E4763

REPUBLIC OF MOZAMBIQUE

MINISTRY OF EDUCATION AND HUMAN DEVELOPMENT

HIGHER EDUCATION SCIENCE AND TECHNOLOGY PROJECT

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

Final Draft

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LIST OF ACRONYMS

COREP	National Commission for TVET Reform
CP	Cooperating Partners
DINET	National Directorate for Education and Training
DNDR	Directorate of Rural Development
DNFFB	National Directorate of Forestry and Wildlife
DNOT	National Directorate for Land Planning
DPADER	Provincial Directorate of Agriculture and Rural Development
DPAIA	Provincial Directorate of Environmental Impact Assessment
DPCO	Provincial Directorate for the Coordination of Environmental Affairs
A	Environmental Assessment
EA	Environmental Impact Assessment
EIA	Environmental Management Plan
EMP	Environmental and Social management Framework
ESMF	Education Sector Strategic Plan
ESSP	Skills Development Fund
FUNDEC	Government of Mozambique
GoM	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HIV/AIDS	National Institute for Education and Vocational Training
INEFP	Ministry of Agriculture and Rural Development
MADER	Ministry of Education and Culture
MEC	Ministry of Land, Environment and Rural Development
MTADR	Ministry of Health
MISAU	National Commission for Sustainable Development
NCSD	National Environmental Management Programme
NEMP	Non governmental organization
NGO	Action plan for the reduction of absolute poverty
PARPA	Mozambique Integrated Professional Reform Program
PIREP	Environmental Quality Standards of Mozambique Projects
PEPA	Poverty Reduction Strategy
PRS	Resettlement Action Plan
RAP	Resettlement Policy Framework
RPF	Terms of Reference
ToR	Technical and Vocational Education and Training
TVET	World Bank
WB	

EXECUTIVE SUMMARY

Background:
The Government of the Republic of Mozambique is preparing a project to transform the TVET system to respond more effectively, equitably and in a timely and articulated manner to labor market needs, using a qualifications framework and being sensitive to gender and HIV/AIDS issues. In the framework of this project it is planned, among other things, to improve the physical infrastructure. At pilot institutions, the project will fund rehabilitation of the physical infrastructure, including workshops, water and sanitation facilities, and other teaching facilities essential for piloting the new courses.

Project Components

- **Component A: Institutional Arrangement** Component A will assist the GOM to establish the institutional framework necessary to develop a labor-market relevant and accessible TVET in Mozambique in a coordinated, stakeholder-driven and sustainable manner. The objective of the component is to set up, or prepare the establishment of, appropriate structures for the administration, management and financing of the TVET system in collaboration with the social partners.

- **Component B: Standard-based Qualification and Training System.** The development of a standard-based qualification, training and assessment framework is a key to raising relevance and quality in the TVET system.

- **Component C:** Quality Improvement. This component is designed to address the quality problems affecting the DINET and the INEPF (Ministry of Labour) schools. Major problems are under-qualified and insufficiently skilled teachers, shortage of teaching aids, partly dilapidated workshops for practical training and outdated curricula.

- **Component D:** Fundo para o Desenvolvimento de Competências Profissionais (FUNDEC). Component D is designed to assist the emergence of market-responsive training in various occupational areas and for different target groups on a demand basis.

Negative environmental and social impacts
Under PIREP, physical environmental impacts will result mainly from the rehabilitation and construction activities. The environmental impacts are expected to be limited to the management of wastes at the rehabilitation /construction sites (waste water, solid waste, rejection and elimination of wastes such as oils and paints, unsafe disposal of asbestos), soil erosion, loss of vegetation, as well as dust and noise during the works.

At the social level, the rehabilitation works can generate adverse effects, for example, risk of outbreak of social conflicts; occupation of private lands during works; exclusion of vulnerable groups from participating in and benefiting from project activities; land acquisitions/use resulting in involuntary resettlement and/or loss of livelihoods or access to economic resources. PIREP has prepared, separately, a Resettlement Policy Framework (RPF) which will guide the implementation of mitigation measures related to land acquisition should this become necessary.

National Environmental legislation
At national level, there are various legal instruments approved in environmental field:

- The National Environmental Management Programme (NEMP);
- The Environmental laws: environmental law n° 20/97, of October 1; The Land Law N°19/97 of 1 October 1997;

- EIA regulations: The decree n°45/2004 of September, 29, related on the process of IEA;
- EIE guidelines : The decree n°32/2003 of august, 12, concerning the Environmental Audit ; Environmental quality standard

World Bank's Safeguard Policies
PIREP has triggered two of the World Bank's Safeguard Policies, namely, OP 4.01 Environmental Assessment and OP 4.12 Involuntary Resettlement. The remaining operational policies are not triggered by PIREP. Annex 6 summarizes these safeguards policies.

Objectives of the Environmental and Social Management Framework (ESMF)
The objective of this Environmental and Social Management Framework (ESMF) is to provide an environmental and social screening process to allow for the identification, assessment and mitigation of potential negative environmental and social impacts related to the rehabilitation of 10-11 existing teaching facilities and related water supply and sanitation systems. It has not been determined which of these training centers and related facilities will be rehabilitated. According to Mozambique Environmental law, specific investment activities require EIAs, whereas there are no clear EIA requirements for activities of a smaller scale, but which might have negative localized impacts that would require appropriate mitigation. This is the reason why the PIREP will use the environmental and social screening process outlined in the ESMF. This process will allow the PIREP to identify, assess and mitigate potential negative environmental and social impacts at the time they are planning rehabilitation activities, and, if necessary, carry out separate EIAs should the screening results indicate the need for such separate EIAs.

Methodology used to prepare the ESMF
The present ESMF was prepared based on existing general literature, among them: the Mozambican Education Policy Framework, Mozambican Environmental Impact Assessment Regulations, and the World Bank's Safeguard Policies. Besides these documents, a lot of consultations with various stakeholders, including communities and the general public, were undertaken before writing the framework.

The screening process
The different stages of the environmental and social screening process are summarized in the following paragraphs. The scope of the environmental and social measures required for the PIREP activities will be dependent on the results of the screening process. Thus, the results of this screening process will determine whether (a) no environmental work will be required; (b) the implementation of simple mitigation measures will suffice; or (c) a separate EIA will be required.

Stages	**Responsibilities**
1. Screening of teaching facilities and related water supply and sanitation systems at each of the sites of these facilities, using the Environmental and Social Screening Form (Annex 2)	Environmental Focal Point located in the Planning and Monitoring Unit of the Executive Secretariat of COREP
2. Assigning the appropriate Environmental Categories (A, B, or C)	The Environmental Focal Point located in the Planning and Monitoring Unit of the Executive Secretariat of COREP
3. Carrying out Environmental Work, i.e. implementing simple mitigation measures (Annex 3), or, carrying out a separate EIA	Environmental Focal Point located in the Planning and Monitoring Unit of the Executive Secretariat of COREP will make appropriate recommendations to the MTADR Provincial Directorates as to the necessary environmental

	work.
4. Review and Approval	
4.1 Approval of (i) the screening results ; (ii) the assigned environmental category; and (iii) recommendations of the Environmental Focal Point (COREP)	MTADR Provincial Directorates
4.2 Selection of the consultant in case of the need for a separate EIA	• The EFP of COREP will (i) draft EIA terms of reference; (ii) prepare criteria analysis and analyse proposed candidatures; (iii) select the most qualified consultant and submit it to the approval of coordinator of the project coordination unit; (iv) lead the public consultations; and (v) lead the EIA/ESMP authorization procedure by the MTADR departments. • The Project Coordination Unit (Executive Secretariat of COREP) approved the selection of consultant prepared by the EFP and design agreement to conduct the required EIA.
4.3 Carrying out the Environmental Impact Assessment (EIA)	Authorized Consultants
4.4 Approval of environmental assessment	MTADR Provincial Directorates.
5. Public consultations and disclosure	Environmental Focal Point located in the Planning and Monitoring Unit of the Executive Secretariat of COREP will ensure that the results of (i) the environmental and social screening process; and (ii) the separate EIA report are made accessible to all relevant stakeholders, including potentially affected persons
6. Monitoring	Technical services of municipalities where training facilities will be rehabilitated
7. Environmental and Social Indicators	• Environmental Focal Point located in the Planning and Monitoring Unit of the Executive Secretary of COREP will ensure that the environmental and social monitoring indicators listed in the ESMF are included in PIREP's monitoring program and followed regularly • Technical services of municipalities ensure the monitoring

Environmental management Plan (EMP)

An Environmental Management Plan (EMP) for HEST is intended to ensure efficient environmental management of the Project. Thus, the EMP lists (a) the relevant project activities; (b) the potential

negative environmental and social impacts; (c) the proposed mitigation measures; (d) those who will be responsible for implementing the mitigation measures; (e) those who will monitor the implementation of the mitigation measures; (f) the frequency of the afore-mentioned measures; (g) capacity building needs; and (h) the cost estimates for these activities. The EMP will be included in HEST's Project Implementation Manual, and the costs for implementing the EMP will be included in HEST's Project Costs. A summary table of the EMP is provided in Annex 7.

Capacity building

Capacity for environmental management and monitoring will be required at the national and provincial level for: (i) The Environmental Focal Point (EFP) of the Plan & Monitoring Unit (Executive Secretariat of COREP) to strengthen his/her capacity to apply the screening process as outlined in the ESMF; (ii) for members of the Technical services of those municipalities where training facilities are to be rehabilitated; (iii) As necessary, members of the Technical Review Committee of the Provincial Directorates of MTADR, will receive training with regard to review of screening results and separate EIA reports, and making effective recommendations for the approval/disapproval of construction and rehabilitation activities to the Executive Committee of the Provincial Directorate of MTADR. Training programmes should be carried out by national firms specialized in EIA (such as IMPACTO, etc.). Thus the total cost for capacity building is estimated at 35 000 US$.

Institutions responsible for implementing and monitoring the mitigation measures

The main institutions with key roles and responsibilities for environmental and social management are:

Coordination/supervision

- The Environmental Focal Point located in the Executive Secretariat of COREP will be responsible or completing the environmental and social screening lists (Annex 2); the environmental and social checklists (Annex 3); and determining the environmental category of the screened activity to be able to identify and mitigate the potential environmental and social impacts of construction and rehabilitation activities. As required, he/she will receive environmental training to be able to carry out this task.
- The Environmental Focal Point will ensure the supervision (overseeing) of the implementation of mitigation measures

Execution/implementation

- Individual consultants or consultancy firm will be responsible for (a) carrying out the EIA studies, and (b) drafting the environmental section of a manual for the maintenance of teaching facilities and related water supply and sanitation systems..

- The contractors are responsible for the implementation of the mitigation measures as indicated in the Environmental Guidelines for Contractors (Annex 5), including the borrow pits rehabilitation for material construction.

Monitoring

- The Technical services of municipalities (where training facilities will be rehabilitated) will be responsible for monitoring the implementation of the mitigation measures.

1. INTRODUCTION

Background:

A. Country context

1. **Mozambique has emerged to be one of the fastest growing economies of the world since the end of the devastating civil war in 1992**. Real growth between 1993 and 2010 averaged 7.5 percent (WB 2010). Moreover a recent surge in exports associated with mega-projects has allowed for a continued increase in output as well as consumption. This rapid growth has helped raise living standards with real per capita income rising rapidly, albeit from a very low base. Poverty fell from 69 percent of the population in 1996 to 56 in 2003 (WB 2010). Poverty fell only slightly during the past decade, from 56 percent in 2003 to 52 percent in 2009. This is partly explained by Mozambique's growth pattern in the last decade which is driven by capital- and import-intensive mega-projects with limited linkages to the local economy. The economy remains fairly concentrated in terms of its exports. The only major change in the past decade has been the emergence of natural resource (coal, gas) and aluminum exports. Growth is driven in part by large Foreign Direct Investment (FDI) linked mainly to mining, electricity, tourism, construction and telecommunication sectors, as well as strong growth in the agriculture sector. Despite its fast growth, Mozambique's economy has not significantly diversified and inequality continues to limit the impact of overall Gross Domestic Product (GDP) growth on productivity and diversity of economic activity.

2. **Mozambique is forecast to grow at the same rate over the next decade, building on mineral resources, energy and agriculture sectors**. Experience from natural resource-rich countries such as Norway point at the importance to invest in education as a means to maximize benefits from an extractive resource boom and minimize the impact of so-called Dutch Disease on domestic production. Investments in mining will create demand for skilled jobs in mining and energy engineering. The indirect impact on employment in non-tradable sectors such as construction, transport and utilities is however much higher, and will also require the build-up of a skilled labor force.

3. **Countries in natural resource booms tend to move towards imports at the detriment of domestic production and employment as a result of the appreciation of the domestic currency**. Thus, the resource boom may lead to a collapse of employment in other tradable sectors. This means that it is necessary to raise productivity in agriculture and other tradable goods to regain competitiveness against imports. This requires strategic investments in applied research. Consultations with companies led by the International Finance Corporation (IFC) revealed an opportunity to increase competitiveness and productivity of local firms in order to be able to supply multinationals as part of the mega projects. This requires improved engineering and technical skills, and a closer link between the education and training institutions and the private sector. Applied research and skills will also be needed to move towards value addition through beneficiation. These strategies are fundamental to guarantee that the economy becomes diversified and prepared for the period after the resource boom.

4. **On the labor supply side, more than 300,000 people enter the labor market each year and this number is poised to increase to about 500,000 by 2025**. Preparing this wave of young people adequately for a productive life through education including TVET and higher education options, is critical to job-creation, productivity, competitiveness and poverty reduction. Rates of

return to higher education have been increasing in Mozambique from a low of 6 percent in 2002 to 18 percent in 2008 (latest year available and comparable). This implies a substantial incremental of wages as indicated in the section related to economic analysis. In addition, workers with higher education in Mozambique face lower unemployment. Given Mozambique's high level of inequality, and in particular inequality in access to post-basic education, promoting more equitable access for the bottom 40 percent of the population is critical to raise their income and hence promote shared prosperity. Improved access to TVET and higher education, in particular, short term professional-oriented higher education, therefore both promote shared prosperity and overall economic growth.

B. Sector context

5. **In the education sector there have been noticeable improvements, such as enrollment rates, but the overall quality of education remains a concern**. In primary education, net enrollment rates have been consistently improving from 33 percent in 2002 to 72 in 2012, but progress in completion rates has tailed during 2007-2010, with 5 out of 10 children completing primary education. It is expected that primary completion rates will improve from 2016 onward, reflecting improvements to promotion rates since 2011. However, the completion rate is below regional peers (52 percent for Mozambique compared to the Sub-Saharan average of 72 percent). The same picture prevails in secondary education, where the gross enrolment rate to lower secondary has increased from 7 percent to 34 percent.

6. **The majority of funding and reform efforts of the government and development partners, including the World Bank, is focused on pre-primary, primary and secondary education challenges with good results**. Through a sector wide approach, the World Bank and the Global Partnership for Education are currently supporting these levels of education with US$201 million, and a further additional financing of US$120 million is under preparation.

7. **The massive increase in completers of primary education and increasing secondary education creates a large pressure to expand TVET and higher education opportunities**. Both due to education progress and high population growth rates, the number of upper secondary graduates increased from less than 8,000 in 2004 to 41,500 in 2012. In 2016, the Government estimates that the number of graduates of secondary education will be 148,000, doubling again to around 280,000 in 2020.

8. **Higher Education (HE) has expanded rapidly in Mozambique**. Between 1992 and 2014 the higher education system has evolved from only three to 48 institutions, from an entirely public system to a mixed system with public and private providers, and from a system almost completely concentrated in Maputo to a system that is present in all provinces. Starting with just about 3,750 students in 1990, it has grown to 13,600 students in 2000 to 123,800 in 2012, of which 34 percent are in private institutions.

9. **The rapid expansion of HE has not yet impacted negatively on the employability of graduates**. The rapid economic growth seems to have increased demand for graduates even further than supply, especially for graduates within applied sciences and engineering, and skilled technicians. Rates of return and employment of graduates therefore remain high as described above.

10. **But quality and relevance have reportedly declined**. The doubling of institutions and the faculty body has led to lowering of faculty qualifications. Only 7 percent have a PhD degree and 24 percent a master degree. Around two-thirds of teachers in higher education are bachelor degree (*licenciatura*) holders. Expansion has also led to overcrowding in classrooms, and a lack of

learning resources, most importantly access to laboratories, modern technological tools, and computers. Also, the competences of the admitted students have deteriorated, especially in math and science subjects, due to the expansion and decrease in quality of secondary education. Further, curricula are infrequently reviewed and teaching methods focus too much on memorizing theoretical learning. This explains partially the frequent complaint from employers of lack of concrete hands-on technical competences, which especially affects quality of Science, Technology, Engineering and Math (STEM) students. ***The way forward is to support institutions and faculty to reform curricula in collaboration with employers, introduce more experimental and student focus teaching-learning in combination with investments into modernize learning equipment***.

11. **Higher education does not benefit sufficiently low and middle income families**. The high tuition fee of private education as well as high living costs make higher education unaffordable for many youth from poor families. Further the competition to enter public low-fee education is increasing. More access to higher education for youth from middle and low-income families is a central policy to promote shared prosperity by qualifying youth from these families for a well-paid job in the formal economy. In addition to continued improvements in basic education, improving access for low income youth requires: (i) ***scaling up student financial aid in a sustainable manner***, *for example through student loans*; (ii) ***allow for TVET students to access higher education***, and (iii) ***expand and improve quality of education in the Central and Northern provinces of Mozambique***.

12. **Linking higher education with TVET is a priority for equity and quality of TVET**. The Government has established four polytechnic colleges in underrepresented regions in the country. These polytechnics produce tertiary graduates who combine high level theoretical knowledge with practical and entrepreneurial skills and competences making them particularly well equipped to support development in key economic sectors (agriculture, mining and energy). As this type of tertiary education is promising due to its potential impact on equity (region and income-wise) and its economic relevance, the government is seeking to add seven new polytechnics. Two critical challenges remain: (i) the connection between secondary education TVET institutions and the polytechnics (higher education institutions) to allow graduates of TVET institutions to produce higher education diplomas, which increases both the incentives for TVET education and improve access to higher education for middle and low income youth; and (ii) a shortfall of qualified TVET teachers due to the expansion of the sub-sector. ***The linkages between the two levels of education will help build job-relevant technical skills and will also streamline the access from technical secondary education into higher education***.

13. **There is little support from development partners to the higher education sector**. Other than the World Bank's HEST project, only the Dutch government supported technical assistance to the higher education within the extinct Ministry of Higher Education, Science and Technology. For science, technology and innovation, the Government receives support from other financiers such as China, Sweden and Finland. However, some of this support is due to phase out and some of the support has been substantially reduced.

14. **Skilled human resources are one of the most important pillars of the Government of Mozambique** Poverty Reduction Strategic Plan (PARP in Portuguese) **and The World Bank's Mozambique Country Partnership Strategy**. Sector policies and plans deriving from the PARP being supported by the proposed project include the Science and Technology Policy (2003), the Mozambique Science, Technology and Innovation Strategy (MOSTIS, 2006), the Education Strategy (PEE 2012-2016), and the Higher Education Strategic Plan (PEES 2012-2020).

C. Original Financing Description and Performance

15. **The HEST project, financed by a credit in the amount of SDR 24.9 million (equivalent to US$40 million), was approved on February 25, 2010**. It became effective on November 11, 2010. The *Project Development Objective is to increase the numbers and raise the quality of graduates at the undergraduate and graduate levels, and strengthen the national research capacities to produce research outputs of relevance to the country's strategic economic sectors*. The project has been implemented by two ministries: the Ministry of Education (MINED) and the Ministry of Science and Technology (MCT), implementing activities under the three components below:

- Component A: Strengthening System Governance and Management and Project Management
- Component B: Improve Quality of Teaching, Learning and Research through Competitive Funding
- Component C: Targeting Scholarships for Equity and Competitiveness

2 PROJECT DESCRIPTION

2. 1 Project Development Objective(s)

A. Project Development Objective(s)

The proposed additional finance is aimed at consolidating the achievements of the HEST project and the TVET (PIREP) project. Likewise the original HEST project with three components: institutional development and system governance; competitive funding to improve teaching, learning and research; and scholarships to raise the quality of human resources in the HEI and research institution

2.2 Project Description

The present project description is the outcome of the concept note presented to the Board earlier in 2014. The project supports three main components: (a): Strengthening system governance, quality, and management; (b) improving teaching, learning, and research through the provision of competitive funds; and (c) targeting scholarships for equity and competitiveness.

Component A: Strengthening System Governance and Management and project management will promote a Culture of Quality (dissemination of the higher education quality assessment and accreditation system, involving stakeholders including students and professional associations in this system, support to the participation of HEI in international accreditation systems, and other partnerships.

Component B: under component B promote the design, installation and maintenance of an adequate management information system that will allow for real time monitoring of sub-grants without the risk of loss of data due to inadequate back-upping.

Component C: Targeting Scholarships for Equity and Competitiveness: Under MINED operates IDF. IDF is together with the scholarships one of the three pillars of the financial reform. IDF has until now operated under World Bank finance but it is envisaged that in the future it should be a much larger fund.

4. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The project will finance operationalization of a Distance Learning Resource Center (DLRC) in near Chimoio in Manica Province under Component A. The project supports both supply side and demand side interventions aiming at improving the quality and quantity of undergraduate and graduate students and improving the national research capacity and output in Mozambique. The project will be implemented

nationwide.

The Distance Learning Resource Center was built on a piece of clean and vacant public land in near Chimoio in the Manica Province. The Social Safeguard mission visited the site from September 11 to 12, 2009 and confirmed that OP4.12 will indeed not be triggered as no one will be affected by the project and there's no land tenure issues as the Chimoio City Council has issues a Land Title dated on September 10 to the Provincial Education Directorate to whom the land was given by the same district city council services in 2005. Since then, the 4 Ha area of land, which in fact stands as an isolated island as it is surrounded on all parts by an 11m-wide road, was kept clean and out of reach from local communities for the sake of the students.

All tertiary level institutions and the students, faculty and management within the institutions are potential beneficiaries of the project. The undergraduate scholarship program in particular target students from rural poor backgrounds from the provinces to attend universities.

The HEST was classified as Category B, and triggered Operational Policy 4.01 Environmental Assessment owing to the construction and rehabilitation of the Distance Education Resource Center in Manica province. No new land was acquired for major construction and no resettlement is expected and therefore OP4.12 was not triggered. The proposed AF will remain as a Category B project and will continue to utilize the existing ESMF which was deemed satisfactory by the Bank. No new safeguards will be triggered. The government had prepared under the parent-project an ESIA including an ESMP that provides the basic steps to be followed to ensure safeguards compliance throughout the project life-cycle. Two dedicated safeguards specialist have been hired by the PIU to monitor and report on the status of safeguards compliance based on the recommendations prepared thought the safeguards instrument for the project. The availability of the safeguards specialists and the instrument will be fundamental to further guide the implementation of this new AF while ensuring that safeguards policies are complied fully. In the case of TVET, the environmental and social screening process as outlined in the Environmental and Social Management Framework (ESMF) adequately addresses any potential negative impacts of future rehabilitation activities, and therefore, project alternatives did not have to be considered.

Furthermore, Project Coordination Units has had many years of experience with the World Bank projects and are so familiar with World Bank safeguards policies implementation and supervision. Additionally, a technical capacity building program was carried out to a variety of stakeholders (PIUs, Contractors, MTADR and Local Administration) aiming at improving the understanding of World bank Safeguards policies as well as their implementation. The results of the recommendations acquired through a series of 3 regional workshops (south, center and north) held between May and June, 2014 were visible on the ground. During TVET supervision mission carried out in November, 2014 the team was pleased by the level of competency in applying safeguards instruments demonstrated by all stakeholders. The series of workshops were also used to update the environmental

and social clauses (ESC) included in the leaflet for contractors' contracts.

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Thus, the ESMF is designed to identify, assess and mitigate potential negative environmental and social impacts related to sub-component (C3). To the extent that PIREP activities involve land acquisition, the principles and procedures outlined in the afore-mentioned RPF will be applied to ensure that potential negative social impacts are mitigated appropriately.

3. BIOPHYSICAL AND SOCIOECONOMIC ENVIRONMENT OF THE COUNTRY

3.1. Biophysical Environment

The republic of Mozambique is located at the sub-east of African Continent. Mozambique borders it at the North; Mozambique, Zambia, Zimbabwe and Swaziland at the West; South Africa at the South and Indian Ocean at the East. There are 799,380 km2 of national territory including inland bodies of water. The country is relatively flat particularly in the coastal regions. From the coasts to the interior in an east-west direction, there is a coastal plain (40% of the territory with the highest population density); plateaus with altitudes of 200 to 1000 meters and finally high plateaus and mountains over 1000 meters high. Mozambique's Indian coastline stretches for approximately 2500 km. The proximity of the sea and the richness of the Mozambican River basins favor small scale and industrial fisheries. The country is rich in wildlife and natural resources, such as coal and natural gas.

Soils

The northern and some parts of the central and western areas have red soils of varying texture (from light sandy soils to clay loams). Low fertility red soils occur in Sofala province north of Beira. Alluvial soils occur in the Zambezi river basin. Though prone to salinization, particularly in delta areas, these soils have a high potential for agriculture. Due to slope, shallowness of soil ands high rainfall there is a high potential for soil erosion in these areas.

Climate

There is great variation in mean annual rainfall across the target area. Most of the coastline receives 750 to 1,000 mm of rain per year. The interior of the Zambezi Valley, in Tete province, is semi-arid, receiving less than 600 mm average annual rainfall. There are a series of very humid pockets associated with mountains areas e.g., Mt. Binga (Manica Province), Mt. Gorongosa (Sofala Province) and Mt. Namuli (Zambezia Province) which receive more than 2,000mm of rainfall per year. There is a distinct rainy season between November to March followed by a distinct dry season between April and October. Mozambique frequently suffers from floods, cyclones and droughts that sometimes reach disastrous proportions, causing death of people and animals, mass population displacement, negative effects on agricultural production, etc.

Hydrology

Mozambique comprises thirty-nine major rivers which drain into to the Indian Ocean along the country's 2,700 km coastline. The major perennial rivers of Zambezia province are the Licungo (Lugela), Raraga, M'lela, Molocue, Ligonha and Meluli. The most important River in Mozambique is the Zambezi. The Zambezi River enters Mozambique at Zumbo where it immediately swells into the impoundment of Lake Cahora Bassa. The most important tributary of the Zambezi is the Shire River, which drains Lake Mozambique via the Rift Valley.

Vegetation

In Mozambique the main broad vegetation type, based on structure, is savannah woodland. The most common woodland type is "miombo" covering much of Niassa, Cabo Delgado, Nampula, Zambezia, Sofala, Manica and Inhambane provinces. There are several different types of miombo determined by variations in rainfall and soils. The second most extensive woodland is "mopane" woodland occurring in the Limpopo- Save area and in the mid-Zambezi Valley. Together these two types of woodland cover approximately 70% of Mozambique.
Other vegetation types include: Acacia woodland. There are two extensive areas of Acacia woodland, a southern; formation (in the area of Moamba, Magude and Guija) and a central formation; running approximately in a north-east direction through Manica and Sofala provinces; Lowland palm savannah in coastal areas containing badly drained soils of Sofala province; Vegetation on alluviums in the Zambezi Delta. A seasonally-inundated lowland formation (the Gorongosa "tandos") links the Zambezi Valley with the Pungue River in the south via the Urema trough (Rift Valley); and Mangroves are well developed in coastal Zambeziia and Sofala.

Fauna
Mozambique has rich diversity of mammal fauna; 211 terrestrial mammal species and 11 marine mammals have been recorded. Only one mammal species is considered endemic to Mozambique, a white-bellied red squirrel confined to Namuli Mountain (Zambezia province). Approximately 900 species have been recorded for southern Africa; of these 581 have been recorded in Mozambique. There are a number of near endemic and restricted range species, mostly associated with isolated mountains habitats such as Gorongosa (Sofala), Chimanimani (Manica), Chiperone and Namrrli (Zambezia) Mountains.

However, it has to be recognized that without the PIREP programme, out of the 10 to 11 training facilities to be rehabilitated, only (3) of them are located in regions containing protected areas. They are the industrial Scholl of Pemba which is located in the district of de Pemba that hosts the following forest reserves: Mepalué; Ribaué; Mecuburi; Matibane; Baixo Pinda). We have to point out that the teaching facilities are located in urban and semi urban areas, and consequently will not have any effects on these protected areas.

Table 1 National Parks in the project area

Designation	Provinces	Districts	Areas (km2)
PN das Quirimbas	C. Delgado	Quissanga; Ibo; Pemba-Metuge; Meluco; Ancuabe; Macomia	7.500

Table2 Forest Reserves in the project area

Designation	Provinces	Districts	Areas (km2)
Mepalué	Nampula	Ribaué	42,5
Ribaué	Nampula	Ribaué	37,5
Mecuburi	Nampula	Mecuburi	2.300,0
Matibane	Nampula	Nacala	199,0
Baixo Pinda	Nampula	Memba	196,0

3.2 Environmental potential constraints

Major environmental issues in the country can be classified in relation to either land degradation or the erosion of biodiversity, both of which should be taken into consideration during both the preparation and implementation on the PIREP project.

Land degradation

- loss of soil fertility - intrinsically linked to itinerant agriculture and it's shifting cultivation system and prevalent across all provinces
- soil erosion - the area of great risk covers the central provinces of Manica, Tete and
- Zambezia
- soil salinisation - a problem common to major river basins e.g. the Zambezi
- soil acidification - typically a consequence of intensification of agriculture production;
- loss of vegetation cover - the driving forces are: forest clearings for agriculture purposes (itinerant agriculture and it's shifting cultivation system for regeneration of soil productivity, were the prime cause of the damages to forest, natural vegetation and ecosystems); uncontrolled forest fires; wood-fuel and building material extractions, and timber harvesting and hand-crafting.

Land productivity symptoms resulting from these situations may be the following:

- Reduced crop yields, because of the lower nutrient and organic matter content,
- Reduced soil depth, salinity, poor structure and aeration, etc;
- Great need for agriculture inputs, e.g. more fertilizers to compensate for nutrients losses;
- Reduced land value, and eventually loss of land due to salinization, sodification, desertification, etc;
- Increased frequency and seriousness of floods;
- Loss of water resources with consequences to loss of hydropower and fish stocks;
- Effects on health and quality of life caused by soil and water pollution.

Erosion of Biodiversity

Of the country's entire protected areas network, 50% of the national parks, 40% of the game reserves, 77% of the hunting Coutadas and all of the forest reserves are situated in the target provinces, along with 75% of the country's areas of outstanding biological value. Loss of biodiversity through a broad spectrum of development related activities remains a critical threat and is of special significance to the target provinces which contain a disproportionate share of the country's flagship areas of conservation significance.

3.3. Socioeconomic Environment

Mozambique's population is approximately 17, 600,000[1] and the natural growth rate is 2.4%. The proportion of children under 15 years old, projected for 2001, is 44.5% of the population and about 75% of the population lives in rural areas, but in the past 10 to 15 years, there has been significant migration to cities due to the war (19976-1992). The groups that formed around the cities and towns have been settled there, causing problems of urban organization, sanitation and waste management. Administratively, the country is divided into 10 provinces and Maputo City, the national capital, which has the status of a province.

The Gross Domestic Product (GDP) per capita in Mozambique was estimated at 230 USD in 2000. Agriculture, manufacturing industry and commerce are the largest areas in the primary, secondary and tertiary sectors. The variables that determine poverty are: (i) slow economic growth until the beginning of the 1990s; (ii) low educational level of economically active household members, particularly women; (iii) high rates of dependency within households; (iv) low family agricultural productivity; (v) lack of work opportunities both within and outside the agricultural sector; (vi) poor development of infrastructure, particularly in rural areas. Some indicators illustrate this situation: the incidence of poverty is 69.4% (72.2% in rural zone and 62% in urban zone); the number of doctors for 100 000 inhabitants is 6 and the prevalence of HIV is rather high.

Mozambique's growth rate has been 9% from 1997 to 2002, well above the African average and among the highest in the world, and is projected at between 7% and 12% annually until 2005. Growth has been driven mainly by mega-projects, foreign investment, and strong agricultural performance. Poverty, however, remains deep and may not have been reduced in the rural areas, where 70% of Mozambicans live. Improved quality of and increased access to safe water in urban and rural areas is among the six priority areas of the Government's poverty reduction strategy, known as PARPA, endorsed by the Board of Directors of the World Bank and the International Monetary Fund in August 2001.

Education and Training sector

In Primary Education, Mozambique has made substantial progress in improving access to primary education. Between 1992 and 2004, Primary Education 1 et 2 enrolment rose from 1.3 million to 3.5 million, and the number of schools grew dramatically from 2,836 to 9,489. The Gross Admission Rate in grade 1 increased from 59% to 123% in the same period. At the EP2 level enrolment has also risen substantially. The secondary education is marked by the following situation: Total 2004 enrolment (both was 200,000 in secondary education 1 of which 15% were in private schools; secondary education 2 enrolment was 28,000 with 31% of these in private schools; Roughly 41% at both levels were girls.

[1] Annual Population Projections by Province, 1997-2010

Vocational and Technical Education and Training (TVET)

Technical and Vocational Education and Training (TVET) is an essential element of secondary education whose key aim is to contribute to the creation of a skilled workforce essential to strengthening economic growth and lifting individuals and communities out of poverty. However, up to now, TVET in Mozambique has been relatively ineffective. The reasons include aspects of access, relevance, effectiveness and efficiency, coherence and coordination.

More than 90% of the labor force depends on the informal sector for its subsistence, while an estimated 520,000 are employed in the formal sector, public and private. Overall, the Mozambican workforce is very poorly educated and has limited skills. Half of the population has no education at all or only basic literacy skills. Technical and vocational education is mainly provided by the National Directorate of Technical Education (DINET) of the Ministry of Education (MINED), but also other ministries and a few private training institutions are providing post-primary education. DINET is in charge of about 45 TVE schools offering pre-employment training, primarily at the lower secondary level and enrolling about 41,000 students (20% are girls). The Ministry of Labor (MINTRAB) through the National Institute for Technical and Vocational Training (INEEP), NGOs and churches offer non-formal vocational training to different target groups (including school leavers) without alternative educational options. While DINET schools enroll about 11,000 people, the five MINTRAB training centers offer short-term courses to an estimated 1,5000 people every year. The private training market is at an infant stage. Employers-based staff training is mainly found in large enterprises, the so-called mega-projects. Traditional apprenticeship is widespread in the informal sector. More than 95% of all TVE is provided by public schools.

4. ENVIRONMENTAL AND SOCIAL IMPACTS OF PIREP

4.1. Environmental impacts due to planned rehabilitation activities

a. Potential negative environmental impacts

The adverse environmental impacts of the project will mainly come from the rehabilitation works of the teaching facilities and related water supply and sanitation systems (loss of vegetation, soil and ground water pollution, soil erosion, generation of solid and liquid wastes). Rehabilitation activities will include water proofing of leaking roofs, replacement of broken fittings, repairing of malfunctioning drainage, water and electrical installations, painting, etc. In addition we have to point out that the extraction of construction materials from quarries could constitute a source of adverse impacts on the natural environment in terms of loss of vegetation, but also the degradation of the landscape aesthetics. The temporary quarries will certainly need to be restored after exploitation.

The environmental impacts are expected to be limited to the management of wastes at the construction sites (waste water, solid waste, rejection and elimination of wastes such as oils and paints), asbestos disposal, as well as dust and noise during the works.

The environmental impacts such as soil erosion, soil and water pollution, vegetation loss, and the impact caused by the increase of solid and liquid wastes can originate from the rehabilitation activities, from the subsequent operation of these teaching facilities and the use of quarries as sources of construction materials. These impacts depend mainly on the scope and scale of the works, but also on the rolling stock to be mobilized, the surface area needs and the surface area availability, the importance of the supply needs, etc. As a whole, the direct and indirect effects are the following ones:

- Various pollutions (uncontrolled discharge of solid and liquid wastes from the rehabilitation sites) and possible negative impacts on public health such as traffic accidents, or exposure to noise and dust.

- The use of machines working with fuel, oils and lubricants on work sites may be a source of groundwater's contamination risks by infiltration, particularly in some communes where the groundwater is shallow.

- Unsafe disposal of asbestos: the rehabilitation of training facilities will require the disposal of asbestos (from degraded roofs, etc.). Anarchical rejection of these hazardous waste may cause nuisances on public health if any safe system is not taken for their disposal Proper asbestos disposal will be among the responsibilities of the contractors. Asbestos can be disposed safely in sealed plastic containers to be buried for example in municipal landfills.

In order to cope with these adverse impacts, the environmental and social screening process proposed in the ESMF will be conducted in such a way as to ensure that potential negative

impacts are mitigated appropriately.. It is recommended that Environmental Guidelines for Contractors (Annex 5) are used to ensure that the rehabilitation activities are carried out in compliance with the mitigation measures proposed in the ESMF. These guidelines can be written into contractual agreements and form the basis for monitoring compliance. In addition, ESMF would have to mitigate potential health impacts on the surrounding population such as dust, noise, traffic accidents and an increase in water-related diseases due to standing waters in the borrow pits.

4.2. Social impacts due to planned rehabilitation activities

The main social issues in Mozambique today are:

- **Acute Poverty** - poverty is wide spread in the country, despite its potential and rich resource endowment
- **The Tragedy f HIV/AIDS** - HIV/AIDS affects both education coverage and quality. It dampens the demand for education as affected households have fewer resources to spend on education either because of reduced income due to morbidity of income earners or diversion of source resources for health care.
- **The Crisis in Education** - An exceedingly small proportion of the Mozambican age group completes secondary education.
- **Gender Issues** - Women are often poorer than men, own less land and livestock and have fewer years of schooling.

a. Positive Social Impacts

Overall, the PIREP is likely to have a positive impact on the social issues in Mozambique, in the short, medium and long term, for the following reasons:

- The PIREP, under the overall objectives of the program will address the following five main issues: (i) Lack of access and completion of TVE; (ii) Inequity of access and throughput among geographical areas, income groups and between genders; (iii) High per student cost on households and the public sector in TVE; (iv) Low quality of TVE in terms of learning outcomes; (v) Ineffective organization and management of TVE.

- Through increase enrolment in TVE, additional opportunities for public health awareness and education for protection and prevention against HIV/AIDS will be available for TVE school going age among boys and girls. It is this age group that is particularly vulnerable to this epidemic.

Thus, the improvement of the teaching facilities will have major positive effects on the education system in general, (particularly in the technical and vocational fields): increase of the number of schools; improving working conditions; etc.

The rehabilitation of teaching facilities and related water supply and sanitation systems are likely to contribute to improvements in the visual aesthetics of the environment including good

landscape integration. More specifically, these activities can help improve the dilapidated state as well as the environmental hygiene at these teaching facilities.

Rehabilitation of school infrastructures:
The rehabilitation of teaching facilities will facilitate the reintegration of a great number of pupils into the school system, and particularly boost a qualitative and quantitative development of the education system in the concerned areas (increase of school attendance by boys and girls; etc.).

The works will contribute towards recreating a healthy school environments (schools are enclosed and are not used anymore as open sewers, and access is controlled), the strengthening of the quality of learning and work context for respectively pupils and teachers - the tranquility of premises is ensured with the erected fences). This will encourage also many more parents to send their children to school and mainly strengthen proximity teaching in concerned areas. This situation will also help to improve hygiene, reduce begging and the number of children in the streets.

Rehabilitation will also contribute to: the increase of the number of schools (increase of the number of available seats for schoolboys) including working conditions; the decrease of disparities between girls and boys; access to basic education for the poorest social strata; the improvement of the quality of education, increasing schools attendance rate; improvement of hygiene in the schools; the reduction of begging and the number of children in the streets; the reduction of children working in the crafts industry and home economies; the eradication of illiteracy as well as the reduction of disparities between regions.

Rehabilitation works will contribute to consolidating and creating jobs in the towns hosting the teaching facilities to be targeted by the project. The work will bring about a high local manpower use and the hiring of skilled workers (masons, carpenters, building workers, plumbers, electricians, etc.), this will increase the incomes of the local populations, improve their living conditions, and contribute significantly to the fight against poverty.

Rehabilitation of the clean water supply systems in schools:
The availability of clean water in schools will help pupils to have correct personal hygiene and dietary habits, and reduce the effects of lethal and debilitating diseases. As a whole, the living conditions will be improved because the pupils will no longer use unsanitary water sources. Moreover, the repair of some damaged pipes will allow for a reduction of water leaks and will contribute thus to fighting against the waste of water.

Rehabilitation of sanitary installations in schools:
The absence or the non-operation of sanitary installations (WC) in schools can be a cause for serious nuisances in schools. The building or restoration of sanitary installations will strengthen hygienic conditions prevailing in the concerned areas, avoid them to be areas for the development and proliferation of waterborne diseases and other diseases given by insects, the deterioration of living conditions of school attendants, to avoid the pollution of ground-waters and other water sources by wastewaters, etc… The sanitary installations in schools must be regularly cleaned in order to offer to pupils an environment where it is pleasant to study.

b. Negative Social Impacts

At the social level, the rehabilitation works can generate the below adverse effects:

- During rehabilitation - poor performance of civil works contractors (and their supervisors) leading to unsuccessful incorporation of the proposed mitigation measures.

- Poor implementation of the maintenance plan during operational phases of the public service infrastructure/school financed under this project, due to a lack of funds, negligence of staff or failure in the monitoring this stage.

- On the human environment, the goings and comings of vehicles transporting the building materials may hold up the traffic and mobility in general, thus adding to the nuisances (noise, dusts) the populations will be exposed to, without forgetting to mention road accidents. The same applies also to the handling of dust materials (cement and sand) that may annoy neighboring inhabitants (dusts).

- **Impacts on the health of the populations:** The different pollution and nuisances associated with the works could have some effects on the health of neighboring populations: dust, noise, road and accidents.

- **Toilet facilities at schools (including waste management):** The teaching facilities in the urban centres and in some rural areas are very degraded and damaged. Therefore in order to minimise these negative impacts, it is recommended that toilet management committees are set up in all teaching facilities. The committees shall be charged with cleaning and maintenance of the toilets and running awareness campaigns. After infrastructure rehabilitation, the Headmasters or Directorates of training facilities will be responsible for overseeing the work of these committees.

- **Sanitary risks associated with quarries**: PIREP has to take into account potential environmental impacts due to the use of borrow pits as sources of construction materials for the rehabilitation of the teaching facilities. Quarries (mainly temporary ones) for the exploitation of the material necessary for rehabilitation of infrastructures could contribute to the proliferation of disease carrier insects (malaria), they can also be the cause of drowning particularly with children, and contribute to the development of waterborne disease such as bilharzias.

- **Risk of outbreak of social conflicts:** In terms of local employment, the non-use of local resident manpower during the rehabilitation and construction of the infrastructures could cause some frustrations at the local level (and could lead to social conflicts), if we know that unemployment is widespread in the dry season.

- **Occupation of private lands during works**: In the course of the rehabilitation works, it is possible for the works to occupy private lands (installation of building sites bases, storage of

equipment, parking of machines etc.). This could lead to the degradation of concerned lands or even be a source of loss of revenue and livelihoods for their owners and users in terms of exploitation or/valorization.

In addition, other adverse social impacts are likely to arise from the following:

- Absence of a participatory process involving local communities in the preparation of their District and Provincial Schools Development Plans by their Local Governments.
- Exclusion of vulnerable groups from participating in and benefiting from project activities, i.e., from barriers to access to/ enrolment in secondary schools due to stigmatization, harmful cultural practices, acute poverty among vulnerable groups, discrimination, lack of participation in the planning process etc.
- Land acquisitions/use resulting in involuntary resettlement or loss of livelihoods.

PIREP will also focus on reducing the spread of HIV/AIDS in schools and their surrounding communities through the following measures: Training of school administrators and teachers in methods of HIV/AIDS control in public institutions, building fences around institutions to avoid unnecessary interaction between surrounding communities and students, creating awareness among students, communities and staff through the introduction of HIV/AIDS programmes, provision of resources to schools for capacity building in HIV/AIDS and encouraging participation of public and private organizations including NGOs in HIV/AIDS awareness campaign in schools.

A list of possible factors was presented to the sample of stakeholders interviewed in order to elicit some clear responses or give examples of possible risks and adverse impact, especially regarding issues such as gender and rural areas.

According to the Social Assessment, the implementation of PIREP may pose some risks and adverse impacts vis-à-vis the socio-cultural and political context of each province. Factors that may hinder the success of the program are of special interest. Among the factors mentioned by stakeholders that constitute potential risks which may contribute to adverse impact are:

- Lack of TVET institutions in rural areas
- Industrial sector incapable of absorbing all graduates due its own weaknesses
- Lack of capacity to increase the salary of workers even after acquiring professional skills
- Insufficient number of TVET institutions at the national level
- Lack of boarding facilities to facilitate access of women to TVET
- Insufficient classrooms, which results in a high student-teacher ratio and low quality of training
- Discrimination of women pursuing industrial courses both by teachers and employers
- Low involvement of employers in definition of training needs, graduate profile and course content
- Inadequate or insufficient training of teachers and school directors in the context of the new curriculum, management and teaching-learning system
- Teachers who are not well paid or who lack incentives to perform under the new system

- Misunderstanding or non consideration of the socio-cultural factors that prevent young women from attending TVET institutions or that force them to drop out of school.
- Potential significant differences may appear between pilot and non pilot institutions regarding the quality of training provided and the type of resources and training they have access to. Some non pilot institutions may become unhappy about this situation after a couple of years, especially if they are not able to access grants through FUNDEC.

The environmental and social screening form (Annex 2); the environmental and social checklist (Annex 3); the mitigation measures described in Annex 4, and the environmental guidelines for contractors described in Annex 5 are specifically designed to ensure that adverse social impacts from PIREP activities are identified and captured in the planning stages and there-in effectively mitigated. Both environmental and social mitigation measures would be verifiable monitored during the various stages of the program cycle.

5. LEGAL AND INSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL MANAGEMENT

In this section the legal and institutional framework for environmental management in Mozambique is summarised, as well at international as at nation al level. In the context of the PIREP, the key elements of the framework are:

- The international conventions
- The National Environment Management Program
- The Environmental Law
- EIA Regulations
- The Land Policy
- The others natural resources law
- The role of District and Provincial Administrations and MTADR and regarding environmental management in urban areas

5.1. International Conventions

The Republic of Mozambique is a party to many international agreements on Biodiversity, Climate Change, Desertification, Endangered Species, Ozone layer protection, Marine Life, Conservation, etc. Examples are:

- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1989)
- Convention Concerning the Protection of the World Cultural and Natural Heritage, Paris (1972)
- Development, Production and Stockpiling of Bacteriological (Biological) and Toxic Weapons, and their Destruction, London (1972)
- Convention on Biological Diversity (1992)
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITE S) (1973)
- Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa, Bamako, Mali (1991)
- UN Convention to Combat Desertification in Countries Experiencing Serious Drought an /or Desertification particularly in Africa (1994)
- Lusaka Agreement on Co-operative Enforcement Operations Directed at illegal Trade in W ld Fauna and Flora (1994)
- Montreal Protocol on Substances that Deplete the Ozone Layer (1987)
- Phyto-sanitary Convention for Africa, Kinshasa (1967)
- UN Convention on the Law of the Sea (1982)
- UN Framework Convention on Climate Change (1992)
- Vienna Convention for the Protection of the Ozone Layer.

5.2. National Environmental Management Programme (NEMP)

The National Environmental Management Programme (NEMP), approved by the Council of Ministers in 1995, seeks to promote and implement sound environmental policy. The NEMP represents the culmination of a series of initiatives and activities coordinated by the Ministry of Land, Environment and Rural Development (MTADER). It is the master plan for the environment in Mozambique and contains a National Environment Policy, Framework Environmental Legislation and Environmental Strategy. The NEMP consists of Sectoral Plans, for the medium and long term, which is intended to lead to sustainable development in Mozambique. Three policy areas are defined: Rural; Coastal and Urban. The other environmental strategies existing
are:

- The National Strategy and action Plan on Biodiversity Conservation
- The National Strategy on Climate Change
- The National Action Plan to combat Desertification.

5.3. Social strategies

- **Action Plan for the reduction of absolute poverty (2001-2005) (PARPA)**
  The Action Plan for the Reduction of Absolute Poverty (PARPA) is the Government's Poverty Reduction Strategy Paper (PRSP). As such it provides the blueprint for economic and social development and reflects the commitments of both the Government and its external partners. It further identifies expansion of access and increased educational opportunity as the first of six priority areas of action, together with health, rural development, rural infrastructure, good governance, and careful macro economic and financial management.

- **The Education Sector Strategic Plan II**
  The ESSP II strategy is designed to support the three key objectives of the Government's overall economic and social development policy: (i) Reducing absolute poverty; (ii) Ensuring justice and gender equity; and (iii) Fighting the spread of HIV/AIDS and mitigating its impact. ESSP II supports PARPA through strategic interventions in the education system.

  As per strategy in **Technical and vocational education Training**, the ESSP II will provide a framework for starting to address some of the main problems identified above.

  In a *Letter of TVET Sector Policy* (LSP) signed in June 2005, the Government spells out in more detail its intention with respect to the intended TVET reform. Elements highlighted in the LSP are: (i) creation of a new labour-market oriented paradigm for TVET with special attention to the situation of women and the rural population; (ii) emphasis on the struggle against HIV/AIDS; (iii) introduction of occupational standards

and modularized curricula; (iv) establishment of an independent national system for evaluation and certification; (v) introduction of an accreditation system; (vi) establishment of a system for technical teacher training; and (vii) introduction of a decentralized system for TVET management. Furthermore, the Government has expressed its commitment to diversify the funding sources for TVET in order to maintain long-term sustainability.

5.4. National Environmental Legislation

At national level, there are various legal instruments approved in environmental field:

a. The fundamental law
The Mozambican Constitution mentioned that Government must promote initiatives in order to guarantee ecological equilibrium, conservation and preservation of environment, aiming a better quality of life for all citizens.

b. The National Environmental Management Programme (NEMP), which is the national environmental strategy document. The NEMP puts special emphasis on environmental management, pollutions and nuisances, and the necessity to have a safe well-being for populations. This recommending needs to be considered during the rehabilitation of training facilities.

c. Environmental laws

- **The environmental law n° 20/97, of October 1:** The environmental law was approved by the Parliament on October 1st, 1997. The objective of this law is to define some legal basis for a correct use and a viable management of environment and its components, in order to establish a system of sustainable development in Mozambique. This law forbids storing or disposing toxic pollutant products on the ground, the underground, on waters and in the atmosphere. It also recommends that the Government establish environmental quality standards in order to ensure the sustainable use of the Nation's resources. This law contains chapters about environmental pollution and environmental quality standards. It focuses on the necessity of realizing environmental impact assessment (EIA) for projects and programs having negative effects on environment or public health. In this field, the MTADR had elaborated directives for EIA, including the main component of the study and the approval procedure. In this respect, the environmental law is directly relevant to the PIREP activities.

- **The Land Law N°19/97 of 1 October 1997:** The law establishes the terms under which the creation, exercise, modification, transfer and termination of the right of land use and benefit operates. It mainly focuses on: ownership of the land and public domain; right of use and benefit of land; exercising of economic activities; powers and responsibilities; authorisation process of applications for land use and benefit.

d. EIA regulations

- **The decree n°45/2004 of September, 29, related on the process of IEA:** This decree focus on the following points: Categorization of projects et sub-projects (A, B, C); Competencies in EIA field; Process of EIA; Initial Assessment ; Criteria for Assessment ; Technical commission for assessment (members, functioning, etc.) ; Contains of Terms of references; Public participation process ; Modalities of assessment of EIA ; Environmental Agreement ; Procedures of consultation. This decree concerns directly the PIREP activities, particularly as regards the classification of activities and the carrying out of the EIAs. In the appendices of the decree governing EIAs dealing with the categorization of activities, there is a nominative list of areas and sectors of activities (for instance: infrastructures, forest exploitation, Agriculture; Industry; Energy; etc.) that have to be taken into consideration in Category A.

  As per projects related to category B, the decree appendix does not indicate any specific list or field of activities ; it only indicates that these activities do not affect significantly populations and environmental sensitive zones. These projects need only Simplified Environmental Assessment

  Concerning the category C, the decree precise that the environmental negative effects of such activities are minor, neglictable and do not require Environmental Impacts Assessment

e. EIE guidelines

- **The decree n°32/2003 of august, 12, concerning the Environmental Audit:** This decree defines the main component in the environmental auditing process, for existing infrastructures, equipments or activities such may have negative impact on the environment. This decree does not directly concern the PIREP activities.

- **Environmental quality standard:** Since 1997 activities have been developed for the elaboration of environmental quality standards. As a first step the Environmental Quality Standards of Mozambique Projects has been formulated in order to define and prepare adequate standard for the environmental situation in the country and to prepare required regulations. An environmental standard regulation has been prepared and discussed with a broad participation of representatives of relevant bodies. The PIREP programme is concerned with the compliance with standards in the field of building, rehabilitation and management of infrastructures and equipments.

f. The EIA procedure

The EIA process in Mozambique is presented in the decree n°45/2004 of September, 29, prepared by the MTADR. The EIA procedure involves the following:

- **Registering a project**: The proponent is required to register the project with the MTADR.

- **Screening**: The project is classified to determine the level at which the environmental assessment should be carried out. The screening is realised par the MTADR.

- **Conducting an EIA**: This involves the three main stages of the EIA process (scoping, preparing terms of reference and preparing an environmental impact statement). It is at this stage that the decision is made whether to conduct the EIA or not.

- **Reviewing the EIA**: A Technical Review Committee established by the MTADR reviews the EIA and decides whether the EIA is acceptable or not.

- **Issuing the relevant permits**: If the EIA is approved, the MTADR issues the necessary environmental permit that confirms the EIA has been satisfactorily completed and the project may proceed.

- **Decision-making**: A decision is made by MTADR as to whether a proposal is approved or not; a record of decision explains how environmental issues were taken into consideration.

- **Monitoring project implementation**: The proponent prepares and executes an appropriate monitoring program (i.e. an environmental management program).

- **Extent of Public participation**

  Public participation is required during the scoping stages and while fulfilling the terms of reference for the impact assessment of the EIA process. The proponent is responsible for identifying interested and affected parties and ensuring that all parties concerned are given adequate opportunity to participate in the process. A public information program is initiated, and public notices are issued during the scoping and EIA stages.

  Whenever a strong public concern over the proposed project is indicated and impacts are extensive and far-reaching, the MTADR services is required to organize a public hearing. The results of the public hearing should be taken into account when a decision is taken whether or not a permit is to be issued.

  According to Mozambican EIA Regulations, all development projects are subject to environmental screening. Prior to granting permission to proceed with a project, a proponent is obliged to complete a Pre-evaluation Form (*"Ficha de Pre-Avaliacao"*) that has been developed by the Minitry of Land, Environment and Rural Development(MTADR). The nature, type and location of the project is described in the environmental screening form with a preliminary indication of potential socio-economic and biophysical impacts (number of people/ communities affected, sensitive habitats, threatened species, etc). Based on the screening exercise MTADR makes a decision on whether an EIA is required or not. In the event of an EIA not being required the proponent is still obliged to describe methods and procedures for proper environmental management (storage of semi- hazardous materials, solid waste disposal, etc).

  Apart from the EIA content, the decree on EIA requires a public survey prior to the issuance of any authorization on the basis of the EIA and within a maximum timeframe of three months. The EIA conducted by the consultants at the request of the promoter is

submitted for approval to the departments of the Ministry of Land, Environmental and Rural Development
(MTADR), that looks after the procedure for the conduction of EIAs (approval of the TOR, approval of the studies, authorization given to consultants et and consultancy firms, etc.). According to the classification level of the project, the conduction of the procedure is monitored at national level (category A projects) by the environmental directorate of MTADR, or at provincial level (category B or C projects) by provincial departments of MTADR. Since the PIREP project falls within category B, only the MTADR provincial departments will be called upon, except for Maputo-City where this role is played by the central level.

g. National needs to improve the national environmental selection process

If the institutional responsibilities are clearly defined during the carrying out, elaboration, and approval of environmental assessments (between the MTADR departments, the project promoters, the consultants and the concerned populations), it remains that in the environmental legislation, some improvement will have to be brought regarding the classification of the activities and the screening of projects. This recommendation is taken into account in the screening process defined in the chapter 8 of this report.

5.5. Institutional framework

Ministry of Land, Environmental and Rural Development - MTADR

At central level

The Minitry of Land, Environment and Rural Development (MTADR) is responsible for implementing the National Environmental Management Programme and associated environmental policy and legislation. The Ministry has, primarily, a co-ordinating role. All ministries share environmental management and sector policies must incorporate environmental dimensions. The responsibilities of MTADR are: To revise and develop policies and sustainable, inter-sectoral development plans; Promote sectoral legislation; Co-ordinate policy implementation; Educate and promote public awareness; Create regulations. This ministry has elaborated National Environmental Action Programmes and specifics strategies on Biodiversity Conservation, Climate Change and Desertification.

MTADR is also responsible for regulating Environmental Impact Assessment (EIA) procedures in Mozambique. In this process, the National Direction of Environmental Impact Assessment is the mainly involved structure. As indicated above, all projects likely to have significant environmental impacts are obliged by the new Environmental Law to carry out an EIA prior to authorisation. Legislation stipulates that it is MTADR's role to coordinate, assess, control and evaluate the utilization of the natural resources of the country, and in doing so, to promote their preservation and rational use. It should also coordinate the activities in the area of environment, in order to ensure the integration of environmental variables in the process of planning and managing socio-economic development.

Due to its role as a coordinating ministry, MTADR's performance depends to a large extent on the degree to which it manages to co-operate with the other ministries and sectors because these sectors remain responsible for the integration of environmental matters in their own sectoral

programmes. This means that MTADR has to establish a working relationship with each of the sectors that are dealing with the environment.

In the environmental management of PIREP, the MTADR national department will be responsible for giving the final approval of environmental assessments and certifying the compliance of the proposed activities with Mozambique's EIA legislation, for EIAs that might have to be carried out for rehabilitation activities in Maputo-City.

At provincial level

MTADR has established Provincial Directorates in all the Provincial capitals. The level of organization and capacity varies from province to province. However, MTADR is not represented at the lower levels of government (i.e. district level) in any of the provinces. The provincial structure follows, but does not strictly adhere to, the structure at central level.

In the PIREP, the Technical Review Committees of the MTADR provincial Directorates will be responsible for reviewing the results of the environmental and social screening process, and, as necessary, the separate EIA reports, and the recommending approval/disapproval of these documents to the MTADR provincial Directorates.

Institutional and implementation arrangements of PIREP

Overall responsibility for the implementation of PIREP rests with the "*Comissão Nacional de Reforma de Educação Profissional* (**COREP**)" established by Government in June 2005. The Council is a high level tripartite stakeholder body to steer the overall TVET reform process with decision-making competencies. It delegates its day-to-day supervisory responsibilities to the **Executive Committee** comprised of high level technical cadres of the stakeholders. A **Technical Council** made of key sector experts including an representative of the cooperating donors has advisory function.

COREP is supported by a high level **Executive Secretariat**, in charge of the day-to-day implementation of PIREP. The Executive Secretariat of COREP will comprise four technical units: Qualifications & Training Programs Unit (Component B), Institutional Development & Capacity Building Unit (Component C), FUNDEC Unit (Component D), and Planning & Monitoring Unit. Furthermore, there will be units for Finance & Procurement as well as an HIV/AIDS and gender coordination desk.

The 12 institutions included in **COREP Council** are the following: Ministry of Education and Culture ; Ministry of Labor Ministry of Finances ; Ministry of Agriculture; Ministry of Plan and Development ; Ministry of Sciences and Technology; Private company (2); Labor Union (2); Ngos (2)

The **Executive Committee** comprised 6 members: DINET (MEC); INEFP (Ministry of Labor); Polytechnic coordination; Private sector; Union Labor; NGO

COREP will have the institutional responsibility for PIREP's environmental management. The Environmental Focal Point (EFP) will be responsible for supervising the implementation of the Social and Environmental Management Framework (ESMF). In order to fulfill this mandate, the

environmental capacities of the EFP and the MTADR Provincial Directorates will be strengthened.

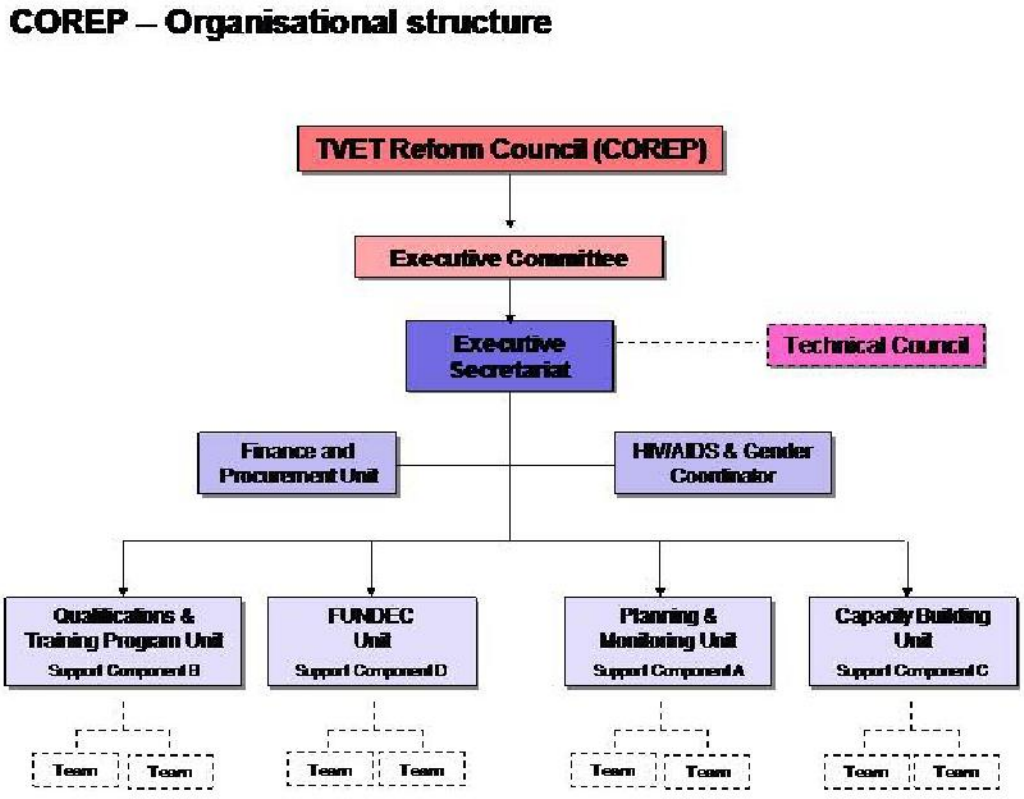
5.6. Decentralization - Local Government

Since the mid-nineties, Mozambique has embarked upon a gradual process of deconcentration and decentralization. Deconcentration is the process whereby administrative responsibilities are gradually transferred to second (provinces) and third (districts) tiers of central government. Decentralization started with the creation of 33 autonomous municipalities and is expected to expand, both in terms of numbers as well as fiscal independence. This double process increases the pressure on the local institutions and their human resources to perform better carry more responsibility and be increasingly accountable.

Decentralization will not affect environmental management, however the municipalities and decentralized other Local Communities will be involved in the screening process and implementation of operational activities. These communities will also participate in the supervision of the works that will take place in their area, particularly in urban areas; they can even help in the regulation of the works (regulating diversions).

Municipalities have Technical services which should be involved during the monitoring of mitigation measures, if their capacities are reinforced in environmental issues.

Table 3 Organizational structural of COREP



5.7. Institutional and legal constraints

Levels of Government

There are several levels (central, provincial and district/municipal) of decision-making involved in environmental protection, land allocation and resource management. Central (national) institutions comprise ministries with their respective national directorates based in Maputo. These agencies have the competence to formulate policies and strategies and to enforce and control their implementation. Other decision-making or consulting bodies include the Council of Ministers and the National Council for Sustainable Development, created under the Environmental Law (but not yet operational)

All central level ministries are represented at Provincial level. The provincial government (under a Provincial Governor) comprises a set of Directorates, representative of each Ministry, each with component "Services". Provincial directorates are in charge of the implementation of policies and strategies approved at central level. At the district level the administration falls under a District Administrator. Most sectoral line ministries are represented at this level but not all.

Policy development and implementation

Although the policy and legal framework for environmental management may be considered well advanced, the institutional capacity to implement policies, laws and regulations is weak especially at the lower levels of government. Institutional roles and competencies are not well defined resulting in gaps and overlaps in environmental management especially in coastal and marine management. In addition to weak institutional capacity within sectors there is lack of inter-institutional coordination between higher and lower levels of government. In parallel, the Government of Mozambique is promoting decentralization across sectors to provincial, district and municipal levels.

Local Government

Both horizontal (more municipalities need to be created) and vertical (mandating more authority to district administrations) processes require further legal interventions. Progress on deconcentration is closely linked to the long awaited approval of the new law on local state bodies. Several versions of this law have been prepared and discussed (internally, not publicly) over the past few years, but it has not yet found its way to the Parliament. It is anticipated that this law will foster a restructuring of provincial and district governments as well as clearly define competencies of the different levels of government responsibilities for the management of sector policies. Furthermore, there is a clear necessity to generalize procedures and working methods, as they both seem to vary from one district to the other. Without approval of the new law and uniformly applied procedures, it is very hard to develop an effective capacity building strategy.

6. OVERVIEW OF THE WORLD BANK'S SAFEGUARD POLICIES

The World Bank's ten safeguard policies are designed to help ensure that projects proposed for Bank financing are environmentally and socially sustainable, and thus improve decision making. These operational policies include: OP 4.01 Environmental Assessment; OP 4.04 Natural Habitats; OP 4.09 Pest Management ; OP 4.11 Cultural Heritage; OP 4.12 Involuntary Resettlement; OP 4.10 Indigenous People; OP 4.36 Forests; OP 4.37 Safety of Dams; OP 7.50 Projects on International Waterways ; OP 7.60 Projects in Disputed Areas. In addition, there is the Bank's Disclosure Policy BP 17.50 which requires that all safeguard documents are disclosed in the respective countries and at the Bank's Infoshop prior to appraisal. Of these operational policies, OP 4.01 is the "umbrella" policy as the environmental screening results will determine which of the afore-mentioned safeguard policies are likely to be triggered, in addition to OP 4.01. PIREP has triggered two of the World Bank's Safeguard Policies, namely, OP 4.01 Environmental Assessment and OP 4.12 Involuntary Resettlement. The remaining operational policies are not triggered by PIREP. Annex 6 summarizes these safeguards policies.

OP 4.01 Environmental Assessment: The objective of OP 4.01 is to ensure that projects financed by the Bank are environmentally and socially sustainable, and that the decision making process is improved through an appropriate analysis of the actions including their potential environmental impacts. Environmental assessment (EA) is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the proposed project. EA takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and cultural property); and transboundary and global environmental aspects. EA considers natural and social aspects in an integrated way. OP 4.01 is triggered if a project is likely to present some risks and potential adverse environmental impacts in its area of influence. Thus, in the case of PIREP, potential negative environmental and social impacts due to rehabilitation activities are likely to include soil erosion, soil and groundwater pollution, air pollution, loss of vegetation, public health impacts such as traffic hazards, noise, dust, and loss of livelihoods. The ESMF has been designed to address potential impacts at the planning stage of the rehabilitation activities.

OP 4.12 Involuntary Resettlement: The objective of this operational policy is to (i) avoid or minimize involuntary resettlement, where feasible and explore all viable alternative project designs; (ii) assist displaced persons in improving their former living standards, income earning capacity, and production levels, or at least 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. The policy does not only cover physical relocation, but any loss of land or other assets resulting in: (i) relocation or loss of shelter; (ii) loss of assets or access to assets; and (iii) loss of income sources or means of livelihood, 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 livelihoods of the displaced persons. In the event of land acquisition, PIREP will implement the provisions of the Resettlement Policy Framework (RPF) which has been prepared as a separate document.

7. OBJECTIVES OF THE ESMF AND METHODOLOGY USED

7.1. Objectives of the Environmental and Social Management Framework (ESMF)

The objective of this Environmental and Social Management Framework (ESMF) is to provide an environmental and social screening process to allow for the identification, assessment and mitigation of potential negative environmental and social impacts related to the rehabilitation of 10-11 existing teaching facilities and related water supply and sanitation systems. It has not been determined at this time which of these training centres and related facilities will be rehabilitated. The ESMF is intended to be used as a practical tool during project implementation. The ESMF describes the steps involved in identifying and mitigating the potential environmental and social impacts of future rehabilitation activities. It also provides guidance in cases where the screening results indicate that a separate Environmental Impact Assessment (EIA) is required. The ESMF will be applied by a qualified Environmental Focal Point (EFP) located in the Planning and Monitoring Unit of the Executive Secretariat of COREP. The EFP will coordinate his/her activities with the MTADR Provincial Directorates. To ensure that the screening process is carried out effectively, PIREP will provide support for environmental training, as required.

This ESMF has been prepared in recognition of the fact that Mozambique's regulation on EIA (defined by the law of December 1997 and the decree 45/2000 of September, 29) include a tool only for pre-assessment of sub project related on preliminary environmental information's of the development projects (*Ficha de Informacao Ambiental Preliminar - Annex 1*). The provisions of the national law on EIA are less comprehensive than those of the World Bank's OP.4.01 Environmental Assessment which calls for the environmental screening of all Bank-financed projects, and subsequently the assignment of an environmental category, ranging from category A (significant negative impacts); to category B (impacts less significant than those of category A project, and which can be mitigated effectively); to category C (no significant environmental impacts, and hence, no additional environmental work is required). In comparison, the assessment form of existing projects at the level of MTADR seem very brief and even incomplete in the procedure for the classification of projects likely to have adverse environmental impacts, but also in the conditions for the conduction of related environmental assessments.

To close this gap, an Environmental and Social Screening Form (ESSF, Annex 2) has been designed to assist in the evaluation of planned rehabilitation activities under PIREP. The form is designed to place information in the hands of implementers and reviewers so that impacts and their mitigation measures, if any, can be identified and/or that requirements for further environmental impact assessment be determined.

According to Mozambique Environmental law, specific investment activities require EIAs, whereas there are no clear EIA requirements for activities of a smaller scale, but which might have negative localized impacts that would require appropriate mitigation. This is the reason why the PIREP will use the environmental and social screening process outlined in the ESMF. This process will allow the PIREP to identify, assess and mitigate potential negative environmental and social impacts at the time they are planning rehabilitation activities, and, if necessary, carry out separate EIAs should the screening results indicate the need for such separate EIAs.

This is the reason why the PIREP will use the environmental and social screening process outlined in the ESMF. This process will allow the PIREP to identify, assess and mitigate potential negative environmental and social impacts at the time they are planning rehabilitation activities, and, if necessary, carry out separate EIAs should the screening results indicate the need for such separate EIAs.

The ESSF contains information that will allow reviewers to determine the characteristics of the prevailing local bio-physical and social environment with the aim to assess the potential impacts of the rehabilitation activities on this environment. The ESSF will also identify potential socio-economic impacts that will require mitigation measures and/or resettlement and compensation. As mentioned earlier, any resettlement and/or compensation measures will be implemented in accordance with the RPF, and will be completed before any rehabilitation activities can begin.

The ESMF includes an Environmental Management Plan (EMP) for PIREP, to facilitate its implementation. The EMP summarizes institutional arrangements for the implementation of mitigation measures, the monitoring of the implementation of mitigation measures, and capacity building needs as well as cost estimates and time horizons for such activities and monitoring indicators. The EMP will be included in the Project Implementation Manual.

The proposed screening process would be consistent with the Bank's safeguard policy OP 4.01 Environmental Assessment. This policy requires that all Bank-financed operations are screened for potential environmental and social impacts, and that the required environmental work be carried out on the basis of the screening results. Thus, the screening results may indicate that (i) no additional environmental work would be required; (ii) the application of simple mitigation measures by qualified staff would suffice; or, (iii) a separate environmental impact assessment (EIA) would be required.

Although the potential negative environmental and social impacts of the rehabilitation activities under Component C (3) above are expected to be generally minimal, potentially significant localized impacts may occur, thus requiring appropriate mitigation. Potential environmental impacts such as loss of vegetation, soil erosion, soil and groundwater pollution would be addressed in the context of this ESMF, while potential social impacts due to land acquisition such as loss of livelihoods or loss of access to economic assets would be addressed in the context of the Resettlement Policy Framework (RPF). The RPF has been prepared as a separate document and outlines the policies and procedures to be applied in the event of land acquisition under PIREP.

7.2. Methodology used to prepare the ESMF

The present ESMF was prepared based on existing general literature, among them: the Mozambican Education Policy Framework, Mozambican Environmental Impact Assessment Guidelines, and the World Bank's Safeguard Policies. Besides these documents, a lot of consultations with various stakeholders, including communities and the general public, were undertaken before writing the framework.

Our methodological approach was based on the systemic approach, in collaboration with all stakeholders and partners concerned by PIREP particularly the Ministries of Education, Labor, but also the Minitry of Land, Environment and Rural Development (MTADR) and some NGOs involved in the health sector. We conducted the study using participatory approach on the basis of consultation with different partners in order to allow for a common understanding of the problematic subject, to further discuss the advantages and drawbacks of the different activities of PIREP at environmental and social levels.

The study gave priority to participatory approach and this allowed progressively take into account the point of views and arguments of the different stakeholders. Our work plan was articulated around four major areas of intervention:

- Analysis of project documents and of other strategic planning documents at national and local levels (Project Appraisal Documents, Aide-memoires, Action plan for the reduction of absolute poverty, National Strategies on Environmental Management, National Law and Regulation on EIA and Environmental Management, Education Sector Strategic Plan II, etc.;

- Visits paid to some technical and vocational infrastructures (African Training Technology- Maputo; Commercial Institute of Maputo; Industrial Institute of Maputo);

- Meeting with institutional stakeholders mainly those concerned by the project: Executive Secretariat of PIREP; MTADR (National Direction of EIA and National Direction of Natural Resources Conservation); Direction of Roads; Ministry of Agriculture (National Direction of Rural Extension); Ministry of Health (National Direction of Environmental Health); Ministry of Education and Culture (National Direction of Education and Training-DINET); Ministry of Labour (National Institute of Education and Vocational Training - INEFP) ; Municipality of Maputo (Technical services); NGO "LIVANGO" (Environmental Advocacy Ngo;

- Analysis of environmental information and studies available in the field of environment and education and vocational training infrastructures.

The data collected were used to back the environmental study that will involve many components: initial analysis, impact identification, screening process for rehabilitation activities,, environmental and social management plan, including implementation mechanisms, training needs and monitoring-evaluation.

7.3. Summary of the outcome of the consultation process

All institutional stakeholders met have recognized the relevance of PIREP. The rehabilitation activities of infrastructures have been welcomed, particularly in the teaching facilities where the clean water supply system and water closets are broken down, lighting networks are defective, roofs are damaged roofs, etc… At the social and academic levels, the perspectives of drawing a larger number of students, of improving the curricula and strengthening the structures are also major satisfaction reasons.

8. THE ENVIRONMENTAL AND SOCIAL SCREENING PROCESS

8.1. The Environmental and Social Screening Process

The sections below illustrate the stages (steps 1-7) of the environmental and social screening process (the screening process) leading towards the review and approval of architectural plans for the rehabilitation of teaching facilities and related water supply and sanitation systems.

The purpose of this screening process is to determine which rehabilitation activities are likely to have negative environmental and social impacts; to determine appropriate mitigation measures for activities with adverse impacts; to incorporate mitigation measures into the architectural designs of the teaching facilities as appropriate; to review and approve the rehabilitation proposals; to monitor environmental parameters during the construction and rehabilitation of the teaching facilities, including the related water supply and sanitation systems.

The extent of environmental work that might be required prior to the commencement of the rehabilitation of the teaching facilities and related water supply and sanitation systems will depend on the outcome of the screening process described below.

8.2. The screening steps

The process of screening can be broken down into the following steps:

Step 1: Screening of Teaching Facilities and Sites

Before visiting the teaching facilities to be rehabilitated, a desk appraisal of the rehabilitation plans and activities, including structural designs, will be carried out by the Environmental Focal Point of the Planning & Monitoring Unit of the Executive Secretariat of COREP, located in Executive Committee of TVET Reform Council.

Subsequently, the initial screening in the field will be carried out by the Environmental Focal Point (EFP) located in Planning & Monitoring Unit of the Executive Secretariat of COREP. The EFP will complete the Environmental and Social Screening Form (Annex 2). Completion of this screening form will facilitate the identification of potential environmental and social impacts, determination of their significance, assignment of the appropriate environmental category, proposal of appropriate environmental mitigation measures, and conduct of an Environmental Impact Assessment (EIA), if necessary.

To ensure that the screening form is completed correctly in the various project locations, environmental and social training will be provided to the EFP appointed in the of the Planning

and Monitoring unit of the Executive Secretariat of COREP. The EFP will travel to the locations at the time the rehabilitation activities are planned.

Step 2: Assigning the appropriate Environmental Categories

The assignment of the appropriate environmental category to a particular rehabilitation activity will be based on the information provided in the environmental and social screening form (Annex2). The EFP will be responsible for categorizing a rehabilitation activity either as A, B, or C.

- Category A: activities requiring an environmental impact assessment
- Category B: activities requiring an environmental impact statement or the implementation of simple mitigation measures
- Category C: activities neither requiring either an environmental impact statement nor an environmental impact assessment.

The assignment of the appropriate environmental category will be based on the provisions in OP 4.01 Environmental Assessment. Consistent with this operational policy, most rehabilitation activities under PIREP are likely to be categorized as B, meaning that their potential adverse environmental impacts on human populations or environmentally important areas - including wetlands, forests, grasslands, and other natural habitats - are site-specific, few if any of the impacts are irreversible, and can be mitigated readily.

Some rehabilitation activities such as the water proofing of leaky roofs or painting of classrooms might be categorized as "C" if the environmental and social screening results indicate that such activities will have no significant environmental and social impacts and therefore do not require additional environmental work. Thus, if the screening form has ONLY "No" entries, the proposed activity will not require further environmental work, and EFP will recommend approval of this proposal and implementation can proceed immediately.

Since the PIREP has been classified as a category B project, it will not fund any rehabilitation or construction activities that have been assigned the environmental category A based on the environmental and social screening results.

In the context of PIREP activities, the PIREP Environmental Focal Point (an agent of the COREP Executive Secretariat/ Planning & Monitoring Unit) will have to fill the environmental and social screening forms of the activities, propose an environmental classification of the planned rehabilitation activities and send the results to the MTADR Provincial Directorates Managers for approval.

Step 3: Carrying out Environmental Work

After analyzing the data contained in the environmental and social screening form and after having identified the right environmental category and thus the scope of the environmental work required, the EFP will make a recommendation to establish whether: (a) no environmental work will be required; (b) the implementation of simple mitigation measures will be enough; or (c) a separate environmental impact assessment EIA will be carried out.

According to the results of the screening process, the following environmental work can be carried out:

(a) Use of the environmental and social check list (Annex 3): The environmental and social check list will be filled by the Environmental Focal Point (EFP) of the project. This activity will be handled in parallel to the preparation of the plans and sketches of the rehabilitation of the teaching facilities and related water supply and sanitation systems. Activities categorized as simple category B activities might benefit from the application of simple mitigation measures outlined in this checklist. In situations where the screening process identifies the need for land acquisition, qualified service providers would prepare a Resettlement Action Plan/Compensation Plan, consistent with OP 4.12.

(b) Carrying out Environmental impact assessment (EIA - Annex 8): In some cases, the results of the environmental and social screening process may indicate that the activities scheduled are more complex and they consequently require conducting a separate EIA; draft EIA terms of reference have been provided in Annex 8 of this ESMF. The EIA will be conducted by the consultancy firms authorized/agreed by the EFP in coordination with MTADR. These consultancy firms will be recruited by the EFP, Executive Secretariat of COREP, under the supervision of it's coordinator and after announcement made of the consultation position in the local newspapers.

In selecting consultants and organizing authorization procedures, the roles of the Project Coordination Unit and the EFP of Executive Secretariat of PIREP will be as follow:

- The EFP of COREP will (i) draft EIA terms of reference (Annex 8 of the ESMF provides a sample - to be adapted as necessary); (ii) prepare criteria analysis and analyse proposed candidates after the consultation position has been announced, with assistance from the Provincial Directorates of MTADR, if necessary. He will focus on consultants acceptable to MTADR; (iii) select the most qualified consultant and submit the name to the coordinator of the Project Coordination Unit (Executive Secretariat of COREP) for approval; (iv) lead the public consultations in accordance with the terms of reference; and (v) lead the EIA/ESMP authorization procedure by the MTADR departments.

- The Project Coordination Unit (Executive Secretariat of COREP) will approve the selection of consultant prepared by the EFP and design agreement to conduct the required EIA.

The EIA will identify and assess the potential environmental impacts for the planned rehabilitation activities, assess the alternatives solutions and will design the mitigation, management and monitoring measures to be proposed. These measures will be quoted in the Environmental and Social Management Plan (ESMP) that will be prepared as part of the EIA for each activity. The preparation of the EIA and the ESMP will be done in collaboration with the concerned parties, including the people likely to be affected.

The EIA will follow the national procedure established in the framework of the Environmental Framework Law and the decree regulating EIAs and will be consistent with OP 4.01. Draft EIA terms of reference have been provided in Annex 8 of the ESMF, to be adapted as necessary.

Step 4: Review and Approval

Review: At the provincial level, the Technical Review Committee established by the MTADR Provincial Directorate, will review the environmental and social screening forms as well as the EIA reports, and will make recommendations as to whether the results of the screening process or the EIA reports are acceptable or not. Thus, this structure at the provincial level will review (i) the results and recommendations presented in the environmental and social screening forms; (ii) the proposed mitigation measures presented in the environmental and social checklists; and (iii) as appropriate, the results of EIAs to ensure that all environmental and social impacts have been identified and effective mitigation measures have been proposed for PIREP's activities.

Recommendation for Approval/Disapproval: Based on the results of the above review process, the Provincial Technical Review Committee will make recommendations to the provincial level of MTADR for approval/disapproval of the review results and proposed mitigation measures.

Approval/Disapproval: The screening results and EIA reports will have to be approved/disapproved by the Provincial MTADR Directorates. If the EIA is approved, the MTADR issues the necessary environmental permit that confirms the EIA has been satisfactorily completed and the project may proceed. A decision is made and a record of decision explains how environmental issues were taken into consideration. Upon approval of the recommendations of the environmental and social screening process, MTADR's Provincial Directorates will inform the EFP, and subsequently, rehabilitation activities can proceed.

Stage 5: Public consultations and disclosure:

Public consultations will also take place during the screening process, and the results will be communicated to the public by the EFP. According to the decree governing the EIA, public information and participation must be ensured during the scoping period and the preparation of the Environmental Impact Assessment, in collaboration with the competent bodies of the administrative constituency and the concerned commune. Public information includes particularly:

- One or several meetings for the presentation of the project gathering local authorities, the populations, the concerned organizations;

- The opening of a register available to all the populations where are kept the appreciations, remarks and suggestions formulated on the project.

A public information program is initiated, and public notices are issued during the scoping and EIA stages. Whenever a strong public concern over the proposed project is indicated and impacts

are extensive and far-reaching, the PIREP is required to organize a public hearing. The results of the public hearing should be taken into account when a decision is taken whether or not a permit is to be issued.

These consultations should allow for the identification of the main issues and determine how the concerns of all parties will be tackled in the terms of reference for the EIA. The results of the consultations will be included in the EIA report and made available to the public by PIREP, through its EFP.

In the framework of the PIREP, the consultation process will be done in two phases: (i) during the screening and classification of project activities and (ii) during the analysis of environmental and social impacts. Upon receipt of the EIA report, the MTADR Provincial Directorates will also send a copy to the concerned Local Communities in order to get their remarks and comments. The MTADR Provincial Directorates, in collaboration with the PIREP Executive Secretary - through the EFP -, will involve all relevant stakeholders in the project's public information process; these stakeholders would include: State technical departments, municipal technical departments, NGOs, local associations, etc.

Stage 6: Environmental monitoring and follow up:
Environmental monitoring aims at checking the effectiveness and relevance of the implementation of the proposed mitigation measures.

In coordination with the Project Coordination Unit, monitoring will be done at local levels, by Technical services of municipalities where training facilities should be rehabilitated. However, the capacities of these technical services need to be reinforced in environmental monitoring.

Stage 7: Monitoring indicators:

In order to assess the efficiency of PIREP's rehabilitation activities, we propose to use the below monitoring indicators:

Environmental indicators

- Maintenance of improved sanitation systems at the teaching facilities
- Water quality at the teaching facilities meets local standards
- Compliance with the Environmental Guidelines for Contractors
- Safe disposal of asbestos

Social indicators

- Number of people provided with environmental training to implement the ESMF
- The number of local workers used during of the works

These monitoring indicators will be included in the PIREP Project Monitoring Manual.

8.3. Responsibilities for the implementation of the screening process

The below mentioned table give a summary of the stages and institutional responsibilities for the screening, preparation, assessment, approval and implementation of the rehabilitation activities.

Stages	**Responsibilities**
1. Screening of teaching facilities and related water supply and sanitation systems at each of the sites of these facilities, using the Environmental and Social Screening Form (Annex 2)	Environmental Focal Point located in the Planning and Monitoring Unit of the Executive Secretariat of COREP
2. Assigning the appropriate Environmental Categories (A, B, or C)	Environmental Focal Point located in the Planning and Monitoring Unit of the Executive Secretariat of COREP
3. Carrying out Environmental Work, i.e. implementing simple mitigation measures (Annex 3), or, carrying out a separate EIA (Annex 8)	Environmental Focal Point located in the Planning and Monitoring Unit of the Executive Secretariat of COREP will make appropriate recommendations to the MTADR Provincial Directorates as to the necessary environmental work
4. Review and Approval	
4.1 Approval of (i) the screening results ; (ii) the assigned environmental category; and (iii) recommendations of the Environmental Focal Point (COREP)	MTADR Provincial Directorates
4.2 Selection of the consultant in case of the need for a separate EIA	• The EFP of COREP will (i) draft EIA terms of reference; (ii) prepare criteria analysis and analyse proposed candidatures; (iii) select the most qualified consultant and submit the name to the coordinator of the Project Coordination Unit for approval; (iv) lead the public consultations; and (v) lead the EIA/ESMP authorization procedure by the MTADR departments. • The Project Coordination Unit will approve the selection of consultant prepared by the EFP and design agreement to conduct the required EIA.
4.3 Carrying out the Environmental Impact Assessment (EIA)	Authorized Consultants
4.4 Approval of environmental assessment	MTADR Provincial Directorates.

5. Public consultations and disclosure	Environmental Focal Point located in the Planning and Monitoring Unit of the Executive Secretariat of COREP will ensure that the results of (i) the environmental and social screening process; and (ii) the separate EIA report are made accessible to all relevant stakeholders, including potentially affected persons.
6. Monitoring	Technical services of municipalities where training facilities are rehabilitated
7. Environmental and Social Indicators	• Environmental Focal Point located in the Planning and Monitoring Unit of the Executive Secretary of COREP will ensure that the environmental and social monitoring indicators listed in the ESMF are included in PIREP's monitoring program and followed regularly • Technical services of municipalities ensure the monitoring

9. ENVIRONMENTAL MANAGEMENT PLAN (EMP)

9.1. Environmental management for the implementation of activities

An Environmental Management Plan (EMP) for PIREP is intended to ensure efficient environmental management of the Project. Thus, the EMP lists (a) the relevant project activities; (b) the potential negative environmental and social impacts; (c) the proposed mitigation measures; (d) those who will be responsible for implementing the mitigation measures; (e) those who will monitor the implementation of the mitigation measures; (f) the frequency of the afore-mentioned measures; (g) capacity building needs; and (h) the cost estimates for these activities. The EMP will be included in PIREP's Project Implementation Manual, and the costs for implementing the EMP will be included in PIREP's Project Costs. A summary table of the EMP is provided in Annex 7.

9.2. Institutions responsible for implementing and monitoring the mitigation measures

Roles and responsibilities regarding environmental planning and approval for rehabilitation activities are outlined and summarized below.

The main institutions with key roles and responsibilities for environmental and social management are:

National coordination/supervision

- The Environmental Focal Point located in the Executive Secretariat of COREP will be responsible for completing the environmental and social screening lists (Annex 2); the environmental and social checklists (Annex 3); and determining the environmental category of the screened activity to be able to identify and mitigate the potential environmental and social impacts of construction and rehabilitation activities. As required, he/she will receive environmental training to be able to carry out this task.
-
- The Environmental Focal Point will ensure the supervision (overseeing) of the implementation of mitigation measures which will be executed by private contractors

Execution/implementation

- Individual consultants or consultancy firm will be responsible for (a) carrying out the EIA studies, and (b) drafting the environmental section of a manual for the maintenance of teaching facilities and related water supply and sanitation systems..

- The contractors are responsible for the implementation of the mitigation measures as indicated in the Environmental Guidelines for Contractors (Annex 5), including the borrow pits rehabilitation for material construction.

Monitoring

- The Technical services of municipalities (where training facilities will be rehabilitated) will be responsible for monitoring of the implementation of the mitigation measures.

9. 3. Capacity building for the environmental and social management of the project

(a) Training needs

Environmental capacity will be needed for technical personnel who are involved with the civil works program of PIREP (the technical units of Executive Secretariat of COREP, including the Plan and Monitoring Unit, Technical Services of Municipalities, and Provincial Directorate of MICAO if necessary).

To ensure that screening and PIREP activities are carried out in a manner that is environmentally and socially sound, it has been suggested to appoint an Environmental Focal Point (EFP) within the Plan & Monitoring Unit of the Executive Secretariat of COREP. To do his job, particularly in (i) completing the screening forms; completing the environmental and social checklists; developing the terms of References for EIA to realize; recruitment of consultants ; (ii) and submitting the screening results and the EIA to the approval of MTADR, the Focal Point will be trained in environmental and social assessment and on EIA procedures and the implementation of the ESMF to allow them play the role of environmental and social experts during the implementation of PIREP activities. The environmental focal point will be responsible at the level of PIREP for coordination and supervision (overseeing) of the implementation of the ESMF. For this, the EFP should visit all the facilities to be rehabilitated, only one time, at the beginning of the works, in order to complete the screening forms. This expert will take advantage of the support and permanent assistance of the MTADR environmental department services at the provincial levels.

In coordination with the Project Coordination Unit, the day-by-day monitoring activities will be done by the Technical services of municipalities where training facilities are rehabilitated, to follow-up environmental and social indicators and the implementation of corrective measures if necessary.

Capacity for environmental management and monitoring will be required at the national, provincial and municipal level for:

- The EFP of Executive Secretariat of COREP to strengthen his/her capacity to apply the screening process as outlined in the ESMF;

- Selected members of the Technical services of municipalities, to reinforce their capacities in environmental monitoring;

- As necessary, members of Provincial Directorates of MTADR, to enable them to assist the EFP of the Executive Secretariat and Executive Committee of COREP in the implementation of the screening process as outlined in the ESMF, including the review and approval of EIAs for projects of category B (see Annex II and III of the decree related to EIA and OP 4.01 Environmental Assessment) as well as the environmental and social screening results of the ESMF.

The Environmental Focal Point within the Executive Secretariat will conduct the below activities:

- Screening of the teaching facilities and related water supply and sanitation systems at each of the sites of these facilities, using the Environmental and Social Screening Form
- Completion of the Environmental and Social Screening Form (Annex 2) and submission for approval to the MTADR Provincial services
- Carrying out Environmental Work, i.e. recommending simple mitigation measures (Annex 3), or, arranging for the preparation of a separate EIA (Annex 8)
- Preparation of the draft TORs for the PIREP activities requiring a separate EIA;
- Submission of the TORs to MTADR departments for approval;
- Recruitment of qualified consultancy firms to conduct the EIAs if necessary; • Sending the EIA reports to the appropriate institutions accessible to the public;

Concerning the environmental management of PIREP activities, the specific needs in the field of environmental capacity building are the following ones by category of stakeholders.

Concerned stakeholders	**Topic of the training**
PIREP Executive Secretariat (Environmental focal Point of the Planning and Monitoring Unit and other agents)	Training in the field of: - Environmental assessment (screening and classification of sub-projects; EIA procedures, etc.) - Impacts identification. - Draft terms of reference for environmental assessments and selection of consultants. - Selection of simplified mitigation measures in the checklists - Hygiene and quality standards including HIV/AIDS aspects - Mozambique's national environmental policies, procedures, and legislation
Technical services of - municipalities	Monitoring the implementation of measures and environmental indicators. - Hygiene and quality standards including HIV/AIDS aspects
Provincial Directorates of - MTADR	EIA procedures - World bank Safeguards Policies

The following environmental training would be necessary to ensure that PIREP activities will be implemented in an environmentally and socially sustainable manner:

Environmental and Social Management process

- Review of Environmental and Social Management Process.
- Assignment of environmental categories
- Use of Screening form and Checklist
- Preparation of terms of reference for carrying out EA • Design of appropriate mitigation measures.
- How to review and approve EA reports
- The importance of public consultations in the ESMF process.

- How to monitor project implementation and mitigation measures.
- How to embed the Environmental and Social Management process into the works.

Environmental and Social policies, procedures and guidelines

- Review and discussion of Mozambique's national environmental policies, procedures, and legislation.
- Review and discussion of the Bank's safeguards policies.
- Strategies for consultation, participation and social inclusion
- Collaboration with institutions and stakeholders at all levels (local, provincial, national)

Selected topics on environmental protection

- Hygiene and security during the works
- Maintenance of school and training infrastructures
- Safe disposal of asbestos

In Mozambique, there is number of consultant firms specialized in EIA issues. These independent consultants or firms could be contracted to design short courses that are tailored to environmental conditions and problems specific to the scope of work conceptualized for each of the four provinces.

Training Cost Estimates

The Training program is to be implemented by the Secretariat Executive of COREP in collaboration with MTADR services. The costs estimates, including travel expenses, and training modalities will be prepared by the EFP of PIREP (with the support of MTADR services). Qualified trainers will be recruited by PIREP (there are national firms specialized in EIA, which could carry out these training courses). For planning purpose, a national workshop (for 5 days), including the technicians from Executive Secretariat of COREP and the Executive Committee of COREP (EFP of PIREP and other technical agents); Technical services of municipalities (about 10 agents) and if necessary, the Provincial Directors of MTADR (about 10 agents), should be organized during the implementation of the project, for a total cost of 20 000 US$.

(b) Other capacity building activities

The others capacity building activities scheduled for the implementation of the ESMF will concern:

- **Provision for EIA:** EIAs could be required for PIREP activities relating to the building/restoration of schools to ensure they are environmentally and socially sound. For planning purposes of the pilot phase, 10 -11 schools are targeted. So, the project should contract with one national consultant to carry out one global EIA for the all training facilities requiring an EIA. In this order, the cost could be estimated at 10 000 US$.

- **Drafting the environmental section of a manual for the maintenance of schools and training infrastructures:** The technical document will help ensure better monitoring of the infrastructures built of restored, in order to guarantee the sustainability of the project. This manual will be prepared by national Consultants, and this support is estimated at 5 000 US$.

This manual refers to all aspects of building maintenance, including the environmental aspects; its will be included in the PIREP Project Manual.

Thus the total cost for capacity building is estimated at 35 000 US

Monitoring Plan - Monitoring indicators

The objective for monitoring is two fold: (i) to alert project authorities and to provide timely information about the effectiveness of the Environmental and Social Management process outlined in the ESMF in such a manner that changes can be made as required to ensure continuous improvement to the process; (ii) to make a final evaluation in order to determine whether the mitigation measures designed into the training facilities rehabilitation activities have been successful in such a way that the pre- program environmental and social condition have been restored, improved upon or worst than before and to determine what further mitigation measures may be required.

Potential Social and Environmental Negative Impacts	**Mitigation Measures**	**Monitoring Measures**	**Phase/Stage**	**Responsibility**
• Soil degradation uncontrolled storage of product or materials for building • Unsafe disposal of asbestos • Dust, emissions, noise/vibration • Accidents • Perturbation of education and training session • Toilets becoming dirty • Septic tanks overflowing and creating health risk • Risk of outbreak of social conflicts (non-use of local resident for employment) • Spread of HIV/AIDS	Fully implement the ESMF, use screening form and checklist in Annex 3 and 4), efficiency use, environmental restoration, regular and suitable maintenance of Infrastructure/equipment/plant, etc.	Periodic monitoring and evaluation of verifiable indicators for all impacts identified in the sub project ESMP and examples of which are contained in this section above	On going throughout the life of the project	The Technical; Services of Municipalities (where training facilities will be rehabilitated); in coordination with the Project Coordination Unit

A number of indicators would be used in order to determine the status of affected environment. Therefore, the projects Environmental and Social Management process will set two major socio-economic goals by which to evaluate its success: (i) Has the pre -project environmental state human and natural environment been maintained or improved upon at training facilities sites, and (ii) the effectiveness of the ESMF technical assistance, review, approval and monitoring process. In order to assess whether these goals are met, the project (EFP of Secretariat Executive of COREP) will indicate parameters to be monitored and provide necessary supply for technical services of municipalities to carry out the monitoring activities. The following are some pertinent parameters and verifiable indicators to be used to measure the ESMF process, mitigation plans and performance:

- Environmental indicators: Maintenance of improved sanitation systems at the teaching facilities; Water quality at the teaching facilities meets local standards; Compliance with the Environmental Guidelines for Contractors; Safe disposal of asbestos
- Social indicators: Number of people provided with environmental training to implement the ESMF; The number of local workers used during of the works

These monitoring indicators will be included in the PIREP Project Monitoring Manual.

10. RECOMMENDATIONS

The PIREP is a programme that contributes to the improvement process of the education system, particularly the technical and vocational education. In this respect, it is a social programme, and its beneficial aspects take over compared to adverse effects. According to the Word Bank operational policies, PIREP has been classified as a category B project because the environmental adverse effects generated by the PIREP are low. However, the rehabilitation activities of the teaching infrastructures and related water supply and sanitation systems can have moderate adverse impacts, particularly in terms of public and private space occupation, disturbance and nuisances and waste generation during the works. This ESMF takes account of these environmental and social requirements. The aspects relating to the displacement and resettlement of the populations are tackled in a separate document, namely the Resettlement Policy Framework (RPF).

For a better inclusion of the environmental and social requirements in the preparation and implementation of the PIREP activities, the following recommendations that are necessary before the identification of the sites intended to receive the PIREP programmes: (i) identify good environmental practice measures (environmental and social clauses) to be included in the terms of references of construction and/or renovation works to be achieved; (ii) Organize frequent environmental supervision (overseeing) missions of the PIREP project and ensure that the mitigation measures of the PIREP project recommended by the EIA are complied with. During the project implementation, evaluation missions will include environmental experts (Environment Focal Point of Executive Secretariat of COREP and municipal technical services) who will produce a report on the implementation of the environmental and social management plan.

More specifically, the project will have to focus on the following recommendations:

- Nomination of an environmental focal point at the level of the Planning and Monitoring Unit of the Executive Secretariat of COREP.
- Recruitment of national consultants for the drafting of the environmental section of the maintenance manual. (The EFP will prepare of terms of reference and propose the most qualified consultant to the approval of the Coordinator of the Project Coordination Unit of COREP).
- Organization of meetings with the MTADR's national and provincial departments but also with municipal technical services in the areas concerned by the works in order to provide some information on the project and define with them the collaboration conditions in the framework of the implementation monitoring.

- Require national expertise in EIA (specialized firms in EIA such as IMPACTO, etc.) in environmental training sessions.

In addition, the following recommendations need to be followed:

The Proponent
The proponent should undertake to manage operations in a manner that protects the environment and the health and safety of employees, customers, contractors and the public. To this effect, he:

- has overall responsibility for ensuring that the EMPs for the rehabilitation activities are prepared and implemented, and that they comply with all legislative and contractual requirements
- Ensures that non-conformities are corrected.
- Ensures that subcontractors fulfil their environmental obligations.
- Ensure that the RPF is being implemented, as required, by qualified personnel.
- Advises managers, supervisors and employees of safety, health and environmental requirements, and holds them accountable for their performance;
- Monitors, evaluates and reports on performance in safety, health and environmental protection;
- Provides training when needed on topics pertaining to environmental protection;
- Informs personnel that failure to report incidents and wilful non-compliance will result in disciplinary action in accordance with internal disciplinary guidelines.

In addition, the Coordinator of the Project Coordination Unit (Executive Secretary of COREP) recruit EIA Consultants and contractors.

The contractor should:
- Comply with the environmental guidelines described in Annex 5
- Comply with all of the requirements of the EA and EMP and shall, in accordance with accepted standards, employ techniques, practices and methods of construction that will ensure compliance with this standard and, in general, minimise environmental damage, control waste, avoid pollution, prevent loss or damage to natural resources, and minimise effects on surrounding landowners, occupants and the general public.
- Such agreed remedial measures shall be undertaken immediately to prevent further damage and to repair any damage that may have occurred.
- Organise labour, plant, transport and equipment to perform the work in accordance with the environmental requirements.
- Ensure the project is implemented in accordance with the environmental standards specified in the EMP.
- Implement agreed actions resulting from routine monitoring, or inspections.
- In addition the contractor shall implement their own audits to ensure conformance with the requirements of the EMP.

Members of the Technical Services of the relevant municipalities will monitor the compliance with these guidelines, in coordination with the Project Coordination Unit.

11. ANNEXES

11.1. Annex 1 : Pre-Assessment Form of MTADR ("Ficha De Pre-Avaliacao")

Environmental information's for Development Project

1 Name of project:
2 Type of activities:
a) Tourism : ---------- b)
Industrial : ----------
c) Agricultural: ----------
d) Other : ----------
specify: ----------

3 Identification of components: : ----------

4 Contact: ----------

5 Location of activities:
- 5.1 Administrative Localization (town, city, district, province, geographical position)
- 5.2 Insertion: (Urban - Rural)

6 Zoning:
- Residential : ----------
- Industrial : ---------- •

Services : ----------
- Parks/gardens: ----------

7 Description of activities
- 7.1 Infrastructures and dimensions (attach map, etc.) : ----------
- 7.2 Associated activities:----------
- 7.3 Short description of technology operation:----------
- 7.4 Principal and complementary activities:---------- •

7.5 Type, origin and number of workers: ---------- • 7.6
Type, origin and quantity of primary material: ---------- • 7.7
Chemical product proposed of use ---------- • 7.8
Type, origin and quantity of water and energy resource: ----------
- 7.9 Type, origin and quantity of combustibles and oils proposed to use: primary material: ----------

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- 7.10 Other necessary resources : ----------

8 Land ownership (legal situation, owners, modality of acquiring, etc.) : ----------

9 Alternatives for location of activities: ----------

(implementation justification, etc.)

10 Short information on local and regional environmental references:

10.1 Physical Characteristics for implementation of activities:

- Plains
- Plateau • Valley
- Mountains

10.2 Principal Ecosystrems :

- River
- Lake
- Sea
- Land

10.3 Location/zone:

- Coastal Zone
- Continental Zone
- Island

10.4 Type of principal vegetation:

- Flora
- Savana
- Others (specify)

10.5 Land use:

- Residential
- Industrial
- Protected area
- Others (specify)

10.6 Principal existing infrastructures in the protect area: ----------

11 Complementary Information:

- Location map
- Other information related to the project activities.

11.2. Annex 2: Environmental and Social Screening Form (ESSF) proposed

The MTADR screening form seems incomplete and doesn't permit to appreciate the adverse effects of projects activities. To complete this gap, the precise Environmental and Social Screening Form has been designed to assist in the evaluation of planned construction and rehabilitation activities under PIREP, The form is designed to place information in the hands of implementers and reviewers so that impacts and their mitigation measures, if any, can be identified and/or that requirements for further environmental impact assessment be determined.

The ESSF contains information that will allow reviewers to determine the characterization of the prevailing local bio-physical and social environment with the aim to assess the potential impacts of construction and rehabilitation activities on this environment. The ESSF will also identify potential socio-economic impacts that will require mitigation measures and/or resettlement and compensation.

Name of sub-project……..
Sector……
Name of the region/community in which the construction and rehabilitation of training facilities is to take place ……
Name of Executing Agent……
Name of the Approving Authority ……
Name, job title, and contact details of the person responsible for filling out this ESSF:

Name: ----------
Job title: ----------
Telephone numbers: ----------
Fax Number: ----------
E-mail address: ----------
Date: ----------
Signature: ----------

PART A: BRIEF DESCRIPTION OF THE PROPOSED ACTIVITIES

Please provide information on the type and scale of the construction/rehabilitation activity (area, required land, approximate size of total building floor area).

Provide information about actions needed during the construction of facilities including support/ancillary structures and activities required to build them, e.g. need to quarry or excavate borrow materials, laying pipes/lines to connect to energy or water source, access road etc.

Describe how the construction/rehabilitation activities will be carried out, including support/activities and resources required to operate it e.g. roads, disposal site, water supply, energy requirement, human resource etc.

PART B: BRIEF DESCRIPTION OF THE ENVIRONMENTAL SITUATION AND IDENTIFICATION OF ENVIRONMENTAL AND SOCIAL IMPACTS

Describe the education facility's location, sitting; surroundings (include a map, even a sketch map)

_____

Describe the land formation, topography, vegetation in/adjacent to the training facility's area

_____
_____

Estimate and indicate where vegetation might need to be cleared.

_____
_____

Environmentally sensitive areas or threatened species

Are there any environmentally sensitive areas or threatened species (specify below) that could be adversely affected by the project?

(i) Intact natural forests: Yes _____No _____
(ii) Revering Forest: Yes _____ No _____
(iii) Surface water courses, natural springs Yes _____ No _____
(iv) Wetlands (lakes, rivers, swamp, seasonally inundated areas) Yes _____No _____

(v) How far is the nearest wetland (lakes, rivers, seasonally inundated areas)? _____ km.
(vi) Area of high biodiversity: Yes _____ No _____
(vii) Habitats of endangered/threatened or rare species for which protection is required under the Malawian national law/local law and/or international agreements. Yes _____ No _____
(viii) Others (describe). Yes _____ No _____

Rivers and Lakes Ecology

Is there a possibility that, due to construction and operation of the training facility, the river and lake ecology will be adversely affected? Attention should be paid to water quality and quantity; the nature, productivity and use of aquatic habitats, and variations of these over time.

Yes _____ No _____

Protected areas

Is the education facility (or parts of the facility) located within/adjacent to any protected areas designated by the government (national park, national reserve, world heritage site etc.).

Yes _____ No _____

If the training facility is outside of, but close to, any protected area, is it likely to adversely affect the ecology within the protected area areas (e.g. interference with the migration routes of mammals or birds).

Yes _____ No _____

Geology and Soils

Based upon visual inspection or available literature, are there areas of possible geologic or soil instability (prone to: soil erosion, landslide, subsidence, earthquake etc)?

Yes _____ No _____

Based upon visual inspection or available literature, are there areas that have risks of large scale increase in soil salinity?

Yes _____ No _____

Based upon visual inspection or available literature, are there areas prone to floods, poorly drained, low-lying, or in a depression or block run-off water

Yes _____ No _____

Contamination and Pollution Hazards

Is there a possibility that the education facility will be a source of contamination and pollution (from latrines, dumpsites, industrial discharges etc)

Yes _____ No _____

Landscape/aesthetics

Is there a possibility that the education facility will adversely affect the aesthetic attractiveness of the local landscape?

Yes _____ No _____

Historical, archaeological or cultural heritage site.

Based on available sources, consultation with local authorities, local knowledge and/or observations, could the education facility alter any historical, archaeological, cultural heritage traditional (sacred, ritual area) site or require excavation near same?

Yes _____ No _____

Resettlement and/or Land Acquisition

Will involuntary resettlement, land acquisition, relocation of property, or loss, denial or restriction of access to land and other economic resources be a result of the construction/ rehabilitation of training facilities?

Yes _____ No _____

If "Yes" OP 4.12 Involuntary Resettlement is triggered. Please refer to the Resettlement Policy Framework (RPF) for appropriate mitigation measures to be taken.

Loss of Crops, Fruit Trees and Household Infrastructure

Will the construction/rehabilitation of the training facility result in the permanent or temporary loss of crops, fruit trees and household infra-structure (such as granaries, outside toilets and kitchens, livestock shed etc)?

Yes _____ No _____

Block of access, routes or disruption of normal operations in the general area

Will the training facility interfere with or block access, routes etc (for people, livestock and wildlife) or traffic routing and flows?
Yes _____ No _____

Noise and Dust Pollution during Construction and Operation

Will the operating noise level exceed the allowable noise limits?

Yes _____ No _____

Will the operation result in emission of copious amounts of dust, hazardous fumes?

Yes _____ No _____

Degradation and/or depletion of resources during construction and operation

Will the operation involve use of considerable amounts of natural resources (construction materials, water spillage, land, energy from biomass etc.) or may lead to their depletion or degradation at points of source?

Yes _____ No _____

Solid or Liquid Wastes

Will the education facility generate solid or liquid wastes? (including human excreta/sewage, asbestos)

Yes _____ No _____

If "Yes", does the architectural plan include provisions for their adequate collection and disposal, particularly asbestos?
Yes _____ No _____

Occupational health hazards

Will the construction/rehabilitation of the training facility require large number of staff and laborers; large/long-term construction camp?

Yes _____ No _____

Are the construction/rehabilitation activities prone to hazards, risks and could they result in accidents and injuries to workers during construction or operation?

Yes _____ No _____

Will the education facility require frequent maintenance and/or repair

Yes _____ No _____

Public Consultations

Has public consultation and participation been sought?

Yes _____ No _____

PART C: MITIGATION MEASURES

For all "Yes" responses, describe briefly the measures taken to this effect.

Once the Environmental and Social Screening Form is completed it is analyzed by the Environmental Focal Point of the Planning and Monitoring Unit of the Executive Secretariat of COREP who will classify it into the appropriate category based on a predetermined criteria and the information provided in the form.

11.3. Annex 3: Environmental and social checklist

For each building or renovation activity proposed, fill the corresponding section on the checklist; Annex 4 includes several mitigations measures; that can be amended if necessary.

PIREP activity	Questions to be answered	Yes	No	If Yes,
Building and renovation of school and education infrastructures	• Are there cultivated or non-cultivated lands, natural resources, structures or other properties, used or non-used for any purpose, and any way? • Will there be any vegetation loss during construction/renovation? • Are there appropriate departments for the collection of scheduled waste during construction/renovation works? • Will the construction/renovation be often cleaned? • Will the refuse generated during works collected? • Will the materials and assistance facilities be available during construction/ renovation works?			Refer to general mitigation measures (Annex 4 and 5)
Operation of school and education infrastructures	• Are there pollution risks of groundwater by work sites activities? • Are there ecologic and sensitive zones in the neighboring areas of the infrastructure that could be adversely impacted? • Are there impacts on the health of the populations living next to the infrastructure scheduled to be build /renovated? • Are there visual impacts caused by work site installations but also during the transport and discharge of work site wastes • Are there smells coming from the discharge of work site wastes? • Are there human settlements and land uses (such as agriculture, recreational areas) next to the school infrastructures, or sites of cultural, religious or historic importance?			If yes, see the Plan for the appropriate mitigation and monitoring measures, see also Annex 6

11.4. Annex 4: Mitigation measures list

Table a: general mitigation measures

Potential adverse impacts	Potential Mitigation measures
• Visual impact following the turning of work sites discharge areas into waste dumps • Air pollution during the burning of some work site wastes (wheels, papers, etc...) • Risks of accidents during works • Contamination risk by HIV during the transfer of manpower • Disturbance of school and education activities during works • Disturbance of the circulation of goods and persons by the engines, the storage of materials (works done in town) • Involuntary displacement of populations or economic activities • Waste generation during building works • Pollutions et Nuisances; degradation of the living environment • Non use of local manpower • Use of the lands of displaced people • Disruption or destruction of sites of cultural, historic or religious importance <u>Exploitation phase</u> • Lack of maintenance measures • Lack of support measures (equipment; staff; connection to water and electricity network;) • Non operation because the non execution of the works	• Regular collection and evacuation of work site refuse towards authorized dumps • Involve the Local Communities in the selection of discharge sites • Put in place safety measures • Conduct an awareness raising campaign for the work sites staff and the users of school infrastructures (schoolboys, teachers, etc.) • Conduct awareness raising campaigns on HIV/AIDS • Select work periods (avoiding as much as possible period of classes) • Design traffic deviation plans approved by the concerned administrative authorities • Make careful and motivated selection of installation sites • Conduct an awareness raising campaign before the start of the works • Ensure hygiene and security measures are respected in work sites • Post signaling systems for the works • Hire in priority local man power • Ensure the safety rules are complied with during works • Include in the project support measures (connection to water ad electricity and sanitation networks, equipment ; Upkeep and management programme) • Design an action plan for the resettlement in case of involuntary of populations as per RPF • Avoid to install the facilities in a way that will need resettlement, the displacement of other important soil uses; or the encroachment on historic, cultural or traditional use areas; refer to the Bank's safeguard policies in Annex 6 • Compensation/resettlement according to Resettlement Policy Framework (RPF) <u>Exploitation phase</u> • Closely involve provincial departments in the implementation monitoring • Reclaim the quarries and other sites that have been borrowed • Design a management and maintenance plan of infrastructures • Ensure regular monitoring of works
Impacts on the natural environment	
• Impacts on protected areas; critical habitats for rare species or of ecologic or domestic importance; and wills areas.	• Avoid to excavate building materials in natural protected areas • Careful planning and selection of new installation sites • Respect protected areas particularly trees • Refer to the Bank's safeguard policies, Annex 6
Impacts on water quality	
• Potential pollution of the quality of surface and groundwater's	• Install work sites far from waterways • Regular collection of work sites refuse towards authorized dumps • Protect water resources putting them away from discharge areas of work sites wastes.

Table b: Specific mitigation measures for Sanitation at Training Facilities

Potential Negative Impacts	Possible Mitigation measures
Septic tanks	
Soil and water pollution due to seepage from tanks	Ensure regular emptying; conduct hygiene education campaign to raise awareness of the health risks of exposed sewage; establish and support affordable pump out services
Contamination of water supply sources	Locate latrine at least 30, but preferably 60m away from well, springs and boreholes
Soak pit overflowing and contaminating water surface	Ensure that pits are located in soil where seepage can percolate Establish and support affordable pump out services
Blocked and overflow latrine (health risks)	Establish a routine maintenance and cleaning service
Lack of water for continuous toilet services	Ensure the installation of water supply or water reservoir with enough capacity
Inadequate cleaning and maintenance service, creating unhygienic condition, and as a result students avoid using them	Establish a system to support the employment of a caretaker or routine cleaning and maintenance
Animal vector such flies and rodents carry diseases from the latrines	Ensure regular cleaning Ensure access pathways to decomposing excrements for flies and rodents are blocked
Students defecating in open areas	Design, promote and conduct public hygiene awareness campaigns focusing on adverse health impacts arising as a consequence of open defecation and promote latrine use

11.5. Annex 5: Environmental Guidelines for Contractors

The following guidelines should be included in the contractor's agreements:

- Installation of the work site on areas far enough from water points, houses and sensitive areas.
- Sanitary equipments and installations
- Site regulation (what is allowed and not allowed on work sites)
- Compliance with laws, rules and other permits in vigor.
- Hygiene and security on work sites
- Protect neighboring properties
- Ensure the permanence of the traffic and access of neighboring populations during the works to avoid hindrance to traffic
- Protect staff working on work sites
- Soil, surface and groundwater protection: avoid any wastewater discharge, oil spill and discharge of any type of pollutants on soils, in surface or groundwaters, in sewers, drainage ditches or into the sea.
- Protect the environment against exhaust fuels and oils
- Protect the environment against dust and other solid residues
- Waste management: install containers to collect the wastes generated next to the areas of activity.
- Degradation/demolition of private properties: inform and raise the awareness of the populations before any activity of degradation of gods. Compensate beneficiaries before any demolition.
- Use a quarry of materials according to the mining code requirements
- Compensation planting in case of deforestation or tree felling
- No waste slash and burn on site
- Speed limitation of work site engines and cars
- Allow the access of Public and emergency services
- Organize the storage of materials on the public highway
- Parking and displacements of machines
- Footbridges and access of neighbors
- Signaling of works
- Respect of cultural sites
- Dispose safely of asbestos
- Consider impacts such as noise, dust, and safety concerns on the surrounding population and schedule construction activities accordingly;
- Protect soil surfaces during construction and re-vegetate or physically stabilize erodible surfaces;
- Ensure proper drainage;
- Prevent standing water in open construction pits, quarries or fill areas to avoid potential contamination of the water table and the development of a habitat for disease-carrying insects;
- Select construction materials sustainably, particularly wood;
- Control and clean the construction site daily;
- During construction, control dust by using water or through other means;
- Provide adequate waste disposal and sanitation services at the construction site;
- Dispose of oil and solid waste materials appropriately.
- Preserve natural habitats along streams, steep slopes, and ecologically sensitive areas;
- Develop maintenance and reclamation plans and restore vegetation and habitat.

11.6. Annex 6: Summary of the World Bank Safeguard Policies

OP 4.01 Environmental assessment	The objective of the policy is to ensure the projects financed by the Bank are sound and sustainable, and decision making be improved through an appropriate analysis of actions and of their potential environmental impacts. This policy is triggered if a project is likely to have environmental risks and impacts (adverse) on its area of influence. OP 4.01 covers the environmental impacts (nature air, water and land); human health and security; physical cultural resources; as well as transboundary and global environmental problems.	Depending on the project, and nature of impacts a range of instruments can be used: EIA, environmental audit, hazard or risk assessment and environmental management plan (EMP).When a project is likely to have sectoral or regional impacts, sectoral or regional EA is required. The EIA is the responsibility of the borrower. In the context of the PIREP, an Environmental and Social Management Plan was prepared (ESMF), including an Environmental Management Plan (EMP); the ESMF will help assess the impacts of future constructions and rehabilitation activities and orient implementation.
OP 4.04 Natural Habitats	This policy recognizes that the conservation of natural habitats is essential for long-term sustainable development. The Bank, therefore, supports the protection, maintenance, and rehabilitation of natural habitats in its project financing, as well as policy dialogue and analytical work. The Bank supports, and expects the Borrowers to apply, a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development.	This policy is triggered by any type of project (including any sub project under sectoral investment regime or intermediary funding) that have the potential to cause some important conversion (loss) or degradation of natural habitats, whether directly (by the construction) or indirectly (by human activities triggered by the les project). In the context of the PIREP, the construction and rehabilitation activities that could have adverse impacts on natural habitats will not be funded.
OP 4.36 Forests	The objective of this policy is to help borrowers exploit the potential of forests in order to curb poverty in a sustainable manner, efficiently integrate forests in sustainable economic development and protect vital local and global environmental services and forests values. Where forest restoration and plantation are needed in order to achieve these objectives, the Bank helps borrowers in forest restoration activities in order to maintain or develop biodiversity and the operation of ecosystems. The Bank help borrowers in the creation of forest plantations appropriate from the environmental viewpoint and socially beneficial and economically sound in order to help meet the growing forests' needs and services	This policy is triggered each time an investment project financed by the Bank: (i) has the potential to cause health impacts and the quality of forests or the rights and the well being of the people and their dependency level with the interaction with forests; or (ii) aims at bringing some change in the uses of natural forests or plantations. In the framework of the PIREP, the building and renovation activities that will adversely affect the quality of the forests or bring in some change in the management will not be financed.

OP 4.09 Pest Management	The objective of this policy is to promote the use of biological or environmental control methods and reduce reliance on synthetic chemical pesticides. In Bank-financed agricultural operations, pest populations are normally controlled through Integrated Pest Management (IPM) approaches. In Bank-financed public health projects, the Bank supports controlling pests primarily through environmental methods. The policy further ensures that health and environmental hazards associated with pesticides are minimized. The procurement of pesticides in a Bank-financed project is contingent on an assessment of the nature and degree of associated risk, taking into account the proposed use and the intended user.	The policy is triggered if procurement of pesticides is envisaged (either directly through the project or indirectly through on-lending); if the project may affect pest management in a way that harm could be done, even though the project is not envisaged to procure pesticides. This includes projects that may lead to substantially increased pesticide use and subsequent increase in health and environmental risks; and projects that may maintain or expand present pest management practices that are unsustainable. In the framework of the PIREP, the activities requiring the use of pesticides will not be financed.
OP 4.11 Cultural Property	The objective of this policy is the help countries avoid or reduce the adverse impacts of development projects on physical cultural resources. In order to implement such policy, the word "physical cultural resources" means movable and unmovable objects, sites, structures, natural's aspects of landscapes that have an importance form the archeological, paleontoligic, historic, architectural, religious, aesthetic or other. Physical cultural resources could be found in urban or rural areas, as well as both in the open air, under the ground and in the sea also.	This policy applies to all projects included in category A or B of the Environmental assessment scheduled in OP4.01. With the PIREP, construction and renovation activities that are likely to have adverse impacts on cultural property will not be financed.
OP 4.10 Indigenous populations	The objective of the policy is (i): ensure that the development process encourages full respect of dignity, human rights and cultural features of indigenous people; (ii) ensure they do not suffer from the detrimental effects during the development process; and ensure indigenous people reap economic and social advantages compatible with their culture.	The policy is triggered when the project affects indigenous people (with the characteristics described in OD 4.20 para 5) in the area covered by the project With the PIREP, building and renovation activities that are likely to have adverse impacts on indigenous people will not be financed.
OP 4.12 Involuntary Resettlement	The objective of this policy is to avoid or minimize involuntary resettlement where feasible, exploring all viable alternative project designs. Furthermore, it intends to assist displaced persons in improving their former living standards; it encourages community participation in planning and implementing resettlement; and to provide assistance to affected people, regardless of the legality of title of land.	This policy is triggered not only if physical relocation occurs, but also by any loss of land resulting in: relocation or loss of shelter; loss of assets or access to assets; loss of income sources or means of livelihood, whether or not the affected people must move to another location. Under PIREP, a Resettlement Policy Framework (RPF) has been prepared which will serve as guidance for the preparation of a RAP should land acquisition be required.
OP 4.37 Dams security	The objectives of this policy are established as follows: For new dams, ensure the design and supervision are done by experienced and	The policy is triggered when the Bank finances (i) a project involving the building of a big dam (15 m of height or more) or a dam presenting

	competent professionals; for existing ones, ensure that any dam that can influence the project performance is identified, an assessment of the dam security conducted, and the other required safety measures and corrective measures implemented.	great hazard; and (ii) a project depending on another existing dam. For small dams, general safety measures designed by qualified engineers are appropriate. In the framework of the PIREP, no funds will be available for the building or renovation of dams
OP 7.50 Projects implemented on international waterways	The objective of this policy is to operate in such a way as the projects financed by the Bank affecting the international watercourses do not affect: (i) the relationships between the Bank and her borrowers and between States (members or non members of the Bank); and (ii) the international watercourses are used and efficiently protected? The policy applies to the following project types: (a) hydro electric, irrigation, flood control, drainage, water collection, industrial and other projects involving the use or potential pollution of international watercourses, and (b) detailed studies for project design under item (a) above quoted including those carried out by the Bank in her position of implementation agency or else.	This policy s triggered if (a) A river, a channel, lake or any other watercourse located between two states, or a river or a surface river discharging into a river located in one or two states, be they members of the World Bank or not (b) a river branch which is a component of a watercourse descried under item (a); recognized to be a necessary communication channel between the ocean and the other states, and any river discharging into these waters and (c) a bay, strait, or channel bound by two states or more or flowing in an unknown state. In the framework of the PIREP, the building and renovation activities that are likely to have an impact on international waterways will not be financed.
OP 7.60 Projects located in contentious zones	The objective of this policy is to operate in such a way as the problems experienced by projects in contentious areas are tackled as early as possible so that: (a) the relationships between the Bank and member countries are not affected; (b) the relationships between the borrower and neighbors are not affected; and either the Bank or concerned countries do not suffer any damage because of this situation.	This policy is triggered if the project proposed is located in a «contentious area» The questions to be asked are particularly the following ones: Is the borrower involved in these conflicts concerning an area? Is the project located on a conflict area? Is a component of the project that was financed or likely to be financed part located in a conflict area? In the framework of the PIREP, building and renovation activities will not take place in areas of conflicts

11.7. Annex 7: Environmental Mitigation Plan for PIREP

Activity of the project	Potential environmental and social Impacts	Mitigation measures	Responsibility		Timing	Cost estimates
			Implementation of measures	Monitoring of the implementation of measures		
Environmental impact and measures						
Construction/ Renovation of school and training infrastructures	Soil degradation uncontrolled storage of product or materials for building	Controlled storage of material and products (on stabilized areas) Rehabilitation of sites after use (cleaning, etc.) See Annex 4, 5	Contractors	Technical Services of municipalities	In progress	Included in the PIREP
	Unsafe disposal of asbestos	Safe disposal of asbestos in sealed plastic containers to be buried for in municipal landfills	Contractors	Technical Services of municipalities	In progress	Included in the PIREP
	Dust, emissions, noise/vibration Accidents	Controlled operation times, use of appropriate equipment, Installed panels for circulation Security measures See Annex 4, 5	Contractors	Technical Services of municipalities	In progress	Included in the PIREP
	Perturbation of education and training session	Works prior during holidays period	Contractors	Technical Services of municipalities School Directorates	In progress	Included in the PIREP
	Toilets becoming dirty	Set up toilet management committees in all schools Sensitize the users See Annex 4, 5	School Directorates	Technical Services of municipalities	In progress	Included in the PIREP
	Septic tanks overflowing and creating health risk	Regular pumping of septic tank See Annex 4, 5	School Directorates	Technical Services of municipalities	In progress	Included in the PIREP

Social Impacts et measures						
	Risk of outbreak of social conflicts (non-use of local resident for employment)	Recruit local employment as far as possible	Contractors Services of	Technical the PIREP municipalities	In progress	Included in
	Spread of HIV/AIDS	Strengthen HIV/AIDS Awareness Campaigns in Schools,	NGOs	Technical Services of municipalities	In progress	Included in the PIREP
Capacity building						
Studies (EIA)	Adverse environmental impacts	Recruitment of EIA consultants to conduct the EIA	EFP of Executive Secretariat of COREP	MTADR	In case of need	10 000 US$
Capacity building	Lack of knowledge of the EIA and environment management of renovation work sites	Organize a national training workshop	National firms specialized in EIA	EFP of Executive Secretariat of COREP	National workshop	20 000 US$
		Prepare environmental section of the maintenance Manual	National Consultant	EFP of Executive Secretariat of COREP	Before starting works	5 000 $
Monitoring-assessment	Non enforcement of the measures	Ensure the EAP measures are complied with	Technical services of municipalities	EFP of Executive Secretariat of COREP	Permanent Half mark Final	-
					Total	**35 000 $**
Screening Process - Summary -						
Screening of Schools and Sites			Environmental Focal Point of the Planning and Monitoring Unit (PIREP Executive Secretary)		Before starting	
Assigning the appropriate Environmental Categories			Environmental Focal Point of the Planning and Monitoring Unit (PIREP Executive Secretary)		Before starting	
Carrying out Environmental Work			Environmental Focal Point of the Planning and Monitoring Unit (PIREP Executive Secretary)		In case of need	
Review and Approval			MTADR Provincial Directorates		In case of need	
Approval of the classification of the activities			MTADR Provincial Directorates		In case of need	
Selection of the consultant in case of the need to conduct a study			Environmental Focal Point of the Planning and Monitoring Unit (PIREP Executive Secretary)		In case of need	

Conduction of environmental Impact Assessment	Authorized Consultants	In case of need	
Approval of environmental assessment	MTADR Provincial Directorates.	In case of need	
Public consultations and disclosure	Environmental Focal Point of the Planning and Monitoring Unit (PIREP Executive Secretary)	In case of need	
Monitoring	Technical services of municipalities	Permanent Half mark Final	
Environmental and Social Indicators	Environmental Focal Point of the Planning and Monitoring Unit (PIREP Executive Secretary) Technical Services of municipalities	Before and during works	

11.8. Annex 8: Draft EA Terms of Reference

1. Introduction and context

This part will be completed at time and will include necessary information related to the context and methodology to carry out the study.

2. Objectives of study

This section will indicate (i) the objectives and the project activities; (ii) the activities that may cause environmental and social negative impacts and needing adequate mitigation measures.

3. Mission /Tasks

The consultant should realize the following:

- Describe the des biophysical characteristics of the environment where the project activities will be realized; and underline the main constraints that need to be taken into account at the field preparation, during the implementation and exploitation/maintenance of equipment.
- Assess the potential environmental and social impacts related to project activities and recommend adequate mitigation measures, including costs estimation..
- Assess the need of solid and liquid waste management and suggest recommendation for their safe disposal, including safe disposal of asbestos
- Review political, legal and institutional framework, at national and international level, related to environmental, identify the constraints and suggest recommendations for reinforcement
- Identify responsibilities and actors for the implementation of proposed mitigation measures
- Assess the capacity available to implement the proposed mitigation measures, and suggest recommendation in terms of training and capacity building, and estimate their costs.
- Develop a Environmental Management Plan (EMP) for the project. The EMP should underline (i) the potential environmental and social impacts resulting from project activities (ii) the proposed mitigation measures; (iii) the institutional responsibilities for implementation; (iv) the monitoring indicators; (v) the institutional responsibilities for monitoring and implementation of mitigation measures; (vi) the costs of activities; and (vii) the calendar of implementation.
- Public consultations. The EIA results and the proposed mitigation measures will be discussed with population, NGOs, local administration and other organizations mainly involved by the project activities. Recommendations from this public consultation will be include in the final EIA report.

4. Plan of the EIA report

- Cover page
- Table of contents - List of acronyms
- Executive summary
- Introduction
- Description of project activities
- Description of environment in the project area
- Description of political, legal and institutional framework

- Description of methodology and techniques used in assessment and analyze of project impacts.
- Description of environmental and social impacts for project activities
- Environmental Management Plan (EMP) for the project including the proposed mitigation measures; the institutional responsibilities for implementation; the monitoring indicators; the institutional responsibilities for monitoring and implementation of mitigation; Summarized table for EMP
- Recommendations
- References
- List of persons / institutions meet

5. Qualification of the consultant
The Consultant will be agreed by the MTADR in carrying out EIA studies.

6. Duration of study
The duration of study will be determined according to the type of activity

7. Production of final report
The consultant will produce the final report one (1) week after receiving comments from MTADR services and PIREP project. The final report will include all the comments from these institutions.

8. Supervision of study
The consultancy will be supervised by the Environmental Focal Point of the Executive Secretariat of PIREP.

11.9. Annex 9: List of individuals/institutions contacted

Surname and Name	Position	Institution
Gabriel Machado	Secretary Executive	Executive Secretariat of PIREP
Martens Trefers	Consultant Physical Planner	
Dr. Carlos Freire	Director	African Training Technology- Maputo
Rosaline Naife	Environmentalist	MTADR -Maputo
Lote Simone	National Coordinator of	MTADR- Maputo
Samson Cuamba	obsolete pesticides Coordinator	MTADR - Maputo
Mauricio Sulila	Deputy Director	NGO Livango - Maputo (Environmental Advocacy Ngo)
Jose Manjate	License in management	Commercial Institute of Maputo
Dr. Aboobocar Ibrahimo	Social Anthropologist	Commercial Institute of Maputo
Eleasara Antunes	Environmentalist	Roads Department
Emilia Tembe	Director	Roads Department
Alberto Banze	Environmentalist	Industrial Institute of Maputo
Anselmina Ripola	Environmentalist	Department of Natural Resources Conservation MTADR
Guillermina Amurane		Department of Natural Resources Conservation MTADR
Joaquim Milagre Cuna	Urbanism Engineer and	National Direction of rural Extension Ministry of Agriculture
Mr. COSTA	Environmentalist	Municipality of Maputo - Sede
Hassan Rachid		
Alvaro Abdula	Environmentalist	
Eulacia Macome	/Forestry Technician Director	Ministry of Agriculture
Fatima Tayub		INEFP
Balate Lucas	Director	DINET/MEC
Amarico Muganga	Environmental Health	National Direction of Water Resources
Jordao Matimula	Technician	National Direction of Environmental Health/MISAU

11. 10. Annex 10 : References

- The World Bank Operational Manuel Bank Procedures Environmental Assessment BP 4.01 January 1999
- The World Bank Operational Manuel Bank Procedures Environmental Assessment BP 4.01 Annex A January 1999
- The World Bank Operational Manuel Operational Policies OP 4.01 Environmental Assessment January 1999
- The World Bank Operational Manuel Operational Policies OP 4.01 Annex C Environmental Management Plan January 1999
- The environmental law n° 20/97, of October 1
- The decree n°45/2004 of September, 29, related on the process of IEA
- The decree n°32/2003 of august, 12, concerning the Environmental Audit
- The Land Law N°19/97 of 1 October 1997
- The forestry law, of July 10, 1999, which is relates on protection, conservation and use of fauna and vegetal resources;
- The Water Law, of August 3, 1991, related to water resources (protection, conservation and use); The Mining Law, of June 26, 2002,
- Draft of RPF of, PIREP, Kent Kafatia, July, 2005
- MPF 2001. Action Plan for the reduction of absolute poverty (2001-2005) (PARPA).
- Final Version Approved by the Council of Ministers, April 2001, Ministry of Planning and Finance. Maputo, Mocambique.
- Government of Mozambique. Education Sector Strategic Plan II (ESSP II), 2005 -2009. Draft October 2004
- World Bank and Government of Mozambique, 2003. Environmental Analysis (EA) of the Decentralized Planning and Finance Project (DPFP), May 2003
- Ministerio das Obras Publicas/Direcçao nationale da Aguas, Progrma Ntacional de sector de Aguas, guioes tecnicos de saneamento rural, abril 2005
- Project Appraisal Document of PIREP
- Aide-memoire of mission - PIREP, 2004 and 2005

11.11. Annex 11: Terms of References (TOR)

Mozambique Integrated Professional Reform Program (PIREP)
Environmental and Social Management Framework
Terms of Reference

1. Background

1.1 In August 2004 the World Bank (WB) and Cooperating Partners (CP) entered into an agreement with the Government of Mozambique (GoM) to assist with financial and technical support to prepare an investment operation in Technical and Vocational Education and Training (TVET). The intended investment expects to support Government's efforts to: (a) implement system reforms to modernize the TVET system; (b) increase the supply and productivity of skilled labor in key sectors of the economy; (c) increase, relevance, internal efficiency and quality of existing TVET; and (d) improve the opportunities of school leavers to find gainful employment in the formal and informal sectors of the economy. The Government's policy intentions, including the proposed Integrated TVET Project, are outlined in the Government's Plan 2005-2009.

1.2 In November 2004, the *Comissão Técnica de Trabalho* (CTT) was established as the institutional structure[2] to lead the preparation of the *Programa Integrado de Reforma de Educacao Profissional (PIREP)*. The CTT has three supporting sub-structures, all with clearly defined Terms of Reference and expected outputs. The first sub-structure is an Executive Board, composed of senior level representatives from government, industry and civil society, whose role is to provide overall strategic direction. The second sub-structure is a *Conselho Técnico* (CT), composed of technical officials from Government ministries and entities, technical advisors from either international agencies or national organizations, representatives of industry boards and representatives from organized labor and civil society, to assist in the technical design of Project components and sub-components. The third sub-structure is an Executive Secretariat, composed of three full time, seasoned technical advisors, to coordinate all technical inputs and provide logistical support to throughout the preparation phase.

1.3 According to the agreed project preparation timetable, the Project's technical design, operational structure, implementation arrangements, and investment framework will be finalized by September 2005. Subject to receipt and approval of a letter of sector policy from GoM, the project appraisal mission will be fielded in October 2005. During appraisal the World Bank, Cooperating Partners and GoM will finalize a financing package for the Project to ensure the new investment becomes operational during the first trimester of 2006 (January-March). In order to contextualize the magnitude and scope of the proposed Project, it should be noted the World Bank and Danida have pledged US$40 million and US$2 million, respectively, in new financing. The GoM currently allocates between US$7 to US$11 million per year to the Department of Technical and Vocational Education (DINET) in the Ministry of Education (MEC). Other Cooperating Partners are working to align current and new TVET interventions to cover aspects of the Project.

1.4 The proposed Bank investment will support the overall reform efforts of the Government of Mozambique. It supports the Action Plan for Reduction of Poverty (PARPA) which emphasizes the importance of investing in relevant quality skills development as a means to reduce poverty. The Bank's

[2] The CTT evolved from the Memorandum of Understanding MoU establishing a partnership between private sector providers not for profit providers CPs and the Government was drafted and signed on July 2004.

investment in this sub-sector in Mozambique is justified through its expected impact on poverty reduction through the enhancement of the competitiveness and productivity of key economic sectors and increased opportunities for gainful employment in the informal sector. The investment is complementary to the Bank's effort to develop the private sector and increase access to general education.

1.5 As part of the project's support to the reform efforts, it will be necessary to improve the physical infrastructure, for example, school buildings and related water supply and sanitation facilities (Component C and D, described below). To ensure that these infrastructure improvements are carried out in an environmentally and socially sustainable manner, the project will develop an Environmental and Social Management Framework (ESMF) as per terms of reference below, and a Resettlement Policy Framework (RPF) which will be prepared under separate terms of reference.

2. Project Components

The PIREP will comprise four components, a description of each is outlined below (a detailed description of components and sub-components is included in the *Aide-Memoire* of November 2004, which will be circulated to all team members with the key documents for the pre-appraisal mission). Transversal thematic issues such as HIV/AIDS, gender environmental and social impact assessment will be central in the design of the components. Operational and implementation issues related to procurement, financial management and monitoring and evaluation will be incorporated in the design of the components and in particular, into the roles and responsibilities of the institution that will be entrusted with the execution and coordination of the Project.

- **Component A: Institutional Arrangement** Component A will assist the GOM to establish the institutional framework necessary to develop a labor-market relevant and accessible TVET in Mozambique in a coordinated, stakeholder-driven and sustainable manner. The objective of the component is to set up, or prepare the establishment of, appropriate structures for the administration, management and financing of the TVET system in collaboration with the social partners. Component A comprises three sub-components: (i) setting of the institutional framework; (ii) designing of a financial framework; and (iii) decentralization of TVET management.

  Sub-components include (A1) Setting of the institutional framework; (A2) sustainable TVET financing and (A3) Decentralized TVET management.

- **Component B: Standard-based Qualification and Training System.** The development of a standard-based qualification, training and assessment framework is a key to raising relevance and quality in the TVET system. It will change the current curriculum-based (input-based) orientation in TVET towards outcome-orientation, with training contents defined as competency standards that form the benchmark for training and assessment. This will enable integration and articulation of different TVET delivery systems and thus foster access of previously neglected target groups through the emergence of non-formal and private training provision. During the preparation process, a preliminary qualifications framework outline has been agreed upon consisting of five levels aligned to existing qualification levels in the general education system. This will form the basis of the component activities. The new standard-based qualification and training system in

Mozambique will be harmonized, as far as possible, with best practice in neighboring SADC countries.

The sub-components include (B1) Development of occupational standards; (B2) Development of training programs based on occupational standards; and (B3) Development of standard-based assessment and certification.

- **Component C:** Quality Improvement. This component is designed to address the quality problems affecting the DINET and the INEPF (Ministry of Labor) schools. Major problems are under-qualified and insufficiently skilled teachers, shortage of teaching aids, partly dilapidated workshops for practical training and outdated curricula. As a result, internal efficiency in the formal TVE system is low as indicated by high repetition and dropout rates and employer complain about insufficient practical and management skills of graduates. Within the selected three/four pilot sectors, the project will fund development and piloting of new learning materials, teacher in-service and pre-service training, improvement of management capacity, and relevant upgrading of teaching facilities, e.g. class rooms and workshops. A smaller number (4-5) of DINET and INEFPP schools and training centers will be chosen for piloting of new courses based on the occupational standards to be developed. The pilot schools are supposed to specialize in skills development within particular industries or occupational areas, e.g. construction or tourism. Teacher training, material development and investment in equipment and rehabilitation of the educational infrastructure will give priority to the occupational areas selected for piloting.

  Component C is designed to address the quality problems affecting the DINET and the INEPF schools. The objective of the component is to increase the relevance of the competencies of men and women through improving the quality of the technical education provided by the pilot institutions. At 10-11 selected pilot TVET institutions, the project will fund (i) development and piloting of courses for teachers and management staff; (ii) relevant equipment, tools, and learning materials; (iii) necessary rehabilitation of the physical infrastructure; (iv) development and piloting of new learning materials; and (v) development and piloting of student counseling methods.

  The sub-components comprise (C1) Provision of relevant pre and in-service teacher and instructor training and capacitization of school management; (C2) Provision of equipment, tool, and learning materials; (C3) Improvement of physical infrastructure; (C4) Development and provision of appropriate learning materials; and (C5) Development of career guidance and student/trainees services.

- Component D: *Fundo para o Desenvolvimento de Competências Profissionais (FUNDEC)*
  Component D is designed to assist the emergence of market-responsive training in various occupational areas and for different target groups on a demand basis. It is specifically aimed at promoting innovation and initiatives for the improvement of quality and relevance of training, and at increasing access of out-of-school population in the rural areas (especially women) to employment oriented TVET. The component will be implemented as a fund (FUNDEC: Fundo para o Desenvolvimento de Competencias Profissionais) accessible to public and private training providers on a competitive basis.

Unlike Components B and C, activities to be financed by FUNDEC are not limited to selected target sectors.

3. Objective of the Environmental and Social Management Framework (ESMF)

3.1 The objective of this Environmental and Social Management Framework (ESMF) is to provide an environmental and social screening process for future infrastructure investments for which the exact locations are not known prior to appraisal, and for which appropriate mitigation measures might be required. The ESMF is intended to be used as a practical tool during project implementation.

3.2 The proposed screening process would be consistent with the Bank's safeguard policy OP 4.01 Environmental Assessment. This policy requires that all Bank-financed operations are screened for potential environmental and social impacts, and that the required environmental work be carried out on the basis of the screening results. Thus, the screening results may indicate that (i) no additional environmental work would be required; (ii) the application of simple mitigation measures by qualified staff would suffice; or, (iii) a separate environmental impact assessment (EIA) would be required.

3.3 Although the potential environmental and social impacts of the infrastructure investments under Component C(3) above are expected to be generally minimal, potentially significant localized impacts may occur, thus requiring appropriate mitigation. Potential environmental impacts would be addressed in the context of this ESMF, while potential social impacts due to land acquisition such as loss of livelihoods or loss of access to economic assets would be addressed in the context of the Resettlement Policy Framework (RPF). The RPF has been prepared as a separate document and outlines the policies and procedures to be applied in the event of land acquisition under the project.

4. Scope of Work

4.1 To develop an Environmental and Social Management Framework (ESMF) the consultants will carry out the following tasks:

(a) Review Mozambique's environmental policies, laws, procedures, regulatory and administrative frameworks to determine which legal requirements are relevant to the infrastructure investments under the TVET project and therefore will have to be incorporated into the ESMF, and make recommendations as appropriate;

(b) Review the Bank's ten Safeguard Policies and (i) determine which of these policies are likely to be triggered as a result of future infrastructure investments under Component C(3); (ii) identify gaps between the Safeguard Policies and the national legislation and make recommendations as to how to close these gaps, if any; and (iii) make recommendations as to how to implement the relevant Safeguard Policies in the context of the ESMF;

(c) Review the bio-physical and socio-economic characteristics of the project area and (i) identify potential environmental and social impacts that might result from future infrastructure investments; (ii) propose appropriate mitigation measures; (iii) outline environmental impact assessment procedures; (iv) establish linkages to the RPF as necessary, and (v) make recommendations regarding the implementation and monitoring of environmental and social mitigation measures in the context of the ESMF as appropriate;

(d) In light of the available information, develop an environmental and social screening process, including monitoring indicators, for future infrastructure investments under the project, capturing the steps below (and others as appropriate):

1. Screening of physical infrastructure investments
2. Assigning the appropriate environmental categories
3. Carrying out environmental work
4. Review and approval
5. Public consultation and disclosure
6. Monitoring
7. Monitoring indicators

(e) In light of the available information, identify areas that would require institutional strengthening for environmental management, including cost estimates and time horizons, to ensure that the requisite capacity exists under the project to implement the ESMF efficiently;

(f) In light of the above recommendations, prepare an Environmental Management Plan (EMP) for the entire project; the EMP is to outline the institutional responsibilities, including cost estimates and time horizons for the (i) identification of environmental and social impacts; (ii) preparation and implementation of mitigation measures; (iii) monitoring of the implementation of mitigation measures; (iv) monitoring indicators; and (v) capacity building needs, including related training needs and costs. A summary table should be prepared for ease of reference.

5. Deliverables

5.1 The consultant will prepare an Environmental and Social Management Framework (ESMF) that will be used by project implementers at the planning stage of physical infrastructure investments. Hence, the ESMF is to be used as a practical tool during project implementation.

5.2 The ESMF will be written in Portuguese and will include the following sections:

- Cover page
- Table of contents
- List of acronyms
- Executive summary (English and Portuguese)
- Introduction
- Project description
- Objectives of the Environmental and Social Management Framework (ESMF)
- Methodology used to prepare the Environmental and Social Management Framework (ESMF)
- Overview of Mozambique's environmental policies, laws, procedures, regulatory and administrative frameworks
- Overview of the World Bank's ten Safeguard Policies
- Environmental impacts due to infrastructure investments
- Social impacts due to infrastructure investments
- The environmental and social screening process:
    - Steps required
    - Annexes:
        - Environmental and Social Screening Form (Sample)
        - Environmental and Social Checklist (Sample)
        - Procedures for the construction/rehabilitation of infrastructure investments requiring environmental work
        - Summary of the World Bank's Safeguard Policies
        - Others, as necessary
- Environmental Management Plan (EMP) for the entire project

- Proposed infrastructure investments
- Environmental and social impacts
- Mitigation measures
- Institutions responsible for implementing the mitigation measures
- Institutions responsible for monitoring the implementation of the mitigation measures
- Timing
- Costs
- Monitoring indicators
- Summary table

- Recommendations
- List of individuals/institutions contacted
- References

6 Staffing of the consultancy and duration of assignment

6.1 The consultancy would require expertise in environmental assessment, environmental management and strengthening of institutional capacity in these areas.

6.2 A first electronic draft ESMF should be made available to the Government of Mozambique and the World Bank by August 15, 2005, and the final electronic document should be available by August 30, 2005, to ensure disclosure of the ESMF in Mozambique and at the World Bank's Infoshop before appraisal, currently scheduled for September/October 2005.

6.3 The consultancy is expected to commence on July 15, 2005. The total period for the consultancy is July 15-August 31, 2005