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REPÚBLICA DE MOÇAMBIQUE

MINISTÉRIO DO TURISMO

Environmental and Social Management Framework (ESMF)

Draft Report

MOZAMBIQUE CONSERVATION AREAS FOR BIODIVERSITY AND SUSTAINABLE DEVELOPMENT (MOZBIO) PROJECT

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List of Abbreviations

AMA	Associação do Meio Ambiente (Environmental NGO – Cabo Delgado)
ANAC	National Conservation Areas Administration
AWF	African Wildlife Fund
BioFund	Biodiversity Fund
CA	Conservation Area
CBNRM	Community Based Natural Resources Management
CC	Consultative Council
CCG	Co-management Committee
CCP	Fisheries Co-management Committee
CDLs	Local Development Committees
CGAC	Conservation Area Management Committee
CGRN	Natural Resources Management Committee
COGEP	Local Participatory Management Council
COMDEQ	Quirimbas Development Committee
CONDES	National Council for Sustainable Development
DA	District Administrator
DINATUR	National Directorate of Tourism
DIPTUR	Provincial Directorate of Tourism
DNA	National Directorate of Water
DNAC	National Directorate for Conservation Areas
DNAIA	National Directorate for Environmental Impact Assessment
DNAPOT	National Directorate for Territorial Planning
DNDR	National Directorate of Rural Development
DNGA	National Directorate for Environmental Management
DNTF	National Directorate for Land and Forests
DPA	Provincial Directorate of Agriculture
DPCA	Provincial Directorate for Coordination of Environmental Affairs
DPOT	Provincial Directorate of Territorial Planning
DPP	Provincial Directorate of Fisheries
DPPF	Provincial Directorate of Planning and Finance
DPTUR	Provincial Directorate of Tourism
EA	Environmental Assessment
EIA	Environmental Impact Assessment
ESMF	Environmental and Social Management Framework
GoM	Government of Mozambique
IDPPE	Institute for the Development of Small Scale Fisheries
IIP	Fisheries Research Institute
INAMAR	National Marine Institute

LNP	Limpopo National Park
LVIA	Italian NGO
M&E	Monitoring and Evaluation
MICOA	Ministry for Coordination of Environmental Affairs
MINAG	Ministry of Agriculture
MISAU	Ministry of Health
MITUR	Ministry of Tourism
MOPH	Ministry of Public Works and Housing
MozBio	Mozambique Conservation Areas for Biodiversity and Sustainable Development
MozBio-PIU	MozBio Project Implementation Unit
MP	Ministry of Fisheries
MPD	Ministry of Planning and Development
NGO	Non-governmental organization
NP	National Park
NR	National Reserve
OP	Operational Policy (of the World Bank)
OP/BP	Operational Policy / Bank Policy (of the World Bank)
PDO	Project Development Objective
PDUT	District Land Use Plan
PF	Process Framework
PNAB	Bazaruto Archipelago National Park
PNB	Banhine National Park
PNG	Gilé National Park
PNL	Limpopo National Park
PNQ	Quirimbas National Park
PNZ	Zinave National Park
PPF	Peace Parks Foundation
PUT	Land use plan
	QGAC Quadro de Gestão Ambiental e Social
RAP	Resettlement Action Plan
REDD	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
REM	Maputo Special Reserve
RNC	Chimanimani National Reserve
RPF	Resettlement Policy Framework
TFCA	Transfrontier Conservation Area
TFCATDP	Transfrontier Conservation Areas And Tourism Development Project
TFCAU	Transfrontier Conservation Areas Unit
TOR	Terms of Reference
TTL	Task Team Leader (World Bank)
UN	United Nations

WWF Worldwide Fund for Nature

PROJECTO MOZBIO
MOÇAMBIQUE
Quadro de Gestão Ambiental e Social

Sumário Executivo

Introdução

O Governo de Moçambique, através do Ministério do Turismo (MITUR) tem vindo a implementar o Programa de Áreas de Conservação Transfronteiriça (ACTF) tendo como objectivos de longo prazo a conservação da biodiversidade e dos ecossistemas naturais nas ACTF e a promoção do crescimento e desenvolvimento económico, baseado no uso sustentável de recursos naturais pelas comunidades locais, com particular enfase no ecoturismo. Este programa tem sido financiado pelo GEF e pelo Banco Mundial.

O Programa ACTF foi concebido para um período de 15 – 20 anos, a ser desenvolvido em três fases. A primeira fase (1998-2003) – Projecto-piloto de Áreas de Conservação Transfronteiriça e Fortalecimento Institucional, foi desenvolvido no contexto do interesse crescente, em iniciativas de desenvolvimento espacial de grande escala (incluindo transfronteiriças), na região da África Austral. Nesta primeira fase foi lançado o conceito das ACTF na região. A segunda fase (2005-2013) – Projecto de Áreas de Conservação Transfronteiriças e Desenvolvimento Turístico visou implementar o conceito de ACTF no terreno, nas três ACTFs originais: Limpopo, Lubombo e Chimanimani de Mozambique.

A presente fase – **Áreas de Conservação de Moçambique para Biodiversidade e Desenvolvimento Sustentável (MozBio)** tem como Objectivo de Desenvolvimento do Projecto e como Objectivo Ambiental Global *aumentar a gestão efectiva das áreas de conservação e desenvolver a contribuição destas áreas para a diversificação de oportunidades económicas.*

O projeto

O Projecto MozBio, será implementado ao longo de um período de seis anos, com início em 2015, contendo as seguintes componentes:

Componente 1: Fortalecimento Institucional para Gestão da Áreas de Conservação visando melhorar a capacidade da ANAC, BioFund e MICOA para desenvolver e influenciar as políticas e regulamentos de conservação e turismo, desenvolver a coordenação e gestão do sistema nacional das áreas de conservação e preservação de espécies ameaçadas, melhorar a sustentabilidade financeira das áreas de conservação e

das receitas do turismo, melhorar os sistemas de monitoria e avaliação e apoiar estratégias de comunicação.

Componente 2: Promoção do Turismo em Áreas de Conservação aumentar as receitas e o número de beneficiários de actividades económicas relacionadas com o turismo em Áreas de Conservação.

Componente 3: Melhoria da Gestão das Áreas de Conservação para melhorar infraestruturas, equipamento, proteção, gestão, investigação, monitoria e planeamento nas áreas de conservação, selecionadas pelo Projecto MozBio - Áreas de Conservação Alvo: Zinave, Banhine, Chimanimani, Marromeu e Coutadas da envolvente (N^{os} 10, 11, 12 e 14), e Reserva Nacional do Gile, Reserva Especial de Maputo, Reserva Marinha da Ponta do Ouro, Parques Nacionais das Quirimbas, do Bazaruto, Pomene e Limpopo.

Componente 4: Actividades Piloto promovendo Modos de Vida Sustentáveis no Entorno das Áreas de Conservação, para melhorar o modo de vida de comunidades que residem nas Áreas de Conservação e envolvente, através de: (i) apoio à integração das comunidades e a sua contribuição para as Áreas de Conservação (ii) desenvolvimento de modos de vida sustentáveis dentro e à volta das Áreas de Conservação – incidindo no nível de subsistência sustentável, sistemas de produção (ex: pesca, agricultura, silvicultura, pecuária) e/ou outras fontes de rendimento gerando oportunidades tal como as relacionadas com o turismo e o REDD+; (iii) redução do número de conflitos homem - animal, dentro e à volta das áreas de conservação; e (iv) redução da desflorestação dentro e à volta da Reserva Nacional de Gilé e do Parque National das Quirimbas.

Componente 5: Gestão, Monitoria e Avaliação do Projecto para apoiar a equipa de especialistas da ANAC, cuja tarefa será assegurar que o planeamento, implementação, *procurement*, gestão financeira e monitoria do projecto são realizados com diligência e integridade tal como é descrito nos seus respectivos manuais.

Serão implementadas intervenções físicas no âmbito das Componentes 3 e 4, designadamente:

> *Componente 3* inclui infraestruturas para melhorar a gestão das áreas de conservação alvo, tal como construção de estruturas para o alojamento dos trabalhadores e outros fins relacionados com a gestão, estradas, pontes, campos de aviação, infraestruturas para o desenvolvimento do turismo e outras infraestruturas gerais tais como vedações, energia elétrica, abastecimento de água, comunicações.
>
> *Componente 4* inclui intervenções focadas no nível de subsistência sustentável (principalmente para comunidades situadas dentro das áreas protegidas), sistemas de produção sustentáveis (por ex., pesca, agricultura, silvicultura, pecuária e apicultura) e/ou outras intervenções que criem oportunidades de geração de rendimentos como o turismo ou actividades relacionadas com o reflorestamento (REDD+) destinada a comunidades da envolvente das áreas de conservação.

O projecto MozBio será financiado por um empréstimo de 70 milhões de USD da Agência Internacional de Desenvolvimento (IDA), um donativo de 6,92 milhões de USD do GEF e um empréstimo de 23,8 milhões da Agência Francesa de Desenvolvimento. Será implementado pela Unidade de Implementação do Projecto MozBio (UIP MozBio), que será constituída com base na unidade ACTF existente.

Outras entidades, incluindo ANAC, BioFund, MICOA assim como organizações a nível comunitário, irão implementar actividades específicas do projecto.

As actividades físicas a serem realizadas sob as Componentes 3 e 4 accionam a Política de Avaliação Ambiental (OP.4.01 do Banco Mundial), que classifica o Projecto MozBio com a Categoria B, ou seja podem ser requeridos planos de gestão ambiental e social específicos para algumas actividades. Visto que este projecto irá integrar subprojectos que poderão resultar em impactos ambientais e/ou sociais adversos, mas que não serão definidos em detalhe antes da avaliação global do projecto para financiamento pelo Banco Mundial, a O.P. 4.01 exige a elaboração de um Quadro de Gestão Ambiental e Social (QGAS).

O QGAS busca estabelecer procedimentos que irão permitir que as instituições responsáveis pela implementação de subprojectos identifiquem, avaliem e atenuem os impactos sociais e ambientais dos investimentos nos subprojectos. O QGAS também determina as medidas institucionais a serem realizadas durante a implementação do projecto, incluindo as relacionadas com a capacitação.

O presente documento é o QGAS para o Projecto MozBio. Será divulgado em Moçambique e no InfoShop doBanco Mundial antes da avaliação do projecto.

Quadro legal e institucional de Moçambique em aspectos sociais e ambientais

Em Moçambique a Lei do Ambiente define as bases legais para o uso e gestão do ambiente como meio de garantir o desenvolvimento sustentável do País. De acordo com esta lei, a Avaliação do Impacto Ambiental é um instrumento que apoia a tomada de decisão sobre a atribuição da licença ambiental. O licenciamento ambiental deve preceder qualquer outra licença legalmente exigida em todas as actividades públicas e privadas que podem ser direta ou indiretamente afetadas pelo ambiente. O processo de Avaliação de Impacto Ambiental é regulamentada pelo Decreto n° 45/2004 enquanto auditoria ambiental e inspeção ambiental são reguladas, respectivamente, pelos Decretos nº. 32/2003 e 11/2006.

O Regulamento do Processo de AIA define todas as fases do processo AIA – triagem (*screening)*, definição do âmbito, conteúdo dos estudos, processo de participação pública, revisão e aprovação pela autoridade ambiental. A primeira fase do processo de avaliação ambiental e social é a triagem, que define o tipo e nível de detalhe do estudo de avaliação ambiental e social. Assim como a Política Operacional do Banco Mundial, o Regulamento Moçambicano de AIA considera três categorias a fim de identificar o nível adequado de avaliação de impacto ambiental: Categoria A (é necessário um Estudo de Impacto Ambiental completo – o EIA, com Plano de Gestão Ambiental específico), Categoria B (é necessário um Estudo Ambiental Simplificado – o EAS, com Plano de Gestão Ambiental específico) e Categoria C (isenta de um EIA ou EAS).

Outros aspectos relevantes incluem legislação sobre: gestão de resíduos sólidos, padrões de emissão atmosférica, qualidade do ar e ruído, recursos de água, qualidade da água, pesticidas, gestão costeira, propriedade da terra, planeamento do uso da terra, património cultural, áreas protegidas e de conservação, reassentamento involuntário.

As políticas, estratégias, planos e programas nacionais relevantes incluem o Programa Nacional de Gestão Ambiental (PNGA), o Plano Nacional de Biodiversidade e (PNB), o

Plano Estratégico para o Desenvolvimento do Turismo em Moçambique (PEDT), o terceiro Plano de Acção para Redução da Pobreza (PARP III).

O quadro institucional para o QGAS está centrado no Ministério para a Coordenação da Acção Ambiental (MICOA) e no Ministério do Turismo (MITUR). As áreas de conservação são geridas pela recentemente criada Administração Nacional de Áreas de Conservação - ANAC, sob o MITUR. O MICOA é responsável pela gestão ambiental intersectorial. As Direcções Provinciais para a Coordenação da Acção Ambiental (DPCAs) terão um papel-chave no que diz respeito à avaliação e aprovação dos subprojectos do MozBio, a fim de garantir a conformidade com legislação ambiental moçambicano e as garantias apresentadas no QGAS. O Conselho Nacional para o Desenvolvimento Sustentável (CONDES) é o órgão consultivo do Conselho de Ministros no que se refere às questões ambientais.

Políticas de Salvaguarda do Banco Mundial

Há dez Políticas de Salvaguarda do Banco Mundial, criadas para apoiar o processo de tomada de decisão, assegurando que os projectos financiados pelo Banco são ambientalmente e socialmente sustentáveis. Estas políticas operacionais incluem: Avaliação Ambiental (OP 4,01), Habitats naturais (OP 4.04), Floresta (OP 4.36), Gestão Integrada de Pragas (OP 4.09), Património Cultural (OP 4.11), Povos Indígenas (OP 4.10), Reassentamento involuntário (OP 4.12), Segurança de Barragens (OP 4.37), Projetos em Águas Internacionais (OP 7.50) e Projetos em Áreas Controversas (OP 7.60).

O Projecto MozBio despoleta seis destas Políticas de Salvaguarda, nomeadamente OP 4.01 Avaliação Ambiental; OP 4.04 Habitats Naturais; OP 4.36 Floresta, OP 4.09 Gestão de Pragas, OP 4.11 Património Cultural; OP 4.12 Reassentamento Involuntário.

A OP 4.01 - Avaliação Ambiental categoriza os projectos em Categorias A, B, ou C dependendo da importância do seu potencial impacto ambiental e/ou social adverso. De acordo com esta política o Projecto MozBio é categorizado como B. Uma vez que os investimentos dos subprojectos e os seus potenciais impactos negativos localizados não serão definidos antes da avaliação do projecto pelo BM, o documento de salvaguarda apropriado da OP 4.01 é um Quadro de Gestão Ambiental e Social (QGAS). Complementarmente é elaborado um Plano de Gestão de Pragas para obedecer à OP 4.09 – Gestão de Pragas, assim como o Quadro da Política de Reassentamento, obedecendo à OP 4.12 – Reassentamento Involuntário.

As políticas de salvaguarda do Banco Mundial e o quadro legal Moçambicano sobre Avaliação Ambiental estão alinhados em princípios e em objectivos. A principal discrepância refere-se à não existência na legislação nacional de um instrumento de avaliação ambiental, equivalente um QGAS e consequentemente a não existência de qualquer mecanismo nacional que o aprove. Adicionalmente deve-se ressaltar que de acordo com o regulamento de EIA actividades propostas em áreas de conservação são classificadas como sendo de actividades de Categoria A, o que não acontece na OP 4.01 que determina que a categorização de uma actividade é determinada durante o processo de triagem, estando dependente da sensibilidade do local de implantação, da dimensão do projecto e da natureza e magnitude dos seus potenciais impactos ambientais e sociais.

As lições aprendidas na implementação do Projecto ACTF

A Unidade ACTF tem vindo, há seis anos, a implementar a segunda fase do Projecto ACTF, seguindo os respectivos Quadro de Gestão Ambiental e Social (QGAS), Quadro da Politica de Reassentamento (QPR) e Quadro do Processo de Participação (QPP). Neste projecto, todos os contractos que envolveram a construção de infraestruturas ou estruturas físicas passaram por processos de avaliação de impacto ambiental e social, conforme requerido pelo MICOA e pelo QGAS aprovado.

Os estudos de avaliação do impacto ambiental e social foram realizados por consultores contratados. O Banco fiscalizou (pós-revisão) a qualidade deste trabalho e considerou-o satisfatório.

As salvaguardas sociais, o QPP e o QPR foram supervisionados pela DINAC. Para o QPR, que foi financiado pela KfW, a DINAC utilizou assistência técnica do INGC para fiscalizar a execução do Plano de Acção de Reassentamento do Parque Nacional do Limpopo, que tem sido classificada como moderadamente satisfatória, devido a atrasos em algumas etapas.

No entanto, deve ser salientado que foram identificadas algumas discrepâncias na actuação de diferentes direcções provinciais de ambiente, no processo de categorização dos projectos, assim como na duração do processo de AIA, o que não parece estar relacionado com a complexidade dos subprojectos ou a sensibilidade das áreas de implantação. Isto resultou em atrasos.

Assim, são recomendadas algumas medidas de modo a melhorar a implementação do QGAS durante o Projecto MozBio:

Carácter Institucional

Recrutamento de especialistas ambiental e social para a ANAC (Componente 1).

Definição de procedimentos para o processo de triagem dos subprojectos do MozBio, no âmbito do Memorando a ser assinado entre o MITUR e o MICOA sobre o Projecto MozBio.

Desenvolvimento de Capacidades

Formação para especialistas em AIAS (ANAC).

Realização de Seminário sobre Avaliação Ambiental e Social na Gestão de Áreas de Conservação para representantes da DINAIA, DPCAs, ANAC e administrações das CA.

Legal

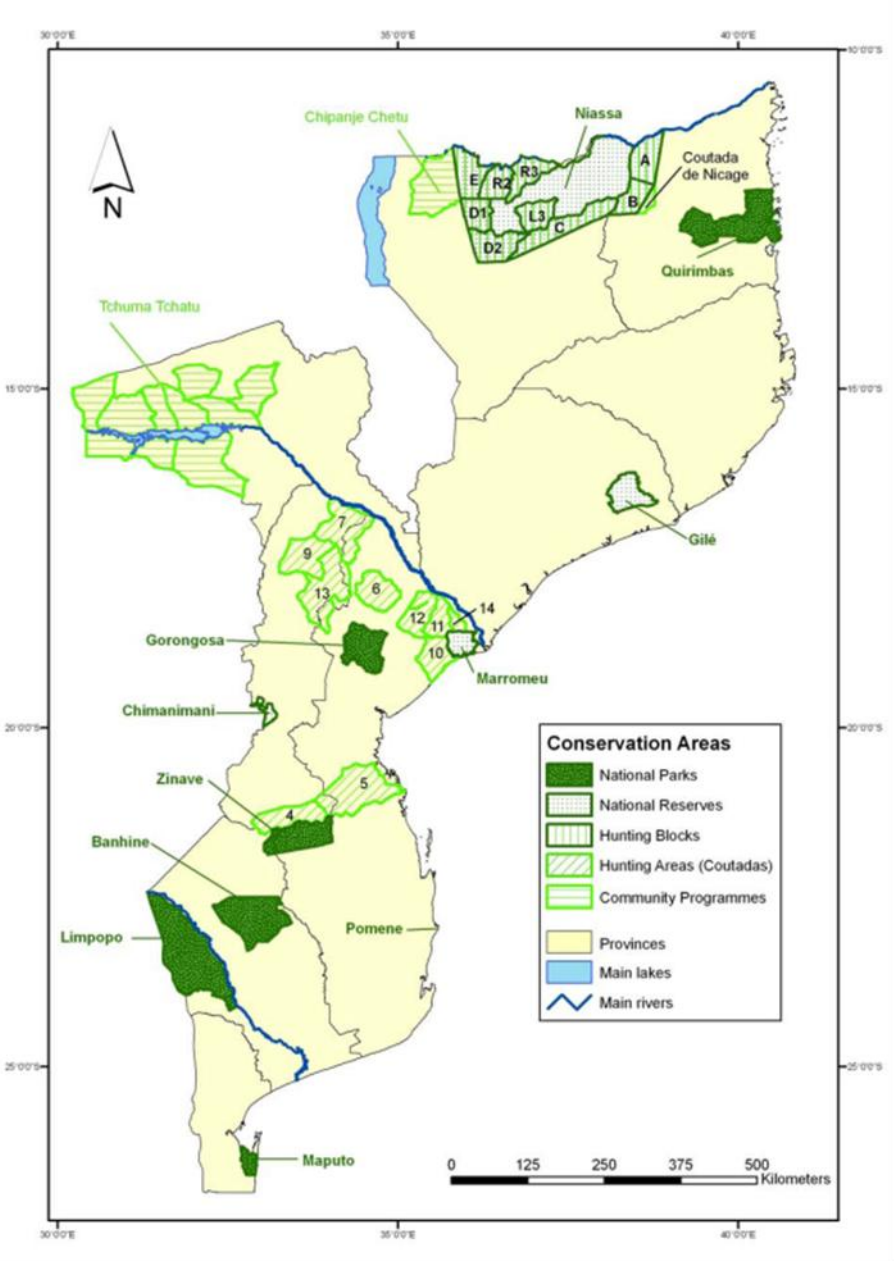
Proposta de introdução do caso específico de actividades propostas pela ANAC e/ou CAs administrações das ACs, relacionadas com a melhoraria da gestão e conservação da biodiversidade, no âmbito da revisão, do Regulamento do EIA, em curso.

Caracterização Social e Ambiental

Moçambique está no sudeste da costa de África, banhada pelo Oceano Índico a leste, na Tanzânia a norte, o Malawi e a Zâmbia a nordeste, do Zimbabwe a oeste e a Suazilândia e África do Sul a Sudoeste (Figura 1). O País possui 20 milhões de habitantes, 800 mil km^2 e 2.700 km de litoral. O País apresenta em geral baixas altitudes, com apenas 13%

da sua área acima dos 1000 m. Moçambique tem 35 grandes rios, todos desaguando no Oceano Índico. A maior parte dos rios tem um regime torrencial, com grandes caudais na estação chuvosa e baixos caudais na estação seca. O principal tipo de vegetação ocorrente é a savana arbórea, que cobre 70% da área do País. Outros tipos de vegetação importantes incluem: Mata de Acacia, floresta dunar, um sub-bosque, planície litoral savana de palmeiras, vegetação aluviar e mangais. As zonas húmidas marinhas e de água doce são locais importantes para as aves migratórias e espécies de aves aquáticas residentes. A zona costeira está dividida em três grandes regiões naturais: a costa de corais , o litoral pantanoso e a costa de dunas parabólico. A costa é caracterizada por diversos habitats, incluindo: sistemas estuarinos; zonas húmidas costeiras e dunas costeiras, praias de areia branca; zonas inter-marés; mangais; pradarias de ervas marinhas; recifes de coral e águas abertas que são o lar de um rico e variado conjunto de espécies vegetais e animais.

Acrualmente as áreas de conservação (CA) formais de Moçambique incluem: **Parques Nacionais** (seis) - *Parque National do Bazaruto* (1430km^2, exclusivamente marinha) e *Parque Nacional das Quirimbas* (7.500 km^2, dos quais aproximadamente 1.500 km^2, é marine) e a terrestre parques: *Banhine* (7.000 km^2), *Parque Nacional da Gorongosa* (10.000 km^2), Limpopo (10.000 km^2) e *Zinave* (3700 km^2), **as Reservas Nacionais** (seis) - *Gilé* (2.100 km^2), *Marromeu* (1.500 km2) *Reserva Nacional* do *Niassa* (42000 km^2), *Reserva Especial* de Maputo (700 km2), *Reserva Nacional de Chimanimani* (7.500 km2) e *Pomene* (200 km2), **Reserva Biológica Marinha** (um) - Inhaca (100km^2); ***Coutadas*** (13) (totalizando 42017 km^2); **Reserva Marinha parcial** (um) - *Reserva Marinha Parcial da Ponta do Ouro* (67,800ha); e **Reservas Florestais** (treze) totalizando 494,50km^2). Além disso, destacou-se a existência de comunidade genetï como Tchuma-Tchato na província de Tete e Chipanje Chetu, perto do Niassa reserva nacional.



Algumas áreas de conservação de Moçambique foram ligadas a áreas de conservação de países vizinhos, como parte da Comunidade para o Desenvolvimento da África Austral (SADC) Área de Conservação Trans-fronteira (ACTF) nomeadamente. - *Grande Limpopo*, *Lubombo*, *Niassa-Cabo Delgado*, *Chimanimani*. No entanto, apenas Lubombo e Limpopo acordaram protocolos internacionais de gestão.

A maioria das actuais áreas de conservação foram formalmente criadas durante o período colonial (1960 e 70s). A maioria deles foram afetadas durante os conflitos armados tanto devido à caça furtiva e/ou criação ou aumento de aglomerados populacionais dentro das áreas de conservação. Actualmente, as principais ameaças nas áreas de conservação alvo do MozBio são as pressões da comunidade, caça ilegal; queima descontrolada e a exploração dos recursos naturais.

O desenvolvimento do turismo, nomeadamente em áreas de conservação poderia dar uma contribuição importante para a redução da pobreza.

Potenciais Impactos Ambientais e Sociais

As intervenções físicas Projeto MozBio podem resultar em impactos ambientais e sociais, cuja significância pode ser influenciada pela sensibilidade da área (dentro ou no entorno da área de conservação). As componentes ambientais e sociais que podem ser diretamente afetadas incluem:

Meio Ambiente

- *Solos*: que podem ser erodidos devido às obras ou atividades agropecuárias e/ou poluídos com resíduos sólidos, pesticidas, a fuga ou derrame de produtos perigosos;
- *Recursos Hídricos*: incluindo água interiores e marinhas que podem ser afetados por captações e desvios ou devido à descarga de fertilizantes, nutrientes, diferentes produtos químicos utilizados na gestão de pragas, obras civis, os derrames de hidrocarbonetos, etc.;
- *Qualidade do Ar* : que tem o potencial de ser afetado de forma negativa por poeiras geradas a partir de diversas atividades de construção/reabilitação e operações do projeto como pela emissão de poluentes (incluindo gases com efeito de estufa), emissões provenientes de veículos, máquinas (incluindo geradores a diesel).
- *Ruído ambiente:* gerado a partir de diferentes atividades durante trabalhos de construção civil, bem como em algumas operações do projeto
- *Vegetação*: que em geral se beneficiará com o Projeto MozBio mas que pode ser localmente afectada devido a desmatação para construção e até mesmo reabilitação de novas infraestruturas e projetos de desenvolvimento comunitário.
- *Fauna*: que será beneficiada com a melhoria da gestão da conservação - o principal objetivo do MozBio, mas que pode ser perturbada durante a construção e o funcionamento das actividades.
- *Paisagem*: que pode ser afetada por novas infraestruturas e projetos de desenvolvimento comunitário

Social

- *Deslocamento físico* e/ou perda de terrenos e/ou outros bens
- *Emprego:* impacto positivo para as comunidades locais
- *Os conflitos com comunidade local*: devido ao uso dos recursos naturais e/ou culturais "estrangeiro" os trabalhadores e visitantes
- *Saúde pública:* aumento de doenças, como doenças sexualmente transmissíveis (HIV/AIDS), e as doenças de origem hídrica.
- *Segurança Pública*: acidentes com veículos/máquinas e peões
- *Saúde e segurança dos* trabalhadores da construção civil
- *Património Cultural*: destruição ou perturbação de cemitérios, locais sagrados ou locais com vestígios arqueológicos, históricos ou valor estético.

O QGAS inclui listas de potenciais impactos e medidas de mitigação a serem implementadas nos subprojectos de infraestruturas, agricultura, pecuária, pescas e actividades de turismo. Estas listas deverão ser analisadas logo na fase de concepção dos subprojectos a fim de incluir medidas específicas de mitigação nas fases de planeamento e de desenho do projeto, garantindo o desenho de projetos adequados em termos ambiental e social, bem como, durante fases de construção e de exploração para evitar ou minimizar impactos negativos.

Orientações para a Implementação do QGAS

A UIP MozBio irá conduzir todos os processos de avaliação ambiental e social dos projectos de infra-estruturas e apoiar os proponentes dos subprojectos durante todo o processo, de forma a garantir o cumprimento adequado do QGAS. Os especialistas ambiental e social da ANAC irão dar assistência durante os processos de categorização dos subprojectos, preparação de termos de referência para os estudos ambientais e sociais necessários, facilitação, coordenação, revisão dos estudos e planos de gestão ambiental e social (antes da entrega ao Banco Mundial e MICOA para aprovação), monitoria e avaliação de todos os subprojectos.

Como parte do QGAS, o processo de categorização ambiental e social irá ajudar a (i) determinar quais as actividades de construção ou reabilitação susceptíveis de ter potencial impacto negativo ambiental e/ou social; (ii) determinar o nível de estudo ambiental e social necessário; (iii) determinar as medidas de mitigação para abordar os impactos adversos; (iv) incorporar medidas de mitigação nos subprojectos financiados pelo Projeto MozBio; (v (vi) indicar a necessidade de elaboração de um Plano de Gestão das Pragas especifico (PGP), seguindo os princípios do PMG do MozBio (vii) Facilitar a revisão e a aprovação das propostas de construção e reabilitação; e (viii) orientar a monitoria dos parâmetros ambientais e sociais durante a implementação e a operação do subprojeto actividades.

Enquanto o proponente das infraestruturas subprojectos (Componente 3) será o Ministério do Turismo, através das administrações das áreas de conservação, o desenvolvimento de subprojectos comunitário serão propostos por associações comunitárias. Todos os subprojectos terão de cumprir com o OP 4.01 e os requisitos legais nacionais sobre gestão ambiental e social.

O QGAS inclui também guias para a compilação dos requisitos ambientais e sociais a incluir nos documentos de concurso e dá indicações para supervisão, monitoria e elaboração de relatórios sobre a implementação do QGAS.

Capacitação e treinamento

A implementação bem-sucedida do projeto vai depender entre outros da efetiva implementação das medidas de gestão ambiental e social delineadas nos documentos do MozBio sobre as políticas de salvaguarda - Quadro do Processo de Participação (QPP) e do Plano de Gestão de Pragas (PGP). Para tal será necessária formação e capacitação das principais partes envolvidas.

A capacitação irá compreender acções formação e/ou sensibilização, destinadas a membros da UIP MozBio e da ANAC, bem como da Administração das CA, DPCAs e outras direcções provinciais, ONGs e associações comunitárias.

Orçamento

Os custos de implementação do QGAS estão relacionados com a capacitação institucional, assim como de outros intervenientes, o custo de contratação de consultores para a elaboração de estudos de avaliação de impacto ambiental e social e planos de gestão ambiental e social para alguns projectos

O custo total para a implementação do QGAS está estimado em US$445,000.00.

MOZBIO PROJECT
MOZAMBIQUE
Environmental and Social Management Framework (ESMF)

Executive Summary

Introduction

The Government of Mozambique, through the Ministry of Tourism (MITUR) has been implementing the Transfrontier Conservation Area (TFCA) Program which has as long-term objectives the conservation of the biodiversity and natural ecosystems within the TFCAs, and the promotion of economic growth and development, based on sustainable use of their natural resources by local communities, with a particular emphasis on ecotourism. This program has been funded by the GEF and the World Bank.

The TFCA Program was designed for a period of 15-20 years, to be developed in three phases. The first phase (1998-2003) - Transfrontier Conservation Areas Pilot and Institutional Strengthening project (TFCAPISP), was developed in the context of a growing interest in large scale (including transfrontier) spatial development initiatives (SDI) within the southern African region. The second phase (2005-2013) - Transfrontier Conservation Areas and Tourism Development Project (TFCATDP) intended to implement the TFCA concept on the ground in the original three TFCAs: Limpopo, Lubombo and Chimanimani of Mozambique.

The present project - Mozambique Conservation Areas for Biodiversity and Sustainable Development (MozBio) has as Project Development Objective (PDO) and Global Environment Objective (GEO) to increase the effective management of conservation areas and improve the contribution of these areas to the diversification of economic opportunities.

The project

The MozBio Project, will be implemented over a six-year period, to be initiated in 2015. It will contain the following components:

Component 1: Strengthening Institutions for Conservation Area Management to improve the capacity of ANAC, BioFund and MICOA to develop and influence conservation and tourism policies and regulations, strengthen coordination and management of the national conservation areas system and critically endangered species conservation, increase the financial sustainability of conservation areas and tourism revenues, improve monitoring and evaluation systems and support communication strategies.

Component 2: Promotion of Tourism in Conservation Areas to increase revenues and the number of beneficiaries from tourism-related economic activities in Conservation Areas.

Component 3: Improving Conservation Areas Management to improve the infrastructure, equipment, protection, management, research, monitoring and planning in selected conservation

areas in Mozambique. Target conservation areas: Zinave, Banhine, Chimanimani, Marromeu and surrounding four coutadas (No's 10, 11, 12 and 14), and Gile National Reserve Maputo Special Reserve, Punta do Ouro Marine Reserve, Quirimbas National Park, Bazaruto/Pomene National Park and Limpopo National Park.

Component 4: Pilloting Sustainable Livelihoods around Conservation Areas to improve the livelihood of communities living in and around targeted Conservation Areas by: (i) enhancing community integration and contribution to Conservation Areas; (ii) improving sustainable livelihoods within and surrounding conservation areas - focused on sustainable subsistence level, production systems (e.g. fisheries, agricultural, forestry, livestock) and/or other income generating opportunities such as tourism related and REDD+; (iii) reducing human-wildlife conflicts within and surrounding Conservation Areas; and (iv) reducing deforestation within and surrounding the Gilé National Reserve and the Quirimbas National Park.

Component 5: Project Management, Monitoring and Evaluation to support a team of experts in ANAC, whose task would be to ensure that the project planning, implementation, procurement, financial management and monitoring are carried out with diligence and integrity as describe by their respective manuals.

Physical interventions would be undertaken under Components 3 and 4.

Component 3 will comprise infrastructures to improve the management of the target conservation areas – as housing for staff accommodation and other buildings, roads, bridges/rifts and airstrips, tourism development infrastructures and other general infrastructures, as fencing, electrical power, water supply, communications.

*Component 4*would include interventions focusing on sustainable subsistence level (particularly to communities inside protected areas), sustainable production systems (e.g. fisheries, agricultural, forestry, livestock, and apiculture) and/or other income generating opportunities such as tourism related interventions and reforestation (REDD+).

The MozBio project will be financed by a US$ 40 million IDA loan, a US$ 6.3 million GEF grant and US$ 23.5 million AfD loan. It will be implemented by the MozBio Project Implementing Unit (MozBio PIU), which will build on the existing TFCA Unit with some changes in staffing. Other entities, including ANAC, BioFund, MICOA as well as community-level organizations, will implement specific activities of the project.

The physical activities to be carried out under Components 3 and 4 would trigger the environmental assessment policy (OP.4.01 the World Bank). MozBio Project is classified as Category B project. As this project will comprise subprojects that will not be defined before appraisal but that may result in adverse environmental and/or social impacts, the O.P. 4.01 requires an Environmental and Social Management Framework (ESMF).

This ESMF seeks to establish a process of environmental and social screening which will allow the institutions in charge of the implementation of the subprojects to identify, assess and mitigate the environmental and social impacts of subproject investments. The ESMF also determines the institutional measures to be taken during the project implementation, including those relating to capacity building.

The present document is the ESMF for MozBio Project. It will be disclosed in Mozambique and at the World Bank's InfoShop prior to Appraisal of the Project.

Mozambican Legal and Institutional Framework on Social and Environmental Aspects

In Mozambique the Environmental Law defines the legal bases for the use and management of the environment as a means of safeguarding the sustainable development of the country. According to this Law, Environmental Impact Assessment is an instrument that supports the decision-making on the allocation of environmental license. The environmental licensing should precede any other license legally required in all public and private activities that can be directly or indirectly affected by the environment. The Environmental Impact Assessment Process is regulated by Decree No. 45/2004 while Environmental Auditing and Environmental Inspection are regulated respectively by Decrees no. 32/2003 and 11/2006.

The EIA Regulation define all the stages of the EIA Process – screening, scoping, content of the EA studies, public participation process, revision and approval by the environmental authority. The first stage of the environmental assessment process is the screening, to define the extent and type of required environmental assessment. As in World Bank Operational Policy, Mozambican Regulation on EIA considers three categories of project to identify the appropriate level of environmental assessment: Category A (full EIA required), Category B (Simplified Environmental Study – SES required) and Category C (exempt from an EIA and SES).

Other relevant legal aspects comprise legislation on: solid waste management, air emissions, air quality and noise, water resources, water quality, pesticides, coastal management, ownership of land, land use planning, cultural heritage, protected and conservation areas, involuntary resettlement.

Relevant policies, strategies, programs and plans include the National Environmental Management Program (NEMP), National Biodiversity and Action Plan (NBSAP), Strategic Plan for the Development of Tourism in Mozambique (SPDTM), Poverty Reduction Action Plan III (PARP III).

The institutional framework for the ESMF is centered in the Ministry for Coordination of Environmental Affairs (MICOA) and on the Ministry of Tourism (MITUR). The conservation areas are managed by the recent created National Administration of Conservation Areas – ANAC, under MITUR. The Ministry for the Coordination of Environmental Affairs is responsible for cross-sectorial environmental management. Provincial Directorates for the Coordination of Environmental Affairs (DPCA) will have a key role in the appraisal and approval of subprojects to ensure compliance with Mozambican environmental legislation and the safeguards outlined in the ESMF. The National Council for Sustainable Development (CONDES) is Cabinet's consultative body on environmental issues.

World Bank's Safeguard Policies

There are ten safeguard policies in the World Bank, created to inform decision making, ensuring that projects financed by the Bank are environmentally and socially sustainable. These Operational Policies include: Environmental Assessment (OP 4.01), Natural Habitats (OP 4.04), Forestry (OP 4.36), Pest Management (OP 4.09), Cultural Heritage (OP 11.03), Indigenous People (OP 4.10), Involuntary Resettlement (OP 4.12), Safety of Dams (OP 4.37), Projects on International Waterways (OP 7.50) and Projects in Disputed areas (OP 7.60).

MozBio triggers six of the World Bank's Safeguard Policies, namely OP 4.01 Environmental Assessment; OP 4.04 Natural Habitats; OP 4.36 Forestry, OP 4.09 Pest Management, OP 4.11 Cultural Heritage; OP 4.12 Involuntary Resettlement OP 4.01 Environmental Assessment categorizes the projects in Categories A, B, or C depending on the significance of its potential adverse environmental and social impacts. Since the sub-projects investments and their potential negative localized impacts will not be firmed up before appraisal, the appropriate safeguard document to comply with OP 4.01 at appraisal is an Environmental and Social Management Framework (ESMF). In addition a Pest Management Plan is required to comply with, OP 4.09 - Pest Management as well as a Process Framework to comply with OP 4.12 - Involuntary Resettlement.

The World Bank safeguards policies and Mozambican legal framework on Environmental Assessment are generally aligned in principle and objective. The main discrepancy refers to the nonexistence in the national legislation of any EA instrument such as an ESMF and therefore no national mechanism to approve it. In addition it shall be stressed that according to the EIA regulation proposed activities within conservation zones or areas are classified as Category A activities, while for the OP 4.01, the classification would be determined during the screening process, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts.

Lessons learned from the implementation

The TFCA Unit (TFCAU) has been implementing the second phase of TFCA II for four years following the Environment and Social Management Framework (ESMF), a Process Framework (PF) and a Resettlement Policy Framework (RPF) prepared for that phase. Under this project, all construction contracts went through an environmental and social impact assessment process, per the requirement of the Ministry of Environment Affairs (MICOA) and the approved ESMF.

The environmental and social impact assessments studies were carried out by hired consultants. The Bank supervised (post review) the quality of this work and found it satisfactory.

Social safeguards, the PF and RPF were overseen by DINAC. The RPF was financed by KfW and implemented by DINAC who has used the technical assistance of INGC to supervise the execution of the RAP in the Limpopo National Park that has been rated moderately satisfactory, due to delays in some of the steps.

However, it shall be stressed that some discrepancies were found out between the environmental provincial directorates on the screening process as well as on the EIA process duration, which do not seems to be related with the complexity of the subprojects or sensitivity of the subproject areas and resulted in delays.

Some measures are recommended in order to improve the ESMF implementation during the MozBio Project:

Institutional

Recruitment of an environmental and a social specialists for the ANAC (Component 1).

The Memorandum between MITUR and MICOA on the MozBio project should defines procedures for screening process of the MozBio's subprojects.

Capacity Building

Technical training for ANAC's environmental and social specialists.

Workshop on environmental and social assessment in conservation areas management to be attended by DINAIA, DPCAs as well MozBio PIU, ANAC and CA administrations.

Legal

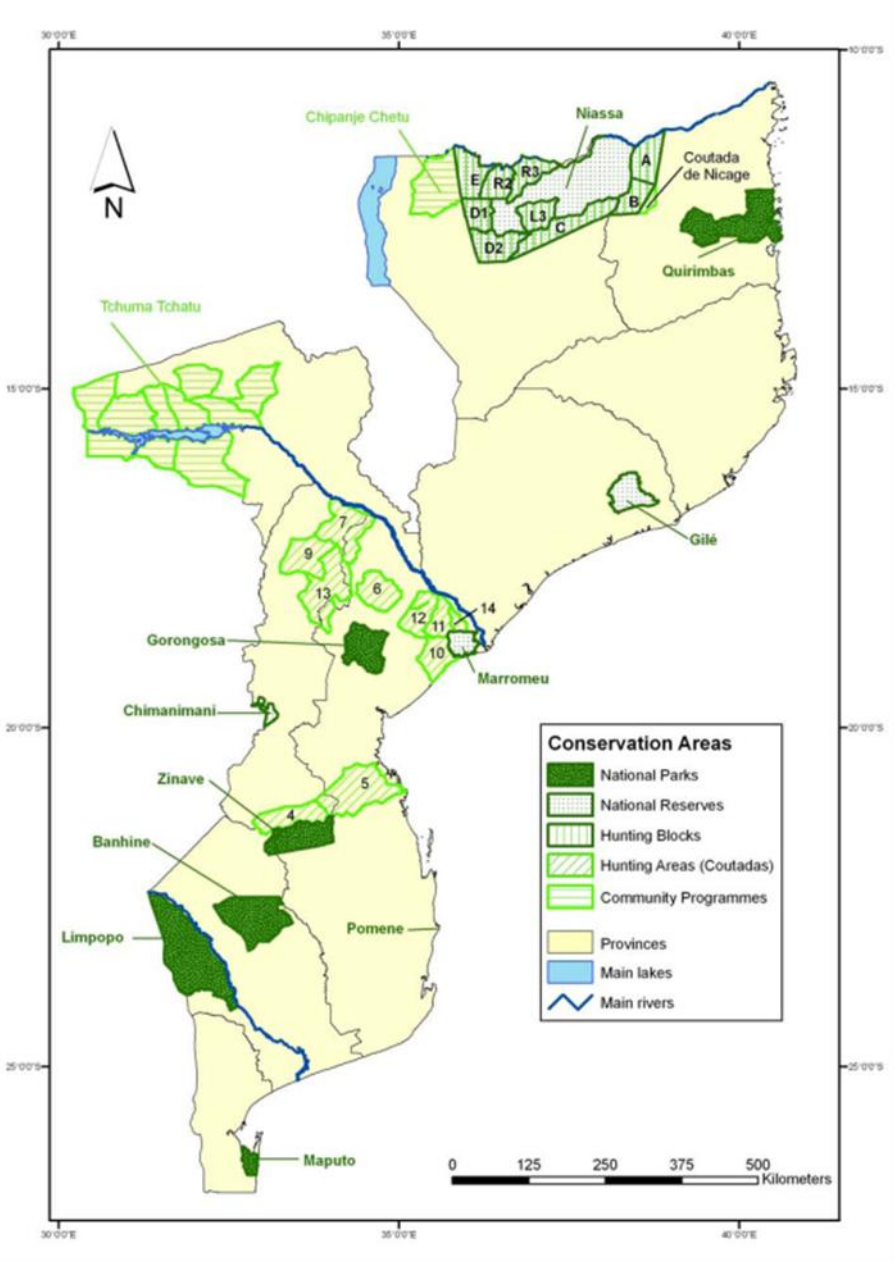
In the scope of the proposed ongoing revision of EIA Regulation MITUR should propose the inclusion of the particular case of activities proposed by the CAs administration, to improve the biodiversity conservation.

Environmental and Social Baseline

Mozambique is on the south-eastern coast of Africa, bordered by the Indian Ocean to the east, Tanzania to the north, Malawi and Zambia to the northwest, Zimbabwe to the west and Swaziland and South Africa to the Southwest. The country has 20 million inhabitants, 800 thousand km^2 and 2,700 km coastline. The country is generally low-lying, with only 13% of the

country above 1,000 m. Mozambique has thirty-nine major rivers, all of which drain into the Indian Ocean. Most of the rivers have a torrential regime, with high flows during the rainy season and low flows the rest of the year. The main vegetation type in Mozambique is savannah woodland, that covers 70% of the country area. Other important vegetation types include: Acacia woodland, dune forest, a sub-littoral woodland, lowland palm savanna, vegetation on alluviums and mangroves. The freshwater and marine wetlands of Mozambique are important sites for migratory and resident aquatic bird species. The coast area is divided into three main natural regions: the *coral coast*; the *swampy coast*; and the *parabolic dune coast.* The coastline is characterized by diverse habitats, including: estuarine systems; coastal wetlands; coastal dunes; sandy beaches; intertidal mud flats; mangrove forests; seagrass beds; coral reefs and open water that are home to a rich and diverse assemblage of plant and animal species.

The current formal conservation areas (CA) includes: **National Parks** (six) - *Bazaruto National Park* (1430km^2 exclusively marine) and *Quirimbas National Park* (7500 km^2, of which ~1500 km^2 is marine) and the terrestrial parks: *Banhine* (7000 km^2), *Gorongosa* (10000 km^2), Limpopo (10000 km^2) and *Zinave* (3700 km^2), **National Reserves** (six) – *Gilé* (2100 km^2), *Marromeu* (1500 km^2) *Niassa National Reserve* (42000 km^2), *Maputo Special Reserve* (700 km^2), *Chimanimani National Reserve* (7500 km^2) and *Pomene* (200 km^2); **Marine Biological Reserve** (one) – Inhaca (100km^2); **Hunting Areas - *Coutadas***(13) (totalizing 42017 km^2); **Partial Marine Reserve** (one) - *Reserva Marinha Parcial da Ponta do Ouro* (67,800ha); and **Forest Reserves** (thirteen) (totalizing 494,50km^2). In addition it shall be stressed the existence of community programes as Tchuma-Tchato in Tete Province and Chipanje Chetu, close to the Niassa National Reserve.


Chipanje Chetu
Niassa
Coutada de Nicage
Quirimbas
Tchuma Tchatu
Gilé
Gorongosa
Marromeu
Chimanimani
Zinave
Banhine
Limpopo
Pomene
Maputo
N
A
B
C
D1
D2
E
R2
R3
L3
7
9
13
6
12
11
14
10
5
4
Conservation Areas
National Parks
National Reserves
Hunting Blocks
Hunting Areas (Coutadas)
Community Programmes
Provinces
Main lakes
Main rivers
0
125
250
375
500
Kilometers

A number of Mozambique's protected areas have been linked with protected and conservation areas in surrounding countries, as part of the Southern African Development Community (SADC) Trans-frontier Conservation Area (TFCA) initiatives. - *Great Limpopo* TFCA, *Lubombo* TFCA, *Niassa-Cabo Delgado* TFCA, *Chimanimani* TFCA. However only Lubombo and Limpopo have agreed International Protocols for management.

The majority of the current formal conservation areas were created during the colonial period (1960 and 70s). Most of them were affected during the armed conflicts both due to poaching and/or population settlements inside the park areas. Currently the main threats in the MozBio's target conservation areas are community pressures, illegal hunting; uncontrolled burning; over-exploitation of natural resources.

Tourism development, namely in conservation areas could give an important contribution for poverty reduction.

Potential Environmental and Social Impacts

The physical interventions of MozBio Project could result in environmental and social impacts that would be influenced by the sensitivity of the area (within or in the surroundings of the conservation area). The environmental and social components that could be directly affected include:

Environment issues

- *Soils*: which may be eroded due to civil works or agriculture activities and/or polluted with solid wastes, pesticides, leakage or spill of hazardous materials and;
- *Water resources*: including freshwater and seawater which could be affected by abstractions and diversions or due to the discharge of fertilizers, nutrients, different chemicals to be used for pest management, civil works, oil spills, etc.;
- *Air quality* : which has the potential to be negatively affected by dust generated from the various construction/rehabilitation and project operations as by pollutant (including greenhouse gases) emissions from vehicles, machinery (including diesel generators);
- *Noise environment*: generated from the various activities during civil works as well as during some project operations
- *Vegetation*: which in general will benefit with the MozBio project but that may be locally affected due to clearance for construction and even rehabilitation of new infrastructures, tourism and community development projects;
- *Fauna*: that would benefit with the improvement of conservation management – the main MozBio objective, but that can be disturbed during construction and operation activities;
- *Landscape*: that can be affected by new infrastructures, tourism and community development projects

Social issues

- *Loss of access to resources and livelihoods*
- *Employment: positive impact for local communities*
- *Conflicts with local community: due to use of natural resources and/or cultural "foreigner" workers and visitors*
- *Public health: increase spread of diseases, as sexual transmitted diseases (HIV/AIDS), and water-borne diseases.*
- *Public safety: accidents with vehicles/machinery and pedestrians)*
- *Health & Safety of construction workers*
- *Cultural heritage: destruction or disturbance of cemeteries, sacred sites or sites with archaeological, historical or aesthetic value.*

The ESMF includes lists of potential impacts and mitigation measures to be implemented for infrastructure & construction works, agriculture, livestock, fisheries and tourism activities to be

reviewed during the subprojects conception in order to include specific mitigation measures in planning and design phases to ensure environmental and social sound designs, as well as during construction and operation phases to avoid or minimize adverse impacts.

Guidelines for the ESMF Implementation

MozBio Project Implementation Unit (PIU) will conduct all the EA process for the infrastructure projects and support the subproject proponents during the EA process in order to ensure the compliance. The ANAC's environmental and social specialists will provide assistance during the screening of subprojects, preparation of ToRs for EA studies, facilitation, coordination, review of EA studies and EMPs (before submission to WB and MICOA for approval), monitoring and evaluation of all the subprojects.

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 SES or a standalone ESMP will be required or not; (iii) determine appropriate mitigation measures for addressing adverse impacts; (iv) incorporate mitigation measures into the subprojects financed by the Project (v) indicate the need for the preparation of a Pest Management Plan (PMP) (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.

While the proponent of the infrastructures subprojects (Component 3) will be the Ministry of Tourism, through the CA Administrations, the community development subprojects will be proposed by community associations. All of the subprojects shall comply with the OP 4.01 and national legal requirements on environmental and social management.

The ESMF also includes guides for the compilation of environmental and social requirements for tender documents and give indications for supervision, monitoring and reporting of the ESMF implementation.

Capacity Building

Successful implementation of the Project will depend among others on the effective implementation of the environmental and social management measures outlined in the ESMPs, PMP and RAPs. Training and capacity building will be necessary for the key stakeholders in order to ensure effective implementation of the Environmental and Social Management Framework (ESMF).
The capacity building comprises technical training, sensitization and awareness-raising. It will cover the central implementation institutions – MozBio PIU and ANAC, as well as the target CA, DPCAs and other provincial directorates and institutions, NGOs and community associations.

Budget

The costs of implementing the ESMF are related to institutional capacity building, as well as of all the stakeholders, the need for environmental consultants to prepare environmental assessments for certain projects and the cost of the environmental permits.

The overall budget for implementation of the ESMF is estimated at US$445,000.00.

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1. INTRODUCTION

The Government of Mozambique, through the Ministry of Tourism (MITUR) has been implementing the Transfrontier Conservation Area (TFCA) Program which has as long-term objectives the conservation of the biodiversity and natural ecosystems within the TFCAs, and the promotion of economic growth and development, based on sustainable use of their natural resources by local communities, with a particular emphasis on ecotourism. This program has been funded by the GEF and the World Bank.

The TFCA Program was designed for a period of 15-20 years, to be developed in three phases. The first phase (1998-2003) - Transfrontier Conservation Areas Pilot and Institutional Strengthening project (TFCAPISP), was developed in the context of a growing interest in large scale (including transfrontier) spatial development initiatives (SDI) within the southern African region. The TFCAPISP launched the TFCA concept in the region. The second phase (2005-2013) - Transfrontier Conservation Areas and Tourism Development Project (TFCATDP) intended to implement the TFCA concept on the ground in the original three TFCAs: Limpopo, Lubombo and Chimanimani of Mozambique.

The present phase - **Mozambique Conservation Areas for Biodiversity and Sustainable Development (MozBio)** has as Project Development Objective (PDO) and Global Environment Objective (GEO) to *increase the effective management of Conservation Areas, and enhance the contribution of these areas to the living conditions of surrounding communities.*

The MozBio Project will contain the following components:

Component 1: Institutional Strengthening for Conservation Area Management
Component 2: Promotion of Tourism in Conservation Areas
Component 3: Improving Conservation Areas Management
Component 4: Pilloting Sustainable Livelihoods around Conservation Areas
Component 5: Project Management, Monitoring and Evaluation

The project will not trigger major land use changes or habitat transformation, but rather mitigate ongoing habitat transformation and coastal land unplanned development. Without the project, the coming years will see infrastructure and private sector development in certain areas which could lead to the expansion of tourism nodes, population increase, and in-migration. These trends are already being observed in certain coastal areas. The challenge will be to ensure that the project induces positive change, and encourages sustainable pro-poor and environmentally-friendly tourism.

According to the World Bank Operational Policy OP 4.01, on the Environmental Assessment the MozBio Project was classified as Category B. As this project will comprise subprojects that will not be defined before appraisal but that may result in adverse environmental and/or social impacts, the O.P. 4.01 requires an Environmental and Social Management Framework (ESMF).

The present document is the ESMF for MozBio Project. It was prepared by a consultant hired by the MITUR, and quality reviewed by the World Bank's Social and

Environmental Safeguards Specialists members of the project team who advised on all safeguards related matters. The ESMF was cleared /approved by the World Bank Regional Safeguards adviser, and will be publicly disclosed in Mozambique and at the World Bank's InfoShop prior to project appraisal. This ESMF seeks to establish a process of environmental and social screening which will allow the institutions in charge of the implementation of the subprojects to identify, assess and mitigate the environmental and social impacts of subproject investments. The ESMF also determines the institutional measures to be taken during the project implementation, including those relating to capacity building.

The ESMF is an integral part of the project Operation Manual and applicable to all investments under MozBio.

2. PROJECT DESCRIPTION

2.1 BACKGROUND AND PURPOSE

In 1992, at the end of the armed conflict, Mozambique was listed as the poorest country in the world. Since then it has experienced a relatively high rate of growth (averaged 8.5 percent) and GDP per capita increased by 6 percent per year between1995-2002). However, the benefits of this growth have been concentrated in Maputo and other urban areas. Rural areas, where 71 percent of Mozambicans live, continue to be affected by extreme poverty. The challenge for Mozambique is to continue to achieve high rates of economic growth while widening the distribution of the benefits.

Mozambique falls within the biodiversity-rich Zambezian biogeographic region, and contains a wide diversity of habitats including mountainous, woodland, wetland and coastal/marine ecosystems. Its 2,700 km of coastline is unique in the East African Marine Region in terms of the quality, diversity and species richness.

The Tourism Policy and Strategic Plan for 2004 -2013 recognize that Mozambique's comparative advantage lies in its varied and relatively pristine environment, together with its rich cultural heritage, as well as the potential to link with South Africa. It identifies tourism as a means to provide new sources of income in some of the poorest areas of the country, where agricultural potential is low, and to attract investment to these areas.

Past experiences show that growth of nature-based tourism in Southern Africa has been highly dependent on the quality of conservation areas as tourism destination leading to a conclusion that there is a strong link between biodiversity management and tourism. However, to attract tourism investor some infrastructure is required as accesses, electricity, communication, water supply, etc. as well as clear rules of engagement, e.g. transparently secured concession contracts.

Past experiences also show that, community incentives for conservation are more likely to emerge when a project addresses existing livelihoods systems and conservation compliance at the same time and when such support is of significant scale to impact at the household level.

Since 1998, the Government of Mozambique (GOM) has been implementing the *Transfrontier Conservation Area (TFCA) Program* which has as long-term objectives the conservation of the biodiversity and natural ecosystems within the TFCAs, and the promotion of economic growth and development, based on sustainable use of their natural resources by local communities, with a particular emphasis on ecotourism. The TFCA Program was designed for a period of 15-20 years, to be developed in three phases. These factors among others have led the GOM to identify the Transfrontier Conservation Areas (TFCAs) as Priority Areas for Tourism Development (PATIs).

The first phase (1998-2003) - Transfrontier Conservation Areas Pilot and Institutional Strengthening project (TFCAPISP), GEF-funded, was developed in the context of a growing interest in large scale (including transfrontier) spatial development initiatives (SDI) within the southern African region. The TFCAPISP launched the TFCA concept in the region. Its achievements include the establishment of three TFCAs (Limpopo, Chimanimani and Lubombo), policy and institutional development, and modest investments to strengthen the management of the PAs within those three TFCAs. While these achievements provided an enabling context, the TFCAs remain somewhat intangible on the ground, lacking boundaries, legal designation, and institutional structures and procedures for land use planning and management of natural resources.

The second phase (2006-2013) - Transfrontier Conservation Area and Tourism Development Project (TFCA-TDP) intended to implement the TFCA concept on the ground in the original three TFCAs: Limpopo, Lubombo and Chimanimani of Mozambique. The main strategic choices for this phase were: (1) legal designation of TFCAs, including establishment of regulations, criteria, procedures and institutional structures for planning, management and development); (2) the preparation and implementation of a IDDPs in each TFCA, to provide an environmentally sustainable framework for land use planning, natural resource management and development investment within the TFCAs; (3) the development of environmentally sound and socially inclusive nature tourism (emphasizing community/private sector partnership), and directly related economic activities, in areas with high tourism potential as identified in the IDDPs; and (4) improving the effectiveness of the PA networks within the TFCAs by: (a) improving the management capacity of the National Directorate for Conservation Areas (DNAC), (b) expanding or creating new formal PAs, and rehabilitating/constructing key protected area infrastructure, and (c) supporting the establishment of community reserves and conservation areas ("informal PAs") in key areas outside the formal PAs (e.g. corridors, dispersal areas, cultural sites, etc.).

Before launching the second phase of the TFCA Program an Environmental and Social Management Framework (ESMF) and a Process Framework (PF) were prepared. They defined the environmental and social management Tools for TFCAs. When the government and KfW decided to resettle some families from Limpopo National Park a Resettlement Policy Framework (RPF) was prepared. ESIAs and Environmental and Social management plans were prepared for all construction activities under this program, as per the requirement of the Ministry of Environment Affair (MICOA) and the ESMF.

The TFCAU Unit implemented TFCA II during the last four years following the Environment and Social Management Framework (ESMF) prepared for that phase. Therefore, all construction contracts have prepared ESIAs and Environmental and

Social management plans, per the requirement of the Ministry of Environment Affair (MICOA) and the ESMF. Some Sub-projects, for example tourism lodges and camps involve constructions activities and required an ESIA. Once these are prepared, MICOA approved them before the construction is done. The Bank supervised (post review) the quality of this work and has found it satisfactory.

This third phase of the program - MozBio Project, will be implemented over a six-year period, to be initiated in 2015. Given the past experiences, and other more practical lessons from the implementation of recent projects, the GOM has adopted a set of strategic orientation for this project. These are:

(1) Focus more on national issues than on transfrontier issues;

(2) Emphasize marine or coastal conservation areas which can rapidly generate revenues from tourism, and therefore, contribute faster than terrestrial areas to financial sustainability;

(3) Consider various tourism options including sport hunting;

(4) Explore new funding mechanisms that can support conservation areas after project end (Endowment and Sinking Fund);

(5) Scale-up attention to communities living around and within conservation areas with the view to improve livelihoods and participation in tourism ventures;

(6) Support complementary institutions such as ANAC, BioFund, MITUR, MICOA and INGC that link conservation and tourism development;

(7) Include a strong human resources and awareness building component (which was absent in the TFCA II); and

(8) Ensure experience sharing and feedback from M&E into implementation and sector policies.

2.2 COMPONENTS OF THE PROJECT

The MozBio Project will contain the following components:

Component 1: Institutional Strengthening for Conservation Area Management

The objective of this component is to improve the capacity of ANAC, BioFund and MICOA to develop and influence conservation and tourism policies and regulations, strengthen coordination and management of the national conservation areas system and critically endangered species conservation, increase the financial sustainability of conservation areas and tourism revenues, improve monitoring and evaluation systems and support communication strategies. This component would support staffing, training and skill development as well as the development of administrative and management systems and regulations required within ANAC to improve the management of conservation areas and nature-based tourism development. The component would also strengthen the operation of BioFund to secure medium and long terms financing for conservation areas management from innovative funding sources (including an endowment fund, and biodiversity and carbon offsets). Finally, the component will ensure proper implementation of the CITES Convention requirements by supporting its Secretariat at MICOA.

Component 2: Promotion of Tourism in Conservation Areas

The objective of this component is to increase revenues and the number of beneficiaries from tourism-related economic activities in Conservation Areas. To achieve that, it will address several barriers to nature-based tourism development in Mozambique, including: i) policy and regulations; ii) institutional challenges; iii) weak marketing; iv) inadequate planning; v) lack of investments in tourism infrastructure.

This component would support ANAC and other public and private institutions in charge for tourism development in Mozambique to strengthen nature-based tourism licensing and registration and to promote nature-based tourism investment and facilitation in conservation areas. It would also encourage the development of the sport hunting industry and its benefits to the local communities and the national economy.

Component 3: Improving Conservation Areas Management

The objective of this component is to strengthen the management of key CAs in Mozambique. The component will finance investments for improving park management and tourism development and for supporting monitoring of key wildlife species such as elephants, lions, leopards, hippos and crocodiles.

These areas will be confirmed at appraisal and include two sub-groups:

Level I support: the CAs under this sub-group will receive basic management support to ensure that they maintain the level of investment already provided in the past: Zinave, Banhine, Chimanimani, Marromeu and surrounding four *coutadas* (No's 10, 11, 12 and 14), and Gile National Reserve.

Zinave, Banhine and Chimamani are included here to receive funding and support to complete projects that were not completed under TFCA II. This mostly refers to completion of entrance gates and staff housing.

Marromeu and its associated *coutadas* plus the Gile National Reserve were relegated to this level under MozBio as it was considered that neither of these areas had potential to generate substantial income from tourism development. Gile has no tourism infrastructure and only recently established a Community *Coutada* that has yet to be offered on tender. The four *coutadas* surrounding Marromeu generate income from safari hunting but the Reserve itself receives practically no tourists. Input to improve the management and administration of sport hunting is covered under Component 2.2.

Level II support: the CAs designated as Level II to receive support under MozBio are regarded as having the highest potential to generate income from tourism and thus merit further investment to a) develop its tourism potential and b) improve their management capacity. The bulk of the funds will therefore be channeled towards these areas. These areas include: Maputo Special Reserve, Punta do Ouro Marine Reserve, Quirimbas National Park, Bazaruto/Pomene National Park and Limpopo National Park.

Component 4: Support Sustainable Livelihoods of Communities

This component will improve the livelihood of communities living in and around targeted Conservation Areas by: (i) enhancing community integration and contribution to Conservation Areas; (ii) improving sustainable livelihoods within and surrounding conservation areas; (iii) reducing human-wildlife conflicts within and surrounding Conservation Areas; and (iv) reducing deforestation within and surrounding two selected Conservation Areas.

The project would include interventions across different types of Conservation Areas with integrated conservation and sustainable development approaches in coastal/marine, freshwater and terrestrial ecosystems. Intervention support to communities towards improved sustainable livelihoods would focus on sustainable subsistence level, production systems (e.g. fisheries, agricultural, forestry, livestock) and/or other income generating opportunities such as tourism related and REDD+ (in Gilé National Reserve and the Quirimbas National Park). The specific number of community members supported would be determined once participatory and zoning interventions would have been undertaken in each of the intervention sites, considering the needs of local populations and the conservation priorities.

Component 5: Project Management, Monitoring and Evaluation
The component would support a team of experts in ANAC, whose task would be to ensure that the project planning, implementation, procurement, financial management and monitoring are carried out with diligence and integrity as describe by their respective manuals. The component includes the implementation of an M&E system to track and assess project implementation and impacts, and a system for adaptive management based on this information.

2.3 ANTICIPATED SUB-PROJECT TYPES WITH PHYSICAL INTERVENTIONS

Physical interventions would be undertaken under Components 3 (*Sub-Component 3.1: Infrastructure*) and Component 4 *(Sub-Component 4.2: Improving sustainable production systems and income opportunities; Sub-Component 4.3: Reducing human-wildlife conflict; Sub-Component 4.4: Promoting REDD+ initiatives*), as detailed bellow.

Sub-Component 3.1would comprise the following infrastructures*:*

- Housing (Senior and Junior staff accommodation)
- Other buildings (Offices, training school, workshop, storeroom, outposts, storeroom)
- Road repairs and maintenance (bulk sum allocation for roads, bridges/drifts and airstrips)
- Tourism development (entrance gates, camp sites, waste management)
- General (fencing, electrical power, water provision, communications)

Sub-Component 4.2: Improving sustainable production systems and income opportunities would include interventions focusing on sustainable subsistence level (particularly to communities inside protected areas), sustainable production systems (e.g. fisheries, agricultural, forestry, livestock, and apiculture) and/or other income generating opportunities such as tourism related interventions. Eligible activities would

also have to consider the full value chain of products and to distinguish between local, regional, national and international markets. Screening of interventions to become more rigorous as value invested and stakes become higher, and to include information about their financial viability and return on investment. The Conservation Area management plans would be guiding the prioritization and eligibility of interventions.

While recognizing and allowing for differences and variety among type of Conservation Areas and within these areas, their settings, availability of service providers etc. approaches on site level would represent also a number of similarities:

- Interventions to meet the *triple-bottom line* of ecological sustainability, socio-economic development and business viability. Potential further support to enterprises initiated under TFCA II would have to meet these criteria and are to be assessed on a case by case basis.
- Provision of *demand driven financial support* for different type of interventions and building on good experiences in coastal work and under TFACTDP. The project would consider co-funding by communities from their 20% contributions and/or in-kind.
- *Equity* provision to enable organized communities to enter in *joint ventures* with private investors for initiatives that are related with conservation or tourism. This would require the support of an *enterprise business broker facility* and *a legal brokerage facility*.
- *Micro-zoning* – in consultation with the Conservation Area, communities and other critical stakeholders areas of intervention prioritized will be zoned to provide clarity among key stakeholders regarding boundaries and type of interventions allowed. As part of this process linkages and interdependencies between ecosystems such as terrestrial and coastal/marine would be considered, as well as the relevance of ecosystem services in support of communities' livelihoods.
- *Integrated planning* across the subcomponents under component 4 to enhance their separate impacts and to avoid non-compatibility.
- Assurance of *communities' rights*, land demarcation, and provision of a legal brokerage facility that communities or service providers can call upon to support and finalize legal registrations.
- Provision of *technical and management skills* and related *capacity building* of immediate relevance to the interventions (including on business development and marketing,,etc.).
- Allowing for testing *innovative approaches* adjacent to Conservation Areas in support of the new Conservation Law such as community game farms, community sanctuaries or marine no-take zones (for example related to conserving turtles linked to tourism) or conservancies, community *coutadas*, community forest concessions, community plantations, and other potential conservation-based initiatives.
- With support of the work undertaken under subcomponent 4.1, investments made and benefits derived thereof are *clearly linked to the conservation area* concerned.

Sub-Component 4.3: Reducing human-wildlife conflict would support activities that aim to reduce the levels of human-wildlife conflicts within and surrounding targeted

Conservation Areas, in line with the national strategy on mitigation of Human Wildlife Conflict. It would include the construction of fences.

The following types of subprojects are not eligible for funding:

- Subprojects that involve the significant conversion or degradation of critical natural habitats;
- Agricultural expansion which degrades biodiversity and limits ecotourism development potential, e.g. deforestation, as well as agriculture options which impacts negatively on the environment;
- Livestock farming that has negatively impacts on biodiversity;
- Commercial logging and destruction of indigenous forests;
- Large scale drainage of wetland wildlife habitat and irrigation schemes e.g. construction of dams and reservoirs and river basin development;
- Housing developments and any form of physical resettlement;
- Industrial plants and industrial estates;
- New land development, new construction or major upgrading of roads or highways;
- Mining & quarries;
- Manufacture, transportation, and use of pesticides or other hazardous and/or toxic materials, as well as waste treatment and interrelated disposal of waste products ;
- Construction of ports, railways, power generation & transmission, places of worship;
- Religious infrastructure;
- Growing or purchase of tobacco or drugs;
- Investment in bars or establishments serving alcohol.

2.4 PROJECT INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS

The previous two phases of TFCA Program were implemented by the TFCA Unit (TFCAU). The TFCAU was established as a Unit within MITUR, with the Head of Unit (HOU) reporting directly to the Minister. This was to facilitate interaction and support across line functions within the ministry and to other ministries such as those responsible for environmental matters (MICOA) and Finance and Planning and with TFCA partners in adjoining countries.

The TFCAU drawn funds from the donor sector particularly the World Bank, German Development Bank (KFW), USAID and the Peace Parks Foundation. This arrangement makes the Unit largely independent of ministry budgets and provides flexibility that enables the Unit to be responsive to unanticipated needs as they arise.

The TFCAU had a simple organogram with a small number of professionals covering the skills of natural resources management, social science, community development and

facilitation, legal aid and in geographical sciences (including geographic information systems), besides procurement, finance and auditing. It did not include any specialist on environmental management. The social safeguards, the Process Framework and the Resettlement Policy Framework were overseen by DINAC, with technical assistance of INGC to supervise the execution of the RAP in the Limpopo.

The environmental and social safeguard specialists of the WB team gave assistance on the environmental safeguards.

The MozBio project will be implemented by the MozBio Unit (MozBio PIU), which will build on the existing TFCA Unit with some changes in staffing. MozBio Unit will has the overall responsibility for project coordination and the implementation arrangements for all components (1.1, 1.3, 2, 3, 4 and 5), except for 1.2 (Strengthening of Biofund). Component 1.2 will be implemented by Biofund - a private foundation established in 2011 for Conservation Trust Funds, Biofund that has been set up with strong donor oversight.

The MozBio will be phased in a series of projects (SOP). The first phase (MozBio 1) will be financed through an IDA grant of US$ 40 million, and a GEF grant of US$ 6.3 million. The project will run for four years.

Other sources of financing to the overall MozBio Program include The French Development Agency (*Agence Française de Développement*, AFD) with around US$ 23.5 million (still to be confirmed). The German "*Kreditanstalt für Wiederaufbau*" (KfW) will contribute 10 million Euros to Biofund's endowment fund, and the Global Conservation Fund of Conservation International (CI GCF) will contribute with US$ 1 million. IFC has also confirmed interest in continuing technical collaboration on the tourism activities promoted by MozBio, although they are not providing direct financial contributions to the project. GoM's contribution is currently estimated at about US$2 million per year. Although contributing to the MozBio Program, these funds are independent from this MozBio project.

The objectives achieved and progress of MozBio will be systematically measured by indicators defined in the project Operation Manual. The Bank will assess progress at the end of MozBio 1, in this regard and discuss with the Government any changes to the project implementation arrangements for the second phase.

3. OBJECTIVE AND METHODOLOGY

3.1 OBJECTIVE

At this stage no details are known on the subprojects investments under the MozBio Project and is not possible to assess in detail what the environmental and social consequences will be.

In order to comply with the World Bank OP 4.01, on Environmental Assessment an Environmental and Social Management Framework (ESMF) is required. The ESMF is an *"instrument that examines the issues and impacts associated when a project consists of a program and/or series of sub-projects, and the impacts cannot be determined until*

*the program or sub-project details have been identified. The ESMF sets out the principles, rules, guidelines and procedures to assess the environmental and social impacts. It contains measures and plans to reduce, mitigate and/or offset adverse impacts and enhance positive impacts, provisions for estimating and budgeting the costs of such measures, and information on the agency or agencies responsible for addressing project impacts" (*World Bank OP 4.01, 2013).

This ESMF is expected to ensure that environmental and social management is integrated into the development and operation of investments to be financed under the MozBio to ensure effective mitigation of potentially adverse impacts while enhancing accruing benefits.

The ESMF have as main objectives to:

- Establish procedures for screening all proposed subprojects for their potential adverse environmental and social impacts;
- Specify measures for managing, mitigating and monitoring environmental and social impacts during project operation;
- Outline training and capacity-building arrangements needed to implement the ESMF provisions.

3.2 METHODOLOGY

The consultancy for the MozBio ESMF comprised the following four steps:

- Documentation Review;
- Field visits;
- Consultation with stakeholders;
- Preparation of ESMF Report.

Documentation Review

Several documents related to TFCA, MozBio and the MozBio's Conservations Areas were reviewed, namely:

- Environmental and Social Management Framework (ESMF) - TFCAII
- Resettlement Policy Framework (RFP) – TFCAII
- Process Framework – TFCAII
- MozBio Project Information Document (Concept Stage)
- MozBio Integrated Safeguard Data Sheets (Concept Stage)
- Aide Memoire of the MozBio Preparation Mission (November 2013)
- Management Plans of Limpopo National Park, Marromeu Complex (2010), Zinave National Park (2010), Maputo Special Reserve (2009), Ponta do Ouro Partial Marine Reserve (2011), Quirimbas National Park (Draft 2013), Bazaruto National Park (2009), Chimanimani National Park (2010)

- Environmental and Social Studies carried out during the TFCAII for construction and rehabilitation of infrastructures of Maputo Special Reserve, Chimanimani National Park and Zinave&Banhine National Parks as well as the Chemucane lodge in the MER.

In addition, relevant national legislation was reviewed as well as the World Bank's Safeguard Policies and the *Toolkit Environmental and Social Management Framework for World Bank Projects with Multiple Small-Scale Subprojects,* published in 2006.

Field Visits

As there is no definition on the subprojects locations two conservation areas where selected for field visits:

- Maputo Special Reserve - old CA, part of previous phases of TFCA Program
- Quirimbas National Park - new CA, not included in TFCAII, comprises terrestrial and maritime areas, existent experience in community development projects and articulation between partners

Interactive discussions

During the ESMF preparation several meetings were held with representatives of governmental institutions (at national, provincial and district level) as well with NGOs, already working with conservation areas in Mozambique, in order to identify concerns and expectations - *see section 12.*

Preparation of ESMF

Preparation of the ESMF included the following stages:

- Collation of baseline data on the environmental conditions of the country in general and the MozBio conservation areas;
- Identification of positive and negative environmental and social impacts of anticipated subprojects types;
- Identification of environmental and social mitigation measures;
- Preparation of screening procedures for subproject proposals;
- Formulation of environmental and social monitoring plans;
- Preparation of a capacity building program and budget for the ESMF implementation.

4. MOZAMBICAN LEGAL AND INSTITUTIONAL FRAMEWORK ON SOCIAL AND ENVIRONMENTAL ASPECTS

4.1 LEGAL FRAMEWORK

The *Constitution of the Mozambican Republic* defines the right of all citizens to live in a balanced and natural environment and their obligation to protect it (Art. 90). It further states that *"The state and local authorities with the cooperation of environmental*

protection organizations will adopt policies to protect the environment and ensure the rational use of all natural resources."

The *National Environmental Policy*, approved by Resolution Nr. 5/95, dated 6 December, establishes the basis for all environmental legislation. According to Article 2.1, the main goal of this Policy is to ensure sustainable development in order to maintain an acceptable relationship between socioeconomic development and environmental protection. To reach the aforementioned goal, this Policy must ensure, among other requirements, the management of the country's natural resources – and the environment in general – in order to preserve its functional and productive capacity for present and future generations.

The *Environment Law* (Law Nr. 20/97, dated 7 October) defines the legal basis for the sound use and management of the environment as a means to safeguard sustainable development in the country. This Law applies to all activities in the public or private sectors that may directly or indirectly affect the environment.

Some relevant principles of environmental management included in the National Environment Policy and Environment Law include:

- Environmental management should aim at improving the quality of life of citizens and protection of biodiversity and ecosystems;
- The recognition and appreciation of traditions and knowledge of the local community;
- The priority given to systems that prevent the degradation of the environment;
- A comprehensive and integrated perspective of the environment;
- The importance of public participation;
- The principle of polluter - payer;
- The importance of international cooperation.

The environmental law requires that the Government prepare a National Environmental Management Program, and establishes a consultative National Council for Sustainable Development (CONDES). The law requires that in order to protect and preserve the natural environment and maintain/improve the ecosystems that have a recognized ecological and socio-economic value, the government shall establish environmental protection zones ('total or partial protection zones'). It provides for the participation of local communities and other stakeholders in the development of policy and laws for the management, and the enforcement of regulations in, these protected areas. A number of provisions in the law reinforce the view that communities in protected areas retain their use rights, and can use them to negotiate returns on income generated from that land.

4.1.1 Environmental Assessment

According to the *Environment Law*, the Environmental Impact Assessment (EIA) is an instrument that supports the decision-making process regarding the issuing of environmental licenses. The issuing of an environmental license must precede any other required legal licenses. The environmental impact assessment process is regulated by Decree Nr. 45/2004, (amended by Decree Nr. 42/2008 of 4 November), while

environmental audit and environmental inspection processes are regulated by Decrees Nr. 32/2003 and 11/2006 respectively.

Regulation of the EIA Process

The regulation of the EIA process is applicable to all public and private activities and is the responsibility of the Project Proponent.

This regulation defines the procedures for environmental assessment screening and scoping, the structure and contents of the EIA reports, procedures for public participation, responsibilities for the Environmental Assessment Authority and the Provincial Directorates for Environmental Affairs, revision timeframe, certification of environmental consultants, taxes and fines.

Screening

The first phase of the Environmental Assessment is the screening phase - a pre-assessment carried out by the Provincial Directorates for Environmental Affairs with the aim of determining the extent and type of environmental assessment that the activity should be subjected to.

An application for the EIA process shall be submitted to the DPCA, based on the model in Annex IV of Decree Nr. 45/2004 or in Annex V of the amended Decree Nr. 42/2008 (see Annex 1 of this ESMF), identifying the proponent, the proposed activity, its investment value and location. A document shall be attached to this application with the following information (Art 6 – Decree Nr. 45/2004):

a) Identification, description and motivation of the activity;

b) Legal framework of the activity;

c) Brief biophysical and socioeconomic information of the proposed area for the activity;

d) Present land use in the proposed area;

e) Brief description of the environmental and social conditions in the proposed area;

f) Information on the stages of carrying out of the EIA namely of the elaboration and submission of the TOR, EPDA, EIR and SER;

g) Preliminary Environmental Information Sheet (according to Annex IV of Decree Nr. 45/2004 - see Annex 2 of this ESMF) dully filled.

As in the Operational Policy of the World Bank, the Mozambican Regulation for EIA has three project categories to identify the appropriate level of EIA:

- *Category A:* projects likely to cause significant impacts due to proposed activities or the sensitivity of the area, requiring a full Environmental Impact Assessment (EIA) (including an Environmental Management Plan – EMP).
- *Category B:* regarding projects that would have negative impacts of short duration, intensity, extent, magnitude and / or significance, requiring a Simplified Environmental Study (SES) and an Environmental Management Plan (EMP).

- *Category C:* Projects which do not require Environmental Assessment, but are subject to compliance with the standards found in specific directives of good environmental management.

Annex I of Decree Nr. 45/2004,lists the circumstances that lead to the classification of an activity as Category A, taking into account the sensitivity of the area where the activity will take place (Table 2) as well as the type of activity proposed (Table 3). Annex III (Decree Nr. 45/2004) contains the list of activities classified as Category C.

Table 3 below presents infrastructure, tourism and forest activities relevant for the MozBio project, that according to the Mozambican EIA Regulation are classified as Category A. Table 4 includes activities classified as category C.

Table 1 - Sensitive areas included in Category A (Annex I -Decree Nr. 45/2004)

- Areas and ecosystems with a special protection status according to both national and international legislation, such as: coral reefs, mangrove, native forests, small islands, erosion areas including eminent seafront dunes, areas exposed to desertification, **conservation zones or areas**, swamps, areas with endangered species, habitats or ecosystems, areas of unique scenery, areas of archaeological, historical and cultural value to preserve, protection of springs and sources of supply protected areas;
- Densely populated areas involving the need for resettlement,
- Densely populated areas where the activity involves unacceptable levels of pollution or other disorder that significantly affects resident communities;
- Regions subject to high levels of development or where there are conflicts in the distribution and use of natural resources;
- Areas alongside waterways or areas used as a source of drinking water supply for communities' consumption;
- Area with valuable resources as aquatic, minerals, medicinal plants.

Table 2- Activities included in Category A (Annex I -Decree Nr. 45/2004)

Infrastructures

- All activities implying population resettlement;
- Airports, aerodromes and heliports with a runway of length equal or greater than 1 800 metres;
- Marinas and docks with more than 50 moorings points;
- All main roads outside urban areas, construction of new roads;
- Dams and weirs with reservoir area equivalent or greater than 5 ha;
- Water pipes of more than 0,5 m in diameter and more than 10 km long;
- Pipelines and water transmission mains of more than 10 km in length and diameter equal to or greater than 1 m;
- Exploitation of groundwater resources involving the abstraction of more than 500 m^3/h or 12,000 m^3/day;

Tourism

- Tourism projects outside urban areas or in areas without land use plans – with capacity equal or higher than 150 beds or area equal or greater than 10 ha;
- Camping sites for more than 650 users or with area equal or greater than 5 ha;
- Settlement or expansion of recreational areas such as golf courses in an area equal or greater than 5 ha;

Forest

- Grubbing up, parcelling and exploration of native vegetal cover with areas, individual and cumulative, greater than 100 ha;
- All activities of deforestation with more than 50 ha, reforestation and forestation with more than 250 ha.

Table 2 - Activities included in Category A (Annex I - Decree Nr. 45/2004) – cont.

Agriculture:

- Activities of parcelling for agriculture of more than 350 ha with irrigation and of 1 000 ha without irrigation;
- Reconversion of agricultural land for commercial, urban or industrial purposes;
- Reconversion of equivalent areas or of more than 100 ha of agricultural land without cultivation for more than 5 years to intensive agriculture;
- Introduction of new crops and exotic species;
- Irrigation systems for areas with more than 350 ha;
- Activities of aquaculture or mariculture with more than 100 tons of production per year and area equivalent or greater than 5 ha;
- Activities of intensive animal breeding of more than:
  - 100 000 poultry,
  - 3 000 pigs and/or 100 breeding sows, and
  - 500 cattle and individual or cumulative area of less than 2 000 ha (4 ha/animal).
- Air pulverisation or on the ground in areas, individual or cumulative, greater than 100 ha.

Conservation Areas:

- Creation of national parks, natural reserves, game reserves, areas of management of fauna and large covering areas;
- Commercial operation of natural fauna and flora;
- Introduction of exotic species of fauna and flora.

Table 3 - Activities included in Category C (Annex III - Decree Nr. 45/2004)

- Irrigation schemes with individual or cumulative area between 50 and 100 ha;
- Hotels, motels, guest houses and hostels in towns and villages;
- Creation of poultry batteries with capacity between 1 000 and 1 500 poultry;
- Transformation or removal of indigenous vegetation with areas between 100 and 200 hectares without irrigation;
- Exploration for, and use of, groundwater resources involving the abstraction of more than 200 m3/year
- Construction activity of parking lots;
- Wood processing mills;
- Biscuits, dough, cookies and sweets factories;
- Bakeries;
- Industries of conservation o fruits and horticultural – production equal or greater than 300 ton/day;
- Animal feed production mill with production less than 1 000 ton/month;
- Water supply and sanitation systems, as well as their pipelines, sewage treatment and disposal systems for sewage;
- Cashew nut processing mills;
- Installation of fridges;
- Water purification units.

In addition, it shall be referred the Decree Nr. 2/2008, that establishes the simplified licensing for economic activities that due to their nature do not generate negative impacts on the environment, public health, safety and in the general economy.

It shall be stressed that there are some discrepancies between this decree and the EIAP Regulation decree (Decree Nr. 45/2004). The list of activities that according to the Decree Nr. 2/2008 do not require any environmental assessment (Table 4) is more permissive than the Annex III of Decree Nr 45/2004 (Category C list). It is expected that this discrepancy would be harmonized with the revision of the EIAP Regulation, currently on-going.

Table 4 - Activities exempted of EIA Process (Decree Nr. 2/2008)

- Agriculture activity up to 350 ha, with irrigation and up to 1000 ha, without irrigation;
- Irrigation system for areas up to 350 ha;
- Poultry up to 100 000 animals;
- Pigs livestock up to 3000 and or up to 100 female reproductive pigs;
- Cattle up to 500 cows;
- Micro and small industries (excluding food and beverages processing and pharmaceutical).

For the activities included in Decree Nr. 2/2008, the simplified license is issued by the One-Stop Shop Counter (*Balcão de Atendimento Único)* through the filling of a specific form. The One-Stop Shop Counter includes representatives of several licensing institutions, including environment affairs. There is already One-Stop Shop Counter per province.

Scoping

As established in the EIA regulation, the environmental studies shall be preceded by a scoping exercise in order to identify the environmental & social components that shall be focused in the EIA, approaches and methodologies to be adopted and the Terms of Reference (TOR) to be followed. In the case of the Category A projects, An Environmental Prefeasibility and Scoping Study – EPSS[1] shall be submitted to MICOA, including the TOR for the EIA, while for Category B projects, only the TOR shall be submitted for approval.

The structure of the EPSS is defined in the EIA Regulation, it includes a brief description of the project and the environmental and social conditions of the project area, identification of the potential impacts as well as any fatal flaw. The EPSS shall be submitted to a public participation process.

[1]EPDA – Estudo de Pré-viabilidade e definição do Âmbito

Public Participation

Public Participation is a mandatory activity for all projects classified as Category A, which should occur whenever it involves:

- *Permanent or temporary displacement of populations or communities;*
- *Movement of goods or restriction on use of natural resources*

The General Guidelines for the Process of Public Participation in the Environmental Impact Assessment, published in the Ministerial Decree Nr. 130/2006 of 19 July shall be followed. These guidelines define the basic principles that must be respected in the public participation process and the procedures to be followed.

Revision Timeframe

The Environmental Impact Assessment Authority shall observe the following periods:

a) Pre-assessment (screening) – until five working days;

b) EDPA and TOR – until thirty working days;

c) Environmental impact assessment report – until forty five working days.

The Provincial Directorates for the Coordination of the Environmental Affairs shall observe the following periods:

d) Pre-assessment – until eight working days;

e) Terms of reference – until fifteen working days;

f) Simplified environmental report – until thirty working days.

Usually the EIA process of a Category A Project takes at least 8 months while an SES takes at least 5 months.

Validity of the Environmental Licensing

Environmental license of an activity that did not effectively started within the two years following its issue shall be considered expired and of no effect. An appliance for extension can be submitted to MICOA until ninety days before the date of its expiration.

All the environmental licenses of activities in operation have a validity of 5 years, renewable for equal period, through an application for updating addressed to the MICOA, until 180 days before the end of the validity of the environmental license and the payment of a tax.

Registration of Environmental Consultants

Only environmental consultants registered by the Environmental Impact Assessment Authority (MICOA) are allowed to prepare environmental impact assessment reports in Mozambique.

Taxes for environmental license

The following taxes are defined in the EIA Regulation[2]:

- Issuance of the Environmental Licensing for Category A and B projects fee of 0,2% of the value of investment of the activity;
- Issue of the exemption declaration of activities of category C, fee of 0.02% of the value of investment of the activity

It shall be stressed that the proponent is responsible for all expenses related with the EIA process, including the public participation process and any field visit of the MICOA representatives (transport and per-diem). The number of MICOA representatives participating in the field visits is legally defined and depends on the project activity.

Regulation on the Environmental Audit

The *Regulation on the Environmental Audit Process* defines an environmental audit as a documented and objective instrument for management and systematic assessment, for the operation and organization of the management system and for the control of relevant documentation, relating to the protection of the environment.

According to Article 3 of the present Regulation, the environmental auditing can be public or private. Private audits are conducted and determined by the very entities whose activities are potentially causing environmental degradation. As stipulated in Article 7, the objective of environmental audit is to assess the compliance of their working and functional processes following the environmental management plan approved for that purpose and with the statutory environmental standards.

Regulation on Environmental Inspection

Due to the need of establishing legal inspection mechanisms for public and private activities, which directly or indirectly are likely to cause negative impacts on the environment, it has recently been approved the Regulation on Environmental Inspections (Decree Nr. 11/2006, of 15 July), which aims to regulate the activity of supervision, control and monitoring of compliance with environmental protection nationwide.

According to Article 1 of this Regulation, Environmental Inspections consist of:

- Surveillance of environmental licensing of any activity, in order to verify its compliance with the standards of environmental protection;
- Supervision of audit activities and monitoring, verifying if the environmental audit recommendations were or not implemented, as well as the state of the environment where those actions have not been performed;
- Monitoring compliance with the mitigation measures proposed within the framework of the Environmental Impact Assessment in order to reduce or eliminate the negative effects of any activities on the environment.

[2]Fees values updated by the Decree Nr. 42/2008

4.1.3 Other relevant legal aspects

Solid Waste Management

The Regulation of Solid Waste Management was recently approved by Decree Nr. 13/2006. The purpose of this regulation is to establish rules concerning production, storage in soil and subsoil, the launch for water or atmosphere of any toxic substances and pollution, as well as the practice of polluting activities that accelerate environmental degradation in order to prevent or minimize their negative impacts on health and the environment.

The Regulation classifies waste as hazardous and non-hazardous and attributes to MICOA the power regarding management of hazardous wastes, including the licensing of establishments engaged in the management of hazardous or toxic waste.

This regulation states that the public and private entities that generate waste should have a Plan of Waste Management before the start of their activities with a five years validity period from the date of its approval.

Pesticides

The Pesticides Management Regulation (Decree Nr. 6/2009 of 31 March 2009) applies to the registration, production, donation, trading, importation, exportation, packing, storage, transport, handling, use and elimination of pesticides and adjuvants, by individual or collective persons, for agricultural, animal rearing, forestry, public health protection, domestic and other purposes. According to this regulation only pesticides registered with the National Directorate of Agrarian Services (DNSA) can be used in Mozambique. These include a list of pesticides products that are regularly published, including the product classification according to their toxic potential (Article 9).

There are no regulation on integrated pest management or organic production.

Air Emissions, Air Quality and Noise

The Environment Law prohibits the release of any toxic and polluting substance to the atmosphere outside the legally established limits. The Regulation on Environmental Quality Standards and Wastewater Emission (Decree Nr. 18/2004) sets emission standards for pollutants for stationary and mobile sources as well as key parameters that should characterize the air quality.

Regarding noise, the Regulation on Environmental Quality Standards and Wastewater Emission states that MICOA will approve the noise patterns (by the date of this report these standards had not yet been published).

Water Resources and Water Quality

The management of water resources in Mozambique is set by the National Water Policy and the Water Law (Law Nr. 16/91 of 3 August). According to Article 18 of the Water Law, the Regional Water Administrations (ARA), organized on the basis of river basins, are the institutions responsible for water management.

The Water Law defines as a basis for the management of water resources the principle of "user pays" and "polluter pays" and the system of concessions and licenses. These factors are based on principles of environmental sustainability.

The Environmental Quality Standards and of Emissions and Effluents Regulations (Decree Nr. 18/2004) regulates certain parameters of water quality, such as the use of agricultural and recreational purposes, as well as the parameters of the emissions and industrial and domestic effluents.

Standards of water quality for human consumption are included in the Regulation on the Quality of Water for Human Consumption approved by Ministerial Decree Nr. 180/2004. This Regulation applies to supply systems for drinking water, including surface and groundwater used for direct consumption or for production of water for human consumption. The Ministry of Health is the authority responsible for ensuring the quality of water for human consumption.

Regulation of public systems of water supply and wastewater disposal (Decree Nr. 30/2003 of 1 July) defines technical provisions for these projects.

Coastal Management

Regulation for the Prevention of Pollution and Marine and Coastal Environment Protection (Decree Nr. 45/2006 of 30 November) states, among others, the legal basis for the prevention of marine and coastal pollution by land-based sources, and the protection and conservation of public areas such as maritime, lake and river, beaches and fragile ecosystems, where the following should be emphasized:

- Article 66 defines Partial Protection Areas, which include, among others, the band of coastline and contour of islands, bays and estuaries, measured from the maximum high water mark of the sea, 100 meters into the territory. The rights of use and enjoyment of land cannot be acquired and can only be issued special permits for the exercise of certain activities.

  The construction of infrastructure in the areas identified above should only be made by compliance with standards and standards of environmental quality and landscape. It should also be made in such a way that, for every 100 meters, there is free access to the beach for any citizen, especially for local communities.

- Article 67 further stipulates that in zones of partial protection and fragile ecosystems, including mangroves and dunes, is only permissible – by special permit – the construction of basic infrastructure such as water, electricity, telecommunications, drainage of sewage, solid waste services, small constructions and other removable material of a similar nature.

Ownership of Land and Land Use Planning

According to Article 3 of the Land Law (Law Nr. 19/97) the earth is owned by the state.

The Land Law (Law Nr. 19/2007 of 18 July) aims to ensure the organization of national space and sustainable use of its natural resources, observing the legal, administrative,

cultural and material conducive to social and economic development of the country, promoting quality of life and the protection of the environment.

Defines that it is the State and Local Government responsibility to promote, coordinate and monitor spatial planning in an articulated fashion (Article 6). At the local administrative level, it sets as tools for land planning the Urban Structure Plans, General Plans and Partial Urban and Detailed Plans.

The Land Law is regulated by Decree Nr. 23/200 of 1 July, which describes in detail the purpose and content of the instruments for land planning, and regulates the classification of soils. It also establishes that the approval of development plans includes a public participation process.

The Territorial Law (Law Nr 19/2007) provides the legal framework for regional planning. It delegates specific competencies for regional planning to the State and municipalities. The Regulation of the Territorial Ordinance Law (Decree Nr. 23/2008) enacts the provisions of the law and establishes guidelines for the different categories of regional land uses, including the Provincial Territorial Development Plan[3] and the District Land Use Plan[4].

The Law of the State Local Bodies (2003) sets out the functions, responsibilities and organization of government structure at different spheres of governance (provincial, district, administrative, and local). The law enables the involvement of all spheres of government in key decision-making (e.g. district administrators approve land use and territorial plans, and identify protected areas).

Cultural Heritage

The Cultural Heritage Act (Law Nr. 10/88) was designed to legally protect the tangible and intangible cultural heritage of Mozambique. For the purposes of the Act, the Cultural Heritage is defined as "a set of tangible and intangible assets created or integrated by the Mozambican people throughout history, with relevance for the definition of Mozambique's cultural identity."

The cultural properties include: monuments, groups of buildings of historical, artistic or scientific relevance, locations or sites (with archaeological, historical, aesthetic, ethnological or anthropological interest), and natural elements (physical and biological formations with particular interest from the aesthetic or scientific point of view).

Article 13 stipulates that in case of discovery of any places, buildings, objects or documents that may be classified as goods of cultural heritage, it shall be reported to the nearest administrative authority within 48 hours (Article 10).

It should be stressed that the Mozambican legal framework is provided by the Law of Forestry and Wildlife of the existence of conservation areas in the protection zones, Areas of Use and Historical and Cultural Value, for the conservation of places of historical importance or with use cultural benefit to local communities.

[3]Plano Provincial de Desenvolvimento Territorial (PPDT)
[4]Plano Distrital de Uso da Terra (PDUT)

Archaeological heritage is regulated by the Archaeological Heritage Protection Regulation (Decree 27/94, of 20 July) which defines such heritage as: "assets of archaeological, anthropological or geological value, which relate to previous generations and which are discovered by accident, during prospecting and survey or during archaeological digs".

Protected and Conservation Areas

The Land Law, approved by Law Nr. 19/97, classifies as public areas the total and partial protection areas, where the right of land use is not allowed. Conservation Areas are classified as total protection zones (Article 7), where any activity could only by allowed through a special license (Art. 9) to be issued by the Ministry uncharged of the conservation area, through the model defined in Decree Nr. 53/2011.

Under the Regulation of Land Law, the partial protection areas include, among others, the stretch of sea, and in contour lines, bays and estuaries as the line of maximum high tide to 100 meters into the territory, land occupied by roads, with a bordering strip of 30 meters for primary roads and 15 meters for secondary and tertiary roads, bordering strip of 50 m on each side of telecommunications carriers, electricity and water and range land 100 meters adjoining military installations and other facilities for defense and state security (Article 8).

Forestry and Wildlife Law (Law Nr. 10/99 of 7th June- regulated by Decree nr. 12/2002 of 6th June[5]) provide for the creation of protected areas (national parks and reserves, and areas of historic or cultural value). This legislation includes requirements for sustainable use of the country's forestry and wildlife resources and includes lists of protected species that is updated as more is learned about the resources available. Certain activities are prohibited in these areas, as hunting, forestry, agriculture, mining, livestock farming and introduction of exotic species (Art 11). Decree nr. 25/2008 of 1st July approves the Regulation for the Control of Invasive Species.

The Forestry & Wildlife Law allows for the creation of buffer zones around protected areas which are designed to provide a transitional area between the protected zone and multiple use areas in order to control and reduce the impacts of human activity on the protected zone.

The Regulations for Forestry and Wildlife, determine communities as having have an inalienable right to draw benefit from conservation that uses land and resources over which they have tenure or hold rights of access and use.

- It proposes 20% of concession fees should go to local communities resident in the concession area.
- Communities associated with a conservation area have a right to participate in decision making that affects them, their livelihood and wellbeing.
- Local Participatory Management Councils (COGEPs) constituted as associations with representation of all stakeholders with interests in the use of natural resources in a given area may be created as a mechanism for articulating and defend participants' interests.

[5]Modified by Decree nr. 11/2003 of 25th March

The Ministerial Diploma Nr. 93/2005 of May 4th creates the mechanisms for channeling and utilizing the 20% of taxes to benefit local communities. This stipulates that funds can only be received by a community organized in a legalized association with a bank account prior to distribution to beneficiaries. Associations may be related to the use of marine or terrestrial resources as are local Fisheries Community Councils (CCP) and management *fora* at local, district and provincial levels - Co-Management Committees (Fisheries legislation) and Natural Resource Management Committees (CGRN) (Forestry and wildlife legislation).

The Law on Conservation Areas was recently published in the official bulletin - Law nr. 16/2014, 20th June. This new law will establishes the principles and basic rules for the protection, conservation, restauration and sustainable use of the biodiversity in conservation areas, as well as the establishment of an integrated management. It shall be stressed that it allows the presence of population within Conservation areas, as long as their presence is not incompatible with its good management. In case of incompatibility, it is considered the possibility of resettlement of populations out of the conservation area.

Involuntary Resettlement

The Decree Nr. 31/2012 of 8 August approves the Regulations on the Resettlement Process Resulting from Economic Activities, consisting of a set of basic rules and principles about the resettlement process, aimed at ensuring that the population affected by economic activities of public or private initiative, have a better quality of life, social equity, taking into account the sustainability of physical, environmental, social and economic factors.

It created the Technical Commission for Monitoring and Supervision of the Resettlement, as multisectorial body of technical advisory to the minister in the area of Spatial Planning.

This regulation also establishes the procedures that must be met for the preparation of the resettlement plan, as well as the model and criteria to be followed and the public consultation.

4.3 RELEVANT POLICIES, STRATEGIES, PROGRAMS AND PLANS

For the present assignment the following policies shall be considered:

National Environmental Management Program **(NEMP)** - the master plan for environment management in Mozambique. It contains a national environment policy, environment umbrella legislation (see above), and an environmental strategy. The NEMP is also a program of sectorial plans, containing projections for the medium- and long-term aiming to lead the country to sustainable socio-economic development. Within the framework of the NEMP, a number of biodiversity conservation strategies and plans have also been prepared. These include inter alia: the

National Biodiversity and Action Plan **(NBSAP)** 2003-2010–update of the 1998 NBSAP, to face the new challenges for sustainable development taking into consideration the major goals of PARPA, 2010 CBD goals and NEPAD. To be stressed to of the main challenges defined: Establishment and development of EIA methods for processing of trustable data of national accounts and; Promotion of inter-institutional coordination: the establishment of information exchange system for implementation of the strategy and the action plan. ***Conservation Policy and Implementation Strategy*** (Resolution Nr. 66/2009) covering the period 2009-2019 - aims to: (i) harmonize laws and sectorial policies among the ministries (MITUR, MINAG, MICOA, and the Ministry of Public Works and Housing); and (ii) establish systems for inter-institutional coordination, mechanisms for the involvement of civil society, strategies for management of parks and reserves, and criteria for new areas of conservation and reclassification of areas of conservation. It also makes recommendations for decentralizing management of conservation areas, and identifies mechanisms for the integration of communities as beneficiaries of conservation areas. In addition, it makes recommendations for clarification of areas of responsibility and coordination between MITUR and the Ministry of Fisheries in marine conservation areas. A key requirement of the Conservation Policy is the establishment of a new National Administration of Conservation Areas (ANAC) that will be responsible for the planning and management of the system of protected areas in Mozambique.

Strategic Plan for the Development of Tourism in Mozambique (SPDTM) - MITUR expresses the intention of incorporating conserved areas into the process of tourism development and so the stage is set for an integrated approach to the development of tourism.

Poverty Reduction Action Plan III (PARP III) - Is the medium-term strategy of the Government of Mozambique for putting into operation the Five-Year Government Program (2010-2014), focused on the objective of combating poverty and promoting a culture of work, with a view to achieving inclusive economic growth and reducing poverty and vulnerability in the country.

4.2 INSTITUTIONAL FRAMEWORK

4.2.1 Environmental Affairs - MICOA

In 1994 it was created the Ministry for Coordination of Environmental Affairs (MICOA), the central organ of the state apparatus that directs the implementation of environmental policy, coordinates, advises, manages and promotes the proper planning and use of natural resources of the country.

It is MICOA's responsibility the following:

a. Decide on the environmental impact inherent in the realization of socio-economic activities in the context of development projects of sectors;
b. Decide on the technical quality of environmental impact assessments;

c. Conduct environmental audits and to activate the due legal process when there are offenses listed in the Environmental Law.

In 2009, the Organic Statute was approved by the Ministerial Decree nr. 265/2009 of 16 December.

These powers are exercised by the National Environmental Impact Assessment that has a Department of Environmental Licensing and a Department of Environmental Audit.

Like the other ministries, MICOA is represented at the level of the provinces by the Provincial Coordination of Environmental Affairs (DPCA).In the process of environmental impact assessment the screening is the responsibility of the DPCAs, and the DNAIA is responsible for conducting the environmental assessment process for projects classified as Category A, and DPCA is responsible for projects classified as B or C.

At District Level the role of the Administrative Secretariat of the Administration Post[6]includes besides others - to ensure the compliance with the environmental legislation, the respect of the protection zones legally defined and the preparation district land use plans. However there is no legal definition of the Administrative Secretariat's organogram or staff. Usually the technical capacity in the district administration is very weak, although there is a trend of recruitment of land use planners who usually become responsible for the environmental matters. In these cases there is already someone responsible to follow the EIA process as well as any resettlement process, in collaboration with the DPCA.

4.2.2 Tourism & Conservation - MITUR

The Ministry of Tourism (MITUR) oversees the conservation areas in addition to the tourism matters. The conservation areas are managed by the recent created National Administration of Conservation Areas – ANAC[7], which is the agency responsible for the management of the National Parks and Reserves, *Coutadas Oficiais*, Game Farms and any other conservation area legally created. One of ANAC's main objectives is the establishment of infrastructures for the biological diversity management as well as for the economic activities to ensure its sustainability.

There is no any department or unit for environmental & social matters in the Ministry of Tourism (MITUR) or ANAC.

However it shall be stressed that ANAC's structure organization comprise a Board of Directors and a Technical Board. The Technical Board includes representatives of the ministries that oversees the sectors of Conservation Areas, **Environment**, Fisheries and Agriculture as well as two representatives of the private sector. The presence of a representative of the Environmental Affairs – MICOA, will represent an opportunity to improve the institutional coordination between ANAC and MICOA.

[6]Law Nr. 81/2010
[7]Decree Nr. 11/2011, 25th May, revised by Decree Nr 9/2013, 10th April

The ANAC's Internal Regulation is not yet approved. In the scope of the Component 1 of MozBio Project a proposed organogram for this institution under discussion, which recommends that ANAC should starts with three directorates as follows:

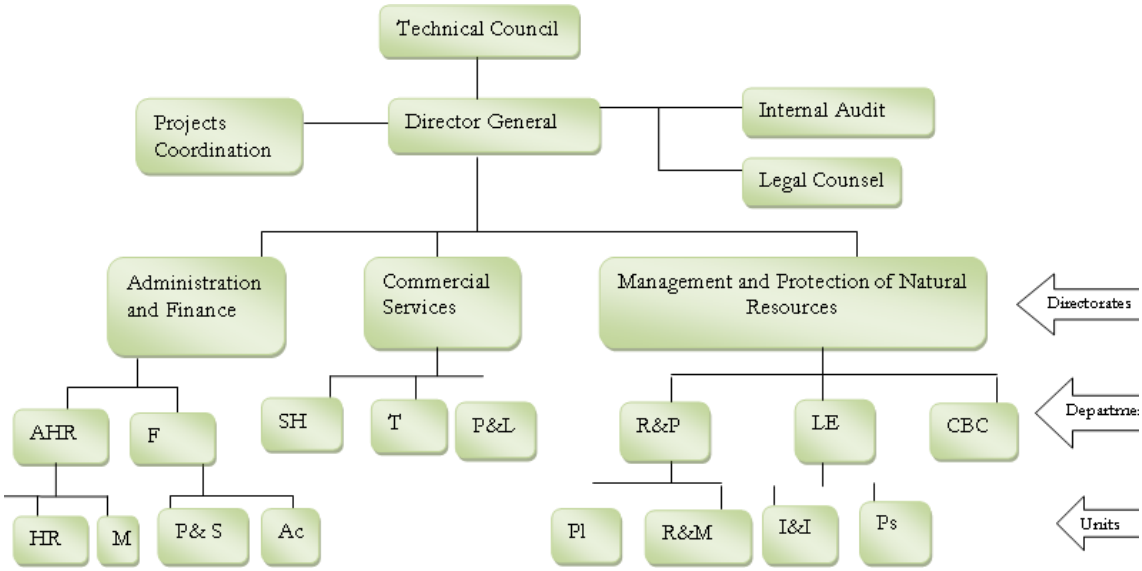
i) Management and Protection of Natural Resources;

ii) Commercial Services; and

iii) Administration and Finance.

The Management and Protection of Natural Resources Directorate would include a Promotion and Licensing Department.

Figure 1shows the proposed organogram currently under discussion.



Abbreviations are as follows:
Departments: AHR = Administration and Human Resources, F = Finance, SH = Sport Hunting, T = Tourism, P&L Promotion and Licencing, R&P = Research and Planning, LE = Law Enforcement, CBC = Community-based Conservation,
Units: A = Administration, HR = Human Resources, M = Maintenance, P&S = Procurement and Supplies, Ac = Accounting, Pl = Planning, R&M = Research and Monitoring, I&I = Intelligence and Investigations, Ps = Prosecutions, Ops= Operations

Figure 1 - Revised Proposed Organogram for ANAC Headquarters, Mozambique (Mkanda, F., 2014)

4.2.2 National Council for Sustainable Development - CONDES

The National Council for Sustainable Development (CONDES) is Cabinet's consultative body on environmental issues, and was formally established by the 1997 Environment Law. It is subordinated to the Prime Minister's Office and is comprised of Ministers and Vice-ministers from related sectors (agriculture, tourism, energy, mineral resources, planning and development, health, etc.) and chaired by the Minister of Environment. It is at the top of the government's environmental policy management and monitoring hierarchy. Inter-institutional coordination is weak overall, leading to overlaps and gaps in the application of policies.

5. THE WORLD BANK'S SAFEGUARD POLICIES

5.1 OVERVIEW

The World Bank's Environmental and Social Safeguard Policies are the base for sustainable poverty reduction. The aim of these policies is to prevent and mitigate potential damage to the environment and communities generated in the development process. These policies give the Bank and borrowers, guidelines on the identification, preparation and implementation of programs and projects.

There are ten safeguard policies in the World Bank, created to inform decision making, ensuring that projects financed by the Bank are environmentally and socially sustainable. These Operational Policies include:

- Environmental Assessment (OP/BP 4.01)
- Natural Habitats (OP/PB 4.04)
- Forestry (OP/BP 4.36)
- Pest Management (OP 4.09)
- Cultural Heritage (OP/BP 4.11)
- Indigenous Peoples I(OP/BP 4.10)
- Involuntary Resettlement (OP/BP 4.12)
- Safety of Dams (OP/BP 4.37)
- Projects on International Waterways (OP/BP 7.50)
- Projects in Disputed areas (OP/BP 7.60)

Table 5 presents the main objectives of each operational policy and its applicability.

MozBio triggered six of the World Bank's Safeguard Policies, namely OP 4.01 Environmental Assessment; OP 4.04 Natural Habitats; OP 4.36 Forestry, OP 4.09 Pest Management, OP 4.11 Cultural Heritage; OP 4.12 Involuntary Resettlement.

According to OP 4.01 the proposed MozBio Project activities have been categorized as B. Since the sub-projects investments and their potential negative localized impacts will not be firmed up before appraisal, the appropriate safeguard document to comply with OP4.01 at appraisal is an Environmental and Social Management Framework (ESMF). An ESMF establishes a unified process for addressing all environmental and social safeguards issues on subprojects from preparation, through review and approval, to implementation. Effective implementation of an ESMF will ensure that the substantive concerns of all World Bank safeguards policies will be satisfactorily addressed.

In addition a Pest Management Plan is required to comply with, OP 4.09 - Pest Management as well as a Process Framework to comply with OP 4.12 - Involuntary Resettlement.

Table 5 – WB' Safeguards Policies: Main Objectives, Applicability and Trigger by MozBio

Safeguard Policies	Main Objective	Applicability	Application in the MozBio
OP 4.01 Environmental Assessment	The objective of this policy is to ensure that projects financed by the World Bank are environmentally sound and sustainable, and that decision making is improved through adequate analysis of actions and their possible risks and environmental impacts in the natural environment (air, water and soils); human health and security; physical-cultural resources; and global and transboundary and global environment aspects. (see 5.2bellow)	This policy is applicable when a project or sub-project has potential to cause negative environmental impacts in its area of influence Depending on the project and the nature of its impacts, various instruments can be used. An ESMF is required for projects that comprise several subprojects not yet identified at the appraisal. (see 5.2bellow)	Activities included in the **MozBio** can cause negative environmental and social impacts considering the sensitivity of the areas - conservation areas. Some of the potential adverse environmental and social impacts could be: soil erosion, decreased water quality, loss of vegetation, fauna disturbance, deposition of solid wastes, dust emission, social impacts related with loss of land, resource use conflict, impacts on vulnerable and marginalized groups, health and safety of construction workers, food security, employment issues. Positive impacts are also expected as the mitigation of ongoing habitat transformation and coastal land unplanned development and the improvement of local communities' livelihoods due to the strengthening of income opportunities. The ESMF and the ESMP will establish the process to mitigate these impacts.
OP 4.04 Natural Habitats	This policy recognizes that the preservation of natural habitats is essential to protect original bio-diversity; for the preservation of environmental services and products for human society and for long term sustainable development. Therefore, the Bank supports the protection, management and restoration of natural habitats by funding projects as well as via political dialogue, sector work and the economic sector. By funding projects, the Bank expects the proponents to apply the precautionary principle in the management of natural resources, in order to ensure opportunities for sustainable environmental development.	This policy is used by any Project or sub-projects considered as potential originator of significant changes (loss) or degradation of natural habitats, be it directly (through the construction) or indirectly (with the human activities caused by the project).	As the project is focused on conservation areas this policy it will require special attention. The ESMF will include measures for addressing potential negative impacts on natural habitats

Safeguard Policies	Main Objective	Applicability	Application in the MozBio
OP 4.36 Forests	The objective of this policy is to help countries to realize the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively into sustainable economic development, and protect the vital local and global environmental services and values of forests. Where there is a need to harmonize the forest restoration and agricultural development, the Bank supports the activities of the forest restoration that maintain or enhance the functionality of biodiversity and ecosystem.	This policy is used when a project (i) has potential impacts on forest health and quality and on the rights and welfare of the people who depend on them; or (ii) can cause changes on management, conservation and use of natural forests.	Some of the conservation areas and their buffer areas are located in forest ecosystems. Some of the livelihood activities might developed subprojects to improve forest management in the surrounding areas of the MozBio'sc onservation areas.
OP 4.09 Pest Management	The objective of this policy is to minimize and manage the environmental and health risks associated with pesticide use and promote and support safe, effective, and environmentally sound pest management. It aims to (I) promoting the use of biological control and reduce the use of synthetic chemical pesticides; and (ii) consolidate the legislative powers of the countries and their institutions to promote and ensure a safe pest management, effective and environmentally sound. More specifically, this policy aims, among other objectives: (a) Determine which activities related to pest management in Bank-financed operations is based on the principles of integration and seek to reduce the use of synthetic chemical pesticides; (b) ensure that the dangers to health and environmental risks associated with pest management, especially the use of pesticides are minimized and can be managed effectively by the user.	This policy is used if: (I) it is foreseen the acquisition of pesticides or application equipment (both indirectly through the project, as indirectly through co-financing or counter-parties Governments that finance); (ii) the project can affect the Pest Management even though without obtaining pesticides. This includes projects which may (I) conduct extensive use of pesticides and the subsequent increase in risk to health and environment; (ii) maintains or expand current unsustainable Pest Management practices, not based on the principles of IPM, and/or significantly jeopardize health or the environment. Certain projects, as small-scale irrigation, increase of livestock areas, etc, can result in the creation or expansion of pest management plans.	MozBio is likely to support community-based driven development subprojects such as Agriculture (subsistence agriculture: farming, gardening, horticulture, etc.) that may use minimal amounts of agro-chemicals and in this case it will be necessary to implement the Pest Management Plan (PMP) prepared for MozBio Project.

Safeguard Policies	Main Objective	Applicability	Application in the MozBio
OP 4.11 Cultural Heritage	The objective of this policy is to help countries to prevent and mitigate negative impacts generated by development projects in physical-cultural resources. For the purposes of this policy "physical-cultural resources" are defined as mobile or static objects, the sites, the structures, the groups of structures, the characteristic and the archeological, paleontological, historical, architectonic, religious natural sceneries of great beauty or cultural significance. Such resources can be located in urban or rural areas, in surface environments, underground or under the sea.	This policy is applied whenever negative impacts are expected in physical-cultural or religious properties (sacred areas, cemeteries, cultural sites) All projects classified as Category A or B, which requires environmental assessment under directive OP 4.01 also, should follow this policy.	This policy is applicable to activities that can directly or indirectly interfere with areas of cultural or religious interest. Some procedures anticipated by the Bank to avoid damage in cultural properties include consultation with appropriate authorities and local inhabitants in the planning phase in order to identify possible alternative locations and avoid the use of places already identified as culturally sensitive. The ESMF will include measures for addressing potential negative impacts on cultural heritage.
OP 4.10 Indigenous Peoples	For all projects proposed Bank funding that affect indigenous peoples, the Bank requires the borrower to undertake free, prior and informed consultation with affected Indigenous Peoples to ascertain their broad community support for projects affecting them The project financed by the Bank must include measures to: (a) avoid adverse effects on indigenous populations; or (b) when it is not possible to avoid the effects, minimizes, mitigates, or compensates for such purposes. The projects financed by the Bank are designed with the assurance that indigenous people receive social and economic benefits that are culturally appropriate and adequate gender and inter-generations.	This policy is applied when the Project affects direct or indirectly indigenous people.	There are no indigenous people in the MozBio area, by which this policy is not applicable.

Safeguard Policies	Main Objective	Applicability	Application in the MozBio
OP 4.12 Involuntary Resettlement	The objective of this policy is to (i) avoid or minimize involuntary resettlement, where feasible and explore all viable alternative project designs; (ii) assist displaced people in improving their former living standards, income earning capacity, and production levels, or at let in restoring them; (iii) encourage community participation in planning and implementing resettlement; and (iv) provide assistance to affected people regardless of the legality of land tenure.	This policy does not cover only physical relocation but any loss of income sources resulting in: (i) relocation or loss of shelter; (ii) loss of assets or means of livelihood; (iii) loss of income sources or means of subsistence, whether or not the affected people must move to another location. This policy also applies to the involuntary restriction of access to legally designated parks and protected areas, resulting in adverse impacts on the livelihood of the displaced persons. In these cases the World Bank requires the establishment of a Resettlement Action Plan (RAP), based on the Resettlement Policy Framework (RPF) for any project or sub-project.	MozBio Project triggered OP/BP 4.12 because the project may finance activities that are likely to reduce communities' ability to access to vital sources of livelihood and food. A Process Framework has been prepared to address these potential negative impacts on communities. The project does not involve land acquisition leading to involuntary resettlement.
OP 4.37 Safety of Dams	The objective of this policy is to assure quality and safety in the design and construction of new dams and the rehabilitation of existing dams, and in carrying out activities that may be affected by an existing dam.	This policy is applied when the Bank finances: (I) projects involving the construction of large dams (15 m or higher) or dams representing hazard; and (ii) a project that is dependent on an existing dam. For small dams, generic dam proposed by qualified coordinators are generally adequate.	Not applicable, since there are no MozBio's activities involving dams.
OP 7.50 Projects on International Waterways	The policy applies to the following types of projects: (a) hydropower projects, irrigation, flood control, navigation, drainage, supply and sanitation, industries and similar projects involving the use or potential pollution of water courses; and (b) detailed projects and engineering studies involving the nominees above in (a), including those carried out by the Bank, by executing agencies or any other capacity.	This policy is applied if (a) any river, channel, lake or similar watercourse crossing two or more States, whether members or not; (b) any tributary or other shallow water body that is component of any channel described in (a); and (c) the whole bay, straits of gulf, or channel post of two or more States or within a State recognized as a channel of communication with the open sea and other States, and any river that flows in such waters.	Not applicable, since there are no activities in international waters.
OP 7.60 Projects in disputed areas	The objective of this policy is to ensure that projects in disputed areas are treated as soon as possible: (a) so as not to affect relations between the Bank and its member countries; (b) so as not to affect relations between the tenderer and neighboring countries; and (c) so as not to prejudice the position of the Bank or of the countries affected or interested	This policy is adopted if the proposed project is located in a "disputed" area. Generally occur in projects or projects located on the borders between States. The questions to be answered include: Is the proposer involved in some dispute over an area with some of its neighbors? The project is located in an area which is disputed? Can some component financed or likely to be financed as part of the project, located in an area	Not applicable, since no MozBio activity takes place in border areas or zones of conflict with neighboring States.

	parties	which is disputed?	

5.2 ENVIRONMENTAL ASSESSMENT (OP4.01)

As mentioned previously, the Operation Policy OP 4.01[8] governs the policy of World Bank environmental assessment, stating that all projects proposed for funding by the Bank must be subjected to an EA so as to ensure environmental sustainability, thereby contributing to an improvement in the decision-making process. It determines very clearly how the assessment should be linked to the project cycle and includes information on consultation mechanisms and provide information to affected local groups and NGOs. It establishes that the EA is initiated as early as possible in project processing and is integrated closely with the economic, financial, institutional, social, and technical analyses of a proposed project.

The EA must address the natural and social aspects in an integrated manner and should take into account inter alia the country's political, national legislation and institutional capacities related to environmental and social aspects. The EA process takes into account the natural environment (air, water, and land); human health and safety (to ensure compliance with the World Bank Group Environment, Health and Safety Guidelines – EHSGs[9]); social aspects (involuntary resettlement, indigenous peoples, and cultural property) and transboundary and global environmental aspects. The social aspects are only briefly addressed, as detailed is included in the RPF.

Depending on the project, a range of instruments can be used to satisfy the Bank's EA requirement: environmental and social impact assessment (ESIA), regional or sectorial EA, strategic environmental and social assessment (SESA), environmental audit, hazard or risk assessment, environmental management plan (EMP) and environmental and social management framework (ESMF).

The type and extent of environmental and social assessment required by the World Bank is a function of the project's environmental impact and hence, its environmental screening category. The World Bank undertakes environmental and social screening of each proposed subproject to determine the appropriate extent and type of environmental and social assessment. The World Bank classifies projects into one of three categories (A, B and C), depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts.

Category A – Requires a full environmental impact assessment. A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented with attributes such as pollutant discharges large enough to cause degradation of air, water, or soil; large-scale physical disturbance of the site or surroundings; extraction, consumption or conversion of substantial amounts of forests and other natural resources; measurable modification of hydrological cycles; use of hazardous materials in more than incidental quantities; and involuntary displacement of people and other significant social disturbances. These impacts may affect an area broader than the sites or

[8] April 2013

[9] See IFC's Performance Standards on Social and Environmental Sustainability, which include the EHS Guidelines that are used by the World Bank Group.

facilities subject to physical works. For a Category A project, the borrower is responsible for preparing an EIA report.

Category B – Requires an environmental assessment with a narrower scope than that of Category A EA. The Project could have potential adverse environmental impacts on human populations or environmentally important areas which are less adverse than those of Category A projects. These impacts are site-specific; few if any of them are irreversible; and in most cases mitigation measures can be designed more readily than for Category A projects. The scope of EA for a Category B project may vary from project to project, but it is narrower than that of Category A EA. Like Category A EA, it examines the project's potential negative and positive environmental impacts and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance.

Category C – Projects classified within this category do not require an environmental impact assessment, as it is likely to have minimal or no adverse environmental impacts. Beyond screening, no further EA action is required for a Category C project.

"For projects involving the preparation and implementation of annual investment plans or subprojects, identified and developed over the course of the project period during the preparation of each proposed subproject, the project coordinating entity or implementing institution carries out appropriate EA according to country requirements and the requirements of this policy. The Bank appraises and, if necessary, includes in the SIL components to strengthen, the capabilities of the coordinating entity or the implementing institution to (a) screen subprojects, (b) obtain the necessary expertise to carry out EA, (c) review all findings and results of EA for individual subprojects, (d) ensure implementation of mitigation measures (including, where applicable, an EMP), and (e) monitor environmental conditions during project implementation. The borrower/coordinating entity/implementing institution remains ultimately responsible for ensuring that subprojects meet Bank requirements. If the Bank is not satisfied that adequate capacity exists for carrying out EA, all Category A subprojects and, as appropriate, Category B subprojects--including any EA reports--are subject to prior review and approval by the Bank."(OP 4.01, 2013)

The Environmental and Social Management Framework (ESMF) is an instrument that examines the issues and impacts associated when a project consists of a program and/or series of sub-projects, and the impacts cannot be determined until the program or sub-project details have been identified.

The intensity of public participation will vary with the categorization of the project. For all Category A and B projects proposed for IBRD or IDA financing, during the EA process, the borrower consults project-affected groups and local nongovernmental organizations (NGOs) about the project's environmental aspects and takes their views into account. The borrower initiates such consultations as early as possible. For Category A projects, the borrower consults these groups at least twice: (a) shortly after environmental screening and before the terms of reference for the EIA are finalized; and (b) once a draft EIA report is prepared. In addition, the borrower consults with such groups throughout project implementation as

necessary to address EIA-related issues that affect them. ESMFs shall be also disclosure in the WB InfoShop and require one national level consultation.

It should be noted that according to the OP 4.01 where legal or technical capacity of the borrower is insufficient to perform the functions associated with the environmental assessment (such as analysis, monitoring, inspections or management of mitigating measures) for a given project, the project will include components intended to strengthen this capacity.

In regard to disclosure of the ESMF report, World Bank requires that the report has to be disclosed as a separate document as a condition for Bank appraisal. The ESMF will be disclosed to the general public to meet this requirement as well as the Infoshop of the World Bank and the date of disclosure will precede the date for appraisal of the program. The World Bank system assigns a project to one of three project categories, as defined below:

6. NATIONAL LEGAL FRAMEWORK VS WORLD BANK'S SAFEGUARD POLICIES

The World Bank safeguards policies and Mozambican legal framework on Environmental Assessment are generally aligned in principle and objective:

- Both require screening of sub-project investments in order to determine which level of environmental assessment is needed;
- Both require detailed ESIA for the project with more significant impacts (Category A), a less detailed EIA study for projects with less significant impacts (Category B) and no EIA studies for projects likely to have minimal or no adverse environmental impacts (Category C);
- Both includes in the EIA process the environmental and social components;
- The Bank requires that stakeholder consultations be undertaken during planning, implementation and operation phases of the project which is equivalent to the MICOA's requirements;
- Besides EIA, national legal framework also regulates the environmental audit and inspection.

The main discrepancy refers to the nonexistence in the national legislation of any EA instrument such as an ESMF and therefore no national mechanism to approve it.

In addition it shall be stressed that according to the EIA regulation proposed activities within conservation zones or areas are classified as Category A activities, while for the OP 4.01, the classification would be determined during the screening process, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts.

Regarding Involuntary Resettlement there are more discrepancies in the existent national regulation in comparison with the OP 4.12. The national regulation:

- Does not include any instrument equivalent to the Process Framework (PF);

7. LESSONS LEARNED FROM THE IMPLEMENTATION OF EMSF IN TFCAII

The TFCA Unit (TFCAU) has been implementing the second phase of TFCA II for six years following the Environment and Social Management Framework (ESMF), a Process Framework (PF) and a Resettlement Policy Framework (RPF) prepared for that phase. Under this project, all construction contracts went through an environmental and social impact assessment process, per the requirement of the Ministry of Environment Affairs (MICOA) and the approved ESMF.

The environmental and social impact assessments studies were carried out by hired consultants. The Bank supervised (post review) the quality of this work and found it satisfactory.

Social safeguards, the PF and RPF were overseen by DINAC. DINAC has used the technical assistance of INGC to supervise the execution of the RAP in the Limpopo National Park, that has been rated moderately satisfactory by the Bank, due to delays in some of the steps.

However, it shall be stressed that some discrepancies were found out between the environmental provincial directorates on the screening process as well as on the EIA process duration, which do not seems to be related with the complexity of the subprojects or sensitivity of the subproject areas.

- The majority of the TFCAII subprojects within the CAs were classified as Category B (due to the low significance of the impacts) following the WB Policy but not the national requirements. This indicates that in the majority cases the objective of the TFCAII Project was understood by the DPCA, which influenced the decision to not strictly follow what is defined in the EIA Regulation.

  Examples of timeframe for environmental license issuance for infrastructure projects:
  - Chimanimani (Category B, > 1 year)
  - Banhine&Zinave (Category A, < 6 months)
  - Maputo Special Reserve (Category B, ~ 1 year)

- Time consuming of EA process resulted in delays in TFCA project implementation both for infrastructures and ecolodges
- The duration of the EA process resulted in delays in TFCA project implementation both for infrastructures and ecolodges.
- Time and cost of the EIAP were underestimated by the tourism invertors and resulted in delays. In some cases the duration was affected by lack of compliance of the ESIA Regulation requirements (as the requirement of registered environmental consultants), which indicates the need of increase of knowledge on the EIA Regulation within the MozBio PIU.

Considering the above mentioned some measures are recommended in order to improve the ESMF implementation:

Institutional

Recruitment of environmental and social specialists for the MozBio PIU (see Terms of Reference for the environmental and social specialists in Annex 7)

In view of the sustainability also consider the strengthen of ANAC the capacity in EA, through the inclusion of environmental and social specialists for ANAC's human resources (Component 1).

The Memorandum between MITUR and MICOA on the MozBio project should defines procedures for screening process of the MozBio's subprojects.

Capacity Building

Training for the ANAC's Environmental and Social specialists.

Workshop on environmental and social assessment in conservation areas management to be attended by DINAIA, DPCAs as well ANAC and CA administrations.

Legal

In the scope of the proposed ongoing revision of EIA Regulation MITUR should propose the inclusion of the particular case of activities proposed by the CAs administration, to improve the biodiversity conservation.

8. ENVIRONMENTAL AND SOCIAL BASELINE

This section describes the overall baseline condition of Mozambique in terms of bio-physical environment, as well as the socio-economic and the identification of the main attributes and threats of the CA that will be targeted by MozBio.

8.1 OVERVIEW OF NATIONAL ENVIRONMENTAL AND SOCIAL CONDITIONS

Mozambique is on the south-eastern coast of Africa, bordered by the Indian Ocean to the east, Tanzania to the north, Malawi and Zambia to the northwest, Zimbabwe to the west and Swaziland and South Africa to the Southwest (Figure 1). The country has 20 million in habitants and an extension of about 800 thousand km2 and 2,700 km coastline.

The country is generally low-lying, with only 13% of the country above 1,000 m. The land ascends in a westward direction from the coast through a coastal lowland that is narrow in the north but broad in the south (~44% of the total land area), through a sub-plateau zone to an extensive low-lying plateau of moderate height, and finally up to a narrow higher-lying area on the western border. Chimanimani CA is located in a mountain area while the others CA are mainly located in coastal low areas (except some mountainous areas of Quirimbas NP). The climate ranges from subtropical in the south to tropical in the centre and north. Most of the country receives above 400 mm of rain per year, with the rainy season extending from October to April. The north region is more humid than the south, except in the Upper Zambezi region in Tete, where it is dry and hot. The coastal zone receives up to 900 mm of rainfall per annum.

Mozambique has thirty-nine major rivers, all of them drain into the Indian Ocean. Most of the rivers have a torrential regime, with high flows during the rainy season and low flows the rest of the year. Of the 11 major river basins, seven are shared with other countries (Rovuma, Zambezi, Pungoe, Limpopo, Incomati, Maputo and Umbeluzi). In the north, the Rovuma River - the third largest river in Mozambique, forms the border with Tanzania. Six other seasonal rivers discharge along the northern coast in Cabo Delgado and Nampula Provinces. These rivers have low sediment loads and consequently marine turbidity is low and extensive coral formations occur in the coastal waters which are included in the *Quirimbas National Park* and the Primeiras and Segundas Islands. In the center of the country, the Zambezi River, the most important in the country has a delta that covers about 18,000 km^2, classified as a RAMSAR site, also comprising the *Marromeu Complex Conservation Area*. This conservation area is also receives benefits from the Pungue River that rises in Zimbabwe and discharges into the Indian Ocean south of Beira, and constitutes an important river system for conservation purposes of which the Urema River, which flows south through the *Gorongosa National Park*, services important freshwater ecosystems, birds, and large and small mammals. The Pungue River forms the southern boundary of Gorongosa Park, creating a natural barrier. The Limpopo River, in southern Mozambique, is the country's second-largest river. An important tributary is the Olifants River, which, together with Limpopo, constitutes an important contributor for the conservation of Kruger National Park in South Africa and the Limpopo National Park in Mozambique.

The main vegetation type in Mozambique is savanna woodland, that covers 70% of the country area. It includes miombo and mopane woodlands being miombo is the most extensive (covers much of Niassa, Cabo Delgado, Nampula, Zambezia, Sofala, Manica, and Inhambane Provinces). Other important vegetation types include: Acacia woodland, found in the southern and central parts of the country, dune forest (to be stressed the high dunes along the coast between the southern border and Bazaruto Island, as in *Bazaruto NP, REMaputo and Ponta do Ouro MR*); a sub-littoral woodland, found inland from the dune forest in the sub-littoral zone between Ponto do Ouro and Macia in ; lowland palm savanna, in coastal areas in Nampula, Sofala, and Inhambane Province); vegetation on alluviums in the Zambezi Delta and the lower Limpopo and Incomati Valleys; and mangroves, which are well-developed in the northern and central sectors of the coast and less so along the southern sector. More than 5500 species of plants (including 250 known endemic species and 46 threatened species), 222 mammal species (including several endemic sub-species), 740 species of birds (with many near endemic and restricted-range species); 167 species of reptiles (three of which are endemic and six of which are threatened); 79 reptile species (including 28 endemic species); and 3,074 species of insects (at least 1 of which is endemic) have been identified to date. The freshwater and marine wetlands of Mozambique are important sites for migratory and resident aquatic bird species. One of the most important wetland sites in Mozambique is the Zambezi delta (classified as a RAMSAR site), where more than 50 species of aquatic birds have been recorded, besides several large mammal species.

The coast area is divided into three main natural regions: the *coral coast* (the northernmost coast extending for 770 km); the *swampy coast* (about 978 km of length, between Angoche and Bazaruto Island); and the *parabolic dune coast* (the southernmost coast, with 880 km of length between Bazaruto and Ponto do Ouro) - with one additional type of limited occurrence, namely the delta coast at mouth of the Save and Zambezi Rivers. The coastline is characterized by diverse habitats, including: estuarine systems; coastal

dunes; sandy beaches; intertidal mud flats; mangrove forests; seagrass beds; coral reefs and open water that are home to a rich and diverse assemblage of plant and animal species. This includes: 150 species of coral; more than 1734 fish species; at least 243 species of seaweed; 63 species of marine birds; the largest remaining populations of dugong in East Africa; and significant populations of marine turtles and other cetaceans.

Fourteen ecological regions are represented in Mozambique, of which seven are of global importance: Agulhas Current; East African Coast; Lakes of the Rift Valley; East African Mangroves; Forests of the South Rift Valley; East and Central Miombo; and Savannas of the Zambezi Floodplains. The country contains three areas designated by Conservation International as 'Biodiversity Hotspots' - Eastern Afromontane in various highland areas located in the centre and west of the country; Coastal Forests of Eastern Africa, stretching along the coastal belt; and the Maputaland-Pondoland-Albany Hotspot, located in the southern part of the country. Mozambique also possesses specific sites of high biodiversity importance, such as the Gorongosa Mountain, the Archipelago of Quirimbas, and the Chimanimani Massif.

The current formal conservation areas (CA) includes:

- **National Parks** (six),
  - two are coastal/marine protected areas (MPAs) namely, *Bazaruto National Park* (1430km^2 exclusively marine) and *Quirimbas National Park* (7500 km^2, of which ~1500 km^2 is marine) ;
  - four terrestrial national parks – *Banhine* (7000 km^2), *Gorongosa* (10000 km^2), Limpopo (10000 km^2) and *Zinave* (3700 km^2);
- **National Reserves**(six) – *Gilé* (2100 km^2), *Marromeu* (1500 km^2) *Niassa National Reserve* (42000 km^2), *Maputo Special Reserve* (700 km^2), *Chimanimani National Reserve* (7500 km^2) and *Pomene* (200 km^2);
- **Marine Biological Reserve** (one) – Inhaca (100km^2);
- **Hunting Areas – *Coutadas*** (13) (totalizing 42017 km^2);
- **Partial Marine Reserve** (one)- *Reserva Marinha Parcial da Ponta do Ouro*(67,800ha); and
- **Forest Reserves** (thirteen) (totalizing 494,50km^2).

In addition it shall be stressed the existence of community programes as Tchuma-Tchato in Tete Province and Chipanje Chetu, close to the Niassa National Reserve.

A number of Mozambique's protected areas have been linked with protected and conservation areas in surrounding countries, as part of the Southern African Development Community (SADC) Trans-frontier Conservation Area (TFCA) initiatives. - *Great Limpopo* TFCA, *Lubombo* TFCA, *Niassa-Cabo Delgado* TFCA, *Chimanimani* TFCA. However only Lubombo and Limpopo have agreed International Protocols for management.

The majority of the current formal conservation areas were created during the colonial period (1960 and 70s). Most of them were affected during the armed conflicts both due to poaching and/or population settlements inside the park areas.

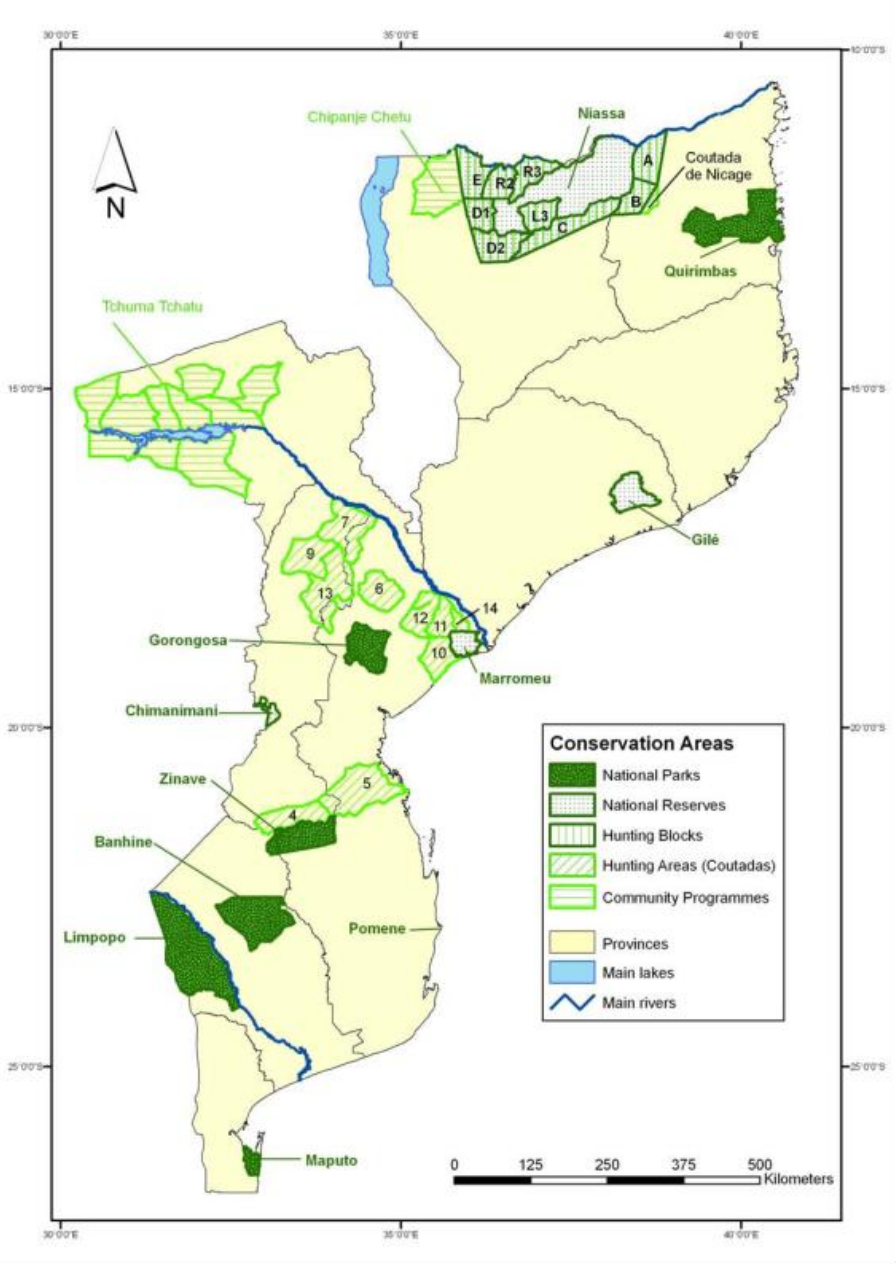


Figure 2 – Conservation Areas in Mozambique

Mozambique achieved its independence in 1975, after a period of war that affected mainly the north and centre regions. During the 1980s, another armed conflicted occurred that affected infrastructures and the economy, which had already been affected by the massive exit of Portuguese public administration officials and private entrepreneurs,due to the independence. The lack of investment on local education during the colonialism period resulted in a lack of high degree professionals and consequently a great challenge for the country reestructuration. In additon the effects of a prolonged drought period during the 1980s resulted in the classification of this as the poorest country of the world.

Currently Mozambique has a population of about 21 million inhabitants that is growing at an annual rate of about 2.4%. Half of the population is aged between 6 and 24 and women are in the majority. Population density is low (~25/km^2). The north-central provinces of Zambezia and Nampula are the most populous, with about 45% of the population. In the central zone,

people are concentrated along the Beira Corridor, and in the south, around Maputo. More than 70%^of the population live along the coastal area, and about 68% live in rural areas. Population dynamics and economic growth are both likely to be affected by HIV/AIDS, for which the adult prevalence rate is estimated at 12.2%. Catholics comprise 24 percent of the population, while Muslims comprise 18%. Mozambique's major ethnic groups encompass numerous sub-groups with diverse languages, dialects, cultures, and histories. Many are linked to similar ethnic groups living in neighboring countries. The estimated four million Makhuwa are the dominant group in the northern part of the country. The Sena and Ndau are prominent in the Zambezi valley, and the Tsonga and Shangaan dominate in southern Mozambique. More than 70% of the population live in rural areas and work mainly in agriculture, forestry and fisheries.

The country has been making significant progress in terms of socioeconomic development, under the combined impact of macroeconomic stability and faster economic growth. Over the period 2005-2009, annual growth averaged 7.6 percent of GDP, and income per capita rose on average by 5 percent a year. However, in 2011, Mozambique was still in the 184th position among 187 countries assessed using the Human Development Index (HDI) presenting a lower index than the average of Least Developed Countries and the lowest in southern African. More than 70 percent of Mozambicans live in extreme poverty (<US$2/d). In 2007, 38% of the population was undernourished and only 42% had access to an improved water source. The primary goal of the Mozambican Poverty Reduction Action Plan (2011 to 2014) is to reduce the incidence of poverty from 54.7% in 2009 to 42% in 2014.

Tourism development, namely in conservation areas coulf give an important contribution for poverty reduction.Conservation areas are considered an important pillar in the Strategic Plan for Tourism Development in Mozambique (2004 -2013).

8.2 *MAIN ATTRIBUTES AND THREATS OF THE MOZBIO'S CONSERVATION AREAS*

Table 6 below synthesizes the main attributes and current threats of the MozBio Target Conservation areas.

Table 6 – Main attributes/ecosystems and threats of the MozBio Target Conservation Areas

Conservation Area	Main attributes	Main threats
Maputo Special Reserve *Decree nor.1994 of July 23, 1960*	Floodplain, savannah, mangrove, swamp forest, dry licuati forest and woodlands on sand, coastal dune forest, dry grasslands, and hygrophilous grasslands (fresh and saline). Included in the Lubombo TFCA.	- Low numbers & species diversity of large mammals; - Communities living inside the reserve; - Illegal hunting; uncontrolled burning; - Changing hydrological situation.
Ponta do Ouro Marine Reserve*Decree nr. 42/2009 of 21 August 2009*	A marine park with world class coral reefs. Marine wildlife (whale sharks, dolphins, turtles).	- Fishing; - Use of vessels/Launch site management; - Coastal development; - Community pressures; poaching of turtles for meat, digging up of their eggs; - Use of gill and seine nets to catch fish or the stripping of invertebrates such as mussels from the intertidal zone.
Bazaruto Archipelago National Park*Decree 46/71 of May 25, 1971 and Decree 39/2001 of November 27*	- Beach front line, sand banks in the tidal area, pelagic area (with 4 species of turtles and 10 of marine mammals, and very important for dugongs), coral reefs (rich in fish species), seagrass beds, mangroves, dunes, lagoons, small forest areas, swamps and salt pans adjacent to the lagoons	- Pollution of the coastal areas due to the use of motorized vehicles and spills from oil tankers, untreated wastewater; - Coastal erosion; - Disturbances to migrating birds and marine turtles nesting areas; - Over-exploitation of mollusc species; - Over-exploitation of dugongs, damage caused by fishing nets and damage to their habitat; - Damage to coral reefs and their populations caused by fishing; - Over-exploitation of seagrass beds; - Over-exploitation and damage of mangroves; - Damage to dune ecosystems caused by wind erosion, traffic, agricultural practices and overgrazing by goats and sheep; - Over-exploitation of forested areas for fuel and agricultural lands; Overexploitation of lagoons, marshy areas and salt pans.
Pomene National Reserve *Decree no. 2496 of July 4, 1964.*	Vegetation of the dunes, savannahs, mangroves, marshes Created in 60's to protect gnus that are no more in the area.	- Over fishing - Timber extraction
Quirimbas National Park*Decree no. 4/2002, of 6th June 2002*	Mangrove, coastal thicket, Acacia-Grasslands, Miombo woodland, mixed woodland and inselbergs, Coral reefs, and sea grass beds	- Illegal hunting and fishing activities; - Uncontrolled burning; - Clearing of lands for agricultural purposes
Limpopo National	The LNP falls within the Mopane vegetation of the Sudano-Zambezian Region and corresponds to the	- Unsustainable harvesting of wood for household use, sale or charcoal production; - Unsustainable harvesting of plants for magico-medicinal use;

Park*Decree no. 38/2001, of 27th November 2001*	Mopani Veld, including a total of 15 distinct plant communities. It falls within the Great Limpopo – TFCA.	- Impacts of tourism activities - Frequent wildfires of high intensity; - Spatio-temporally homogeneous fire patterns that homogenize plant community structure; - Alien and invasive plant invasions; - Theft of rare or endangered species; and the clearing of vegetation for agricultural purposes; Habitat destruction; - Poaching; Wildlife conflict with humans; and - Transmission of diseases from livestock.
Marromeu Complex*Article 2 of Resolution 45/2003*	Tropical and Subtropical Moist Broadleaf Forest, coastal forest mosaic, coastal flooded savanna mosaic, swamps on the delta plains, with mangrove forests, saline grasslands, swamps, and salt marshes near the coast; Vegetation on termitaria dots; Pioneer scrub, littoral thickets, and woodlands occur on dune ridges	- Reduced water availability and other adverse changes in the timing, volume, duration, and frequency of runoff; - Loss and fragmentation of forest, woodland, and mangrove ecosystems; - Fire damage to forests and woodlands and burning of critical dry season grazing lands; - Unsustainable wildlife mortality levels, especially for rare and threatened species; - Displacement of native wetland vegetation with less desirable upland vegetation; - Erosion of Zambezi banks and channel bed and the coastal shelf; Reduced sediment and nutrient availability; - Salinity intrusion and floodplain salinization; and - Industrial pollution
Gilé National Reserve *Dipl 1996, 23th July 1960 & Decree70/2011*	Exceptional biodiversity and hosts various critically endangered species. Of great interest the granitic inselberg habitats which are either inside or around the GNR.	- Timber extraction - Poaching
Chimanimani National Reserve *Decree nr. 34/2003*	Miombo forests, low altitude evergreen humid forests, mountain dry forests, mountain pastures, rock vegetation	- Illegal gold mining, - Poaching, - Agriculture expansion (particularly in areas of evergreen forest) and - Illegal logging
Zinave National Park*Decree nr. 47/73 of June 26, 1973*	Save River channel and river banks, Save Riverine forest *Acacia nigrescens* woodlands, mopane landscape Sandveld, miombo landscape.	- Growing human presence within ZNP; - Park boundaries are not clearly defined; - Illegal settlements within the Park; - Randomly shifting agriculture; - Fishing methods and - Harvesting of birds

9. POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

As stated in Chapter 2 of this report the physical interventions of MozBio project would be implemented under *Components 3 - Conservation Areas Management* and *Component 4 - Strengthening Economic Opportunities for Local Communities in Buffer Zones*.

The Component 3 would include infrastructures listed in Table 7 bellow.

For Component 4 there is a broader definition on the type of subprojects to be covered which could comprise several small-scale activities to improve sustainable production systems and income opportunities, including **agriculture, livestock, fisheries, forestry and tourism related activities**.

Table7 - Infrastructures under Component 3

Wildlife Management - Game translocation - Game farm
Infrastructure - Administrative infrastructure - Entrance gates - HQ and Senior staff accommodation - Junior staff accommodation - Check points and outposts - Electrification - Water reticulation - Game fence construction and maintenance - Tourism facilities - Rehabilitation of tourism facilities - School construction
Road, Bridges and Airstrips - Stabilization of roads - Rehabilitation of roads - Construction of bridges - Building of drifts/river crossing - Dam construction - Construction of airstrip

The physical interventions of MozBio Project could result in environmental and social impacts, that would be influenced by the sensitivity of the area (within or in the surroundings of the conservation area).

The environmental and social components that could be directly affected include:

Environment

- *Soils*: which may be eroded due to civil works or agriculture activities and/or polluted with solid wastes, pesticides, leakage or spill of hazardous materials and;
- *Water resource*: including freshwater and seawater which could be affected by abstractions and diversions or due to the discharge of fertilizers, nutrients, different chemicals to be used for pest management, civil works, oil spills, etc.;
- *Air quality* : which has the potential to be negatively affected by dust generated from the various construction/rehabilitation and project operations as by pollutant (including greenhouse gases) emissions from vehicles, machinery (including diesel generators);
- *Noise environment*: generated from the various activities during civil works as well as during some project operations
- *Vegetation*: which in general will benefit with the MozBio project but that may be locally affected due to clearance for construction and even rehabilitation of new infrastructures, tourism and community development projects;
- *Fauna*: that would benefit with the improvement of conservation management – the main MozBio objective, but that can be disturbed during construction and operation activities;
- *Landscape*: that can be affected by new infrastructures, tourism and community development projects

Social

- *Loss of access to resources and livelihoodsPhysical displacement* and/or loss of land and/or other assets
- *Employment*: positive impact for local communities
- *Conflicts with local community*: due to use of natural resources and/or cultural "foreigner" workers and visitors
- *Public health*: increase spread of diseases, as sexual transmitted diseases (HIV/AIDS), and water-borne diseases.
- *Public safety*: accidents with vehicles/machinery and pedestrians)
- *Health & Safety* of construction workers
- *Cultural heritage*: destruction or disturbance of cemeteries, sacred sites or sites with archaeological, historical or aesthetic value.

The preliminary identification of potential environmental and social impacts was carried out considering the environmental and social components that are likely to be affected by the Project activities.

All the MozBio's subprojects shall be carefully planned and designed in order to have environmental & sound designs, avoiding potential environmental and social impacts.

Annex 4 includes lists of potential impacts and mitigation measures to be implemented for Construction Works (Annex 4.1), Agriculture (Annex 4.2), Livestock (Annex 4.3), Fisheries (Annex 4.4) and Tourism Activities (Annex 4.5). These annexes should be reviewed during the subprojects conception in order to include specific mitigation measures in planning and design phases to ensure environmental and social sound designs, as well as during construction and operation phases.

10. GUIDELINES FOR THE ESMF IMPLEMENTATION

10.1 INTRODUCTION

The comparative analysis of the Environmental Impact Assessment Process legally established in Mozambique (EIAR - Decree Nr. 45/04) with the World Bank's OP 4.01 on Environmental Assessment indicates a great parallel between the two.

As in TFCAII, all MozBio subprojects shall be subjected to a review and screening process in order to determine whether the level of required environmental assessment. During these phase it shall be bear in mind the main objective of the Project **to support the development and management of the Mozambique Conservation Areas' system in order to sustainably improve biodiversity conservation, economic growth and livelihoods**.

As stated in Chapter 9, the subprojects under Components 3 and 4 could generate environmental and social impacts within the CA (infrastructures) or within its surrounding areas (community development subprojects under Component 4).

This section of the ESMF describes the process for ensuring that environmental and social concerns are adequately addressed through the institutional arrangements and procedures used by the Project for managing the identification, preparation, approval and implementation of subprojects

While the proponent of the infrastructures subprojects (Component 3) will be the Ministry of Tourism, through the CA Administrations, the community development subprojects will be proposed by community associations. All of the subprojects shall comply with the OP 4.01 and national legal requirements on environmental and social management.

MozBioProject Implementation Unit (PIU) will conduct all the EIA process for the infrastructure projects and support the subproject proponents during the EIA process in order to ensure the compliance. The ANAC's environmental and social specialists will provide assistance during the the screening of subprojects, preparation of ToRs for EIA studies,

facilitation, coordination, review of EIA studies and EMPs (before submission to WB and MICOA for approval), monitoring and evaluation of all the subprojects.

10.2 SCREENING PHASE

Screening of subprojects will commence right at the subproject inception phase as soon as the specific subproject details are known including nature and scope, proposed location and area among other parameters. Screening is expected to happen concurrently with the project specific feasibility studies so that any potential impacts identified through screening are immediately incorporated into the feasibility study hence ensuring that environmental and social sound design of the subprojects occurs right at the project design phase.

In order to comply with legal requirements and the WB guidelines, this ESMF includes two screening forms - Environmental and Social Screening Forms (Annex 3), besides the Preliminary Environmental Information Sheet[10] (Annex 2) - part of the Decree nr. 45/2004. Both forms has to be completed by each proposed subproject. Annex 3 includes specific forms for subprojects under Components 3 and 4.

The Preliminary Environmental Information Sheet will be filling with:

- Subproject name
- Identification of the subproject proponent
- Type of activity
- Brief description of the proposed activity (physical data),
- Site location & zoning category
- Site sensitivity
- Identification of potential impacts
- Mitigation measures already included (based on Annex 4)

These forms, when correctly completed, will facilitate the:

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

In the case of projects under Component 3 the screening form shall be filled by the ANAC's environmental and social specialists, in collaboration with the CA administration. This will be based on desk appraisal of the proposed subproject complemented by field visit. The environmental and social screening form (ESSF) will then be submitted to the WB safeguard specialists for confirmation. This form will support the preparation of the subproject application for the EIA process, following the procedures described in 4.1.1 of this report, which will starts with the filling of the Preliminary Environmental Information Sheet.

[10] Annex IV, Decree nr. 45/2004

In the case of projects under Component 4 the Environmental and Social Screening Form (ESSF) shall be prepared by the CA community agent jointly with the subproject's proponent, in collaboration with the CA administration. The Screening Form shall be submitted to the MozBio PIU and reviewed by the ANAC's environmental and social specialists, for EA screening of the WB requirements, prior to the submission to the MICOA structure on Provincial (DPCA).

In both cases the application of the activity for the environmental impact assessment process shall be submitted to the DPCA as described in 4.1.1 of this report. The DPCA will carry out a pre-assessment of the proposed activity in collaboration with the District Environmental Officers(when in place) in order to confirm the abovementioned screening process and the subproject classification under categories A, B or C.

It is expected that the subprojects under Component 3, complying with the CA Management Plan, will be classified as Category B or even C. In relation to Component 4, it is foreseen that the majority of its subprojects will be classified as Category C activities considering the anticipated subproject types, its small-scale and location out of the CA (or in community use zones or multiple use zones).

The subprojects classified under Category C shall implement as much as possible the mitigation measures identified in Annex 4.

In cases where a full a SES/ESMP is required, it will be paramount that the feasibility studies occur concurrent with the SES/ESMP study in order to ensure that the findings of the SES/ESMP are incorporated in the feasibility study at the design stage. This will ensure that environmental and social sound design including proposed mitigation measures as well as alternatives are incorporated in the feasibility reports at the design stage hence avoiding design change at an advanced stage.

The stages of the environmental impact assessment process are presented below.

10.3 PREPARATION OF TERMS OF REFERENCE (TOR)

If the activity is classified as Category B it requires the preparation of the ToR for hiring a consultant to carry out the SES and the specific ESMP and conduct the public participation process (see Annex 5). According to the REIAP (Art. 21 REIA) only the consultants registered in the Environmental Assessment Authority (MICOA) are allowed to carry out environmental assessment studies in Mozambique. Consultants must present a valid register certification issued by MICOA.

The terms of reference should take into account potential impacts identified in Annex 4 of the present ESMF; as well as other potential specific impacts of the site where the activity will be executed.

The structure and content of the SES must follow the stipulations found in the Regulation of EIAP (Decree Nr.45/04).

The Public Participation Process shall follow the General Directive of the Public Participation Process in the Process of Environmental Impact Assessment.

The ToR has to be sent to the World Bank's Environmental and Social Safeguard specialist for no-objection and then to DNAIA-MICOA, for approval.

10.4 PREPARATION OF THE SES AND THE PUBLIC PARTICIPATION PROCESS

The SES would be prepared by the consultant hired by the MozBio/PIU. The ANAC's environmental and social specialists would be set as focal points that establishes the communication with the CA's administration and community agent in order to provide all necessary information to the consultant regarding the proposed activity and the CA, to monitor the on-site visit and allow his involvement in the process of public participation.

The main objective of public participation is to ensure that the concerns and issues rose by the Interested and Affected Parties (PI&As), organizations or individuals are taken into account during the SES, allowing for the PI&As to discuss the results of the study. On the other hand, the Public Participation Process grants an open channel of communication between the public, the consultants and the ANAC/CA, which will be of extreme importance in managing potential conflicts.

Although RPAIA does not consider the public consultation activities for Category B as a compulsory action, this will be required by the present ESMF, according to the OP.4.01.

The CA Administrations shall be actively involved in the process of public participation since an early stage, supporting the local communities' involvement in the process, including the District Consultative Councils and the Natural Resources Management Councils – CGRN, (including representatives from village councils or committees where these already exist) as well as other interested parties, as stakeholder committee (as the already established in QNP) or environmental and development NGOs. With this in mind, the creation of local committees consisting of representatives of different participants, establishing the communication between CA, consultants and contractors with the parties directly affected, should definitely be encouraged.

The report of the public participation process should be included in the environmental assessment report (for Category B subprojects) and / or in the activity file folder.

10.5 REVIEW AND APPROVAL

The ANAC's environmental and social specialists will review the SES prior to submission to Provincial Directorate of Environmental Affairs (DPCA). DPCA, will always be responsible for the review and final approval of environmental studies and environmental management plans and the accompanying environmental licensing.

10.6 COMPILATION OF ENVIRONMENTAL AND SOCIAL REQUIREMENTS FOR TENDER DOCUMENTS

The MozBio EA specialist will make a compilation of environmental and social requirements to be met by the designers (when in the planning/design) or by contractors (when referring to

the construction phase). This compilation will be based in the Management Plan approved by MICOA (for Category B activities) or in the Mitigation Measures for Category C Activities (Annex 4 of the present ESMF).

The environmental and social requirements will be included in the Tender Documents of the Projects or Works.

The Contractor and its subcontractors must: know, respect and enforce national laws and regulations 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.

The Tender Documents shall indicate that 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.

It shall also indicate that on decommissioning 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 approved by the CA Administration; (iv) protect the remaining dangerous works (wells, 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.

10.7 SUPERVISION AND MONITORING

Both during the execution of works and in the post-construction phase, the CA staff, should monitor the implementation of the Environmental and Social Management Plans and/or mitigation measures by the responsible authorities involved.

Compliance monitoring comprises on-site inspection of activities to verify that measures identified in the ESMP, PMP 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.

In the case of identification of any default by the Contractor it shall be immediately informed to the CA Administrator and MozBio PIU, so that a joint discussion on what action could

take place. On the other hand, if the supervisor identifies any environmental or social damage, he should consult the MozBio PIU environmental specialist to identify the applicable remediation measures.

In addition the ANAC's environmental and social specialists should develop regular inspections to verify the nature and magnitude of the expected impacts, verify the effectiveness of the implementation of proposed mitigation measures, and determine the need for further mitigation measures or changes in the existing ones.

10.8 REPORTING

The whole process implemented in the light of this ESMF should be properly documented and filed for future reference in the audit stage. This includes Pre-Environmental Assessment Sheets, correspondence with the MICOA, reports produced by consultants, records of public consultations or complaints received and, where appropriate, the environmental permit.

The environmental and social specialists based at ANAC will submit quarterly monitoring reports of all active investments under implementation to the MozBio PIU Coordinator who will then submit these reports to the World Bank. It will report the activities carried out under the ESMF, indicating the whole process carried out for each and every subproject undertaken, and conducting an assessment of the level of performance achieved, the difficulties encountered and the solutions found or proposed.

The annual report must also describe the training activities carried out, dully indicating its content, duration and participants.

11. INSTITUTIONAL ARRANGEMENT FOR ESMF IMPLEMENTATION

Ministry of Tourism (MITUR) is the principal implementing institution for this project. MITUR's internal capacity to implement the proposed project has been strengthened over the years through TFCA I and II projects. The MozBio Project Implementing Unit, which will build on the existing TFCA Unit with some changes in staffing, will be responsible for leading the implementation of MozBio. Other entities, including ANAC, MICOA as well as community-level organizations, will implement specific activities of the project, related with this ESMF.

It shall be stressed that at present MITUR does not have any Environmental and Social Unit, as occur in several other ministries. In case of establishment of this kind of unit, it shall be involved in the implementation of the MozBio's ESMF as well as included in the capacity building initiatives.

The main responsibilities of the **MozBio Unit** will include: i) ensuring proper fiduciary management (financial management and procurement); ii) overseeing the preparation and implementation of annual operating plans; iii) managing the project monitoring system (collecting and processing data and reporting, including through annual reports); v) ensuring compliance with the project legal agreements (including subsidiary agreements); vi)

securing compliance with WB safeguards in collaboration with other entities implementing project activities; vii) providing strategic communication for the project.

MozBio Project will support environmental and social specialists for ANAC in order to ensure capacity for compliance with WB safeguards.

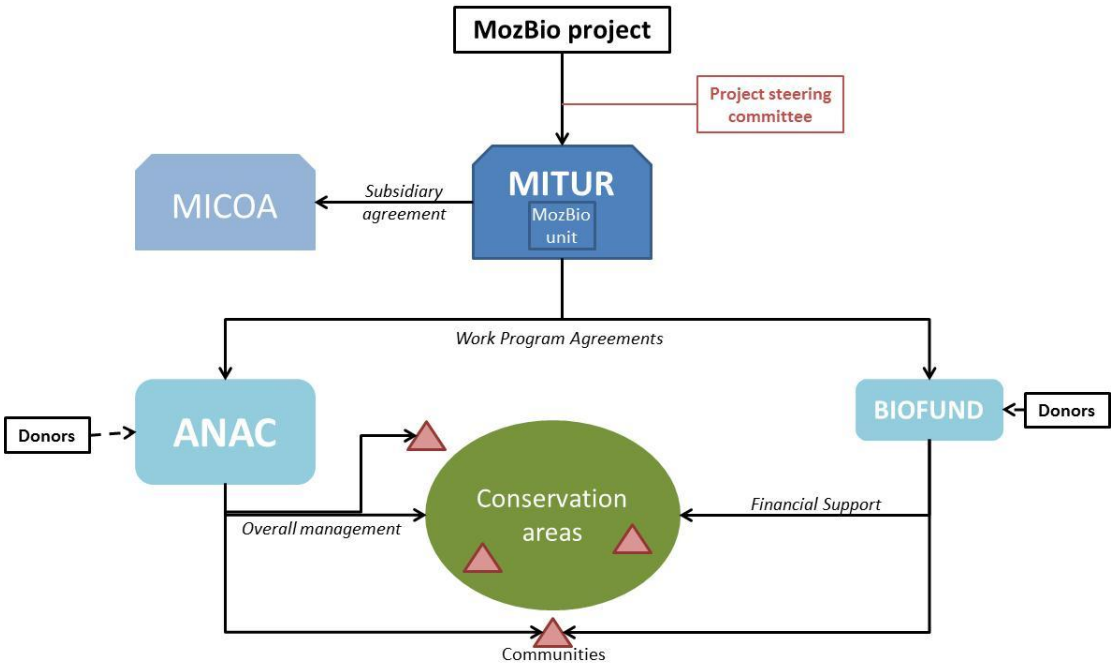


Figure 3 – MozBio's Institutional Arrangement

Ministry of Environmental Coordination (MICOA) through its National Directorate for Environmental Management (Direcção Nacional de Gestão Ambiental – DNGA) is responsible for the policy development and monitoring regarding biodiversity conservation and environmental awareness building as well as serve as focal points for various internal funds (e.g. GEF) and agreements (e.g. CBD). Through the National Directorate for Environmental Impact Assessment (Direcção Nacional de Avaliação do Impacto Ambiental – DNAIA) MICOA is also responsible to ensure that the national policy and legislation on environmental safeguard is implemented. A subsidiary agreement will be signed between MITUR and MICOA to spell out financial and procurement arrangements (for proper implementation of CITES convention – MozBio's Component 1.3) as well as monitoring and reporting responsibilities and also to standardize criteria for EIA screening process of MozBio infrastructure subprojects, proposed to improve the conservation areas management.

National Administration of Conservation Areas (ANAC) is a parastatal agency attached to MITUR, which was created to manage more efficiently the Conservation Areas system of Mozambique. ANAC is expected to play a key role in implementing MozBio, both at the national and conservation areas levels. At present, ANAC faces major capacity constraints – it has not been staffed and does not have a strategic and operational plan. A key objective of MozBio is to strengthen the capacity of ANAC, which would include strengthen the capacity

in environmental and social management. As discussed in chapter 4.2, ANAC's internal regulation is not yet approved. The environmental and social specialists could be positioned under the proposed Licensing & Social Development Department (Licensing& Promotion Service). They will provide assistance to the MozBio Project during the screening of subprojects, preparation of ToRs for EA studies, facilitation, coordination, review of EA studies and EMPs, monitoring and evaluation of all the subprojects.

Conservation Areas to be supported by MozBio will be responsible for the local implementation of the infrastructures subprojects of Component 3, as well as to directly support the subprojects under Component 4, through their community agents.

Community-based organizations (service delivery) will be selected for the implementation of Component 4. MITUR/ANAC (including the Conservation Area managers and CA Senior Community Officers), with support from MozBio Unit, will oversee the work of these service delivery. Given its wide experience in working with coastal and fisheries communities and its implementation of other World Bank projects, the Institute for Development of Small-scale Fisheries (IDPPE), Ministry of Fisheries, would, in collaboration with a number of other service providers with strong track records, be the implementing agency for the Coastal/Marine and Freshwater activities. For terrestrial activities, a competitive selection process will be launched.

12. CONSULTATION AND DISCLOSURE

As discussed before, the preparation of this ESMF included a consultation process with key stakeholders, including NGOs directly supporting communities on community development in conservation areas, as well government environmental authorities (at national, provincial and district levels), as:

- National Directorate for Environmental Impact Assessment
- Provincial Directorate for Environmental Affairs of Maputo Province
- Provincial Directorate for Environmental Affairs Cabo Delgado Province
- District Administration of Matutuine (Maputo Province)
- District Administration of Ancuabe (Cabo Delgado Province)
- Administration of Maputo Special Reserve
- Administration of Quirimbas National Park
- Technical Group of QNP's Partners
- LUPA
- Peace & Parks Foundation
- LVIA
- TECNOSERVE
- AFRICAN SAFARI LODGE FOUNDATION
- AGHA KHAN FOUNDATION
- AMA – Associação do Meio Ambiente (Cabo Delgado Province)

The contents of the discussions are presented in the following table.

Table 8 – Consultation Meetings

Date	Participants	Content
26.11.2013	Josefa Jussar, Chief of EIA Department, National Directorate of EIA	EIA process for projects in Conservation Areas; Ongoing revision of EIA regulation as an opportunity to revise the screening process of activities located in CAs, proposed by CA Administrations to improve the CA management; Presentation of Mozbio project and the objective of the ESMF– no concerns with the proposed project
26.11.2013	Lote Simione, Provincial Directorate for the Coordination of Environmental Affairs (Maputo Province)	Screening process of TFCAII activities (based on project description and site visits); Institutional relations with DINAIA, district administrations and CAs administrations; Main environmental and social issues in the coastal areas (deforestation, fire, illegal constructions); Main stakeholders; Community organizations. Presentation of Mozbio project – no concerns with the proposed project, expectation of support to community development as a way to reduce deforestation.
27.11.2013	District Planning and Infrastructure Services - Matutuine District	District Administration role on the EIA process, specifically for the TFCAII activities (participation since the screening phase, in collaboration with the provincial environmental authority); Lessons learnt during TFCAII implementation in Maputo Special Reserve (MSR) and its EIA process; Main environmental and social issues (deforestation, fire, erosion); Previous experiences in resettlement in MSR (during early 90s); Present relation between the MSR administration and the existent local communities; Concerns regarding presence of communities within the MSR (man-animal conflict); Community organizations; Community development ONGs with activities in the district.

Date	Participants	Content
27.11.2013	District Economic Activities service – Matutuine District Administration	Community and management activities with association in CA and buffer zone; Main economic activities in the district (tourism development limited by lack of good access); Balance of TFCAII activities (piri-piri project was good experience). Other community development projects (honey production considered as good experience); Progress and threats to conservation, involvement of local government with the MSR. Expectations on the MOZBIO (support to communities development in the surrounding areas)
27.11.2013	Meeting with Community official from PPF (MSR)	Park&Peace Foundation experience in community development activities developed and in progress in the MSR, under the TFCAII; Community organization and challenges.
27.11.2013	Meeting with association working with Chemucane – MSR (informal meeting)	Community organization to participate in the Chemucane Lodge project (under TFCAII), benefits from the project, expectations, involvement of women.
28.11.2013	Meeting with Katia Ferrari, LVIA	LVIA experience in community development projects in Zinave Conservation Area (community organization, projects on agriculture & honey, health projects); Main environmental and social issues in Zinave CA (rhino poaching); Management of community tourism project; Community involvement – main challenges. The community development projects were interrupted due to the lack of funds. Communities associations are not yet prepared to continue the implementation of development projects without support. Honey production and tourism activities were already affected with the lack of support. Expectations that Mozbio Project would contribute to the continuation of the development projects.

Date	Participants	Content
28.11.2013	Meeting with Paulo Mussanhane, Tecnoserve and Steve Collins, The African Safari Lodge Foundation	Experience in the implementation of the Chemucane Lodge Project in MSR and Covane Lodge in LNP under TFCAII – main challenges (EIA process delayed the construction; bad access conditions and lack of tourism infrastructure in the MSR limits tourism development; the prohibition of activities within 100 m from the sea level is a constraint for tourism activities). Expectations that Mozbio project would support the tourism development as well as community organization and development.
02.12.2013	Baldeu Chande, Director of Quirimbas National Park	Stakeholder engagement (Governmental authorities, NGOs, private sector and communities organizations and stakeholder forum with representatives of provincial authorities and NGOs); Main treats to conservation (poaching and deforestation); Institutional relation with DPCA. Expectations on the Mozbio's ESMF.
02.12.2013	Policarpo Napika, Provincial Directorate for the Coordination of Environmental Affairs (Cabo Delgado Province)	Institutional relation between DPCA and QNP; Existent stakeholders; Main environmental and social issues in the province (poaching, deforestation, new oil&gas projects); EIA process – involvement of district and CA administrations; Human resources capacity; Status of district land use planning; Community organizations; Presentation of Mozbio Project and the objective of the ESMF – no concerns with the proposed project
02.12.2013	Technical Forum of QNP Partners - WWF, Aga Khan Foundation; Forestry Provincial Directorate; Administrator and Community staff from PNQ,	Community and management activities in Quirimbas National Park. Community organization including through Natural Resources Management Committee and Fisheries Co-management Committee; Progress and threats to conservation in QNP; Experiences in community development projects (conservation agriculture, mangrove restoration, establishment of fishery reserve areas). Experiences in management of conflicts with wildlife (including concentration of agriculture plots); QNP zoning and involvement of local government and communities. Presentation of Mozbio project - no concerns as is in line of other projects already ongoing in QNP; expectations on additional funds for community development and improvement of biodiversity conservation in QNP.

Date	Participants	Content
03.12.2013	Administrator Ancuabe District	Relationship with QNP, collaborative work and planning. Role of and information about NGOs in the district. Creation of associations, community conservation initiatives and management committees. Success of the PUT as a collaborative output. Role of COMDEQ to harmonize plans related to PNQ and its success. Identification of staff numbers in district government. Level of participation in EIA processes conducted by the DPCA.
04.12.2013	Team of seven members from AMA - Associação do Meio Ambiente, Amigos da Terra, Pemba	Role and activities with QNP, organization and capacity of NGO in province, food security, creation of CDLs, advocacy, natural resources management, education and awareness raising, delimitation and association creation, lack of community preparation to use 20%, potential conflicts; CCP and CGRN, experiences throughout Park and in preparation of the QNP Management Plan. Especial usefulness of the Park platform COMDEQ for all stakeholders in guiding collaborative work forward.
04.07.2014	Representatives of WWF, Livaningo, IUCN, LUPA and the World Bank together with the Mozbio Coordinator	Presentation of the draft ESMF for consultation and feedback at a meeting with invited stakeholders. Participants raised the challenge related with the community empowerment, which generally requires more time than the general development project periods. It was clarified no resettlement is expected due to the Mozbio activities and that any required resettlement would be dealt by the Government.

On 4th July, 2014 consultation workshop was held in Maputo, at MITUR, for presentation of the draft reports of the MOZBIO Safeguards documents – ESMF, PF, PMP and RPF. Representatives of the NGOs WWF, Livaningo, IUCN and LUPA attended the meeting as well as the World Bank Environmental Specialist and the Mozbio Coordinator (see Annex 6).

The Portuguese Executive Summaries were provided to the Administrators and partners in LNP, CNR, QNP and REM for consultation and feedback was incorporated in the final draft.

This ESMF Draft Report will be disclosed in Mozambique and at the World Bank's InfoShop prior to Appraisal of the Project.

During implementation there should be a regular consultation with stakeholders on the implementation of the ESMF. This shall be considered in the preparation of the Communication Plan proposed in the Mozbio's Process Framework. The consultation meetings agenda shall be include information and discussion on the ESMF implementation.

13. CAPACITY BUILDING

Successful implementation of the Project will depend among others on the effective implementation of the environmental and social management measures outlined in the ESMPs, PMP and RAPs. Training and capacity building will be necessary for the key stakeholders in order to ensure effective implementation of the Environmental and Social Management Framework (ESMF), namely:

- Provincial Directorates for Environmental Affairs (DPCAs);
- National Administration of Conservation Areas (ANAC);
- District Administrations;
- Target Conservation Areas Administrations;
- NGOs working in the target CAs and other service providers;
- Community Groups and Associations.

Capacity building should be viewed as more than training. It is human resource development and includes the process of equipping individuals with the understanding, skills and access to information, knowledge and training that enables them to perform effectively. Therefore it should also include awareness-raising and sensitization, besides technical training.

Awareness-raising for stakeholders who need to appreciate the significance/ relevance of environmental and social issues throughout the project life cycle.

Sensitization to the issues for stakeholders that need to be familiar enough with the issues they can make informed and specific requests for technical assistance.

Technical training for stakeholders who will need to use the ESMF tools, analyse potentially adverse environmental and social impacts, to prescribe mitigation approaches and measures, and to prepare and supervise the implementation of management plans.

Technical training would be required for the following institutions:

- MozBio PIU;
- National Administration of Conservation Areas (ANAC);
- MozBio target Conservation Areas Administrations;
- Provincial Directorates for Environmental Affairs (DPCAs);
- Other Provincial Directorates and Institutions that would be involved (as IDPPE)
- District Administrations.

For MozBio PIU, ANAC and MozBio Target CA Administrations the technical training shall be focused on:

- Environmental and Social Impact Assessment Process in Mozambique;
- World Bank's Social and Environmental Safeguard Policies;
- Legal and institutional environment and social framework in Mozambique;
- Potential environmental and social impacts of MozBio subprojects, mitigation and monitoring measures;
- Process Framework and Pest Management Plan
- Training on the use of MozBio ESMF screening and checklist forms for mitigation measures;
- Training on preparation of Terms of Reference (ToR) for the hiring of consultants to conduct environmental and social studies for projects classified as Category B
- Stakeholder engagement, consultation and partnerships
- Reporting, monitoring and follow-up of ESMF

For DPCAs and District Administrations the training shall be focused on:

- Environmental Impact Assessment Process in Mozambique
- World Bank's Safeguard Policies
- Legal and institutional environment and social framework in Mozambique
- Potential environmental and social impacts of MozBio subprojects, mitigation and monitoring measures
- Process Framework and Pest Management Plan

To harmonize the understanding of the DPCAs on environmental and social management in a conservation area, and more specifically on the MozBio Project activities it would be useful to join representatives of all DPCAs and target CAs in the same workshop.

At provincial level training sessions would be focused on representatives of other Provincial Directorates and Institutions, District Administration, NGOs and Community Groups and Associations it would comprise awareness-raising on environmental and social issues and sensitization on potential impacts and possible mitigation measures that could be implemented to minimize adverse impacts and enhance the positive ones. They also should

be trained on Training on the use of MozBio ESMF screening forms and lists of mitigation measures.

14. ESMF IMPLEMENTATION BUDGET

The costs of implementing the ESMF are related to institutional capacity building, as well as of all the stakeholders and the need for environmental consultants to prepare environmental assessments for certain projects.

The technical training will be more intense in the initial phase, requiring the preparation of a technical workshop for MozBio PIU, ANAC/MITUR and MozBio Target CA in Maputo (Y1:US$ 30,000.00). In the following years training may have shorter duration and would be refresher courses based on discussion of case studies (US$ 20,000 per year).

Technical training at provincial level would be held in Y2 (5 x US$ 15,000).

The awareness-raising and sensitization which would start in Y2 progressively covering all the target CA, following the creation of community associations. It is estimated an annual cost of US$15.000 for awareness-raising and sensitization.

For environmental and social assessment studies, it is estimated a total cost of US$ 130.000 to cover Simplified Environmental and Social studies (for those subprojects classified with category B), specific Environmental and Social Management Plans.

Additionally should be considered the cost of environmental permit, (0,2% and 0.02% of the value of the activity's investment for categories B and C, respectively), which could be estimated in about US$ 20,000, taking in consideration the type of infrastructure projects and its cost estimation.

The overall budget for implementation of the ESMF is estimated at US$445,000.00.

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ANNEXES

Annex 1

Requirement Model for EIA Process Application (Annex V – Decree 42/2008)

ANEXO V

Modelo de Requerimento para a Instrução do Processo de Avaliação de Impacto Ambiental

Exmo Senhor Director Nacional de Avaliação do Impacto Ambiental

(a)....., de nacionalidade (b)....., portador do BI/Passaporte/DIRE n.º (c)....., emitido em (d) ....., aos (e) ...../...../....., submeter a proposta de actividade para a AIA, e solicitar a V. Excia, que com a viabilidade ambiental do projecto e efectuado o pagamento da taxa de licenciamento ambiental, se digne emitir a respectiva licença/declaração da actividade de categoria A/B/C, do projecto de (f) ....., com a designação (g) ....., com o valor total de investimento de (h)....., coordenadas geográficas, latitude (i)..... e longitude de (j) ...., Talhão/Parcela n.º (k)....., localizada no Posto Administrativo de (l)....., Distrito de (m) ....., Província de (n)....., cuja área de actividade é (o)....., pelo que

Pede deferimento

....., aos ..... de ..... de 200..

Assinatura

.....

a) Nome completo do proponente;
b) Nacionalidade;
c) Número do documento de identificação;
d) Local de de Emissão;
e) Data de emissão do documento de identificação;
f) Tipo de Projecto;
g) Designação do Projecto;
h) Valor total de investimento;
i) Latitude;
j) Longitude;
k) Número do talhão ou parcela;
l) Localização;
m) Distrito;
n) Província ;
o) Indicar o tipo do projecto e área da actividade;

Annex 2

Preliminary Environmental Information Form (Annex IV – Decree 45/2004)

1. Nome da Actividade: _____

2. Tipo de Actividade:

a)

Turística ☐ Industrial ☐ Agro-pecuária ☐ Outro ☐

b)

Novo ☐ Reabilitação ☐ Expansão ☐

3. Identificação do(s) Proponente(s):

4. Endereço/Contacto:

5. Localização da Actividade:

5.1 Localização Administrativa

Bairro de_____Vila/Cidade_____

Localidade_____Distrito_____

Província_____

Coordenadas Geográficas_____

5.2 Meio de Inserção:

Urbana ☐ Rural ☐

6. Enquadramento no zoneamento

Espaço habitacional ☐ Industrial ☐ Serviços ☐ Área Verde ☐

7. Descrição da Actividade

7.1 Infra-estruturas da actividade, suas dimensões e capacidade instalada :*(utilizar sempre que possivel peças escritas e desenhadas da actividade)*

.....
.....

7.2 Actividades Associadas:

.....
.....

7.3 Breve descrição da tecnologia de construção e operação:

.....
.....

7.4 Actividades principais e complementares:

.....
.....

7.5 Tipo, origem e quantidade de mão de obra:
.....
.....

7.6 Tipo, origem e quantidade de matéria-prima:
.....
.....

7.7 Produtos químicos citados quimicamente a serem utilizados
.....
.....

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 Outras recursos necessários:
.....
.....

8. Posse da Terra (situação legal relativa a aquisição de espaço físico):
.....
.....

9. Alternativas para localização das actividades: *(Motivo da escolha do local de implantação da actividade, indicando pelo menos dois locaisl alternativos)*
.....
.....

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

10.1 Características físicas do local de realização das actividades:

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 ☐ Outro ☐
(especifique)_____

10.5 Uso do solo segundo o plano de estrutura o ou política vigente:

Agricultura ☐ Residencial ☐ Industrial ☐ Protecção ☐ Outro ☐
(especifique)_____

10.6 Principais infra-estruturas existentes em redor da área de actividade:
.....
.....

11. Informação complementar através de mapas

- *Mapa de localização (à escala conveniente)*
- *Mapa de enquadramento da actividade na zona de localização (à escala conveniente)*
- *Outra informação que julgar relevante*

Maputo...., de.....de 200...

Annex 3

Environmental and Social Screening Forms

ANNEX 3.1

MOZBIO PROJECT

ENVIRONMENTAL AND SOCIAL SCREENING FORM

FOR SUBPROJECTS OF COMPONENT 3

1. **Subproject Name:** ……

2. **Identification of the Proponent:** ……

3. Type of activity:

Building	
Road/Airstrip	
Dam/ Bridge	
Infrastructure for Water/ Electricity Supply	
Boundary demarcation/Fence/Gate	
Other	

New	
Rehabilitation	
Expansion	

Brief description of the proposed activity:……

……

……..

……..

Subproject already planned in the approved CA Management Plan:

Yes		**No**	

4. Location

Conservation Area……..

Province:…… ……..

District ……..

Administrative Post……..

Zone area (according to the CA Management Plan)……

(Map attached with the location of the activity)

.

5. Site Sensitivity

Issues	Site Sensitivity			Rating (L,M,H)
	Low (L)	**Medium (M)**	**High (H)**	
Natural habitats	Area already disturbed; Intensive/Multiple Use Zone	No critical natural habitats; Limited Use Zone	Pristine area; Sanctuary; Special/Total Protection Zone	
Water quality and water resource availability and use	Water flows exceed any existing demand; low intensity of water use; potential water use conflicts expected to be low; no potential water quality issues	Medium intensity of water use; multiple water users; water quality issues are important	Intensive water use; multiple water users; potential for conflicts is high; water quality issues are important	
Natural hazards vulnerability, floods, soil stability/erosion	Flat terrain; no potential stability/erosion problems; no known volcanic/seismic/ flood risks	Medium slopes; some erosion potential; medium risks from volcanic/seismic/ flood/ hurricanes	Mountainous terrain; steep slopes; unstable soils; high erosion potential; volcanic, seismic or flood risks	
Cultural heritage	No known or suspected cultural heritage sites	Suspected cultural heritage sites; known heritage sites in broader area of influence	Known heritage sites in project area	

6. Identification of Environmental and Social Impacts

Subproject activities	**No**	**Yes**	
Will the subproject require large volumes of construction materials from the local natural resources (sand, gravel, laterite, water, wood construction, etc.)?			*See applicable mitigation measures Annex 4.1*
Does it require vast clearing of land areas?			
Use water during or after construction, which will reduce the local availability of groundwater and surface water?			
Lead to soil degradation, soil erosion in the area?			
Involve significant excavations, demolition, and movement of earth?			
Involve flooding and/or water deviation?			
Involve use of trucks and other large equipment?			
Create waste that could adversely affect local soils, vegetation, rivers and streams or groundwater?			
Create wastewater that could affect local soils, vegetation, rivers and streams or groundwater			
Use toxic and/or hazard products?			
Generate noise during construction and/or operation?			
Involve inward migration of people from outside the area for employment or other purposes?			

Mitigation measures already included in the design:…….....

……..

- .*Subprojects that* involve the use of pesticides would require a Pest Management Plan
- *Subprojects located within a High Sensitivity Site require a specific Environmental and Social Management Plan (see Annex 6).*

Mitigation measures already included in the site selection and subproject design:……..……

……

Project classification and environmental and social needed studies

	No environmental and social studies needed
	Require specific ESMP
	Require SES

Date:

_____ _____

The CA Administrator ***TheMozBIO - PIU***

ANNEX 3.2

MOZBIO PROJECT

ENVIRONMENTAL AND SOCIAL SCREENING FORM

FOR SUBPROJECTSOFCOMPONENT 4

1. **Subproject Name:** ……

2. **Identification of the Proponent:**……

3. Type of activity:

Agriculture		*See Annex 4.2*
Livestock		*See Annex 4.3*
Fisheries		*See Annex 4.4*
Reforestation		*See Annex 4.5*
Tourism		*See Annex 4.6*
Other:		

Brief description of the proposed activity:……

……

……..

……..

4. Location

Conservation Area……

Inside the CA	
In the buffer zone	
In the surrounding area	

If yes, identify the *Zone area (according to the CA Management Plan:*

……

Province:……..

District ……..

Administrative Post……..

(Map attached with the location of the activity)

5. Site Sensitivity

Issues	Site Sensitivity			Rating (L,M,H)
	Low (L)	Medium (M)	High (H)	
Natural habitats	Area already disturbed; Intensive/Multiple Use Zone	No critical natural habitats; Limited Use Zone	Pristine area; Sanctuary; Special/Total Protection Zone	
Water quality and water resource availability and use	Water flows exceed any existing demand; low intensity of water use; potential water use conflicts expected to be low; no potential water quality issues	Medium intensity of water use; multiple water users; water quality issues are important	Intensive water use; multiple water users; potential for conflicts is high; water quality issues are important	
Natural hazards vulnerability, floods, soil stability/erosion	Flat terrain; no potential stability/erosion problems; no known volcanic/seismic/ flood risks	Medium slopes; some erosion potential; medium risks from volcanic/seismic/ flood/ hurricanes	Mountainous terrain; steep slopes; unstable soils; high erosion potential; volcanic, seismic or flood risks	
Cultural heritage	No known or suspected cultural heritage sites	Suspected cultural heritage sites; known heritage sites in broader area of influence	Known heritage sites in project area	

6. Identification of Environmental and Social Impacts

Subproject activities *Will the subproject….?*	**No**	**Yes**	
require vast clearing of land areas?			
accelerate erosion by water or wind?			
reduce soil fertility and/or permeability			
alter existing stream flow or reduce seasonal availability of water resources?			
are there risk of conflicts with downstream water users?			
lead to soil degradation, soil erosion in the area?			
involve the extraction of renewable natural resources?			
involve the extraction of non-renewable natural resources?			
restrict customary access to natural resources?			
reduce local air quality through dust generation, burning of wastes, or use of fossil fuels and other materials in improperly ventilated areas?			
affect dry-season areas and/or lead to restricted access to a common resource?			
drain wetlands, or be sited on flood plains?			*See applicable mitigation measures Annex….*
harvest wetland plant materials or use sediments from bodies of water?			
lead to the clearing of forestlands for agriculture or to the over-harvesting of valuable forest species?			
increase risks to endangered or threatened species?			
introduce new exotic species of plants or animals to the area?			
displa existing houses or farm plots			
affect domestic livestock by reducing grazing areas, or creating conditions that could exacerbate livestock disease problems?			
encourage domestic animals to migrate through natural areas?			
have an adverse impact on culturally important sites in the community?			
disturb or reduce the value of archeologic or historic sites?			
adversely affect scenic values or viewsheds?			
involve the use of pesticides or other toxic and/or hazard product?			
lead to generation of non-biodegradable waste?			
contribute to the spread of water-related diseases?			
contribute to the spread of HIV/AIDs?			

- .*Subprojects that* involve the use of pesticides would require a Pest Management Plan

- *Subprojects located within a High Sensitivity Site require a specific Environmental and Social Management Plan (see Annex 6).*

Mitigation measures already included in the site selection and subproject design:……

……

Project classification and environmental and social needed studies

	No environmental and social studies needed
	Require specific ESMP
	Require SES

Date:

The Proponent ***The CA Community Agent***

Annex 4

Potential Environmental and Social and Applicable Mitigation Measures

Annex 4. 1 – Infrastructures and Civil Works

SITE SELECTION & DESIGN

Issue	Potential Impact	Mitigation Measures for (Negative Impacts) and Enhancement Measures (for Positive Impacts)
Soil & Water Resources	Erosion/Siltation Water/Soil Contamination	- Avoid areas of soil, slope or geological instability - Avoid flood areas
Air Quality	Contribution to the increase of GHG	- Buildings and electrification designs shall consider the use of renewable energies. Employ solar water heating, photovoltaics for lighting, radio and cold chain storage in areas out of the electric grid. Incorporate passive solar cooling and heating into building designs. Investigate wind energy and micro hydropower and employ where cost-effective. Develop and implement energy conservation plans.
Vegetation & Habitats	Destroy or harm valuable and sensitive habitats	- Comply with the CA Management Plan - Avoid special protected zones/ sanctuaries or sensitive habitats as wetlands, mangroves, riparian vegetation, and dense forests.
Fauna	Man – animal conflict, Accidents and/or Disturbance	- Avoid areas with known wildlife movement routes or areas with high wildlife use.
Social	Physical displacement	- Avoid the destruction or damage to buildings, structures, or infrastructure.
	Loss of land and/or other assets	- Avoid the destruction or damage to agricultural areas (farms) or fruit trees.
	Impact on access among communities living in the project areas	- Measures will be considered in the projects' design to ensure that communities are not divided and if they are as a result of a project appropriate measures are taken to mitigate this impact.
	Conflicts with local community due to use of natural resources and/or different cultural values	- Engage local leaders and local community in the project planning. - Avoid sites with other important land uses by the community.
Cultural heritage	Cemeteries and sacred sites, and sites with archaeological or cultural/historical features	- Avoid cemeteries, graves or sacred sites, that the project shall avoid and by-pass. - Design any infrastructure (if unavoidable) to create least impact.
Landscape	Adverse visual impact	- Design to use local materials as much as possible, without depleting available resources or harming the environment. - Place airstrips and management buildings out of view of protected-area visitors, as possible.

CONSTRUCTION

Issue	Potential Impact	Mitigation Measures for (Negative Impacts) and Enhancement Measures (for Positive Impacts)

Soil & Water Resources	Erosion/Siltation	- Clearing and earthworks limited to the dry season. As much as possible, avoid construction work in the rainy season.
		- Minimize land clearing areas as much as possible to avoid unnecessary exposure of bare ground to the elements of the weather. Minimize time of exposure.
		- Clearly mark out the extend of clearing within the approved worksite areas with pegs or tape at 25 metre intervals or less.
		- No construction activity shall occur outside the defined work areas.
		- Balance cut and fill for minimum deposition of earth.
		- Minimize use of heavy machinery, as its tracks could create erosion.
		- Areas susceptible to erosion[11] shall be protected by installing necessary temporary and permanent drainage works as soon as possible and by taking measures to prevent the surface water from being concentrated in streams and from scouring slopes, banks or other areas.
		- Soil and / or sand required for construction purposes should only be obtained from areas approved by the CA Administration (shall avoid proximity to drainage lines or wetlands).
		- Material (earth, stone etc.) shall not be stored within 10 metres of any drainage lines or within areas that are at risk of flooding.
		- Store and reuse topsoil for replanting. Storage mounds for topsoil shall have a maximum depth of two meter.
		- Piles shall be covered with plastic sheeting or sowed with a cover crop (native grass) within 2 days of topsoiling
		- Re-vegetate cleared areas as early as possible using native plant species.
		- No garbage/refuse, oily wastes, fuels/waste oils can be discharged into drains or onto site grounds
		  - Toilet facilities shall be provided for construction workers to avoid indiscriminate defecation in nearby bush or local water bodies (dry pit latrines in areas with high water level or risk of flood).
		  - Leaking equipment shall be repaired immediately or removed from the site.

Soil & Water Resources	Water/Soil Contamination	- Maintenance and cleaning of vehicles, trucks and equipment should take place offsite especially where project sites are close to water

[11]Steep slopes, areas stripped of topsoil, soil stockpiles, spoil sites, borrow pits or river banks.

		bodies. - Install waste disposal receptacles and signs in strategic places within the construction site and camp. Provide training and awareness to the workers on need to avoid littering. - Fuel storage tanks/sites should be properly secured to contain any spillage. - Fuel transfer shall be performed in a manner to minimize spillage. Fuel transfer should take place over an impermeable surface. - Set protocols for vehicle maintenance such as requiring that repairs and fuelling occur elsewhere or over impervious. surface such as plastic sheeting. - Prevent dumping of hazardous materials. - All spills of fuels, oils or other hazardous substances must be immediately cleaned up and measures taken to remediate the spill. - Design storage area so that hazardous materials are above ground and/or in waterproof containers with locking lids that are kept closed. - All washing of equipment shall be undertaken in the workshop or maintenance areas which shall be equipped with suitable impermeable floor and sump/oil trap. The use of detergents for washing shall be restricted to low phosphate/nitrate and low sudsing-type detergents. - Rivers and streams shall not be used for washing of equipment and vehicles. - If waste will be buried on site, avoid wherever possible siting the burial pit up-gradient from a drinking water source such as a well. Pit must be lined with impermeable material such as clay or polyethylene. - If waste will be buried on site, avoid wherever possible sites where water table is high or underlying geology makes contamination of groundwater. If no alternative site is available, ensure that pit is lined with impermeable material such as clay or polyethylene - Provide for safe disposal of graywater from bathing and washing of bedding, etc. - Ensure that the system of human waste disposal provided minimizes health risks. - Ensure that water is provided to the facility in a manner that minimizes risk of contamination for patients and nearby communities.

Air quality	Dust	- Do not carry out dust generating activities (excavation, handling and transport of soils) during times of strong winds. - Water sprays shall be used on all earthworks areas within 200 meters of special protected zones, houses and crops. - The removal of vegetation shall be avoided until such time as clearance is required and exposed surfaces shall be re-vegetated or stabilized as soon as practically possible. - Trucks carrying construction materials such as sand, quarry dust, laterite etc. shall have the buckets covered with tarpaulin or appropriate polythene material from or to project site
	Emission of pollutants (including GHG)	- Proposed investments should require that construction contractors operate only well maintained engines, vehicles, trucks and equipment. A routine maintenance program for all equipment, vehicles, trucks and power generating engines should be in place. - The project should ensure the use of good quality fuel and lubricants only. - Engines of vehicles/trucks and earth-moving equipment should be switched off when not in use.
Noise	Disturbance due to noise	- All vehicles and equipment must be maintained regularly to prevent excessive emissions and noise. Silencers and noise control devices should be used where required.
Vegetation & Habitats	Destroy or harm valuable and sensitive ecosystems and organisms	- Except to the extent necessary for establishing the construction site and carrying out the construction works, vegetation shall not be removed, damaged or disturbed. - The clearance of the site for construction purposes shall be kept to a minimum. The use of existing cleared or disturbed areas for the Contractor's Camp, stockpiling of materials etc shall be encouraged. - Soil and / or sand required for construction purposes should only be obtained from areas approved by the CA Administration (shall avoid sensitive habitats) - Avoid destroying rare or unique species. - Harvesting or collection of fruits, vegetables, grains and any other plant material shall be prohibited. - Set back any infrastructure as far as possible from the water body/wetland and minimize the amount of wetland destroyed by infrastructure footprint or construction. - Remove, without destroying, large plants and ground cover where possible and replant recovered plants during the revegetation of the cleared areas or in other areas approved by the CA administration. - Revegetate the cleared areas as soon as possible with native species. - Any unauthorised planting of vegetation shall not take place, especially invasive plants.

Vegetation & Habitats	Disturbance due to dust	- Do not carry out dust generating activities (excavation, handling and transport of soils) during times of strong winds within 200 metres of special protected zones or more sensitive habitats.
	Fire	- No burning of vegetation to clear the Site will be permitted. - Flammable / combustible liquid storage shall be in limited volumes prior to disposal. - Flammable / combustible liquid waste shall be stored in safety cans designed for such liquids. Cans should be equipped with flame arrestors. - The Contractor shall ensure that there is basic fire-fighting equipment available on site. This shall include, but not be limited to: rubber beaters when working in grass/bush areas; at least one fire extinguisher of the appropriate type when welding or other 'hot' activities are undertaken. - Any flammable materials should be stored under conditions that will limit the potential for ignition and the spread of fires. - Smoking shall not be permitted in those areas where there is a fire hazard. These areas shall include: workshop, fuel storage areas, any areas where vegetation or other material is such as to make liable the rapid spread of an initial flame)
Fauna	Poaching, disturbance to wildlife	- The Contractor's staff must not poach (through trapping, poisoning or shooting) or otherwise harm wild animals in the area. - Prohibition on consumption of bush meat by workforces - No domestic pets or livestock are permitted on site. - No spotlights shall be pointed away from the site. - Project staff must report sightings of any injured or dead aquatic life (fishes)/ mammals immediately, regardless of whether the injury or death is caused by a Project activity. The report should include the date and location of the animal/strike, and the species identification or a description of the animal. - All open trenches and excavated areas will be backfilled as soon as possible after construction has been completed in order to avoid trap of small animals.

Fauna	Disturbance during more sensitive periods	- Work schedule shall avoid sensitive periods for species with conservation status (IUCN Red Book) as breeding, migration nesting periods. - Minimize disturbance to nesting individuals and the area around nests by modifying the location, timing and nature of activities. - Transport routes to and within the site and construction areas should be clearly marked, and as possible avoiding more sensitive areas - All vehicles used for transportation / construction purposes should remain within these demarcated routes and areas. - No movement off these routes will be permitted. - Noise levels shall be controlled to ensure no detrimental effect to wildlife and local communities.
	Man – animal conflict	- Avoid areas with known wildlife movement routes - Work area shall avoid areas often used by wild and dangerous animals (as water ponds)
	Accidents with vehicles and machinery and wildlife	- Only experienced drivers should be employed - Contractors must provide training for drivers; Establish speed limits; Enforce safe driving and take disciplinary action against repeat offenders
Social	Employment	- Engage local labour for all non-qualified tasks, include women at rate of 25% and not include children.
	Conflicts with local community due to use of natural resources and/or different cultural values	- Minimize the employment of "foreign" skilled and unskilled labour that could trigger conflict, resentment and tension by the local communities over perceived inquiries in distribution of job opportunities by local communities. - Previous communication & negotiation with local communities on the use of natural resources (water, sand, stones, grass, etc….).
	Public health (disease spread)	- Construction workers should be educated to adhere to basic rules with regard to protection of public health, including most importantly hygiene and disease (STD and HIV/AIDS) prevention.
	Public safety	- To avoid accidents with vehicles / machinery and pedestrians, only experienced drivers should be employed. Contractors must provide training for drivers; establish speed limits; enforce safe driving and take disciplinary action against repeat offenders. - All open trenches and excavated areas will be backfilled as soon as possible after construction has been completed in order to avoid access by local people.
	Health & Safety of Construction Workers	- The Contractor shall provide personnel protective equipment for all the workers (safety helmets, safety boots and protective clothing). Other protective equipment, such as gloves, safety glasses, goggles, face shields, ear-protection, and safety belts, shall be issued and used when required.
Cultural heritage	Cemeteries and sacred sites, and sites with archaeological or cultural/historical features	- The pre-construction surveys should identify cultural heritage resources (including cemeteries, graves or sacred sites) that the project should avoid and by-pass. - If it is not possible to find alternative location: - Limit access to site. - Minimize disturbance of site during construction - Provide worker incentives for discovery and safe removal of

		archaeological or paleontological material - If archaeological relics or remains are discovered, the Provincial Directorate for Education and Culture shall be notified immediately. The construction shall be stopped until the authorised department assesses the remains and determines the appropriate course of action.
Landscape	Adverse visual impact	- Worksite, spoil and borrow areas shall be as possible out of view of CA visitors

Annex 4. 2 –Agriculture (Rainfed and Small-scale irrigation)

SITE SELECTION & PLANNING

	Potential Impact	Mitigation Measures for (Negative Impacts) and Enhancement Measures (for Positive Impacts)
Soil	Erosion/Siltation Water/Soil Contamination	- Avoid areas of steep slopes - Design furrows appropriately to avoid erosion - Match land use to land capability
	Soil salinization	- Design the irrigation system to allow leaching with excess water. - Install and maintain subsurface drainage system.
Water Resources	Water logged soil	- Design the irrigation infrastructure to reduce water waste; use sprinkler or drop irrigation systems instead of gravity-flow systems
	Overpressure in water use	- Avoid sites upstream of existing human, livestock, wildlife or aquatic water uses, especially during dry seasons - Encourage crops with lower water demands.
	Changes on natural water drainage	- Site and orient water works, fields and furrow appropriately to ensure adequate natural drainage of surface water
Vegetation & Habitats	Destroy or harm valuable and sensitive ecosystems and organisms	- Do not locate irrigation schemes on or near important wetlands - Do not develop irrigation water sources that may reduce wetland water supply.
Fauna	Man – animal conflict, accidents and/or disturbance	- Avoid high wildlife-use areas
Social	Physical displacement	- Avoid the destruction or damage to buildings, structures and/or, infrastructure.
	Loss of land and/or other assets	- Avoid the destruction or damage to farm plots or fruit trees.
	Conflicts with local community due to use of natural resources	- Engage local leaders and local community in the project planning and design. - Avoid sites with other important land uses by the community. - Ensure effective community organization for equitable distribution of water
	Public health	- Use lined channels and pipes to discourage vectors - Avoid creating stagnant or slowly moving waters - Install gates at canal ends to allow complete flushing - Ensure adequate sub-surface drainage fields
Cultural heritage	Cemeteries and sacred sites, and sites with archeological or cultural/historical features	- The pre-construction surveys should identify cultural heritage resources (including cemeteries, graves or sacred sites) that the project shall avoid and by-pass.

IMPLEMENTATION

	Potential Impact	Mitigation Measures for (Negative Impacts) and Enhancement Measures (for Positive Impacts)
Soil	Erosion/Siltation	- Clearly mark out the extend of clearing within the approved site - Design and layout furrows appropriately, along the contour lines. - Avoid unsuitable gradients - Avoid over-irrrigation. - Install sediment traps in fields and channels to capture sediment for return to fields - Minimum tillage, contour cropping, terracing and other methods of conserving soil moisture. - Revegetate degraded and marginal areas to reduce runoff
	Soil salinity	- Adjust crop patterns (fallow times, crop selections, etc.) to prevent further salt buildup
	Soil infertility	- Rotate crops - Allow land to lie fallow - Intercrop with legumes or other nitrogen-fixing species - Combine crop and tree production (agroforestry)
Water Resources	Water use	- Apply water efficiently. Consider drip or dawn/evening sprinkler irrigation. - Install and maintain adequate surface and sub-surface drainage. - Mulch exposed soil surfaces to reduce evaporation.
	Water quality	- Flush irrigated land regularly to avoid salinity - Prevent surface drainage of fields into nearby water bodies (streams, ponds, etc..) - Proper storage, handling, use and disposal of agro-chemicals. - Vegetate areas around fields to prevent nutrient runoff from croplands - Vegetate riparian areas to prevent erosion along stream banks leaving 50-m-wide strips between waterways and croplands - Implement minimum setback limits for agriculture around water sources - Implement Integrated Pest Management techniques
Vegetation & Habitats	Destroy or harm valuable and sensitive ecosystems and organisms	- Except to the extent necessary for establishing the farm area, vegetation shall not be removed, damaged or disturbed. - The clearance of the site for construction purposes shall be kept to a minimum. - Avoid destroying rare or unique species. - Obey plant quarantine rules
	Fire	- No burning of vegetation will be permitted.
Fauna	Man – animal conflict	- Include non-lethal techniques such as the use of chilies and bee-

		hives, awareness and education campaigns, training programs for community and Conservation Area scouts, as well as the construction of fences.
Social	Public health (water-related diseases spread)	- Avoid over-irrigation - Periodically drain waterlogged fields to prevent mosquitoes - Maintain water works, and clear sediment and weeds, regularly - Periodically flush slow or stagnant waterways with water to remove snails (which cause *schistosomiasis*)

Annex 4. 3 – Livestock

SITE SELECTION & PLANNING

	Potential Impact	Mitigation Measures for (Negative Impacts) and Enhancement Measures (for Positive Impacts)
Water Resources	Water consumption	-
Soil	Soil compaction and erosion	- Ensure that pastoralists and livestock managers/farmers have secure tenure rights. Monitor implementation of tenure policy. - Develop decision-makers' awareness of the long-term economic importance of maintaining balanced ecosystems and resilience, including maintenance of biodiversity and wildlife. Provide similar knowledge to pastoralists and livestock managers/farmers. - In highland areas, avoid overgrazing through the use of quota systems matched to carrying capacity. Ensure that terracing and paths are well constructed, and reduce soil compaction by providing incentives to avoid wet season grazing. - Protect stream and riverbanks from browsing or grazing through fencing or herding techniques.
Vegetation & Habitats	Damage habitat and reduce biodiversity by overgrazing imbalanced foraging	- Ensure that pastoralists and livestock managers/farmers have secure tenure rights. Monitor implementation of tenure policy. - Develop decision-makers' awareness of the long-term economic importance of maintaining balanced ecosystems and resilience, including maintenance of biodiversity and wildlife. Provide similar knowledge to pastoralists and livestock managers/farmers.
	Introduction of invasive species	- The introduce of non-native plant species for grazing shall be avoided, except if there are already others experience in the region that indicates no invasive behavior. - If breeds or species from other parts of Africa or the world are to be introduced, wash and comb their hooves and coats to remove plant seeds. Feed livestock on grain or other crop feed in transit to minimize the risk of accidentally introducing new plant species.
Fauna	Competition with wildlife for fodder or water, increased killing of wildlife to "protect herds", spreading disease to wildlife	- To prevent the spread of disease from livestock to wildlife, carefully research any new breeds and associated diseases. - Pilot-test new breeds and species before introducing them in a broad program, and monitor their impacts over time. - To avoid killing of wildlife that is thought to be infecting or preying on livestock, provide livestock managers with financial incentives to maintain ecosystem balance. Explore possible community-based natural resource management (CBNRM) approaches.
	Disruption of migratory patterns and ecosystem balance	- Site fencing to minimize impacts on migratory species. Fully research impacts on migratory animals, their role in the ecosystem and the potential effects of fencing on reproduction. Provide corridors which ensure that migratory patterns are not jeopardized. Monitor migration patterns against baseline conditions.
Social	Generate conflict between livestock managers and other groups, such as farmers	- Ensure that the customary or legal rights and responsibilities of all parties are harmonized and accepted. Agreements should cover how each. - Resource will be used, who will use it, when it is to be used, utilization rates and quotas, management costs, and monitoring responsibilities. - If the project calls for constructing new fencing, ensure that such fencing is consistent with local customary property and resource-use arrangements and will not interfere with the movement of livestock belonging to traditional. - pastoralists.

Landscape	Damage natural resources viewshed and aesthetics	- Avoid cutting living trees for fence posts in areas where wood is scarce. - Investigate the potential for live fences as barriers. Assess the cost effectiveness of solar powered electric fencing. - In or near protected areas, or areas of unique scenic value, make efforts to construct fencing which is hidden from view or which minimizes impact on aesthetics.

Annex 4. 4 – Fisheries (Capture and Extensive & Semi-Intensive Aquaculture)

SITE SELECTION & PLANNING

	Potential Impact	**Mitigation Measures for (Negative Impacts) and Enhancement Measures (for Positive Impacts)**
Water Resources	Water consumption	- Inland aquaculture ponds should be located in areas with a steady supply of water, in adequate quantities throughout the year.
		- Where possible, use a closed or re-circulating system with treatment (filter or ozonate); do not use more than small amounts of fresh water to top off the pond.
		- For saline brackish aquaculture ponds, choose lands with average elevation that can be watered by ordinary high tides and drained by ordinary low tides (tides between 2 to 3 meters).
	Adverse impacts on water quality	- Design aquaculture ponds to prevent storm and flood damage that could cause overflow discharges.
Vegetation & Habitats	Destroy or harm valuable and sensitive ecosystems and organisms	- Locate aquaculture ponds where they do not cause a loss of habitats such as mangroves, wetlands, lagoons, rivers, inlets, bays, estuaries, swamps, marshes or high wildlife-use areas.
		- When in mangroves, only use already cleared areas, leave the most productive mangrove stands intact; leave the seaward side undisturbed; ponds should have a small surface area relative to total mangrove area, ponds should be spaced well apart.
		- Provide a buffer zone for areas near riverbanks and coastal shores that are exposed to wave action.
Fauna	Over-harvesting	- Set minimum size limit for harvested fish - Use bag limits - Use appropriate fishing gear, choosing the largest possible size of fishing nets.
Social	Conflicts with other users	- The location of ponds, net pens or cage cultures shall be widely discussed and avoid areas used by community for other uses, including navigation, fisheries and recreation activities, in the case of net pens and cages.
Cultural heritage	Cemeteries and sacred sites, and sites with archaeological or cultural/historical features	- The location of ponds shall avoid sites with archaeological, historical or traditional features.

Annex 4. 5 – Forestry (Reforestation, Natural Forest Management and Agroforestry)

SITE SELECTION & PLANNING

	PotentialImpact	**Mitigation Measures for (Negative Impacts) and Enhancement Measures (for Positive Impacts)**
Soil & Water Resources	Erosion/Siltation Water/Soil Contamination	- Avoid areas of fragile or unstable soils/slopes unless in forest restoration. In this case, close the area to protect it from fire, grazing animals and illicit tree cutting. Leave existing grass/shrub cover. - In medium slope areas the plantation shall include contour planting to hold soil and moisture and buffer strips of native vegetation. - The plantation's layout should make it easy to transport harvested timber without causing soil erosion or siltation in adjacent watercourses.
Vegetation & Habitats	Destroy or harm valuable and sensitive ecosystems and organisms	- Consider use of already cleared or barren lands for tree planting and sites currently used unsustainably (e.g.agriculture, grazing) - Native species should be preferred to exotic species. Any exotic species should be fully tested in an introductory trial under conditions similar to those at the site, to ensure its adaptability and avoid introducing noxious weeds. - Every effort should be made to avoid large-scale, continuous blocks of monoculture plantations. - Site planning should take into account natural topography – such as ridges, valleys and the margins of watercourses – and where possible, leave natural corridors of native vegetation suited to such areas.
	Fire	- Include firebreaks.
Fauna	Man – animal conflict, accidents and/or disturbance	- Avoid high wildlife-use areas
Social	Physical displacement	- Avoid areas that require involuntary resettlement.
	Loss of land and/or other assets	- Avoid the destruction or damage to farm plots or fruit trees.
	Conflicts with local community due to use of natural resources	- Engage local leaders and local community in the project planning and design. - Avoid existing land use that are economically productive or important for subsistence or traditional livelihoods.
Cultural heritage	Cemeteries and sacred sites, and sites with archeological or cultural/historical features	- Undertake pre-construction surveys to identify cultural heritage resources (including cemeteries, graves or sacred sites) that the project shall avoid and by-pass.

IMPLEMENTATION

	Potential Impact	**Mitigation Measures for (Negative Impacts) and Enhancement Measures (for Positive Impacts)**
Soil	Erosion/Siltation	- Clearly mark out the extend of clearing within the approved site - Avoid any project activities within 20-40 meters of streams, ponds,

		etc, unless they are for rehabilitation and conservation of riparian zones. -
	Adverse effects on natural drainage	- Retain existing tree and grass/shrub cover and harvest selectively, sustainably and carefully, where down-slope water supply is a critical concern
Water Resources	Water contamination	- Avoid overusing fertilizers, herbicides and pesticides, which shall not be use near waterbodies. Implement integrated pest management techniques.
Vegetation & Habitats	Destroy or harm valuable and sensitive ecosystems and organisms	- Except to the extent necessary for establishing the subproject, vegetation shall not be removed, damaged or disturbed. - Avoid destroying rare or unique species. - Avoid cutting trees or stands that serve as critical habitat for animals and birds. - Leave seed trees - Set minimum diameter limits and maximum harvest densities. - Ensure good spacing among harvest trees to leave forest cover intact.
	Fire	- No burning of vegetation will be permitted.
Social	Conflicts with local community due to use of natural resources and/or different cultural values	- Operate the forest to ensure an equitable distribution of benefits to all community members and to not exacerbate economic disparities within the community. - Provide for intercropping, agro-forestry and other measures that will accelerate the flow of benefits to, and support of, a range of local people

Annex 4. 6 – Tourism Activities

SITE SELECTION & PLANNING

	Potential Impact	Mitigation Measures for (Negative Impacts) and Enhancement Measures (for Positive Impacts)
Soil	Erosion/Siltation Water/	- Avoid areas of steep slopes
	Soil & Water Contamination	- Develop management plans for disposal of solid waste and recycling of wet wastes (organics), paper, metal, plastics and waste oil. - Include design specifications that reduce exposure of solid waste to potential disease vectors, e.g. insects, birds, rodents and other mammals, by requiring screening or regular covering.
Water Resources	Water use	- Avoid sites upstream of existing human, livestock, wildlife or aquatic water uses, especially during dry seasons
AirQuality	Contribution to the increase of GHG	- Employ solar water heating, photovoltaics for lighting, radio and cold chain storage in areas out of the electric grid. Incorporate passive solar cooling and heating into building designs. Investigate wind energy and microhydro power and employ where cost-effective. Develop and implement energy conservation plans.
Vegetation & Habitats	Destroy or harm valuable and sensitive ecosystems and organisms	- Develop management zone plans to set limits of acceptable use when inside the CA.
Fauna	Man – animal conflict, accidents and/or disturbance	- Develop management zone plans to set limits of acceptable use when inside the CA. - Avoid high wildlife-use area
Social	Physical displacement	- Avoid the destruction or damage to buildings, structures and/or, infrastructure.
	Loss of land and/or other assets	- Avoid the destruction or damage to farm plots or fruit trees.
	Conflicts with local community due to use of natural resources	- Engage local leaders and local community in the project planning and design. - Avoid sites with other important land uses by the community.
Cultural heritage	Cemeteries and sacred sites, and sites with archaeological or cultural/historical features	- Undertake pre-construction surveys to identify cultural heritage resources (including cemeteries, graves or sacred sites) that the project shall avoid and by-pass.

IMPLEMENTATION

	Potential Impact	Mitigation Measures for (Negative Impacts) and Enhancement Measures (for Positive Impacts)
Soil& Water Resources	Erosion/Siltation	- Clearly mark out the extend of clearing within the approved site
	Soil & water contamination	- Maintain latrines and septic tanks; recycle or dispose sludge - Dispose solid waste and recycle organic wastes and reuse or recycle paper, metal, plastics and waste oil. - Require all visitors, concessionaires and tour operators to "bag and remove" all solid waste from the protected area. Where feasible employ a "check-in, check-out" system for all

		food consumed by visitors. - Test water and soil periodically.
Water Resources	Water use	- Apply water efficiently.
Vegetation & Habitats	Destroy or harm valuable and sensitive ecosystems and organisms	- Except to the extent necessary for establishing the subproject, vegetation shall not be removed, damaged or disturbed. - The clearance of the site for construction purposes shall be kept to a minimum. - Introduction of exotic species shall not be allowed. - Use park staff and or volunteers to remove non-indigenous species before extensive ecological impacts occur. - Avoid destroying rare or unique species. - Conduct regularly reviews for compliance with limits of acceptable use and identify the need for additional action.
	Fire	- No burning of vegetation will be permitted.
Fauna	Wildlife disturbance	- Determine acceptable visitor movement levels that not alter animal behaviour.
Social	Conflicts with local community due to use of natural resources and/or different cultural values	- Minimize the employment of "foreign" skilled and unskilled labour that could trigger conflict, resentment and tension by the local communities over perceived inequities in distribution of job opportunities by local communities. - Previous communication & negotiation with local communities on the use of natural resources (water, sand, stones, grass, etc….). - Provide initial instructions and periodic educational follow-up for tour operators and visitors

Annex 5

Guidelines for Preparation of TOR for Simplified Environmental Assessment and Specific Environmental and Social Management Plan

1. Objectives of the ToR

This section should identify the subproject and its proponent and the services required, based on the result of the screening process.

2. Background Information

The ToR should provide pertinent background for preparing the SES and ESMP. This would include a brief description of information about the MozBio project (global objective and objective of the component that includes the subproject), the implementing agency - ANAC, Project components, especially those that will finance the subproject).
Also include a description of other project preparation activities underway (e.g., biodiversity studies, social assessment, baseline study) since the consultant preparing the SES will need to coordinate with other teams to ensure an effective and efficient information exchange.

3. EA Requirements/Regulations

This paragraph should identify the regulations and guidelines which will govern the conduct of the assessment or specify the content of its report, as the Decree 45/2004 and Law 16/2014.

4. Study Area and Likely Major Impacts

Specify the area involved and the boundaries of the study area for the assessment, identifying clearly its location in relation to the boundaries of the conservation area. Where appropriate specify the right-of-way (ROW)-width and alignment for roads, pipelines. Or other linear infrastructure. Identify adjacent or remote areas which should be considered with respect to impacts of particular aspects of the project.

5. Scope of Work

The consultant services shall comprise the following tasks:

Task 1. Description of the Proposed Subproject. Provide a brief description of the relevant parts of the project, using maps (at appropriate scale) and including the following information: location of all project related development sites and ROW's; general layout; size, capacity; pre-construction activities; construction activities; schedule; staffing and support; facilities and services; commissioning, operation and maintenance activities; required offsite investments; and life expectancy for major components. Provide maps at appropriate scales to illustrate the general setting of project-related development sites and ROW's, as well as surrounding areas likely to be impacted. These maps should include topographic contours, as available, as well as locations of major surface waters, roads, railways, settlements, conservation area, and administrative boundaries.

Task 2. Description of the Environment (baseline condition). Assemble, evaluate and present baseline data on the relevant physical, biological, and socio-economic characteristics of the development area and area of influence, including the identification of the CA management plan zoning, its main attributes and threats. Include information on any changes anticipated before the project commences.

Task 3. Legislative and Regulatory Considerations. Describe the pertinent regulations and standards governing environmental quality, health and safety, protection of sensitive areas,

protection of endangered species, siting, land use control, etc., at international, national, regional and local levels (The TOR should specify those that are known and require the consultant to investigate for others.) If transboundary impacts are likely, relevant international conventions should be described.

Task 4. Determination of the Potential Impacts of the Proposed Project. Predict and assess all significant impacts that the project is likely to generate. Assess the impacts from changes brought about by the project on baseline environmental conditions as described under Task 2. Identify potential impacts to be assessed based on the list provided in Annex 5.

In this analysis, distinguish between significant positive and negative impacts, direct, indirect, and cumulative impacts, and immediate and long-term impacts. Identify impacts that may occur due to accidental events. Identify impacts which are unavoidable or irreversible. Wherever possible, describe impacts quantitatively, in terms of environmental costs and benefits. Assign economic values when feasible. Impact analyses for sub projects should be divided between construction impacts and operational impacts.

Task 5. Analysis of Alternatives to the Proposed subproject. Describe alternatives that were examined in the course of developing the proposed subproject and identify other alternatives which would achieve the same objectives. The concept of alternatives extends to siting, design, technology selection, construction techniques and phasing, and operating and maintenance procedures. Compare alternatives in terms of potential environmental impacts; capital and operating costs; suitability under local conditions; and institutional, training, and monitoring requirements. When describing the impacts, indicate which are irreversible or unavoidable and which can be mitigated. To the extent possible, quantify the costs and benefits of each alternative, incorporating the estimated costs of any associated mitigating measures.

Include the alternative of not constructing the project to demonstrate environmental conditions without it. Alternatives should include the following: the "no action" alternative (as mentioned above); alternative means of meeting the energy requirements; the alternative of upgrading existing facilities; alternative routes and sites; alternative design; and alternative methods of construction, including costs and reliability.

Task 6. Development of an Environmental and Social Management Plan (ESMP).
Recommend feasible and cost-effective measures to prevent or reduce significant negative impacts to acceptable levels. Include measures to address emergency response requirements for accidental events.
Prepare a management plan including proposed work programs, budget estimates, schedules, staffing and training requirements, and other necessary support services to implement the mitigating measures. Provide environmental protection clauses for application by contractors and consultants.

Task 7. Development of a Monitoring Plan. Prepare a detailed plan to monitor the implementation of mitigating measures and the impacts of the project during construction and operation. Include in the plan an estimate of capital and operating costs and a description of other inputs (such as training and institutional strengthening) needed to implement the plan.

Task 8. Public Participation. Conduct a public participation process since the early stage of the study in order to include in the SES any concerns and/or expectations of the direct and indirect affected parties. The consultant shall indicate the strategy for public participation, which shall bear in mind the national guidelines for public participation in EIA process. The public participation report shall be included in the SES.

6. Reports

The consultant shall prepare a draft report to be revised by ANAC and made available for public consultation before submission to MICOA.

The structure of the report shall follow the Decree 45/2004.

7. Team

The consultant shall propose a team coordinated by an environmental assessment specialist with more than 10 year experience. The team shall include in minimum an ecologist/specialist in natural resources management and a social specialist.

The consultant shall be registered in MICOA as environmental consultant.

8. Time

The Consultant shall propose a workplan identifying all the phases, including the public participation process and the time for revision by the environmental authority.

Annex 6

Consultation Meeting to present the ESMF Draft Report

REPÚBLICA DE MOÇAMBIQUE

MINISTÉRIO DO TURISMO

Unidade de Coordenação das Áreas de Conservação Transfronteira

Nossa Ref.Nº 225/ACTF/MITUR/200/2014

Exmo. Senhor,

.....

.....

Maputo

ASSUNTO: Salvaguarda das Politicas Sócio-Ambientais

Exmo. Senhor,

O Governo de Moçambique, através do Ministério do Turismo (MITUR) tem vindo a implementar o Programa de Áreas de Conservação Transfronteiriça (ACTF) tendo objectivos de longo prazo a conservação da biodiversidade e dos ecossistemas naturais nas ACTF e a promoção do crescimento e desenvolvimento económico, baseado no uso sustentável de recursos naturais pelas comunidades locais, com particular enfase no ecoturismo.

O Programa ACTF foi concebido para um período de 15 – 20 anos, a ser desenvolvido em três fases. A primeira fase decorreu entre 1998 e 2003 (*Projecto Piloto de Áreas de Conservação Transfronteiriça e Fortalecimento Institucional*) e a segunda entre 2005 e 2013 (*Projecto de Áreas de Conservação Transfronteiriças e Desenvolvimento Turístico*), que visou implementar o conceito de ACTF no terreno, em três: Limpopo, Lubombo e Chimanimani.

Neste momento está a ser preparada a terceira fase – **Áreas de Conservação de Moçambique para Biodiversidade e Desenvolvimento Sustentável (MozBio)**, que tem como objectivo *aumentar a gestão efectiva das áreas de conservação e desenvolver a contribuição destas áreas para a diversificação de oportunidades económicas.*

O Projecto MozBio será implementado ao longo de um período de seis anos, com fundos da Agência Internacional de Desenvolvimento (IDA), GEF e Agência Francesa de Desenvolvimento.

O projecto será constituído pelas seguintes componentes:

Componente 1: Fortalecimento de Instituições para Gestão da Área de Conservação (incluindo a ANAC e o Biofund)
Componente 2: Promover o Turismo em Áreas de Conservação
Componente 3: Gestão das Áreas de Conservação (melhoria das infraestruturas, equipamento, protecção, gestão, investigação, monitorização e planeamento)
Componente 4: Apoiar modos de vida sustentáveis das comunidades das Áreas de Conservação e principalmente da sua envolvente
Componente 5: Gestão, Monitorização e Avaliação do Projecto MozBio

Neste âmbito foram preparados documentos de Salvaguarda das Politicas Socio-Ambientais do Banco Mundial, designadamente:

- ***Process Framework*** – que descreve o processo de envolvimento das comunidade potencialmente afectadas pelo Mozbio
- **Quadro de Avaliação Ambiental e Social** – estabelece os princípios e procedimentos que garantam a avaliação ambiental e social de todos os subprojectos a implementar no âmbito do MozBio
- **Quadro da Política de Reassentamento** – estabelece os princípios e procedimentos relacionados com eventuais reassentamentos derivados da implementação do MozBio
- **Plano de Gestão de Pragas** – estabelece os princípios relacionados com a gestão de pragas em subprojectos financiados pelo MozBio

Convida-se V.Exa. a participar na reunião de apresentação e discussão destes documentos, a ter lugar na Sala de Reinões do 4° andar do Ministério do Turismo, no dia 4 de Julho (Sexta-feira), pelas 09:00 horas.

Com os Nossos melhores cumprimentos,

Maputo, 30 de Junho de 2014

O Coordenador

Afonso Madope
(Técnico Superior de N1)

Lista de Participantes

1. AFD,	Ghislain Rieb (riebg@afd.fr)
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MINISTÉRIO DO TURISMO

UNIDADE DE COORDENAÇÃO DAS ÁREAS DE CONSERVAÇÃO TRANSFRONTEIRA

REUNIÃO DE CONSULTA: SALVABUARDA DAS POLÍTICAS SÓCIO-AMBIENTAIS – 4 de Julho

LISTA DOS PARTICIPANTES

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Gaye Thompson	Consultora			

Consultation Workshop on the MOZBIO's Safeguards Policies Documents
4TH July – MITUR, Maputo

Key Issues and Comments	Commentor	Response
Why are mining activities not considered under Component 4?	Eusébio Pequenino (WWF)	Because subprojects under component 4 shall not have significant adverse impacts, due to the sensibility of the conservation areas, mining is not included.
The Department of Environmental Studies of the UEM University should be included in the capacity building process	Eusébio Pequenino (WWF)	Noted
There are cases where there are several community committees as new committees are created for each new community development/ natural resource management project	Geraldo Palalane (LUPA)	The new Conservation Area Management Committee will integrate all the existing and new community committees related with natural resource management
Community organization and strength shall be a continuous process as it takes years.	Geraldo Palalane (LUPA)	Agreed – and the project is designed to ensure that local communities are actively involved in implementation.
Why the project does not include costs for resettlement?	Eusébio Pequenino (WWF)	Resettlement is not expected and will be avoided. A Process Framework has been prepared to address to restrictions of access to resources and livelihoods.

Annex 7

TOR for the ANAC's Environmental and Social Specialists

ANAC will host a two person team of Social and Environmental Focal Points (SEFP) in a Social and Environmental Safeguards Unit to oversee and lead grievance redress management, environmental licensing, development and implementation of Strategic Development Plans for Conservation Areas and Community Development Action Plans and relevant Project related monitoring and evaluation.

Responsibilities of the Environmental Focal Point include but will not be limited to:

Strategies, Policies and Plans

- Provide support to development of the regulation of the Conservation Areas Law nº 16/2014 in order to include aspects related with the need of harmonization with the environmental licensing regulation and other regulation related with solid wastes management, environmental quality standards and of emissions and effluents.
- Supervise strategic development planning for Conservation Areas and Conservation Area clusters as resources for this are made available.
- Ensure Strategic Development Plans are environmental sound design.
- Participate in consultations/discussions related with proposed sectorial strategies, policies and plans that could have adverse environmental impacts in the CAs.

Environmental Licensing Process

- Participate in the development of any project proposed by ANAC with physical intervention and consequently potential environmental and social impact, proposing measures to be integrated in the design in order to make it environmental sound.
- Jointly with the ANAC's social specialist, conduct the ESIA process of projects proposed by ANAC as defined in the MOZBIO ESMF, from the screening to the monitoring the implementation of mitigation measures.
- Jointly with the ANAC's social specialist, support and supervise the ESIA process of projects proposed under MOZBIO by other proponents (NGOs, community associations, etc) in the CA or buffer zones as defined in the MOZBIO ESMF, to the monitoring the implementation of mitigation measures.
- Participate actively in public participation and revision process of ESIA of other public and private projects proposed for the CA, buffer zone and immediate surroundings (particular attention to potential impacts related with upstream water uses, management of solid wastes, hazardous substances, wastewater, pesticides and fertilizers, noise, emission of dust and other pollutants).

Environmental Management

- Implement and monitor in all the CAs proper environmental management of solid wastes, effluents, wastewater, hazardous substances, air emission; promote efficient use of water and energy (prioritizing the use of renewable energy).

Awareness

- Organize awareness campaigns and sessions on environment management for CAs' staff, local authorities, NGOs, communities and visitors.

Reporting, Monitoring and Evaluation

- Prepare quarterly reports to submit to the MozBio Unit as defined in the ESMF.
- Together and in coordination with the Project Implementation Unit and ANAC's Department of Planning and Monitoring develop and oversee all Project related monitoring and evaluation activities.

Responsibilities of the Social Focal Point include but will not be limited to:

Strategic Development Planning for Conservation Areas

- Provide support to development of the regulation of the Conservation Areas Law nº 16/2014 especially to the process and stakeholder involvement required for strategic development planning for Conservation Areas.
- Supervise strategic development planning for Conservation Areas and Conservation Area clusters as resources for this are made available.
- Ensure Strategic Development Plans cover all areas requiring subsequent community development action planning.

Environmental Licensing Process

- Participate in the development of any project proposed by ANAC with physical intervention and consequently potential environmental and social impact, proposing measures to be integrated in the design in order to make it environmental sound.
- Jointly with the ANAC's environmental specialist, conduct the ESIA process of projects proposed by ANAC as defined in the MOZBIO ESMF, from the screening to the monitoring the implementation of mitigation measures.
- Jointly with the ANAC's environmental specialist, support and supervise the ESIA process of projects proposed under MOZBIO by other proponents (NGOs, community associations, etc) in the CA or buffer zones as defined in the MOZBIO ESMF, to the monitoring the implementation of mitigation measures.
- Participate actively in public participation and revision process of ESIA of other public and private projects proposed for the CA, buffer zone and immediate surroundings (particular attention to potential impacts related with that could attract more people for the surrounding of the conservation area or potential could create conflict with local communities).

Community Development Action Planning

- Support the CA Management Board / CA Administration to identify a technical team to prepare and update the CDAP.
    - Team members may be CA community liaison personnel or contracted and coastal areas should consider advice from the Coastal Zone Sustainable Development Centre (CDS–ZC) and inland areas from the Natural Resources Sustainable Development Centre (CDS-RN).
- Ensure capacity development is in place to effectively support the technical team and communities to formulate integrated CDAPs, monitor, evaluate and update them.

- Supervise the CDAP technical team together with the CA Administrator particularly in relation to developing participatory monitoring processes.
- Monitor CDAP implementation and ensure reports are provided to the CA Administrator and the District Administrator and Provincial Government.

Grievance redress management

- Oversee and lead grievances redress management ensuring access to register complaints is freely available for the elderly and vulnerable, women and youth.
- Lead the administrative and legal recourse procedures for grievances redress ensuring the process is timely.

Community Development

- Support awareness-raising on resource use rights and restrictions by ensuring the supply of materials and training of CA Community Liaison personnel and supervise their subsequent performance.
- Ensure community participation in zoning and land use planning by ensuring linkages between CA Community Liaison personnel, Agricultural sector extension staff, territorial planning specialists, and District planning teams.