project gives much importance to facilitating meetings, debates, capacity building, etc. to better deal with all these aspects in a constructive way and that translates into concrete results ▪ Communities should ensure and insist with the various entities in order to reach concrete results.

Issues raised (participants)	Feedback given
▪ Government should subsidize the shops for the sale of fishing supplies.	

Jangamo

CCP Paindane (in Jangamo)

When was 14h 30mn the same team mentioned above met with the Community Council of Fisheries in Paindane the District of Jangamo, where there were present only four people all of them men. There had been a death in the area and most people had to participate in the funeral. So the meeting was simplified in Jangamo

The meeting followed the same sequence, presentation of the project and seeking to know the difficulties and opinions of the Community. were cited among others the following:

The meeting in Jangamo

Issues raised (participants)	Feedback given
Mr. M Mario Nhaguilunguane ▪ Fishermen do not have fishing equipment n money to buy boats to fish beyond 3 miles from the coast ▪ There is poultry farming in the area but there is no market and producers do not have freezing facilities to conserve produce including fishing products **Mr. Tomas João** ▪ Would like to buy a boat and mesh but does not have money.	▪ In response, the Consultant said that almost all communities have the same problems and that he would channel them to the promoters and that to the extent possible these could be solved. ▪ He asked participants to be more proactive in bringing forward all these issues when the project starts its implementation and that they should discuss with all parties for the prevailing problems to be solved.

Attached is the list of participants of the fishing communities who participated in the meetings in the Districts Morrumbene, Maxixe and Jangano.

REPUBLIC OF MOZAMBIQUE
MINISTRY OF FISHERIES
SUMMARY OF ISSUES RAISED DURING MEETINGS WITH STAKEHOLDERS (CABO DELGADO, NAMPULA, SOFALA AND ZAMBEZIA PROVINCES)

PROVINCE: Cabo Delgado

INTRODUCTION

Cabo-Delgado is located in the Northern region of Mozambique. For the consultations various key stakeholders were contacted. These were informed on the Program, and subsequently their views and opinions on the main issues relating to Environmental Management and Resettlement were recorded. The stakeholders also provided contributions to the Environmental and Social Management and Resettlement Policies being elaborated by Ministry of Fisheries as this was the main objective of the consultations.

MAIN FINDINGS

IDPPE Cabo Delgado - Manuel Daniel, Juliana M. Supeta, Acácio Mussa

IIP Cabo Delgado – Afonso Lino Maruse, Sérgio José,

All the interviewed government representatives admitted that small scale fisheries activities in Pemba have the potential to grow, however there are challenges throughout the whole production chain. One of the main challenges faced in the sector is to attract the private sector to invest in supplying fishing equipment in Pemba, at an affordable price for the small scale fishermen. According to the respondents, Pemba also lacks key infrastructures such as workshop areas as well as trained personnel dedicated to undertake building, maintenance and repair of fishing boats used by small scale fishermen. Additional infrastructures required are primary vendors' markets equipped with appropriate freezers for better storage of fisheries products.

The respondents also call for the need to construct demonstration centers where appropriate fishing methods, storage, handling, inspections and marketing of fisheries products can be carried out by competent government staff at provincial and district levels. They acknowledged that despite the growing number of fishermen, there is limited government technical and financial capacity (particularly in the islands) at provincial level to disseminate best fishing practices and carry out actions towards promoting sustainability in the fisheries sector.

Additionally, small scale fisherman have limited access to loans, mostly because the interest rate is significantly high for this level of fishing activities undertaken by small scale fishermen. The respondents emphasized the need to improve the working conditions for the government staff working directly with fishermen; particularly the need to consider improving their housing conditions as well as making available transportation means to facilitate the monitoring of fishing activities in Cabo Delgado. They also highlighted the need to invest on the fisherman and ensure that they have capacity to build safe fishing boats, and consider purchasing vehicles with freezers for better transportation of fisheries products from the sources to distant markets. The respondents further noted that there have been initiatives under PROPESCA to undertake assessment of the potential fisheries sites in Cabo Delgado, but such initiative should also examine the need for restructuring the fisheries sector as a whole, to contemplate the improvement of working conditions for government staff.

Regarding the development of aquaculture projects, the respondents pointed out that there are many women who on daily basis dedicate their time into collecting fisheries products such as crabs, oysters and mussels. As a result, the aquaculture projects should target those groups since they already know the importance of these species, and they may be willing to be involved in growing such species in an organized manner within specific sites, thus increasing their economic gains as well as minimizing pressure on resources growing naturally.

Regarding environmental management, the respondents indicated that due to the lack of docking sites, most activities associated to building and maintenance of boats are undertaken in the proximities of the sea in an open area, and it is likely that contaminants such as used oils and fuels from engines as well as paints are affecting the sea environment. Poor fishing practices such as the use of inappropriate fishing gears (locally known as *chicocota*) and mosquito's nets are considered to be the most significant human activities that might be contributing to declining fishing stocks. Mangrove forests known to be key systems for reproduction of marine species are also being cut to sustain human needs in construction and use as fuel (firewood). These aspects, associated to the effects of climate change might be taken into considerations when planning projects towards improving the small scale fisheries in Cabo Delgado.

SUMMARY

Environmental concerns are still novel in Mozambique, and the implications of polluting activities into the sea environment such as contaminants associated with boat painting and used oils spills from boat engines is generally poorly understood by members of the fishermen communities. The SWIOFish program therefore offers an opportunity to promote and ensure that all fisheries activities as well as the proposed civil works to improve fisheries infrastructures take into consideration environmental and social management as well as good resettlement practices in the targeted areas, regardless of the extent of the activity.

There is still a lack of coordination between different government institutions with MICOA, the Fisheries and the Municipalities in regards to monitoring of environmental impacts in the coastal zones. Thus, mainstreaming environment, building technical and financial capacity for multisectoral government entities as well as the fishermen have to be prioritized under the proposed SWIOFish program or through complementary funding initiatives. Dissemination of information and environmental regulations as well as awareness on the adverse environmental impacts on development efforts is crucial for fighting poverty in a sustainable manner.

PUBLIC CONSULTATION MEETINGS – CABO DELGADO, NAMPULA, SOFALA AND ZAMBEZIA

In order to gather public's views on the foreseen civil works program (infrastructure construction/rehabilitation) for small-scale fisheries, and in fulfilment of the requirements of both the World Bank's Environmental Guidelines and the Mozambican Environmental Law, public consultation meetings were held in Cabo Delgado, Nampula and Zambezia provinces targeted for the SWIOFish program.

The public meetings were conducted in line with the Mozambican law described by the Ministerial Diploma 130/2006 for Public Consultation. In line with the requirements of this decree, the meetings were preceded by publication in the national newspapers (Noticias) prior to the date of the meeting. Key stakeholders were also contacted by emails and telephone to inform them about the meeting and request their inputs. A summary of the project information was produced and sent to the stakeholders at the targeted provinces through the Provincial Directorates of Fisheries namely António Mário Carvalho (Cabo Delgado), Daniel Momade (Nampula), João Duarte Saize (Sofala) and Arcílio Madede (Zambézia) which were identified as focal point to liaise with interested public. The public consultation meetings took place in the following dates:

- Cabo Delgado province – June 3rd, 2014;
- Nampula Province (Nacala) – June 4th, 2014
- Nampula Province (Ilha de Mocambique), June 4th, 2014;
- Sofala Province (Beira – Praia Nova) - June 5th, 2014;
- Zambezia Province (Quelimane and Zalala) - (June 6th and 8th, 2014).

The following are summarises of the issues raised at the public meetings.

PUBLIC MEETING

Venue: Cabo Delgado – Pemba (Sala da Cruz Vermelha de Mocambique)

Date: June 3, 2014

Time: 08:30h – 10:30h

PARTICIPANTS:

Consultants:

Public: 13 participants

INTRODUCTION

The proposed **South West Indian Ocean Fisheries Governance and Shared Growth in Mozambique (SWIOFish Mozambique**), is a program through which the World Bank (WB) and the France Development Agency (AFD) will support the Government of Mozambique (GOM) to sustainably increase the competitiveness of country's fisheries sector as a way of ensuring that the

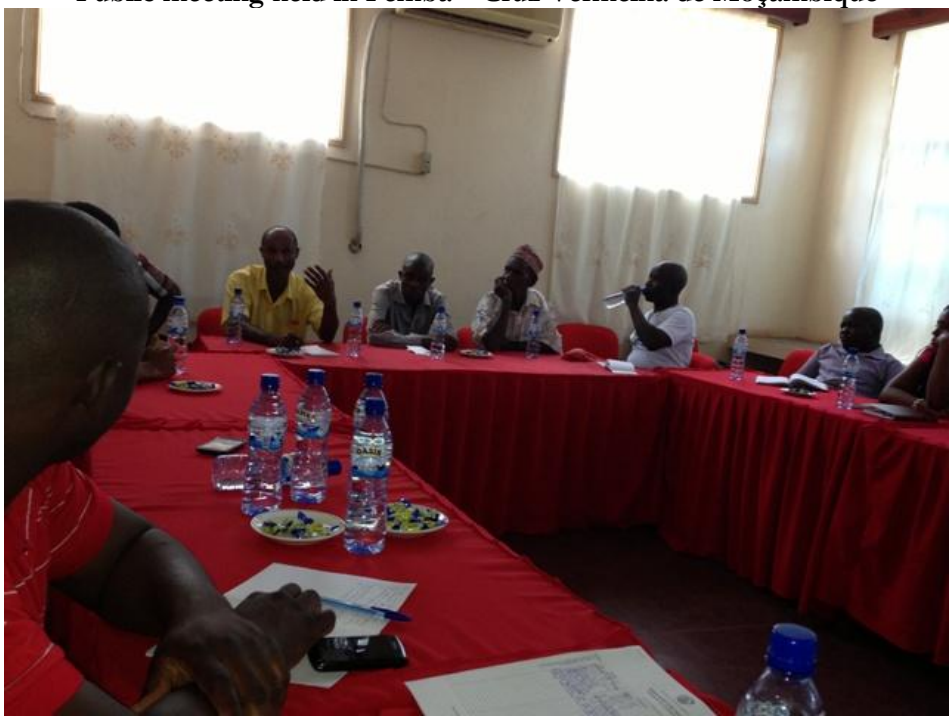
sector realizes its recognized potential of creator of employment and wealth and as a crucial contributor to the diversification of the economy.

The main objective of this meeting was to inform potentially interested and affected populations on the proposed program, as well as to gather their views or opinions for subsequent inclusion in the process of decision making for the program.

PRESENTATIONS

The meeting in Cabo Delgado was chaired by the consultant, preceded with the opening of the meeting, wishing all participants a warm welcome and a brief description of how the meeting would proceed.

Public meeting held in Pemba – Cruz Vermelha de Moçambique



PROGRAMME DESCRIPTION

The program description and objectives were made by the consultant Eduardo Langa. The consultant gave a brief introduction and explanation of the meeting's objectives, and the scope and motivation for the Construction/Rehabilitation of Infrastructure Program for the fisheries sector as well as covering the legal aspects concerning the environmental and social considerations under the World Bank policy and the Mozambican Law.

Then the consultant explained the need for Environmental and Social Management, and Process Frameworks for the Program, and described some potential negative and positive impacts that may be associated to the program. As the main goal of the meeting, the consultant proceeded by requesting the participant's opinions in relation to the challenges faced by the fisheries communities in Cabo Delgado province, as well as potential environmental and social impacts related to the program.

DISCUSSSIONS:

Questions/Issues	By whom
▪ There has been a number of projects planned for Cabo Delgado but we hardly see the results. Recently we have been having meetings promoted by PROPESCA but no results; ▪ The Climate Change initiatives to support the fishermen in Cabo Delgado have not shown any results yet; ▪ Regarding infrastructures, first vendors markets, Freezers, docking sites and workshop areas are fundamental structures to effectively promote fisheries sector; ▪ There is a need to empower the existing fishing inputs stores, as well as establish shops to sell boat's engine ; ▪ Rehabilitation of fisheries associations' headquarters can also contribute significantly to the improvement of working conditions in this sector; ▪ Lack of fishing equipment and other associated inputs is a chronic problem affecting fishing activities in Cabo Delgado as it. No loans available to support the fishermen, lack of spare parts to fix the engines. The boats used are typically rudimentary and with safety implications; ▪ Regarding environmental management, the Pemba area is faced with the sanitation problems, lack of toilets and the sea sites are used for toilets, hence potentially causing health problems; ▪ Inadequate fishing gears and inappropriate net mesh such as the use of mosquito's nets which kill juvenile fish as well as eggs, and therefore affecting the fish stocks; ▪ Devastation of mangrove forests and other types of forests to obtain timber for the manufacturing of fishing boats; ▪ In the past the government took responsibility to subsidize the building of work yards and workshop areas for the boat repairs – Today the municipality should take this responsibility to subsidize the sector of create incentives for commercial operators to operate in buying and selling of fisheries equipment. ▪ The proposed SWIOFish project should not only look at the infrastructures, but also other aspects complementary to the fishing activity, such as training, funding and restructuring of the government entities working in the fisheries sector. ▪ To date the government has been working with banks and other financial institutions towards lowering the interest to make loans affordable for small-scale fishermen. Other alternative that should be considered by the government would be to subsidize fuel	(Jaime Mário Semedo– President of Fisheries Community Council of -Pemba)

Questions/Issues	By whom
▪ Although several activities to raise awareness have been taking place, poor fishing methods and poor sanitary practices prevail along the coastline of Pemba. These issues should be addressed by the proposed SWIOFish program. ▪ There should be a stronger link between the potential projects to be funded under SWIOFish and the beneficiaries, and it should be recommended that the fishermen be involved during the construction phase of the projects. Hiring of local labor is fundamental to avoid conflicts with local populations.	
▪ Fishing with the use of mosquito nets is a problem. Because there are no alternative for income generation unsustainable fishing practices are present in the province.	
Responses	**By whom**
▪ Specific Projects or activities under SWIOFish will be identified once the funding has been secured by the Mozambican Government. It is envisaged that discussions will be held at that stage with a view to prioritize activities that will be implemented. ▪ The Program forms part of the Government Poverty Reduction Program, and it stresses the importance of public involvement and the fishermen community is central to the activities under SWIOFish and public comments are be taken into consideration when prioritizing actions to be implemented.	Eduardo S. Langa

PUBLIC MEETING

Venue: Nacala – Centro de Pesca de Naherengue - Nacala.

Date: 04 June 2014

Time: 08:30h – 10:30h

PARTICIPANTS:

Consultants:

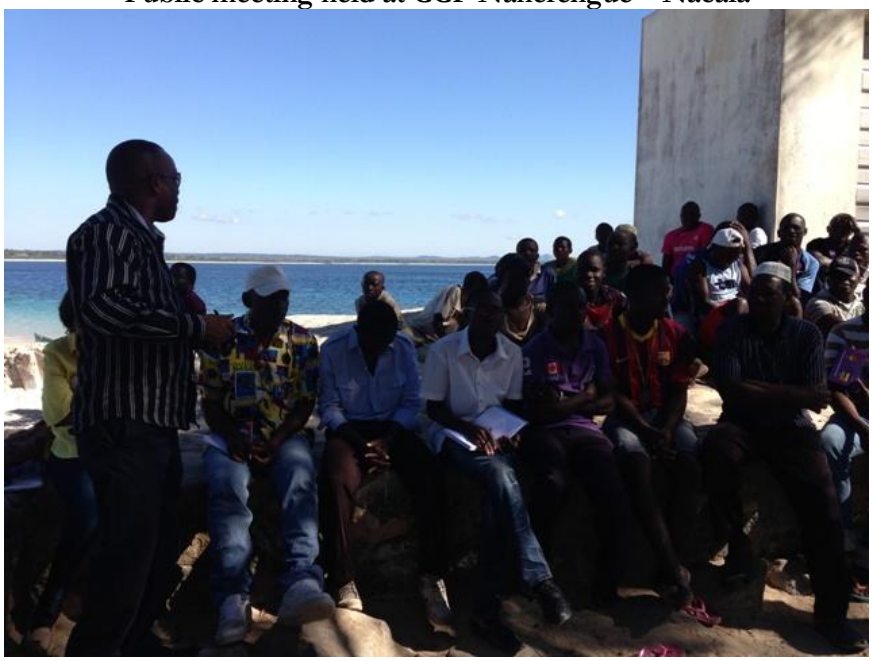
Public: 26 participants

INTRODUCTION

The program description and objectives were made by the consultant Eduardo Langa. The consultant gave a brief introduction and explanation of the meeting's objectives, and the scope and motivation for the Construction/Rehabilitation of Infrastructure Program for the fisheries sector as well as covering the legal aspects concerning the environmental and social considerations under the World Bank policy and the Mozambican Law.

Then the consultant explained the need for Environmental and Social Management, and Process Frameworks for the Program, and described some potential negative and positive impacts that may be associated to the program. As the main goal of the meeting, the consultant proceeded by requesting the participant's opinions in relation to the challenges faced by the fisheries communities in Nampula, (specifically Nacala and Ilha de Mozambique), as well as potential environmental and social impacts related to the program.

Public meeting held at CCP Naherengue – Nacala



PRESENTATIONS

The meeting in Nacala was chaired by the consultant, preceded with the opening of the meeting, wishing all participants a warm welcome and a brief description of how the meeting would proceed.

PROGRAMME DESCRIPTION

The program description and objectives were made by the consultant Eduardo Langa. The consultant gave a brief introduction and explanation of the meeting's objectives, and the scope and motivation for the Construction/Rehabilitation of Infrastructure Program for the fisheries sector as well as covering the legal aspects concerning the environmental and social considerations under the World Bank policy and the Mozambican Law.

Then the consultant explained the need for Environmental and Social Management, and Process Frameworks for the Program, and described some potential negative and positive impacts that may be associated to the program. As the main goal of the meeting, the consultant proceeded by requesting the participant's opinions in relation to the challenges faced by the fisheries communities in Nampula province, as well as potential environmental and social impacts related to the program.

DISCUSSIONS:

Questions/ Issues	By Whom
▪ The fisheries sector in Nacala lack any form of government support and this is reflected in the absence of banking institutions to make available loans with reasonable interest rates to benefit the small-scale fishing activities.	Agi Momade
▪ Lack of commercial shops operating in the fisheries sector is a major issue in Nacala. There is a general lack of fisheries inputs in Nacala. We would like to have a local dealer selling and repairing engines for boats which could take us to the high sea.	Omar Amisse
▪ In the past we had in Nacala specific shops selling fisheries equipment, but these are no longer operational, and the equipments are in short supply. Some of the equipments being sold in Nacala are inappropriate for the type of fishing practiced here. It is therefore fundamental that those who sell fisheries equipments understand what is it that the fishermen would like to purchase for their activities.	Omar Amisse
▪ The fishermen in Nacala would like to have more access to bank loans, but with interest rates compatible with the level of small-scale fishing.	Muriricho Julião
▪ Inappropriate fishing methods employed by fishermen have been one of the reasons for depletion of fisheries resources. There are two fish reserves in Nacala, but due to scarcity of fish in the bay, some fisherman tend to fish illegally in the reserves. Investment is needed to support monitoring actions with a view to preserve	Galibo Califa

Questions/ Issues	By Whom
fish stocks in Nacala.	
▪ Workshop area needed – Currently boat repairs are carried out randomly along the beach. This may potentially lead to pollution and affect the fisheries resources. The SWIOFish program should also consider creating incentives for those fishermen using "*chicocota*" with a view to providing adequate fishing equipment as a way of contributing to preservation of fisheries resources.	Galibo Califa
▪ Nacala (Naherengue) also needs "primary sales" market fully equipped with storage freezers and running water for hygienic handling of fisheries products.	Galibo Califa
▪ Fish demand in Nacala is not met with the current fish supply. As an example, all the fish caught in Nacala is completely sold in Nacala without satisfying the full demand. This is likely to be the scenario in the future particularly with significant economic growth of both Nacala Porto and Nacala-á-Velha where population growth is expected to grow further as a result of development of the Nacala Port and its ancillary infrastructure.	Galibo Califa
▪ Aquaculture development in Nacala should be seen as priority to meet fish demand in this growing market.	Galibo Califa
▪ Technical capacity of the government fisheries authority needs to be strengthened to carry out adequate supervision of the coastal zone to ensure that fish stocks are not completely depleted as well as ensuring quality through effective inspection of the fisheries product being made available in the Nacala market.	Galibo Califa

PUBLIC MEETING

Venue: Ilha de Moçambique – Conselho Comunitário de Pesca – Nacala (Nanhupo)

Date: 04 June 2014

Time: 14:30h – 16:30h

PARTICIPANTS:

Consultants:

Public: 16 participants

INTRODUCTION

The program description and objectives were made by the consultant Eduardo Langa. The consultant gave a brief introduction and explanation of the meeting's objectives, and the scope and motivation for the Construction/Rehabilitation of Infrastructure Program for the fisheries sector as well as covering the legal aspects concerning the environmental and social considerations under the World Bank policy and the Mozambican Law.

Then the consultant explained the need for Environmental and Social Management, and Process Frameworks for the Program, and described some potential negative and positive impacts that may be associated to the program. As the main goal of the meeting, the consultant proceeded by requesting the participant's opinions in relation to the challenges faced by the fisheries communities in Nampula, (specifically Nacala and Ilha de Mozambique), as well as potential environmental and social impacts related to the program.

Public meeting at CCP Nanhupo – Ilha de Mocambique

PRESENTATIONS

The meeting in Ilha de Mocambique was chaired by the consultant, preceded with the opening of the meeting, wishing all participants a warm welcome and a brief description of how the meeting would proceed.

PROGRAMME DESCRIPTION

The program description and objectives were made by the consultant Eduardo Langa. The consultant gave a brief introduction and explanation of the meeting's objectives, and the scope and motivation for the Construction/Rehabilitation of Infrastructure Program for the fisheries sector as well as covering the legal aspects concerning the environmental and social considerations under the World Bank policy and the Mozambican Law.

Then the consultant explained the need for Environmental and Social Management, and Process Frameworks for the Program, and described some potential negative and positive impacts that may be associated to the program. As the main goal of the meeting, the consultant proceeded by requesting the participant's opinions in relation to the challenges faced by the fisheries communities in Nampula province, as well as potential environmental and social impacts related to the program.

DISCUSSIONS:

Questions/ Issues	By Whom
▪ There has been a number of people coming to the Island to gather information on the fisheries, promising changes and improvements in the sector but at the end nothing happens. Perhaps they are writing their university coursework…	Ateremane Amire
▪ About aquaculture projects there is nothing happening here on Ilha de Moçambique, but we do hear that there are aquaculture projects being implemented elsewhere in Nampula. We are interested in participating in the aquaculture projects as the initiative could employ many people and also reduce current pressure on the fisheries resources on open sea.	Ateremane Amire
▪ In the past we have requested boats and other equipment to facilitate monitoring of the fisheries but we have not received and it has been difficult to undertake an effective monitoring of the fisheries on Ilha de Moçambique.	Nuro Ambasse
▪ It is really important to have the Consultants carrying out surveys here but most importantly, we need to have feedback of the decision made based on our contributions/inputs.	Amisse Alpaca
▪ In the Quissanga area, there is only one engine powered boat – so we are really happy to know that there is a possibility of funding in the small-scale fisheries sector.	Amisse Alpaca
▪ Aquaculture projects could be really a success here – species such as crabs and shrimps could be grown well here.	Muaziza Ali
▪ Ilha de Moçambique has the right conditions to develop the fisheries; labour and the willingness to work but there is lack of funding. There is also the lack of fisheries inputs – No single shop in Ilha de Moçambique sells fisheries inputs (fishing nets, safety equipment…), making it difficult to work effectively in this sector. Fishermen have to travel to	Atumane Mussa

Questions/ Issues	By Whom
Angoche in order to purchase material to fix fishing nets…	
▪ The fisherman would lie to have access to funding as well as equipment to improve their fishing techniques and improve their catches. The techniques currently used are rudimentary and fishermen cannot improve their economic conditions using the current methods.	Momade Ibrahimo (President of Fishermen Asssociation of Ilha de Moçambique)
▪ We need storage facilities – in some cases we do catch good quantity of fish but we have no means to conserve and most fish products are lost. We have in the past applied for loans to purchase freezer systems, but the amount made available to us was insufficient and as a result we could not obtain the freezers systems with specification that we needed. This is an issue which needs to be corrected – We should receive the total amounts that we request when we apply for loans.	Momade Ibrahimo
▪ Fishing at Ilha de Moçambique is done at high sea as opposed to fishing in the shallow waters, and the limiting factor has been the lack of fisheries equipment such as supply of engines and the respective parts as well as fishing nets.	Momade Ibrahimo
▪ In the past the communities and their leaders were well organized. There used to be traditional ceremonies in coordination with religious leaders in view to ask the spirits to protect the fishermen and as a prayer for abundance of fish. In these days no such ceremonies and that could also be the reason for lack of fish.	Momade Ibrahimo
▪ The aquaculture activity on the Ilha de Moçambique should be empowered.	Momade Ibrahimo

PUBLIC MEETING

Venue: Beira – Conselho Comunitário de Pesca da Beira – Praia Nova

Date: 05 June 2014

Time: 16:30h – 18:30h

PARTICIPANTS:

Consultants:

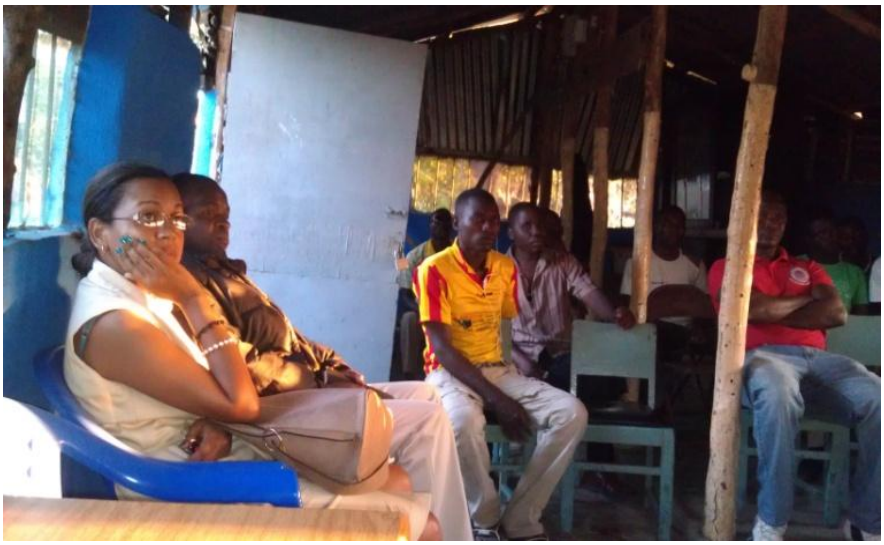
Public: 16 participants

INTRODUCTION

The program description and objectives were made by the Planning and Statistics delegate of the Provincial Directorate Claudia Alves, who introduced the Team and outlined the objectives of the meeting and invited the participants to contribute. Subsequently, the consultant gave a brief introduction and explanation on motivation for the Construction/Rehabilitation of Infrastructure Program for the fisheries sector as well as covering the legal aspects concerning the environmental and social considerations under the World Bank policy and the Mozambican Law.

Then the consultant further explained the need for Environmental and Social Management, and Process Frameworks for the Program, and described some potential negative and positive impacts that may be associated to the program. As the main goal of the meeting, the consultant proceeded by requesting the participant's opinions in relation to the challenges faced by the fisheries communities in Sofala, (specifically in Beira area), as well as potential environmental and social impacts related to the program could be addressed.

Public meeting with fishermen (Centro de Pesca da Praia Nova – Beira)



PRESENTATIONS

The meeting in Beira was conducted in two stages. The first stage with the provincial director of Fisheries in Sofala, and the second stage was with a group of fishermen association at Conselho Comunitário de Pesca da Praia Nova. The meeting was chaired by the consultant, preceded with the opening of the meeting, wishing all participants a warm welcome and a brief description of how the meeting would proceed.

PROGRAMME DESCRIPTION

Meeting with Sofala's Provincial Director of Fisheries:

The Director (João Duarte Size) who is very familiar with the SWIOFish program, welcomed the Consultants and highlighted the need to look at the whole fisheries chain and determine priorities for funding. He went on to stress that in the production side, there is a need to determine the technical specifications of fishing boat types that should be made to take into account the fishing methods as well as safety matters.

The director also considered the need for investment in solar panels for appropriate conservation of fisheries in the remote areas such as Muanza, which have fishing potential, but with no access to electricity from the national grid. In addition, the director pointed out that the small scale fisheries sector is disorganized. There is a need to build a fisheries market center for safe trading of fisheries products, and where health authorities can carry out inspections and declare the products safe for human consumption.

Regarding aquaculture – The Director indicated that aquaculture projects are welcome in Sofala, however, supply of inputs should also be considered on aquaculture development to be successful.

As pointed out by the Director, lack of funding has been a serious problem for the small-scale fishermen. The interest rate has been significantly high and there are no incentives for the small-scale fishermen to pursue the available funding scheme.

Finally, the Director highlighted the need for strengthening technical capacity of the government staff to carry out an effective monitoring of the small-scale fisheries sector. The commercial and industrial fisheries surveillance and monitoring is well define, however, there is a need to strengthen and focus on small-scale fisheries sector surveillance and monitoring. The provincial directorate lacks basic equipment to undertake this important activity for preservation of fisheries resources in key areas of the Sofala province. The Director proposes also to adopt an integrated management approach involving identifying negative human impacts (among other issues, the depletion of mangrove forests, coastal erosion, and pollution from various sources) and their respective mitigation along the coastline since this is an important ecosystem for the wellbeing of the sea environment.

Meeting with fishermen at Conselho Comunitátio de Pesca da Praia Nova

The program description and objectives were made by the consultant Eduardo Langa. The consultant gave a brief introduction and explanation of the meeting's objectives, and the scope and motivation for the proposed Construction/Rehabilitation of Infrastructure Program for the fisheries sector as well as covering the legal aspects concerning the environmental and social considerations under the World Bank policy and the Mozambican Law.

Then the consultant explained the need for Environmental and Social Management, and Process Frameworks at the early stage of the Program, and described some potential negative and positive impacts that may be associated to the civil works under the SWIOFish program. As the main goal of the meeting, the consultant proceeded by requesting the participant's opinions in relation to the

challenges faced by the fisheries communities in Sofala province, as well as potential environmental and social impacts related to the program. Contributions made by participants are recorded on the table below.

DISCUSSIONS:

Questions/ Issues	By Whom
▪ The main issue affecting the small scale fisheries sector in our region is the continuous use of "chicocota". There has not been any solution for this problem to date. The people using this fishing technique should be identified and be supplied with appropriate fishing nets as a way of discouraging this practice. It is understandable that they do so for survival therefore punitive measures alone will not resolve the problem.	João
▪ Fisherman lack access to funds, credit initiatives which have been implemented in the past for fishermen proved to be ineffective and unattractive as the interest was even high than that of commercial banks. There have been a number of meetings held with government authorities to resolve this issue but no solution yet.	João
▪ Fishermen have also requested the government to subsidize fuel for those who have engine powered boats but such request has not been met yet – and associated to this, there is the requirement for the fishermen to have an organized accountancy which is almost impossible for common fishermen with no formal education. Thus, the proposed SWIOFish program should really consider the issues being raised here because improving infrastructures alone as prescribed under the SWIOFish program will not necessarily result in an improvement in the small scale fisheries sector.	José Manuel Feito (President of the Community Council of Fisheries – Nova Sofala)
▪ There is an understanding that fishermen could improve by using boats which can stay at the sea for 48 hours, but again with the current interest rates it would be very difficult for fishermen to improve their fishing conditions.	Delop Ramugi (President of the Community Council of Fisheries – Praia Nova)
▪ The creation of *Conselho Comunitário de Pesca (CCP)* was a good initiative for the government as these bodies function as intermediaries between the fishermen and the authorities. The government however should support the CCPs and make an effort resolve the issues concerning the small scale fishermen.	Delop Ramugi
▪ Lack of supply of fisheries inputs is also a serious matter repeatedly raised by fishermen in this type of gatherings, but no response to date. Certain suppliers are selling inappropriate fishing nets and there is no monitoring of the equipment being sold and that add to the already major problem of use of "chicocota" and mosquitoes nets.	Balbino Razão
▪ With regards to major environmental issues, the use of inappropriate fishing methods and the cutting of	

Questions/ Issues	By Whom
mangroves along the coast are some of the key human impacts affecting the recovery of fish stocks.	Delop Ramugi
▪ Coastal erosion and climate change are also major issues affecting the small scale fisheries activities.	Delop Ramugi
▪ From the point of view of the common fishermen, the proposed SWIOFish program is not yet a priority in Beira – this is because we can have all the infrastructures that we need by the fishermen are not being able to bring the fish from the sea because they lack appropriate equipment. Thus, the main priority for the fishermen at this point would be to make funds available at affordable interest rates.	Delop Ramugi (President of the Community Councol of Fisheries – Praia Nova)
▪ We have had bad experience with the road Nova Sofala-Tungo which was supposed to improve access to benefit the fisheries in this major fishing potential – Such road was never completed by the funding for it has been released. We are therefore concerned that there could be people trying to obtain funding in the name of small-scale fisheries while their priority is something else. We hope this is not the case with SWIOFish. We strongly recommend that the fishermen be truly involved in the decision making process particularly for planning and construction of infrastructure to benefit the fisheries sector.	José Manuel Feito (President of the Community Council of Fiheries – Nova Sofala)

PUBLIC MEETING

Venue: Hotel Flamingo – Quelimane – Zambezia province

Date: 06 June 2014

Time: 14:00h – 15:00h

PARTICIPANTS:

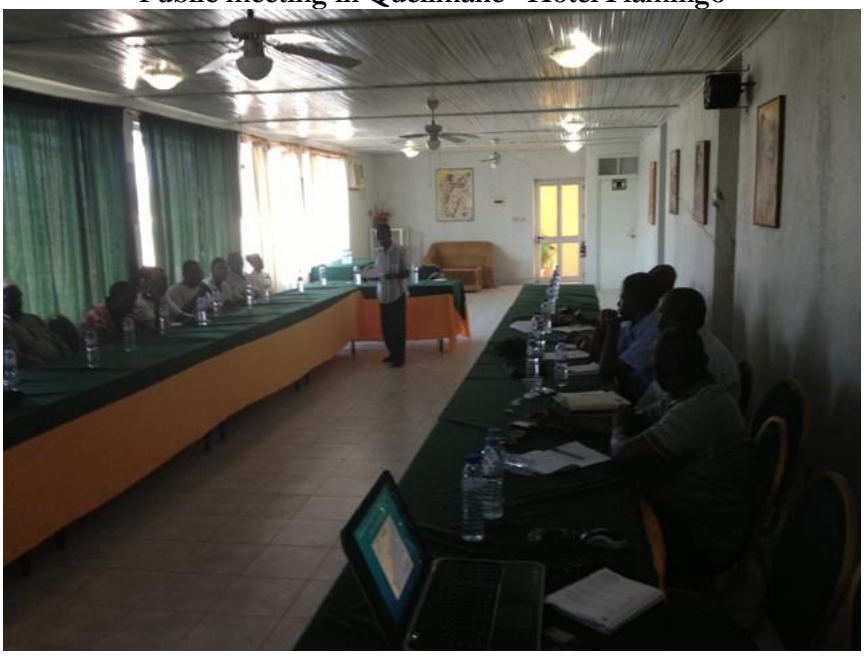
Consultants:

Public: 19 participants

INTRODUCTION

The program description and objectives were made by the Consultant, who introduced the Team and outlined the objectives of the meeting and invited the participants to contribute. Subsequently, the consultant gave a brief introduction and explanation on motivation for the Construction/Rehabilitation of Infrastructure Program for the fisheries sector as well as covering the legal aspects concerning the environmental and social considerations under the World Bank policy and the Mozambican Law.

Public meeting in Quelimane –Hotel Flamingo



Then the consultant further explained the need for Environmental and Social Management, and Process Frameworks for the Program, and described some potential negative and positive impacts that may be associated to the program. As the main goal of the meeting, the consultant proceeded by requesting the participant's opinions in relation to the challenges faced by the fisheries communities in Zambezia, as well as potential environmental and social impacts related to the program could be addressed.

PRESENTATIONS

The meeting in Quelimane was conducted in two stages. The first stage with the provincial director of Fisheries in Zambezia, Mr. Arcícilio Madede, and the second stage was with members of groups of fishermen associations at Hotel Flamingo in Quelimane. The meeting was chaired by the consultant, preceded with the opening remarks, wishing all participants a warm welcome and a brief description of how the meeting would proceed.

PROGRAMME DESCRIPTION

Meeting with Zambezia's Provincial Director of Fisheries:

The Director proved to be well conversant with the SWIOFish program, and welcomed the Consultants and highlighted that the aquaculture component lacks infrastructures in Zambezia province, despite the fact that Zambézia province has better conditions for development of aquaculture activities on the coast as well as in the interior. He highlighted that in the past, there have been ideas to build a demonstration center where fisheries extensionists could demonstrate the aquaculture techniques to the communities and attract them to participate in this initiative and replicate elsewhere – The Director therefore sees the SWIOFish program as an opportunity to implement this initiative. The director highlighted the need to raise community's awareness on development of aquaculture projects, but he noted the lack of incentives for this sector to grow despite having suitable areas identified. He also pointed out that incentives should be in the form of tax exemptions for retailers dedicated to importing or fabricating the aquaculture inputs.

Regarding the small scale fisheries, the director highlighted the lack of fisheries infrastructures – There are no docking station which makes it difficult to monitor the fisheries products by competent government authorities before the products are released to the markets for human consumption. He went on to explain that the one existing port in Quelimane is not in good conditions since it has been built in the 90s, it has never been rehabilitated or maintained and visual inspections suggest that this infrastructure is not in good conditions. In addition, the dry docking station is not operational and the semi-industrial fishing boats are annually sent to South Africa for maintenance and repairs, which costs a significant amount of money. In some cases repairs are undertaken in artisanal conditions with all the safety and environmental implications associated to the process. The workshop is outdated and new technology should be installed. The freezers system is not operational and as a result, a significant amount of fish is lost due to lack of adequate storage.

When it comes to monitoring of the fisheries, the Director pointed out that the fisheries sector faces a major challenge and highlighted the need to build monitoring centers to monitor the major fishing poles. He believes building capacity and empowering the fisher supervisors would contribute to a greater improvement of monitoring of inappropriate fishing practices as well as depletion of mangroves and consequent degradation of the coastal zones which affect the fish stocks in the area.

Public Meeting held at the Flamingo Hotel - Quelimane

The program description and objectives were made by the consultant Eduardo Langa. The consultant gave a brief introduction and explanation of the meeting's objectives, and the scope and motivation for the proposed Construction/Rehabilitation of Infrastructure Program for the fisheries sector as well as covering the legal aspects concerning the environmental and social considerations under the World Bank policy and the Mozambican Law.

Then the consultant explained the need for Environmental and Social Management, and Process Frameworks at the early stage of the Program, and described some potential negative and positive impacts that may be associated to the civil works under the SWIOFish program. As the main goal

of the meeting, the consultant proceeded by requesting the participant's opinions in relation to the challenges faced by the fisheries communities in Zambezia province, as well as potential environmental and social impacts related to the program. Contributions made by participants are recorded on the table below.

DISCUSSIONS:

Questions/ Issues	By Whom
▪ The SWIOFish program is targeting the same districts as those of PROPESCA and there should be complementarities to these two program and avoid doing the same activities.	Abel Mabunda (Delegate of National Administration Fisheries)
▪ The SWIOFish program should promote sustainability actions by working with the fisheries associations who in certain cases tend to employ unsustainable practices as their fishing methods.	Abel Mabunda
▪ The SWIOFish Program could help the province by funding the preparation of zoning maps which would result on mapping and identification of potential zones for development of fisheries. This is a fundamental tool for effective management of the fisheries resources by the government and the communities.	Abel Mabunda
▪ Environmental issues have been associated to overfishing, cutting of mangroves, poor fishing techniques – organized groups of fisherman can deal with these issues more effectively if they have an incentive.	Abel Mabunda
▪ We appreciate the presentation and wish to highlight that all the key infrastructures for this sector are degraded here in Quelimane (docking stations, freezers systems) and this fact makes it difficult to operate in the fisheries sector.	Samuel Mavie (Director of Fishing Port)
▪ The dry dock station was built in 1994 funded by JICA and was operational until 2010. At the moment it degraded and the SWIOFish program might consider this important infrastructure for maintenance of fishing fleet.	Luciano Bothelho (Director of Dry Docking)
▪ Danida is currently funding certain activities on sustainable fishing and mangrove management in Iinhassunge and Chinde with perspective to expand to Maganja da Costa.	Abacar Carimo Sunde
▪ The fishermen would like to have access to funds at accessible interest rate to help them to invest in the fisheries activities.	Abel Mabunda
▪ There are 23 CCPs in Zambezia which require government's assistance regarding their legalization and capacity building regarding issues related to environmental management – the government should support this process.	Abel Mabunda
▪ Aquaculture – The fish stocks tend to be diminishing, and as a result, development of aquaculture could serve to minimize the current pressure on the fisheries resources, particularly if the fishermen were to be	Ilídio Banze (Delegate of National Institute for Aquaculture

Questions/ Issues	By Whom
involved in aquaculture projects. ▪ The fishermen of Zambezia province are disappointed -they lack support to obtain bank credits –We also would like to know the focal points at the provincial directorate of fisheries because in certain cases we do not know where to channel our concerns. ▪ The fishermen could benefit from government support on training of CCPs in project elaboration and management to help them manage their business effectively. ▪ TheSWIOFish project refers only to infrastructures and nothing on funding and yet, the fisheries sector is not covered by the District Development Fund (*7milhoes de Meticais*) – it is clear here that complementary projects are needed to provide funding for the fisheries activity. ▪ There are inputs for fisheries activities, however, theses inputs cannot be affordable for fishermen ▪ The SWIOFish project is welcome as it will strengthen our capacity to catch more more fish, however, from our experience from the past, we would like that to see this project financing or empowering workshops to repair and provide spare parts for our boats, as we have a lot of boats obtained from the past projects like PROPESCA and other but the main problem is maintenance.	Development) Ferreira Amade Assura Celestino Reno Celestino Reno Macário Pedro Hérminío (President of the Community Council of Fisheries – Zalala)

Annex 7: List of People Consulted

Nr	Name	Institution	Position	Contact
1	Tome Capece	IDPPE	National Director	
2	Ernesto Poiosse	IDPPE	Head of Department of Social Development	
3	Amos Chamussa	IDPPE	Head of Department of Planning	
4	José Halafo	INAQUA	National Director	
5	Angélica Dengo	MP	Head of Department of Cooperation	
6	Patrick Mehlman	RARE		
7	Bernal Vilela	RARE		
8	Tristeza Alfredo	Associacao CCP	Membro da associacao CCP	84 5583960
9	Alberto Manuel	Associacao CCP	Membro da associacao CCP	82 5873805
10	Domingos Manuel	Associacao CCP	Membro da associacao CCP	84 7995509
11	Joao Artur	Associacao CCP	Membro da associacao CCP	82 0947885
12	Ernesto	Associacao CCP	Membro da associacao CCP	
13	Jacinto Romeu	Associacao CCP	Secretario do CCP	82 9273785
14	Pedro Manuel	Associacao CCP	Membro da associacao CCP	
15	Benildo Pedro	Associacao CCP	Membro da associacao CCP	
16	Artur Alberto	Associacao CCP	Membro da associacao CCP	82 4275090
17	Francisco	Associacao CCP	Membro da associacao CCP	
18	Eduardo Ernesto	Associacao CCP	Membro da associacao CCP	
19	Fabiao Armando	Associacao CCP	Membro da associacao CCP	84 4007716
20	Jose	Associacao CCP	Membro da associacao CCP	82 3698902
21	Alcobias Jacinto	Associacao CCP	Membro da associacao CCP	84 2939237
22	Mario Ernesto	Associacao CCP	Membro da associacao CCP	84 5388417
23	Acacio Francisco	Associacao CCP	Membro da associacao CCP	
24	Silvestre Joao	Associacao CCP	Membro da associacao CCP	82 6010518
25	Joaquina Manuel Bata	Associacao CCP	Membro da associacao CCP	82 5374613
26	Delfina Rafael	Associacao CCP	Membro da associação CCP	82 3860551
27	Nelson Pedro	Associacao CCP	Membro da associacao CCP	82 6201294
28	Alchandrina	Associacao CCP	Membro da associacao CCP	82 5725769
29	Zeca	Associacao CCP	Membro da associacao CCP	84 4343421
30	Alice de Almeida	Associacao CCP	Membro da associacao CCP	
31	David Cuamba	Associacao CCP	Membro da associacao CCP	
32	Patricio lucas	Associacao CCP	Membro da associacao CCP	82 9153322
33	Paulino Raiva	Associacao CCP	Membro da associacao CCP	
34	Elsa Bernardo	Associacao CCP	Membro da associacao CCP	82 3838436
35	Hortencia Escrivao	Associacao CCP	Membro da associacao CCP	82 4052153
36	Carlos Fernando	Associacao CCP	Membro da associacao CCP	82 3921285
37	Amina Abdul	Associacao CCP	Membro da associacao CCP	
38	Alfredo Bernardo	CCP – Chicuque e Associacao Ligoga	Presidente da associação e PCR	82 8172330
39	Oliveira Zacarias Garine	CCP e PCR	Secretario do CCP – Chicuque	82 9289950
40	Gito Manuel	CCP e PCR	Membro do CCP e PCR	82 8536940
41	Zacarias Macassa	CCP e PCR	Membro do CCP e PCR	82 3869885
42	Vicente Lourenco	CCP e PCR	Fiscal do CCP e membro do PCR	84 7707508
43	Orlando Gawene	CCP e PCR	Membro do CCP e PCR	82 25510671
44	Respeito Alfredo	CCP e PCR	Presidente do PCR Nova Vida	84 6515302
45	Jose Xavier	CCP e PCR	Secretario PCR Nova Vida	82 1219575
46	Hilario Daniel	CCP e PCR	Presidente do CCP – Chicuque	84 1074898
47	Paulo Armando	CCP e PCR	Membro do CCP e PCR	82 0161790
48	Luis Jose	CCP e PCR	Membro do CCP e PCR	84 6558013

Nr	Name	Institution	Position	Contact
49	Rodrigues Leopoldino	CCP e PCR	Membro do CCP e PCR	82 3666150
50	Roberto Manuel	CCP e PCR	Membro do CCP e PCR	82 0955103
51	Jose Bata	CCP e PCR	Membro do CCP e PCR	82 9266793
52	Ricardo Zacarias	CCP e PCR	Membro do CCP e PCR	
53	Eugenio Pedro	CCP e PCR	Membro do CCP e PCR	
54	Helena Vicente	CCP e PCR	Membro do CCP e PCR	84 5439915
55	Anita Joao	CCP e PCR	Membro do CCP e PCR	82 7580959
56	Maria Luisa	CCP e PCR	Membro do CCP e PCR	
57	Sergio Pedro	CCP e PCR	Membro do CCP e PCR	82 9267755
58	Pedro Bata	CCP e PCR	Membro do CCP e PCR	82 7896215
59	Carlitos Zacarias	CCP e PCR	Membro do CCP e PCR	82 7188220
60	Carla Fernanda	CCP e PCR	Membro do CCP e PCR	82 0603960
61	Mario Armando	CCP	Líder Comunitário	84 5372320
62	Adriano Antonio	CCP	Pescadores	84 4549884
63	Tomas Joao	CCP	Pescadores	84 5069820
64	Bento Oliveira	CCP	Pescadores	84 6398149
65	Ricardo Armando	CCP	Pescadores	84 6367039
66	Ilidio Banze	INAQUA-Zambezia	Delegate	824215350
67	Samuel Mavie	Porto de Pesca Quelimane	Director	824322340
68	Abel Mabuna	ADNAP	Delegate	847918796
69	Americo D. Sumale	IDPPE-Zambezia	Delegate	847918796
70	Macario Pedro	IDPPE-Zambezia	Extensionist	829449870
71	Alifo Abudo	Chuabo Dembe-Zambezia	Fisherman	
72	Amisse Mussa	Chuabo Bembe-Zambezia	Fisherman	849462313
73	Avelino Amai	Chuabo Bembe-Zambezia	Fisherman	825097727
74	Dionisio Varela Pires	IIP-Zambezia	Technician	822508070
75	L. Monteino Januário	Doca Seca - Quelimane	Director	825759800
76	Cesaltino Reino	DPPZ	Technician	843225555
77	Mandavir Falamo	Chuabo Dembe	Fisherman	
78	Manuel Amade	ICIDUA	Fisherman	
79	Mussa Atibo	ICIDUA	Fisherman	
80	Juma Ali Amisse	Chuabo Dembe	Fisherman	823974883
81	Ferreira A. Surate	Chuabo Dembe	Fisherman	824916406
82	Justino Victorino Miguel	Chuabo Dembe	Fisherman	840191535
83	Alifo Abudo	Chuabo Dembe	Fisherman	848421118
84	Abacar Carimo Sunde	Chuabo Dembe	Fisherman	866834395
85	João Duarte Saize	DPP Sofala	Director	
86	Claudia Alves	DPP Sofala	Head of Department of Planning	824894370
87	Manuel Antonio	CCP Praia Nova - Beira		825860080
88	Dilip Ramgy	CCP Praia Nova - Beira	President of the CCP	844282540
89	Jose Manuel	CCP Praia Nova - Beira		866175057
90	Alberto Manuel	Praia Nova - Beira	Fisherman	823175596
91	Zinhangadjo Mangano	DPP - Sofala	Technician	825860080
92	João Almeida	CCP Praia Nova	Fisherman	846313005
93	Mioses Paulo Nharimol	CCP Praia Nova	Fisherman	
94	José António Chacamba	CCP Praia Nova	Fisherman	
95	Castigo Mavire	CCP Praia Nova	Fisherman	
96	Fernando Francisco	CCP Praia Nova	Fisherman	
97	Fernando M. Manjara	CCP Praia Nova	Fisherman	
98	Balbino R. Secretário	CCP Praia Nova	Fisherman	
99	Viagem Joaquim	CCP Praia Nova	Fisherman	
100	Fernando Magufoi	CCP Praia Nova	Fisherman	

REPUBLICA DE MOCAMBIQUE

MINISTERIO DAS PESCAS

Instituto Nacional de Desenvolvimento da Pesca de Pequena Escala

"Community-Based Coastal Resources Management and Sustainable Livelihoods" (PPACG)
JSDF - TF093663-Moz

Terms of Reference for Consulting Services (Individual)

Assignment title	Preparation of Safeguards instruments for PPACG and FishCC: Environmental and Social Management Frameworks (ESMF) and Process Framework (PF).
Contract duration	30 working-days over a 50 days period maximum
Primary assignment location	Provinces covered by PPACG and FishCC Project implementation

Maputo, April 2014

A. Context and Objectives of the Assignment

Background

2. This consultancy will support the implementation of the Japan Social Development Fund (JSDF)-funded **Community-based Coastal Resources Management and Sustainable Livelihoods Project** (**PPACG**) and the preparation of the **Artisanal Fisheries and Climate Change Project** (**FishCC**), which should be co-financed by the Nordic Development Fund, the World Bank and an NGO, Rare. The objective of the consultancy is to ensure the project's safeguards compliance with World Bank procedures.

3. The Development Objective of the PPACG is to alleviate poverty within the context of resource conservation through improved income generation by the poor in Inhambane province.

4. The project is implemented through 4 components:

- Component 1: *Raising awareness and capacity building for coastal communities*;
- Component 2: *Collaborative coastal resources management plans*;
- Component 3: *Promoting sustainable use of natural resources*;
- Component 4: *Village resource use and adaptation to climate change*; and
- Component 5: *Project management, monitoring and evaluation*.

5. The Development Objective of the FishCC is to identify/demonstrate a scalable approach that will reduce Mozambique's vulnerability to climate change, while improving fisheries and natural resource management outcomes.

6. The project will be implemented through 7 components:

- Component 1: *Rights-based management and social resilience to change*;
- Component 2: *Improving fisheries*;
- Component 3: *Improving and diversifying local livelihoods*;
- Component 4: *Capacity building*;
- Component 5: *Marine ecosystems*;
- Component 6: *National level policy*; and
- Component 7: *Technical assistance, consultancies, and management support*.

7. Both projects are described in more details in Annexes 1 and 2:

Context of the assignment

8. World Bank safeguard policies guidelines require that Ministry of Fisheries (MinPescas) effectively assesses and mitigates the potential environmental and social impacts of the projects proposed activities. As a result, MinPescas is required to prepare three standalone safeguards instruments, namely: an Environmental and Social Management Framework (ESMF) for the PPACG, and an Environmental and Social Management Framework (ESMF) and a Process Framework (PF) for the FishCC.

9. The primary objective of this assignment is to support the Government of Mozambique in the preparation of the three above mentioned standalone safeguard instruments. The ESMFs will be prepared with the aim to effectively assess and mitigate the potential environmental and social impacts, including the health and safety-related impacts of future sub-project activities under PPACG and FishCC. The PF will be prepared to present the criteria and procedures to be followed when a sub-project activity of the FishCC is identified as having potential adverse social impacts on existing land rights, assets, or livelihoods as a result of new restrictions of access to fisheries or other natural resources.

10. Preparing the ESMF and PF will enable both the Government and the World Bank to agree on principles and processes, so that these need not be discussed for every sub-project during project implementation. It also allows project stakeholders and beneficiaries to undertake specific sub-projects without having to re-negotiate fundamental agreements on a case-by-case basis.

A. B. Scope of the Assignment

11. Based on the objective of the assignment described above, the Consultant will be required to work in Maputo as well as to travel to the projects implementation area. The project implementation area of the PPACG is the town of Inhambane and its vicinities. The expected project implementation area of the FishCC could be the Ponta do Ouro Partial Marine Reserve, the Inhambane bay, Moma island and its area, as well as up to 3 more specific areas along the coast of Mozambique, to be confirmed after signing of the Grant Agreement.

12. The Consultant will liaise with the PPACG implementation team, the FishCC preparation team (Maputo, and selected provinces), technical staff from MinPescas, MICOA, DNEPP, DNFP, ADNAP, IIP, INAQUA, IDPPE, FFP, DTEP, INIP, etc. and other relevant strategic stakeholders at both the central and provincial levels. S/He will liaise with the World Bank staff and relevant staff from other donors engaged in environment and social activities in the selected areas.

13. With a special emphasis on field work, the Consultant will interact with local actors such as Local Administrators, NGOs, SDAE extension workers and technical staff, potential beneficiary groups, and others. The desk review will include among other: environmental and social policies, strategies and approaches prevailing in the country; environmental and social analyses recently carried out under other relevant projects co-financed or not by the World Bank (SWIOFish Mozambique, TFCA II, MOZBio); PPACG and FishCC sub-project screening, approval, implementation and monitoring criteria and procedures (if available); review of on-going Sustainable Development projects co-financed by the World Bank; provisions in the national laws for public consultations and participation requirements on social and environmental aspects and potential risks.

14. The Consultant will prepare and deliver three standalone safeguards documents as described below, namely two ESMFs and a PF. Each of these reports is expected to include information on the following:

- Executive Summary: A non-technical executive summary in both Portuguese and English;
- Project Description: Provide a brief description of the project, with emphasis on components with activities which will trigger environmental and social impacts;
- Impacts: Identify, assess and – to the extent possible – quantify the potential environmental and social impacts and risks in the intervention zone of PPACG and FishCC;
- Public/Stakeholders Consultation and Participation: Ensure that World Bank requirements on public consultation and participation are being met in full. Present the outcomes of a participatory and inclusive public consultation conducted by the Consultant in each standalone documents with various categories of beneficiary stakeholders in the selected provinces/areas of intervention. Outline each stakeholder group's perception of and reaction to the project (i.e. receptiveness and willingness to collaborate for the sustainable management of the proposed project activities) and suggest ways of retrofitting their main views and concerns in the project design, implementation and monitoring and evaluation. Include minutes of all consultation meetings for each report, highlighting i.e. gender and vulnerable groups distribution and dimensions, and describing how fishing communities and other stakeholder groups have been identified;

- Public Consultation and Participation Plan (PCPP): Develop a participatory and inclusive public consultation plan that could be easily followed up at the local level for the environmental and social screening process for PPACG and FishCC subprojects, as well as during the planning stages of these sub-project activities;
- Legal Framework: Review of the national laws (incl. traditional and customary practices) governing the environment and natural resources (for ESMF) and governing the appropriation of land or other assets, including restriction to access to fisheries or other natural resources (for PF). Identify potential discrepancies between national laws (such as the Decree 45/2004 of September 29, 2004, Decree 31/2013 of August 8, 2013) and World Bank policies (mainly OP/BP4.01 and OP/BP4.12) and establish mechanisms for a converging implementation;
- Implementing Agency: Identify and propose individuals/organization/agency responsible for jointly implementing the ESMFs and PF. Assess the government's and implementing agency's technical and administrative capacities to manage the project's potential environmental and social issues, and propose – as appropriate – viable mitigation measures to reinforce their technical and practical capacities in this regard, taking into consideration the relevant environmental and social policies, legal, regulatory and administrative frameworks in place, as well as the technical experiences of individuals/organization/agency in dealing with these issues in previous operations;
- Safeguards Policies: Review the World Bank environment and social safeguard policies including those not yet triggered by the project (as well as national legislation) and make recommendations regarding their applicability to PPACG and FishCC. Recommendations pertaining to the treatment of applicable safeguards policies in the context of PPACG and FishCC sub-projects should also be formulated;
- Public Disclosures: Bearing in mind that PPACG and FishCC are classified by the World Bank as an environmental Category B projects, propose steps and timeline to ensure that public disclosures of key findings are adequately implemented, and in synch with the overall project preparation calendar.

15. More specifically:

- Environmental and Social Management Framework (ESMF)

16. Two separate ESMFs will be developed: one for the PPACG, and another one for the FishCC.

17. In addition to the above, **the ESMFs should provide information that includes the following** (among other information, as appropriate):

a. A description of the overall PPACG and FishCC projects and each planned sub-project investment.

b. A concise diagnostic analysis of the projects' main environmental and related social issues, including those involving typical fisheries practices in Mozambique. This should include an explanation of how the PPACG and FishCC would help to make these fisheries more environmentally sustainable.

c. Criteria and procedures for environmental and social screening of proposed civil works sub-projects, to (i) avoid sites of high sensitivity and (ii) ensure that the appropriate level of attention is given to potential environmental and social impacts and their corresponding mitigation or enhancement measures.

d. The ESMFs should specify the criteria and format for preparing individual Environmental and Social Management Plans (EMPs) for civil works sub-projects. Each EMP should cover (i) specific environmental requirements for the

construction and operation of each civil works sub-project, including mitigation measures to address adverse impacts along with enhancement measures to reinforce positive impacts; (ii) an implementation schedule of specific environmental measures in relation to the associated main civil works; (iii) institutional responsibility for carrying out each environmental measure (Ministry of Fisheries, civil works contactor, civil works supervising engineer, or others); and (vi) budget for specific environmental management measures.

e. Standard Environmental Rules for Contractors to follow in all civil works sub-projects, including proper waste disposal, no hunting, no bush-meat purchase, no inappropriate interactions with local people, and Chance Finds Procedures for any physical cultural resources discovered during construction.

f. Summary of public consultations held on the draft ESMFs, particularly (i) who was invited, representing which organization or interest group; (ii) who participated by attending a meeting and/or providing comments; (iii) the dates and venues of any workshops or other meetings held; and (iv) a summary of the main comments expressed.

g. A concise explanation of how the overall PPACG and FishCC and each sub-project investment would comply with the applicable World Bank Safeguard Policies, including Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Pest Management (OP 4.09), Physical Cultural Resources (OP/BP 4.11), and Involuntary Resettlement (OP/BP 4.12).

h. The ESMFs' Title Page should include the name and/or logo of the Fisheries Ministry and/or other government agency, to indicate clearly that the report represents the views of each country's government and not just of a consultant.

18.

- Process Framework (PF)

19. The Process Framework will be developed for the FishCC only.

20. The Government recognizes that measures which reduce the access of vulnerable and marginalized groups to fisheries or other natural resources may entail adverse impacts on their existing livelihoods. For this reason, the Bank's Operational Policy (OP/BP 4.12) on Involuntary Resettlement applies to the FishCC project.

21. In addition to the ESMF, the Consultant will take the lead in developing the Process Framework (PF), bringing international and local experience as well as best practice to inform the process. A PF is normally prepared when World Bank-supported projects may cause restrictions in access to natural resources in legally designated parks and protected areas; however, in the case of FishCC, the PF would apply as well to other types of project-related restrictions of access to fisheries or other natural resources. The PF will indicate the process by which livelihoods potentially affected by restrictions of access to natural resources could be maintained, restored, or improved through appropriate project activities (see OP 4.12, paras. 7 and 31). The Consultant will be responsible for developing the PF content as well as for ensuring its timely delivery, in close consultation with fishing communities, groups of vulnerable and marginalized Peoples (VMPs), NGOs and local government officials. Specifically, the process framework should describe the participatory processes by which the following activities will be accomplished:

a. **Preparation and Implementation of Project Components**. The PF should briefly describe the project and components or activities that may involve new or more stringent restrictions on natural resource use. In the context of FishCC, such restrictions might come about through the enforcement of new fisheries management plans, possibly involving (i) the seasonal or long-term closure of previously exploited fishing areas or (ii) restrictions on fishing methods or type of gear used. The PF should also describe the process by which potentially impacted persons participate in project design.

b. **Determining Eligibility Criteria for Affected Persons**. The PF should establish that potentially affected communities will be involved in identifying any adverse impacts, assessing of the significance of impacts, and establishing of the criteria for eligibility for any mitigating or compensating measures necessary.

c. **Livelihood Restoration or Improvement Measures.** The PF should describe the process by which, during project implementation, measures will be identified and applied to assist affected persons in their efforts to improve their livelihoods or restore them, in real terms, to pre-displacement levels, while maintaining the sustainability of fisheries and ecosystem management. In particular, the PF should describe the methods by which communities would identify and choose potential mitigating or compensating measures to be provided to those adversely affected, and procedures by which adversely affected community members will decide among the options available to them.

d. **Grievance and Conflict Resolution.** The PF should describe the process that would be used for resolving disputes relating to resource use restrictions that may arise between or among affected communities, and grievances that may arise from members of communities who are dissatisfied with the eligibility criteria, community planning measures, or actual implementation.

e. **Administrative and Legal Procedures.** The PF should explain the role of relevant administrative jurisdictions and line ministries in the restriction of access to natural resources and the promotion of alternative livelihoods.

f. **Monitoring Arrangements.** The PF document should outline the arrangements for participatory monitoring of project activities as they relate to (beneficial and adverse) impacts on persons within the project impact area, and for monitoring the effectiveness of measures taken to improve (or at minimum restore) incomes and living standards.

22. **The Consultant will lead inter-agency coordination and public/NGO participation.** The PF will be developed in a participatory manner and in close consultation and cooperation with all key stakeholders (VMP groups/communities, key line ministries, local governments, and NGOs). The community groups and other key stakeholders should be consulted (i) in meetings held during preparation before the PF is finalized and (ii) when a draft PF is available. The draft and final PF and other relevant materials will be provided to affected groups in a timely manner and in a form and language that is understandable and accessible to the groups being consulted. The Consultant should maintain a record of the public consultation and the records should indicate: Means (including those other than consultations, such as surveys, used to seek the views of affected stakeholders; the date and location of the consultation meetings, a list of the attendees and their affiliation and contact address; and, summary minutes.

23. **Report.** The Consultant will provide a Process Framework report that is concise and limited to significant social and environmental issues. The main text should focus on findings, conclusions and recommended actions, supported by summaries of the meetings held, data collected and citations for any references used in interpreting those data. The Process Framework should be organized according to the outline below (as suggested in OP/BP 4.12):

- Executive Summary
- Description of the Project
- Policy, Legal and Administrative Framework
- Procedures for Involvement of Project Affected Peoples (PAPs) *in:*
  - Development of Eligibility Criteria for PAP
  - Identification of impacts and mitigation strategies
  - Identification livelihood options and sub-project activities
- Complaints and Grievance Resolution mechanism
- Administrative and Legal Procedures

- Monitoring Arrangements
- Implementation responsibilities and costs
- Inter-Agency and Public/NGO Consultation
- List of References
- Appendices*:*
  - *List of Consultants and Team preparing process framework*
  - *Records of Inter-Agency and Public/NGO Consultations, Communications, Meetings;*
  - *Data and Unpublished Reference Documents*:

B. C. Expected Outputs & Deliverables

24. All outputs and reports are expected to be compiled in **three final standalone environmental safeguards instruments (two ESMFs and one PF)** and are required to be delivered by the Consultant to MinPescas in hard copy (3 sets of each report) as well as in electronic form on CD-ROM (3 discs, each including all 3 safeguards instruments: two ESMFs and one PF) **no later than 50 calendar days after the signing of the contract**.

25. All intermediary outputs and **final reports should be in Portuguese or English** with an executive summary (including main conclusions and where applicable, recommendations) for each report in both English and Portuguese language.

26. The Consultant is also expected to be invited by MinPescas/the PPACG and FishCC projects teams to present the main findings of the assignment. Hence, the Consultants will be required to **produce a presentation** summarizing the main findings of the 3 safeguards instruments, including invitation of the relevant national level institutions where the studies were done.

27.

D. Consultants qualifications, expertise required and specific task

28. For this assignment, MinPescas is seeking to recruit an individual Consultant with the following profile:

29. Senior Safeguards Specialist:

- An environmental and social impacts assessments specialist per training, with at least 15 years of proven experience and with an emphasis on environmental and social assessments, involuntary resettlement and preparation of safeguards documents; preferably in Mozambique and southern/eastern Africa.
- A good knowledge of the Mozambican fisheries sector, rural development and/or environmental and biological/ecological issues and policies prevailing in Mozambique is highly desirable.
- A University degree (*preferably MA*) in one of the relevant disciplines (NRM, Environment, Ecology, Biology, Environmental Economics, Sociology, Anthropology, etc.) is required.
- Ability to communicate and write in both English and Portuguese is strongly desired. Understanding/speaking another, local language would be a plus.

30. The consultant is responsible for the coordination and delivery of the 3 safeguards instruments (2 ESMFs and 1 PF), as well as preparation of the presentation, and related activities. S/He will ensure that these safeguards instruments are linked and to avoid disconnect between the documents.

31. The total number of paid days for the Safeguards Specialist in charge of the two ESMFs and one PF is not expected to exceed 30 (thirty) days.

C. E. Reporting and supervision arrangements

32. For all aspects of this assignment, the Consultant will be reporting to the SWIOFish Mozambique Project Coordinator at MinPescas in Maputo.

33. Full program and consultant time line must be submitted to project coordinator after signing the contract.

D. F. Responsibilities of the contracting party

34. SWIOFish Mozambique project team at MinPescas will be responsible for compiling all relevant literature and all relevant documentation from similar rural/local development projects with appropriate Government agencies.

E. Annex 1: Brief description of the PPACG Project

The Community-based Coastal Resource Management and Sustainable Livelihoods Project (*Projecto de Pesca Artesanal e Co-Gestão*, PPACG) is financed by the Japan Social Development Fund and administered by the World Bank. The initial project duration was 4 years (2009 – 2013); it has been extended once (up to April 2014) and is under a second extension (up to April 2015). The Project Development Objective (PDO) is to alleviate poverty within the context of resource conservation through improved income generation by the poor in Inhambane province.

Overall, the project supports poverty reduction in the context of sustainable development, through increased income generation of the most impoverished communities surrounding the bay of Inhambane. The project is implemented through 5 components, described below.

(A) **Raising Awareness and Capacity Building for Coastal Communities**. Raising community environmental awareness on the environmental impacts of alternative mariculture opportunities through carrying out demonstrations of best practices, cause and effect relationships; and identification of profitable activities for improving livelihood, including an assessment of community behaviour patterns and motivation for participation in proposed activities; (ii) development of a Pilot Coast-Watch Network to test self-regulation mechanisms to deal with outside pressures on natural resources protection and management; (iii) carry out training for local residents and coastal villages in alternative and sustainable resource use in seaweed production and other maricultures; (iv) strengthening the Network through carrying out training on development of village-based natural resource planning and management; and supporting business services for microenterprises and improving methods of sustainable livelihood skills; including provision of audio-visual equipment; (v) provision of communication hardware such as radio, binocular, camera and patrol boats for the individual Village Natural Resource Committees.

(B) **Collaborative Coastal Resources Management Plans (CRMP)**. i) Preparation of a local marine resource management plan that considers the implications and sustainable use and conservation for different time horizon; (ii) establish a village co-management approach of a coastal and near-shore marine areas to address artisanal fisheries, access rights to near shore resources; (iii) facilitate and manage mariculture operations in village jurisdiction; (iv) identify governance and legal issues and measures needed to address and institutionalize the co-management of coastal resources, including fisheries.

(C) **Promoting Sustainable Use of Natural Resources**. i) Designing an innovative approach for improving the business environment for the poor through leveraging improved availability and affordability of credits; (ii) linking local fisheries and mariculture products to potential private sector investors in Mozambique; linking commercial banks in Maputo and other large urban centers with village financial self-help groups to foster collaboration that will facilitate application and approval of working capital loans; (iii) provision of small grants to empower communities to access opportunities through requesting, implementing and monitoring of sub-projects that contribute to improved livelihood; (iv) supporting joint ventures between users of natural resources and private sector investors; (v) provision of support for village-level initiatives to prioritize, design, cofinance, and implement village-level microprojects; and (vi) carrying out a mentorship

program between private companies in other sectors and local micro/small/medium size enterprises to prevent conflict of interest.

(D) **Village Resource use and Adaptation to Climate Change.** (i) Diversification of local livelihoods and method of resources use to decrease dependence on a single resource; (ii) assessment of the likely impact on coastal communities on resource utilization, human habitation patterns, and health and safety issues related to climate change, sea level rise and potential increased frequency and severity of natural disasters; (iii) develop and manage publicly accessible and updated database to capture and store information on market standards, technology, policy changes, local enterprise performance and reviews by local village facilitation teams; and (iv) provision of technology assistance and training.

(E) **Project Management, Monitoring and Evaluation (M&E).** i) Carrying out of a monitoring and evaluation system; project audit, assessment of the performance of local facilitation team and dissemination of the M&E findings to stakeholders in the study area and the Government; and (ii) development of newsletter to disseminate project activities and carrying out of workshops.

F. Annex 2: Brief preliminary description of the planned FishCC Project

The long-term Project Development Objective (PDO) of the project is to sustainably increase the economic benefits generated by SWIO marine resources, and the proportion of those benefits captured within the region. The medium-term development objective is to strengthen Mozambican capacity for management of resources and to reduce poverty among coastal artisanal fisheries of Mozambique supported by policies and institutions at national, provincial, district and local levels.

The immediate objective of this project is to *identify/demonstrate a scalable approach that will reduce Mozambique's vulnerability to climate change, while improving fisheries and natural resource management outcomes*. This will be accomplished by facilitating the development of community-based, coastal natural resources management groups (CCPs – Community Fishers' Councils) that can manage and steward TURF-reserves. Adoption of this approach will be accelerated through the use of Rare's Theory of Change and Pride social marketing campaigns delivered by IDPPE (National Institute for the Development of Small Scale Fisheries) staff from the Ministry of Fisheries.

Project vision

The overall vision of the project is to bring about transformation of the artisanal fishing sector in Mozambique such that community rights-based fisheries management will: 1) reestablish ecosystem health in coastal waters, which will increase ecological resilience to climate change and expand opportunities for tourism, and 2) substantially and dramatically increase catch and catch value thus reducing poverty and increasing social resilience in fishing communities.

Strategy outline

This is a new project designed to go to scale from inception. It will emphasize extensive baseline data collection, participatory planning, and rigorous and well-documented implementation phases.

The strategy outline is:

- Develop capacity and social capital at local grass-roots level within the IDPPE and sister agencies from the Ministry of Fisheries;
- Provide extensive training of local IDPPE staff to include Master's Degrees in Communication and Conservation so that local champions will emerge to lead local constituencies for change;
- Facilitate the institutionalization of local CCPs so that they can increase social resilience and sustainably manage their fisheries closer to maximum sustainable yield;
- Provide IDPPE staff and CCPs with the proper technical training to design and implement sustainable TURFs and NTZs;
- Conduct an early research phase on livelihood options so that results can be integrated into livelihoods implementation (including how women can be better mainstreamed into fisheries economies);

- Provide clear communication about the proposed benefits exchange to fishers who change their behavior from open access fishing to TURF-Reserve based fishing;
- Conduct early baseline data collection and subsequent extensive monitoring, while training and involving local communities;
- Utilize adaptive management while planning and implementing the project, while being cognizant that this is a pilot designed to be scaled up in coming years (i.e., documentation of lessons learned along the way);
- Facilitate National Policy Shifts to Rights-Based Fisheries Management, and ensure that local CCPS are well-integrated into District and Provincial government agencies;
- Ensure that management and resources are used efficiently to accomplish goals of the project.

Key stakeholders

Key stakeholders in this project will be the Ministry of Fisheries, and its semi-autonomous agencies: IDPPE, ADNAP, IIP, INAQUA, and EP. At local level, the project is organized around a principle stakeholder, the CCP of each community (more typically, a group of neighboring communities); there will also be fishers who are not yet members or do not participate in the CCP. Other local stakeholders will be the CGP groups as well as tourism operators. At local level, government administration units at district and provincial level will be important stakeholders.

Geographic coverage and site selection

Mozambique has three large coastal zones: 1) the Coral Coast, which follows the coastline of Cabo Delgado and Nampula Provinces; 2) the Mangrove Coast, which follows the coastline of Zambezia and Sofala Provinces; and 3) the Parabolic Dunes Coast, which follows the Inhambane, Gaza, and Maputo Provinces. Each of these has unique biophysical features such as mangroves, soft corals, sea grasses and reefs, and our site selection will attempt to capture 1-2 sites in each zone (Figure 3).

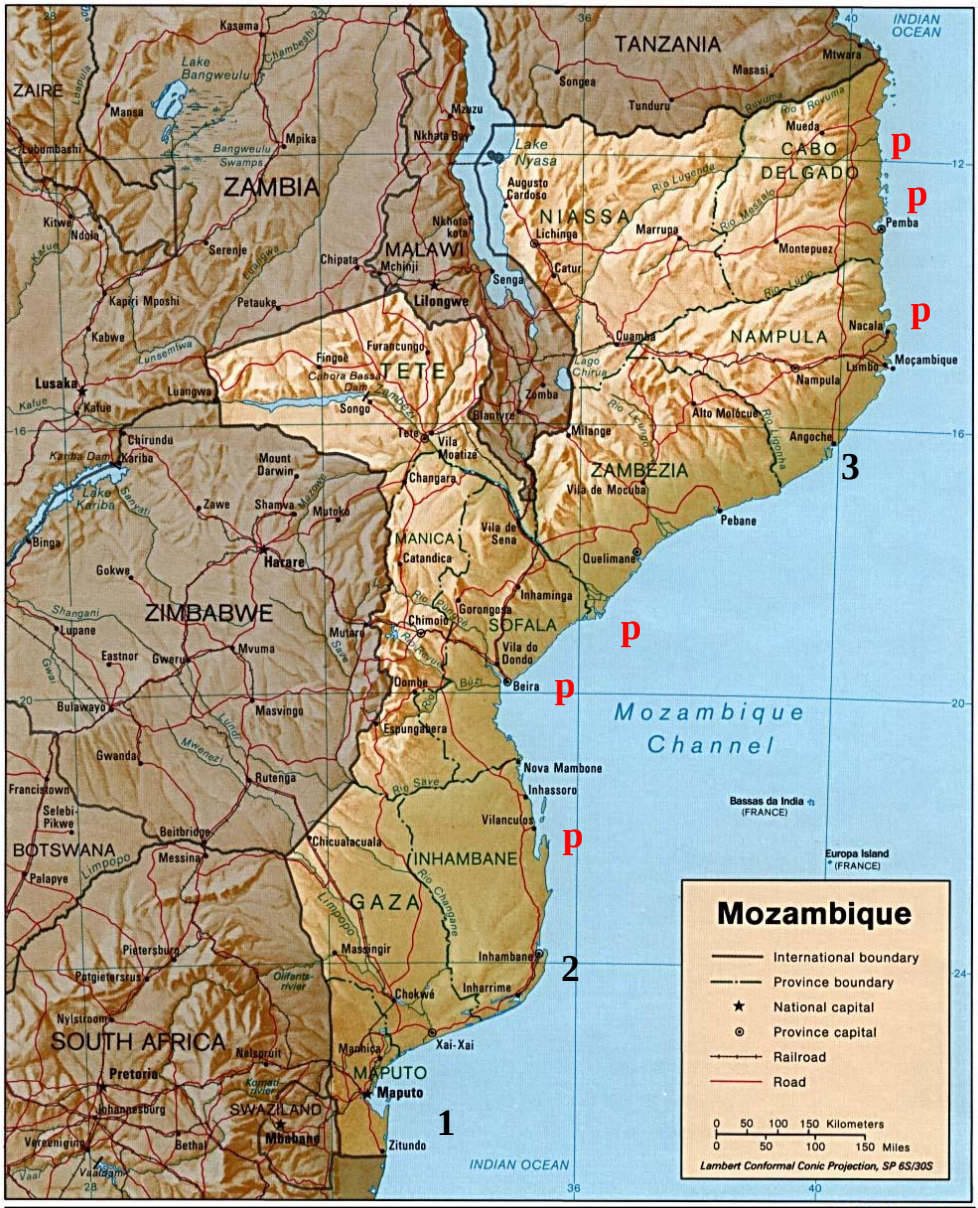
Up to six sites (approximately 5 communities or more per site) will be selected based on several critical factors: climate change impact priority; population density; current political and socioeconomic status; local implementation capacity; relevant ecosystems or biology conditions; potential project impact; and degree of dependence on marine resources, etc. Three of the sites have tentatively been identified; up to three others will be determined by site visits early in the project (Figure 3).

Scope and scale

This project has been designed explicitly to go to scale through Rare's Fish Forever Initiative that is being implemented in five countries. In following this approach, at the end of this first pilot phase, the project will hire specialist consultants who will independently analyze successes and failures. From these results, the project intends to replicate TURF-Reserves through Rare's Pride methodology 12 at a time in coming years until approximately 20-25% of possible community fisheries have converted to the TURF-Reserve approach. Because Rare is working directly to build capacity within IDPPE, the Institute within the Ministry of Fisheries with the mandate of developing artisanal fishing

communities, this should accelerate adoption of the TURF-Reserve approach as IDPPE interacts directly with communities using Rare methodology.

Figure 3*. Map of Mozambique and Potential Project Sites*



1 – Ponta do Ouro Partial Marine Reserve, Ilha dos Portugueses and Delagoa Bay; 2 – Inhambane area; 3 – Moma Islands; P – possible sites