THE GOVERNMENT OF ERITREA

EDUCATION SECTOR IMPROVEMENT PROJECT (ESIP)

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)
### List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>DA</td>
<td>District Administrator</td>
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<tr>
<td>DoE</td>
<td>Department of Environment</td>
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<tr>
<td>EA</td>
<td>Environmental Assessment</td>
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<tr>
<td>EFA</td>
<td>Education for All</td>
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<td>EMIS</td>
<td>Education Management Information System</td>
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<td>EMP</td>
<td>Environment Management Plan</td>
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<td>ESMF</td>
<td>Environment and Social Management Framework</td>
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<td>ESIA</td>
<td>Environment and Social Impact Assessment</td>
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<td>ESSF</td>
<td>Environment and Social Screening Form</td>
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<td>GoE</td>
<td>Government of Eritrea</td>
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<td>MoE</td>
<td>Ministry of Education</td>
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<td>MTEF</td>
<td>Medium Term Expenditure Framework</td>
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<td>NEAPG</td>
<td>National Environment Assessment Procedures and Guidelines</td>
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<td>NFE</td>
<td>Non Formal Education</td>
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<td>OP</td>
<td>Operational Policy (World Bank)</td>
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<td>PMU</td>
<td>Project Management Unit</td>
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<td>PPU</td>
<td>Physical Planning Unit</td>
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<td>RPF</td>
<td>Resettlement Policy Framework</td>
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<td>VA</td>
<td>Village Administrator</td>
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1.0 EXECUTIVE SUMMARY

The State of Eritrea is a small mountainous newly independent developing country in the northern part of the “Horn of Africa” on the Red Sea with a population of about 4.5m people, but with an ancient history traceable to the 7th Century. Despite scarce resources, attributable to the harsh environment on the highland plateau and barren desert along the red sea strip, limited agricultural space in the lowlands for sustainable agricultural activities such as subsistence and pastoral farming, and the many challenging issues associated with development that have been exacerbated by the additional environmental and social burdens associated with the aftermaths of a post conflict era, Eritrea has made and continues to make good socio-economic progress.

The education sector for instance has experienced a notable expansion of access to education and the Government of Eritrea (GoE) has manifested its commitment to the education of all its people through key strategies for developing the sector articulated in numerous government policy documents, prominent among them, the Draft National Education Policy. Furthermore, the GoE has committed itself to the Millennium Development Goals (MDG) and Education for All (EFA) goals by 2015.

In line with this strategy, the GoE requested the World Bank for support of its proposed Education Sector Improvement Project (ESIP) whose project development objectives are aligned with the Interim Support Strategy (ISS) which is to increase enrolment and completion rates in basic education (elementary and middle schools) particularly for disadvantaged children and to improve the quality of basic and secondary education. The proposed ESIP is structured to achieve its objectives within five major investment components of the project. Specifically, Component 1, Increase Coverage of Elementary and Middle School Education, will finance the rehabilitation of some existing schools, construction of new schools and expansion of facilities at some other existing schools. The identification of sites for new school construction will be based on the needs of local communities as expressed by them and/or the findings from a school mapping exercise.

The GoE by the National Environment Assessment Procedures and Guidelines (NEAPG) and the World Banks own Operational and Procedural Policies, specifically OP 4.01 requires the government to prepare a Environment and Social Management Framework, ESMF report, which will establish a mechanism to determine and assess future potential environmental and social impacts of project investments, and then to set out mitigation, monitoring and institutional measures to be taken during design, implementation and operation of the subprojects to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. This is precisely what is required at this stage of project preparation since the location of the schools and facilities have not yet been identified.

OP 4.01 further requires that the ESMF report must be disclosed as a separate and stand alone by the Government of Eritrea and the World Bank as a condition for Bank Appraisal of the ESIP. The disclosure should be both in Eritrea where it can be accessed by the general public and local communities and at the Infoshop of the World Bank and the date for disclosure must precede the date for appraisal of the project.

The key highlights in this ESMF report are as follows:
(i) For the Construction of Schools the ESMF establishes the screening process mechanism for the implementation of the project activities to enable the local communities and the Physical Planning Unit (PPU) of the Project Management Unit (PMU) in the Ministry of Education (MoE) to simultaneously identify adverse potential environmental and social impacts of their project activities and to address them by incorporating the relevant mitigation measures into the designs before they submit them for review and subsequent approval.

The main feature of this mechanism requires the project implementers to screen their projects at the preparation stage using the screening form in Annex 1 and the environmental and social checklist in Annex 2 to identify potential adverse effects/impacts.

The next requirement is for the implementers to incorporate the necessary mitigation measures into the project design following which they are to submit the project proposals accompanied by the completed screening form and checklist to the reviewing body, which is the PPU for approval.

(ii) The ESMF identified and assessed to the extent possible, potential environmental and social impacts and appropriate mitigation measures and presented this in the form of a generic checklist contained in Annex 2.

(iii) The ESMF also developed an environmental and social screening form that would assist in determining potential adverse environmental and social impacts during project implementation pertaining to the project activities. This form is contained in Annex 1.

(iv) The capacity to manage the ESMF of the PMU and PPU was assessed. It was found that the PMU had suitable staffing levels and positions, but required further strengthening through training. A training program and budget was developed and is contained in the body of the ESMF. The Village Administrators (VA’s), which are to be elected bodies that would represent the local communities and help them to meet their responsibilities in the EA process as outlined in this ESMF would benefit from technical assistance and training. The Department of Environment (DoE) will also benefit from technical assistance to facilitate their monitoring and supervision of training role.

(v) Finally the ESMF contains an extensive and comprehensive environmental and social monitoring plan to ensure that environmental and social issues will be managed effectively.

(vi) Meaningful consultations with local communities were held during the in-country study part of the preparation, during which they were sensitized on the requirements of the RPF and ESMF.

This Environment and Social Management Framework Report presents definitive, conclusive and clear procedures consistent with the Laws in Eritrea and the World Bank Safeguard Policies.
2.0 INTRODUCTION

The Government of Eritrea has asked the World Bank for continued support for the Education Sector Improvement Project (ESIP), part of which is to finance the construction of new schools and the expansion of existing schools, inter alia.

However, since the exact locations for these new schools were not identified at the time the ESIP was being prepared, the National Environmental Management Guidelines of Eritrea and Operational Policy 4.01 of the Bank requires the Government of Eritrea (GoE) to prepare an Environment and Social Management Framework (ESMF) which is to establish a mechanism to determine and assess future potential environmental and social impacts of all project activities to be financed under the ESIP, and then to set out mitigation, monitoring and institutional measures to be taken during implementation and operation of the project activities to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels.

The GoE is further required to disclose this document in-country as a separate and stand-alone document so that it is accessible by the general public, local communities, potential project-affected groups, local NGO's and all other stakeholders and also at the Infoshop of the World Bank and the date for disclosure must precede the date for appraisal of the project.

Since the location of the schools which are to be decided using the results of a school mapping exercise and requests from local communities, has not yet been decided, each location that is subsequently identified and approved by the MoE would be subjected to environmental and social planning prior to approval.

This environmental and social planning process contained in this ESMF for the construction of schools would be the process through which the project activities environmental and social impacts are identified and assessed and alternatives evaluated and have appropriate mitigation, management and monitoring measures suitably designed.

Scope of Work

The scope of work is to:

(a) Prepare an Environment and Social Management Framework (ESMF)
(b) Prepare a Resettlement Policy Framework (RPF)

The ESMF is to present a framework for screening, monitoring and mitigating potential impacts, with a process for triggering subsequent sub-project environment and social assessments, where necessary.

The RPF is required to be a separate document, prepared following the appropriate laws in Eritrea and the World Bank Operational Policy 4.12, and is also required to be disclosed before appraisal of this project. The RPF establishes the resettlement and compensation principles, organizational arrangements and design criteria to be applied to meet the needs of the people who may be affected by the project activities requiring land acquisition and/or denial, restriction or loss of access to economic resources.


Study Approach and Methodology

The study was conducted by the consultant using the following approach and methodology:


A ten days study tour in Eritrea during which discussions were held with the Management of the Project Management Unit (PMU) and officials of the Ministry of Education, the Department of Environment, the Director General for Regional Affairs in the Ministry of Local Government , the Zoba Education Officer for the Northern Red Sea Region and the Technical Planning Staff at the Zoba office in Massawa.

- Report writing.
3.0 DESCRIPTION OF THE PROPOSED PROJECT

The Eritrea education systems faces challenges that are fairly common to other education systems in Sub-Saharan Africa. These are limited access; low quality; doubtful relevance; inefficiencies; inadequate financial and non-financial resources; and poor delivery capacity. The Government's vision for addressing these pressing challenges is well-articulated across key policy documents. The ESIP is part of the larger Government effort to address the most immediate and pressing challenges while systematically planning for the long-term development of the sector.

Objectives and Process

Key objectives of the ESIP are to expand access to good quality basic education to all children and especially to currently marginalized children and to improve capacity for long-term to plan for and manage long-term sector development. Expansion of access will be measured through increases in student enrolments and completion of the first eight years of schooling. Quality will be measured through the proportion of learners who attain grade-equivalent performance levels as measured through criterion reference tests. Equity will be measured through notable increases in the enrolments of categories of children who are currently not reached by education services—girls, remote area dwellers, minorities, nomads, and the poor. Baseline data will be collected and used monitor progress toward attaining these objectives over the project lifespan.

Project Components

The proposed ESIP is structured to achieve its objectives within five investment components of the project, which are;

1. Increased coverage of elementary and middle school education.
2. Improved quality of elementary, middle and secondary school education.
3. Enhanced capacity for service delivery.
4. Curriculum and pedagogical reforms.
5. Project Implementation Support.

The activities in Project Components 1 and 5 have particular application with regards this ESMF and have thus been described in greater detail herebelow.

Component 1: Increased coverage of elementary and middle school education.

Objectives: The Government plans to increase the physical capacity of the basic education system through cost-efficient construction of classrooms for elementary, middle and high schools respectively; reduce the physical barrier to access by bringing schools closer to learners; reduce financial barriers to girls' participation in schooling by providing them scholarships and grants; improve equity by providing classrooms in remote areas, and more places though a pilot mobile school for nomadic children.

Description: This component includes the improvement of: equity and efficiency in the provision of schools and other education infrastructure; and capacity for supervision and
management of the construction of education infrastructure. A Geographic Information System (GIS), will be developed within the MoE and integrated into the overall Education Information Management System (EMIS). The GIS and the EMIS will be used to map schools in accordance with population density and with the need to redress previous inequities in the provision of schools especially in remote areas. The two information systems will also be used to identify schools and other education infrastructure requiring rehabilitation. More efficient and standardized designs for schools and classrooms will be developed and applied. Training and technical support will be provided the MoE to apply better procedures for tendering and better practices for construction management and supervision.

Implementation: The planning for, construction and supervision and management of construction will be the joint responsibility of the MoE’s Physical Planning Unit which shall be responsible for overall planning and supervision and a Project Management Unit that shall be responsible for procurement processes, supervision and management of construction and quality control. The capacity of the Physical Planning Unit will be enhanced. The PMU on the other hand will have specialists in project management, financial management construction management and supervision, and procurement.

Component 5: Project Implementation Support.

The new Department of Planning and the PMU will take responsibility for an effective implementation of this component.
4.0 DESCRIPTION OF THE AREA OF INFLUENCE

The State of Eritrea is located in the "Horn of Africa" at coordinates 15 00 N and 39 00 E, with a land area measuring approximately 124, 400 km$^2$ and a population of about 4.5m people. It is bordered on the northeast by the Red Sea, on the southeast by Djibouti (109km), on the south by Ethiopia (912km) and on the Northwest by Sudan (605). The mainland coastline on the Red Sea is about 1151km in length. Eritrea also includes the many islands of the Dahlak Archipelago, which is located in the Red Sea.

Geopolitically, its location positions Eritrea strategically along the world's busiest shipping lanes.

Asmara is the capital and largest city, with Assab and Massawa the other large cities which are Eritrea's main sea ports.

Eritrea can be characterized as being a mountainous country with the highest peak of 3,018m at Soira which descend towards the southern and eastern parts of the country into low, largely desert coastal strips, with the lowest point located near Kulul within the Denakil depression at -75m.

There are many rivers and tributaries, significant among them being the Anseba, Barka and Alighede rivers.

Most of the country supports only a sparse population of pastoral nomads. The central plateau, however, has many fertile valleys where settled agriculture is pursued.

Land use in Eritrea consist of approximately 4% arable land, 57% grazing/pastoral land, 6% forests and woodland and 33% is barren.

The climate in Eritrea is mainly hot and dry along the desert strip along the Red Sea coast, cooler and wetter in the central highlands and semi-arid in the western hills and lowlands. Rainfall is heaviest during June-September. 70% of Eritrea receives less than 400mm annual rainfall, while about 30% receives less than 200mm and only 9% receives more than 600mm. About 72% of the country has an annual mean temperature of 25 degrees C while the rest is cool to mild with an annual mean temperature of 18 degrees C.

Soil erosion levels throughout Eritrea vary from low to moderate to high, with areas of moderate to high erosion occurring in, and adjacent to communities in the highlands. The widespread moderate to high erosion is the result of localized grazing. The main factors affecting soil erosion are the influence of vegetation, soil type and slope. Some soils, although generally shallow, are particularly stable. However, long steep slopes have rendered the land extremely susceptible to erosion once the vegetative cover is seriously weakened or lost. High soil losses currently occur in cultivated and settlement areas. For most areas the average annual soil loss rates exceed the proposed soil tolerances and as a result significant areas have badly degraded land facets for which soil loss rates are excessively high, due predominantly to severe vegetation deterioration within populated areas.
The main crops grown in Eritrea are corn, sorghum, lentils, cotton, tobacco, coffee with most households growing vegetables such as cabbage, spinach, onion, potato and tomato.

The current environmental and social issues in Eritrea today are from problems associated with population pressure forcing settlement in marginal areas, overgrazing, severe soil erosion, soil exhaustion.

5.0 DESCRIPTION OF THE POLICY, LEGAL, REGULATORY, AND ADMINISTRATIVE FRAMEWORKS

Eritrea places the issue of environmental management and protection as one of its highest policy priorities. To this effect a bill/proclamation is being prepared that will provide the legal framework for the protection, preservation and management of the Environment.

In the absence of this legislation, the government has prepared the National Environment Assessment Procedures and Guidelines (NEAPG). This environmental assessment document consists of two sections and four appendices. The first is “Procedures and Guidelines for Environmental Clearance of Projects” and the second is “Monitoring and Evaluation of Projects”. The Appendices of the NEAPG are given as “Appendix A” (Project List for Environmental Screening); “Appendix B” (Proposed Environmentally Sensitive Area); “Appendix C” (Environmental Assessment Forms); and “Appendix D” (Checklist for Project Screening).

The procedures aim to:

- assess the significance of potential environmental impacts that may occur upon the implementation of a project;
- reduce delays in project approval due to EA requirements;
- improve project design and performance; and
- promote economic development without unnecessary decline in environmental quality.

In the NEAPG, the responsibility for implementation, the users and the conditions for using the procedures are stated. The EA requirements for clearing projects and procedural steps are provided. Screening of projects, level of environmental assessment requirements by the various categories (Category A, B and C) and the responsibilities for carrying-out the EA are also specified.

For clearance, Category A projects are required to be subjected to full EIA; while Category B projects are required to carry-out environmental evaluation; and those in Category C are not subjected to EA. The procedural steps in carrying-out full EIA, the requirements on reporting and Environmental Management Plan (EMP) have been stated. The requirements on reviewing EIA and EMP reports and final project clearance have been outlined.

In section B of the NEAPGI, the requirement and procedures of monitoring and evaluation of projects during implementation have been specified.

According to the NEAPG, the implementation of the environmental assessment procedures is the responsibility of the Department of Environment in collaboration with other Ministries and Government agencies.

Project screening. Project screening should be undertaken by a relevant Government Agency (either at the Central or Zonal level) responsible for regulation, development, implementation, management and/or supervision of a
particular development project. In the absence of a relevant Government agency, it should be completed by the Department of Environment or its zonal branch offices.

**Environmental Evaluation.** The environmental evaluation of a project should be carried out by the Project Owner in collaboration with the relevant Government agency and wherever possible and as appropriate, in consultation with any other potentially affected party. The Department of Environment (or its zonal branch offices) should give advice to the evaluation process whenever required.

Environmental clearance is automatic, unless a written disagreement is submitted by the Department of Environment (or its zonal branch offices, as appropriate), within 10 working days of receipt of the request. Disagreement over clearance is solved through further rounds of consultation between the Department (or its zonal branch offices) and all stakeholders.

**Full Environmental Impact Assessment.** Completion of full environmental impact assessment is the responsibility of the Project Owner. However, it is coordinated by the Department of Environment.

Using the NEAPG, the ESIP would be classified a B, which is consistent with the classification of the World Bank OP 4.01, which also classifies the ESIP as a B.

**Department of Environment**

The Department of Environment of the Ministry of Land Water and Environment is a relatively new department that is charged with the responsibility for the management, coordination, monitoring and supervision of all sectoral activities in the field of environment. At present it has two divisions namely a) Environmental Resources Use and Management Division and b) Environmental Resources Assessment and Information Division.

The present staff of the Department is still skeletal, both at the head office and Zoba levels.

The Department carries out its environmental impact assessment tasks by setting up teams of experts as appropriate. The policy followed by the Department with respect to deployment of experts in carrying out environmental assessment is to involve as much as possible experts working in other ministries or organizations. In such a way it is believed that qualified available human resource within the country could be better exploited or utilized.

The Department has already launched a formal training program for its staff. A number of workshops have been held in the Zobas for representatives of various pertinent government bodies and stakeholders.

The Department has started launching various programs for the promotion of environmental awareness by way of coming out with newspaper articles, TV drama in connection with plastic bags, water pollution etc), video on the state of environment of Eritrea (resources and environment).

**The Administrative Framework**
The State of Eritrea is a sovereign democratic country with Asmara as its capital city.

Administratively, Eritrea is divided into 6 regions, locally known as Zobas, namely, Central, Anseba, Southern Red Sea, Northern Red Sea, Debub and Gash – Barka.

Each Zoba is headed by an appointed executive officer known as the Chief Administrator. In each zoba there is also an elected Zoba parliament.

Each Zoba is further divided into a number of Sub- Zobas which are headed by an appointed executive known as the Sub Zoba Administrator.

In each Zoba there is a Zoba Education Officer and also in each sub zoba there is a sub-zoba education officer.

The Sub Zobas are made up of a cluster of local communities and villages, which are headed by an elected Village Administrator, locally known as the Kebabi Administrator.

The planning process at the local community/village level is based on the traditional system of “Megabaaya”, when the whole village comes together to plan for community development under the auspices of the Kebabi Administrator.
6.0 DESCRIPTION OF THE WORLD BANK’S SAFEGUARD POLICIES

The World Bank Safeguard Policies are:

1. Environmental Assessment OP 4.01
2. Natural Habitats OP 4.04
3. Forests OP 4.36
4. Pest Management OP 4.09
5. Cultural Property OPN 11.03
6. Indigenous Peoples OD 4.20
8. Safety of Dams OP 4.37
9. Projects on International Waterways OP 7.50
10. Projects in Disputed Areas OP 7.60

In light of the type of project activities anticipated, the following World Bank Operational Policies will/may apply:

OP 4.01 Environmental Assessment
OP 4.12 Involuntary Resettlement

Project activities that trigger the policies on Safety of Dams, Natural Habitats, Forests, Pest Management, Cultural Property, Indigenous Peoples, Projects on International Waters and Projects in Disputed areas would not be supported under the project.

Included in Annex 3.0 is a summary of the World Bank Safeguard Policies which should be referred to during the environmental and social screening process when using the screening form in Annex 1.

- **OP 4.01 Environmental Assessment**

This policy requires environmental assessment (EA) of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making. The EA is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the sub project activities of ESIP. The EA process 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.

The environmental and social impacts of the ESIP project will come from the construction activities for the building/rehabilitation/expansion of schools, that the ESIP will be financing. However, since the location of these schools will not be identified before appraisal of the project, the EA process calls for the GoE to prepare a Environmental and Social Management Framework (ESMF) report which will establish a mechanism to determine and assess future potential environmental and social impacts of the construction activities under the proposed ESIP, and then to set out mitigation, monitoring and institutional measures to be taken during implementation and operation of the sub projects to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels.
OP 4.01 further requires that the ESMF report must be disclosed as a separate and stand alone document in Tigrinya by the Government of Eritrea and in English at the World Bank as a condition for Bank Appraisal of the ESIP. The disclosure should be both in Eritrea where it can be accessed by the general public and local communities and at the Infoshop of the World Bank and the date for disclosure must precede the date for appraisal of the project.

The policy further calls for the ESIP project as a whole to be environmentally screened to determine the extent and type of the EA process. The ESIP has thus been screened and assigned a Category B

**Category B** projects are likely to have potential adverse environmental impacts on human populations or environmentally important areas – including wetlands, forests, grasslands, and other natural habitats – and are less adverse than those of category A projects. These impacts are site specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category A projects. The EA process for category B projects examines the potential negative and positive environmental impacts and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance.

Therefore, this ESMF sets out to establish the EA process to be undertaken for implementation of project activities in the proposed ESIP project when they are being identified and implemented.

- **OP 4.12 Involuntary Resettlement**

Significant efforts are to be made in the design and screening stages of project activities to avoid impacts on people, land, property, including people’s access to natural and other economic resources, as far as possible. Notwithstanding, land acquisition, compensation and resettlement of people seem inevitable for some selected school sites. This social issue is of crucial concern to the Government of Eritrea and the Bank as its impact on poverty, if left unmitigated, is negative, immediate and widespread. Thus, a resettlement policy framework has been prepared by the government and approved by the bank in compliance with OP 4.12. This framework sets the guidelines for the resettlement plans that would have to be prepared for any land acquisition or impacts that triggers this policy. The resettlement plans would have to be submitted to the PPU/PMU for review and to the MoE for approval but would also have to be approved by the Bank before the construction is financed.

This policy would be triggered when a project activity causes the involuntary taking of land and other assets resulting in: (a) relocation or loss of shelter, (b) loss of assets or access to assets (c) loss of income sources or means of livelihood, whether or not the affected persons must move to another location.

The resettlement policy applies to all displaced persons regardless of the total number affected, the severity of the impact and whether or not they have legal title to the land. Particular attention should be paid to the needs of vulnerable groups among those displaced. The policy also requires that the implementation of the resettlement plans are a pre-requisite for the implementation/start of the construction
to ensure that displacement or restriction of access does not occur before necessary measures for resettlement and compensation are in place. For chosen sites involving land acquisition, it is further required that these measures include provision of compensation and of other assistance required for relocation, prior to displacement, and preparation and provision of resettlement sites with adequate facilities, where required. In particular, the taking of land and related assets may take place only after compensation has been paid, and where applicable, resettlement sites, new homes, related infrastructure and moving allowances have been provided to displaced persons. For project activities requiring relocation or loss of shelter, the policy further requires that measures to assist the displaced persons are implemented in accordance with the project resettlement plans of action. The policy aims to have the displaced persons perceive the process to be fair and transparent.

OP 4.12 requires the RPF to be disclosed both in Eritrea and at the Bank before appraisal.
7.0 PROPOSED INSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL MANAGEMENT

7.1 Background and Lessons Learned

The Project Management Unit (PMU) of the Ministry of Education will support and manage the implementation of all project components and activities. The Physical Planning Unit (PPU) of the PMU will provide the required technical support for the school construction program and all other civil works.

There is no one in the PPU whose job description includes environmental and social responsibilities as required by the ESMF.

The Department of Environment (DoE) whose responsibility it is to be the principal agency in the State of Eritrea for the management of the environment, is established within the Ministry of Land, Water and Environment.

The DoE is critically understaffed and is thus unable to fulfill completely its mandate. The DoE has categorically stated that without technical assistance or some form of capacity building measure it would not be able to successfully undertake any additional responsibilities under this project.

7.2 Proposed Institutional Framework

The following institutional arrangements are recommended to address the issues presented above thereby enabling the sustainable execution of all measures identified in this ESMF. The recommendations are based on using the existing PMU, PPU and DoE administrative structure but to strengthen them by assigning new responsibilities to existing positions, putting an effective monitoring mechanism procedure in place and by providing training for those key positions assigned new responsibilities. The Village Administrator (VA’s) of local communities are assigned responsibilities and will also benefit from training.

Specifically:

- **Village Administrators (VA’s)**- are to be elected by their local communities and should be trainable people who ideally should also be well respected individuals who command the respect of their communities. Women are especially encouraged to seek election to this office. The roles of the VA include but not restricted to;
  - represent their communities on all matters required of them regarding the ESIP project.
  - Request by submitting an application for a new school in their locality to the MoE
  - Register the names of all primary school going age children in the catchment villages, their ages and standards (i.e. grades) they will be in the following year.
  - In close consultation with their communities propose suitable site for the new school in the locality.
- Screen and modify standard designs of new schools, incorporating mitigation measures based on identified adverse impacts.
- Act as liaison between the local community the MoE and PPU officials during the construction of the school regarding all other matters required in this ESMF including monitoring to ensure designed mitigation measures are respected during construction and during operation of the school.
- Commit the local community to binding contracts in cases such as preparation of resettlement and compensation plans.
- To ensure they make available for training, trainable members who would acquire the skills necessary to perform their responsibilities.
- To work with in a cooperative, supportive and reciprocal manner, service providers who would be appointed by the PMU to work with them.

To successfully carry out these responsibilities the VA’s will be trained as per the training program contained in Section 9 of this ESMF.

- **The Physical Planning Unit (PPU)** — will be responsible for advising the MoE through the PMU on any and all technical decisions required to successfully implement the civil works activities in the ESIP. Specifically, the PPU
  - will advice the PMU on whether to approve for construction of a new school in a locality.
  - Will advice the PMU on secondary schools which need to be expanded.
  - Will approve the selection of sites for the building of schools, based on submissions and recommendations from VA’s and/or service providers, consistent with the requirements of OP 4.12 and the disclosed RPF.
  - Will check for compliance with the EA process contained in section 8 of this ESMF by the VA’s and service providers/consultants. In effect the PPU will be the custodians of the requirements of the ESMF and the RPF.
  - Will be responsible for ensuring that the monitoring plan as contained in the individual submissions for civil works are implemented as stated therein and for the overall monitoring of the entire ESIP requirements as contained in section 10 of this ESMF.

To ensure that the PPU can undertake their responsibilities key people will be trained (see section 9). The individual responsibilities would then be assigned by the Projects Coordinator.

There is no need to employ additional staff as the present staffing levels are deemed adequate. All that is required for the existing staff to be trained and assigned additional/new responsibilities, so that the ESMF can be sustainably implemented.

- **The Department of Environment (DoE)** — the roles and responsibilities in this ESMF have been mostly assigned to the VA’s and the PMU/PPU. However, the DoE will perform two key roles;
1. An enforcement monitoring role as stated in Section 10.

2. Coordinate and implement the training program as stated in Section 9. DoE would also benefit from training as per section 9.
8.0 PROPOSED SCREENING MECHANISM AND ENVIRONMENTAL CHECKLIST OF RISKS AND MITIGATION MEASURES

The sections below will illustrate specific steps involved in the environmental and social assessment process leading towards clearance and approval of the EA process for the project activities anticipated to have adverse environmental and social impacts. The steps incorporate guidelines from both the Department of Environment (DoE) of the Ministry of Land, Water and Environment and the World Bank OP 4.01.

The project activities that are anticipated to have adverse environmental and social effects are the construction/rehabilitation/expansion and operation of new primary and secondary schools. This activity is collectively referred to as construction of schools for the purposes of this EA process.

The Construction of schools will be implemented by the Village Administrator (VA) of local communities. The construction of schools will be based on new standard architectural school designs that have been purposely prepared by the MoE for this project. The construction of the schools will be done by MoE certified contractors appointed by the PMU.

In applying these steps, with the assistance of service providers the implementers (i.e. the VA and PPU) will gain initial experience which will be invaluable to them when they assume responsibility for managing the mitigation measures involved in the implementation, operational and monitoring stages of the project activities. Therefore, under the proposed project, capacity will be developed at the level of the VA and PPU and their service providers\(^1\) to carry out the following EA process:

1) For Construction of Schools
   
   (a) This process can only start after approval has been given by the MoE/World Bank to build a school in a particular local community.

   (b) Once a local community has been approved for a school construction, the VA with the assistance of service providers will screen the new standard school designs to identify adverse environmental and social impacts on their chosen land site by using the screening form in Annex 1.0 and the environmental and social checklist in Annex 2.0.

   (c) Once these impacts are identified the various mitigation measures would also be identified from the use of the completed screening form and checklist. The VA will modify various aspects of the standard design to incorporate the required mitigation measures.

   (d) The VA will re-screen the modified designs using the previously completed screening form and checklist to ensure that all impacts have been adequately identified and mitigated.

---

\(^1\) The service providers are local consultants who would be engaged by the PMU to work with VA’s to help them carry out their responsibilities for the process leading from making a request for a school, site selection, supervision of construction of the school, EA screening etc.
(e) Additionally, for situations where this screening process has identified that OP 4.12 is triggered, then the provisions of the Resettlement Policy Framework would apply. This would require that the VA decided to choose another site that does not trigger OP 4.12 or maintain the site that triggers OP 4.12 but to prepare a resettlement and compensation plan (RAP) that is consistent with the provisions of the RPF.

(f) Throughout this screening process the VA would be assisted by service providers.

(g) Once the VA is satisfied that the modified designs are now environmentally and socially compliant, they would now submit their modified designs which must be accompanied by the site location plan, completed screening form, checklist and where applicable the RAP, to the PPU for acceptance.

(h) The PPU will review the submitted modified design to ensure that all environmental and social impacts have been identified and successfully mitigated based on use of the screening form and checklist. If the screening form has any “Yes” entries, or evidently unjustified “No” entries, the application would need to adequately explain and demonstrate from the modified design that the issue has been managed to avoid unacceptable adverse effects/impacts. If this is the case then the PPU will give a conditional approval for construction to begin based on the following conditions:

- The complete implementation of the Resettlement and Compensation Plan prepared consistent with the RPF where OP 4.12 has been triggered.
- The Construction Contract Documents (i.e. the works and materials specifications, drawings, bills of quantities, contract conditions, etc.) are made consistent with the modified designs.
- That a local service provider assist the VA to supervise the construction process.

(i) If the PPU finds that the submitted modified design is not consistent with the requirements of the screening form and checklist, then the PPU would be requested to make additional modifications and/or chose other sites until it is consistent whereby approval would then be given as per (h) above.

(j) Any proposed design that does not comply with the requirements of the National Environment Management Guidelines of Eritrea and the World Bank Policy OP 4.01 on Environmental Assessment will not be cleared for approval/construction.

The process is designed to ensure that the environmental and social assessment process is part of and conducted during the planning stages with full participation of the local community, thereby ensuring that project activities are environmentally and socially sustainable.
**Environmental Management Plan (EMP):** The VA design proposals from local communities must contain as part of their application an EMP that will consist of a set of monitoring measures to be taken during the implementation and operation of the school to ensure that mitigation measures identified in the modified standard designs are built as designed and remain functional in the post construction stage (i.e. when the school is being used). The EMP should also include the actions needed to implement these measures, including the following features:

**Monitoring:** Environmental and social monitoring during the construction and operational phase of the school, in order to measure the success of the mitigation measures. Specifically:

- The need for on site construction supervision.
- Periodic inspection of facilities post construction stage (i.e. when the school is operational) to ensure that the site has regular water supply, toilets are working, waste material is disposed of as required, etc. and that regular maintenance (malfunctions/faults are repaired in a timely manner) is occurring.

**Public Consultations:** Public consultations are critical in preparing an effective and sustainable request for school, land identification and selection, etc. This requirement supports the participatory planning process that is required by guidelines/legislation in Eritrea. The first step is to hold public consultations with the local communities and all other interested/affected parties. These consultations should identify key issues and determine how the concerns of all parties will be addressed in the terms of reference of the design of project activities. To facilitate meaningful consultations, the zobas, sub zobas and kebabi administrations will assist the MoE to provide all relevant material and information concerning the school construction program in the ESIP in a timely manner prior to the consultation, in a form and in the local languages so that they are understandable and accessible to the groups being consulted. Depending on the public interest in the potential impacts of the project activities, a public hearing may be requested to better convey concerns. To ensure that an appropriate public consultation mechanism is developed, the checklist in Annex 2 includes such a requirement. Once the project activities have been reviewed and cleared by the PPU, the VA’s will inform the public about the results of the review. This approach would be consistent with the Bank’s OP 4.01 Environmental Assessment as well as Eritrea’s efforts to enhance its participatory planning process.

This process has already begun. During the preparation of this ESMF the consultant undertook a ten days study tour in Eritrea during which discussions were held with the Management of the Project Management Unit (PMU) and officials of the Ministry of Education, the Department of Environment, the Director General for Regional Affairs in the Ministry of Local Government, the Zoba Education Officer for the Northern Red Sea Region and the Technical Planning Staff at the Zoba office in Massawa.
Finally, in compliance with disclosure requirements the ESMF and RPF will be translated into Tigrinya by the PMU and copies in English and Tigrinya would be available at the following locations:

- Infoshop of the Word Bank.
- Asmara and Zoba Offices of the Department of Environment
- Office of the PMU in Asmara
- Office of the Chief Administrator in each zoba and sub zoba.
- Home of the Village Administrator of each community that is approved for a school.
9.0 PROPOSED CAPACITY BUILDING MEASURES AND COSTS
ESTIMATES

Capacity building for environmental and social management

As described in an earlier section of this framework, a project component will finance activities to strengthen the institutional capacity of the MoE /PMU/ PPU in monitoring, evaluation, research and policy development and by staff training in strategic areas.

For the purposes of this ESMF therefore, capacity building will be targeted at the PMU Unit and at the level of the local committee’s.

At the PPU the following staff would be provided with training;

- Architect
- Architectural and Engineering Technicians
- Survey Technicians

The training of PPU staff would take the form of a week long training workshop held nationally based on the proposed training program below to equip the staff of the PPU with the required skills to implement this ESMF thereby ensuring that the project activities of the ESIP are environmentally sustainable. The below training program is consistent with the needs of the PPU to meet their responsibilities as stated in Section 7 of this ESMF.
The Government of Eritrea  
Environmental and Social Management Framework (ESMF)  
Education Sector Improvement Project (ESIP)

<table>
<thead>
<tr>
<th>Proposed Training Program For PPU STAFF</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental and Social assessment process</strong></td>
<td>3 days</td>
</tr>
<tr>
<td>• Review of Standard School Designs</td>
<td></td>
</tr>
<tr>
<td>• Screening process</td>
<td></td>
</tr>
<tr>
<td>• Identification of Impacts</td>
<td></td>
</tr>
<tr>
<td>• Design of Appropriate Mitigation Measures</td>
<td></td>
</tr>
<tr>
<td>• Rationale for using Screening form and Environmental and Social Checklists</td>
<td></td>
</tr>
<tr>
<td>• Preparation of terms of reference for carrying out ESIA</td>
<td></td>
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<tr>
<td>• How to review and approve project proposals</td>
<td></td>
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<tr>
<td>• The importance of public consultations in the EA process</td>
<td></td>
</tr>
<tr>
<td>• How to monitor project implementation</td>
<td></td>
</tr>
<tr>
<td>• Case studies</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Environmental and Social policies, procedures and guidelines</strong></th>
<th>2 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Review and discussion of Eritrea’s environmental policies, procedures, and guidelines.</td>
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<tr>
<td>• Review and discussion of the Bank’s safeguards policies.</td>
<td></td>
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<tr>
<td>• Review of ESMF, ESIA, RPF and Resettlement Plan.</td>
<td></td>
</tr>
<tr>
<td>• Collaboration with institutions at the sub zoba, zoba and national levels, e.g. Department of Environment</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Selected topics on environmental protection</strong></th>
<th>1 day</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Land Use, Land Degradation and Soil Erosion</td>
<td></td>
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<tr>
<td>• Flood protection</td>
<td></td>
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<tr>
<td>• Waste disposal</td>
<td></td>
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<tr>
<td>• Ground and Surface Water management</td>
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</tbody>
</table>
For the local communities, the Village Administrator (VA) and their staff assistants would be trained based on the training program below to successfully implement their roles and responsibilities as required in this ESMF in particular but also the ESIP project in generally. Subsequently, they would then train members of their communities on the issues raised in the training program.

The below training program is consistent with the needs of the VA’s to meet their responsibilities as stated in Section 7 of this ESMF.

**Proposed Training Program For VA’ and their Staff/Assistants**

<table>
<thead>
<tr>
<th>Proposed Training Program</th>
<th>Duration</th>
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</thead>
<tbody>
<tr>
<td>Environmental and Social assessment process</td>
<td>1 day</td>
</tr>
<tr>
<td>Review of Standard School Designs</td>
<td></td>
</tr>
<tr>
<td>Screening process</td>
<td></td>
</tr>
<tr>
<td>Use of Screening Form and Environmental and Social Checklists to identify impacts and mitigation measures</td>
<td></td>
</tr>
<tr>
<td>How to monitor project implementation</td>
<td></td>
</tr>
<tr>
<td>Case studies</td>
<td></td>
</tr>
<tr>
<td>Environmental and Social policies, procedures and guidelines</td>
<td>1 day</td>
</tr>
<tr>
<td>Preparation of application for new school</td>
<td></td>
</tr>
<tr>
<td>Review of ESMF</td>
<td></td>
</tr>
<tr>
<td>Land screening for site selection</td>
<td></td>
</tr>
<tr>
<td>Use of RPF</td>
<td></td>
</tr>
<tr>
<td>Preparation and Implementation of Resettlement Plan</td>
<td></td>
</tr>
<tr>
<td>Selected topics on environmental protection</td>
<td>1 day</td>
</tr>
<tr>
<td>Land Use, land degradation and Soil Erosion in their local community</td>
<td></td>
</tr>
<tr>
<td>Safe management of waste disposal and implications on public health</td>
<td></td>
</tr>
<tr>
<td>Environmental Protection of Water Sources</td>
<td></td>
</tr>
</tbody>
</table>

**Training Methodology**

1. **Training of PPU Staff** - The training of PPU staff would be done by a suitably qualified international consultant.

2. **Training of DoE Trainers** – Department of Environment (DoE) trainers would be trained by the same international consultant in 1. above.

3. Trained DoE trainers will now train VA’s and their staff assistants on a “as is required “ basis.

4. **Training of Service Providers** - At the moment it is envisaged that the capacity in the local communities to provide service providers who will be
required to work with VA’s will be non existent or minimal. Therefore, to significantly build local capacity, DoE trainers will identify trainable people drawn primarily from members of civil society in the local communities, local NGO’s and public service workers who would then be trained by the DoE trainers to become service providers to the VA’s providing technical assistance to assist fulfill their responsibilities as outlined in Section 7.

Cost estimates

The costs estimates are based on the assumption that the training program for VA and their staff/assistants and trainers of service providers will be held at the zoba levels; resource persons are likely to come from other parts of the country and therefore will require travel allowances; participants will come from the local community and attend during the day only but will receive a per diem. These estimates include an allowance for travel expenses and all costs of the international consultant. It is proposed that the training program for the VA staff will be implemented four times a year, at least once in each quarter in each zoba over the first two years of the project cycle and complimentary to the school construction program. The training program for the PPU staff would be done once, within two months of project effectiveness.

The Total Training Budget is estimated at US$60,500.
10.0 MONITORING INDICATORS AND PLAN WITH COSTS

Responsibilities for Monitoring and Evaluation of the Mitigation Measures would be assigned as follows:

**Physical Planning Unit (PPU)** – The PPU will be responsible for monitoring the environmental and social screening process carried out by the VA's. Details of the screening processes are outlined earlier in this report.

**Village Administrators (VA's)** – will be responsible for monitoring of (i) the environmental and social assessment work to be carried out on its behalf by service providers; (ii) overseeing the implementation of the resettlement plans. (iii) the supervision of the civil works contractor during the construction process. (iv) operations and maintenance of the school facilities when handed over to the local community after construction. The VA will be assisted in performing these monitoring duties by their service providers.

**Department of Environment (DoE)** - will perform an enforcement monitoring role supported by the PPU (who would perform a self monitoring role) with particular focus on monitoring cumulative impacts of the school construction program on a National level and to ensure that individual mitigation measures are effective at the cumulative and national level.

Monitoring activities by the PPU, VA's and DoE will be performed periodically.

The arrangements for monitoring would fit the overall monitoring plan of the entire ESIP project which would be through the PMU of the Ministry of Education.

The objective for monitoring are two fold.

1) to alert project authorities and to provide timely information about the success or otherwise of the EA process outlined in this ESMF in such a manner that changes to the system can be made if required.

2) to make a final evaluation in order to determine whether the mitigation measures designed into the project activities have been successful in such a way that the pre-project environmental and social condition has been restored, improved upon or worst than before.

A number of indicators would be used in order to determine the status of affected people and their environment (land being used compared to before, number of schools in a district compared to before, level of participation in project activities compared to before, how many kids in school compared to before, health standards, how many clean water sources than before, how many people employed than before etc). Therefore, the projects EA process will set three major socio-economic goals by which to evaluate its success:

- Affected individuals, households, and communities are able to maintain their pre-project standard of living, and even improve on it;
The Government of Eritrea Environmental and Social Management Framework (ESMF)
Education Sector Improvement Project (ESIP)

- Has the pre-project environmental state of natural resources, bio-diversity and flora and fauna, been maintained or improved upon, and

- The local communities remain supportive of the project.

In order to assess whether these goals are met, the project will indicate parameters to be monitored, institute monitoring milestones and provide resources necessary to carry out the monitoring activities.

The following parameters and verifiable indicators will be used to measure the EA process, mitigation plans and performance:

**For the EA process the following indicators;**

- Number of Village Administrators (VA’s) who have successfully received EA training in screening methods etc.; evaluate the training content, methodology and trainee response to training through feedback.
- Numbers of women trained; assess understanding of the need for the EA process as a tool for sustainable development.
- Number of VA’s who have adopted the EA process as required by ESIP; evaluate the rate of adoption.
- Number of school construction projects screened compared to how many local communities approved for a school.
- In how many VA’s planning stages is the EA checklist and screening form applied?; Are the numbers increasing and at what rate?
- How has the adoption of the EA requirements improved the environmental health and bio-physical state of the communities using/affected by the project.
- What are the main benefits that members derive from the use of the EA process?
  - Economic Benefits (i) Increase in achievement of school construction projects adopting EA guidelines (ii) Increase in revenue for VA’s resulting from adoption of EA guidelines, compared with conventional practices.
  - Social Benefits – improvement in the environmental health status of cash crop farmers
  - Environmental Benefits (i) improvement in the sustainable use of Eritrea’s natural resources.
- Efficiency of new built schools maintenance and operating performance.
- How many completed schools have their toilet facilities in good working condition one year after completion.
- How many schools have implemented an effective and working facilities maintenance program.
- Overall assessment of (i) activities that are going well (ii) activities that need improvements and (iii) remedial actions required.
- Is the screening process identified in this ESMF working well.
- Final Question: Based on the performance of the school construction program review, what, if any changes to the ESMF or RFP, and additional training capacity building, are required to improve the performance of the ESMF and the RPF implementation.
Capacity Development and Cost of Carrying out the EA process.

In order to assist the VA's and the PPU in strengthening their environmental assessment capacity, it will be necessary to recruit trained service providers to be funded under component 9 of the project. A breakdown of the costs of the service providers is given below.

**VA's:** The PMU will recruit qualified service providers to assist the VA's in carrying out their responsibilities such as (i) environmental and social screening to identify adverse impacts, (ii) modifying of standard designs to incorporate required mitigation measures, (iii) prepare resettlement plans where applicable, monitoring of mitigation measures and implement the EA process.

**PPU:** The PMU will recruit qualified service providers to assist the PPU in fulfilling its responsibilities, such as review new school project design and application and the EA process VA's have gone through, resettlement plans, environmental review, monitoring etc.

The costs to be incurred will be as follows:

Environmental Assessment process of new school construction projects. As recommended in this ESMF, VA's assisted by service providers will screen their own designs/applications before submitting them for approval to the PPU (see section 8). The total cost for EA is estimated at $50,000.

**Total cost of carrying out EA process:** $50,000

Resettlement Plans. The preparation of resettlement plans and social assessments will be carried out by qualified service providers on behalf of the VA's. Provision would be made under this project in the PPU to support this work. It is estimated that 10% of new school projects or 20, may require resettlement plans; that it takes about 15 days to prepare a resettlement plan and related studies; at a rate of $35/day, the preparation of the 20 resettlement plans will cost $10,500.

**Total cost of carrying out Resettlement Plan:** $10,500
ANNEX 1.0

ENVIRONMENTAL AND SOCIAL SCREENING FORM

The Environmental and Social Screening Form (ESSF) has been designed to assist in the evaluation of design proposals for the new school building program. The form is designed to place information in the hands of implementers and reviewers (VA’s and PPU) so that impacts and their mitigation measures, if any, can be identified and/or that requirements for further environmental analysis 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 project impacts on it. The ESSF will also identify potential socio-economic impacts that will require mitigation measures and or resettlement and compensation.

Name of Village/Town/Area in which School is to be Built:

Name of Village Administrator:

Name of sub zoba and zoba where school is to be built:

Name of Approving Authority: PPU

Name, job title, and contact details for the person who is responsible for filling out this form.

Name:

Job Title:

Telephone number:

Fax number:

E-Mail address:

Date:

Signature:
1. Brief School/Project Description

Please provide information on the number of students who will attend the school, the range of their ages, and the standards they will be in, in the following year. Also provide area of acquired land and approximate size of total building floor areas.

2. The Natural Environment

(a) Describe the land formation, topography, vegetation in/adjacent to the Project area

(b) Estimate and indicate where vegetation might need to be cleared

(c) 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) Riverine forest Yes______No______

   (iii) Wetlands (lakes, rivers, seasonally inundated areas) Yes______No______

   (iv) How far is the nearest Wetlands((lakes, rivers, seasonally inundated areas))? ________________km

   (v) Habitats of endangered species for which protection is required under Eritrea law and/or international agreements. Yes______No______

   (vi) Others (describe). Yes______No______

3. Rivers and Lakes Ecology

Is there a possibility that, due to construction and operation of the project, 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______
4. Protected areas

Does the project area (or components of the project) occur within/adjacent to any protected areas designated by government (national park, national reserve, world heritage site etc.)

Yes______ No______

If the project 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______

5. Geology and Soils

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

Yes______ No______

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

Yes______ No______

6. Landscape/aesthetics

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

Yes______ No______

7. Historical, archaeological or cultural heritage site.

Based on available sources, consultation with local authorities, local knowledge and/or observations, could the project alter any historical, archaeological or cultural heritage site or require excavation near same?

Yes______ No______
8. Resettlement and/or Land Acquisition

Will involuntary resettlement, land acquisition, or loss, denial or restriction of access to land and other economic resources be caused by project implementation?

Yes_____ No_____

If “Yes” Involuntary Resettlement OP 4.12 is triggered. Please refer to RPF for appropriate mitigation measures to be taken.

9. Loss of Crops, Fruit Trees and Household Infrastructure

Will the project result in the permanent or temporary loss of crops, fruit trees and household infra-structure (such as granaries, outside toilets and kitchens, etc)?

Yes____ No_____


Will the operating noise level exceed the allowable noise limits?

Yes____ No_____

11. Solid or Liquid Wastes.

Will the project generate solid or liquid wastes?

Yes____ No_____

If “Yes”, does the project include a plan for their adequate collection and disposal?

Yes____ No_____

12. Public Consultation

Has public consultation and participation been sought?

Yes____ No_____

If “Yes”, describe briefly the measures taken to this effect.
Annex 2: Typical Checklist to Identify Impacts and Mitigation Measures of Construction of Schools for the Eritrea Education Sector Improvement Project (ESIP).

<table>
<thead>
<tr>
<th>Environmental and Social Components</th>
<th>Impacts</th>
<th>Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Environment</strong></td>
<td></td>
<td>Refer to Annex 3.0 for summary of safeguard policies.</td>
</tr>
<tr>
<td>Soils</td>
<td>• Erosion of lands down slope from borrow areas.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Landslides and slips.</td>
<td></td>
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<tr>
<td></td>
<td>• Contamination from waste materials, e.g. cement and paints, engine oils, etc.</td>
<td></td>
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<tr>
<td></td>
<td>• Excavating borrow pits for aggregate materials (sand and stone) for concrete.</td>
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<tr>
<td></td>
<td>• Cutting of stone for use on façades.</td>
<td></td>
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<tr>
<td>Water Resources</td>
<td>• Creation of stagnant water pools</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Increased sediments into streams</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Clogging of drainage works</td>
<td></td>
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<tr>
<td></td>
<td>• Decline in water quality</td>
<td></td>
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<tr>
<td></td>
<td>• Increase in runoff and flooding conditions</td>
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<tr>
<td></td>
<td>• Introduction of hazardous wastes</td>
<td></td>
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<tr>
<td></td>
<td>• Contamination of Wells</td>
<td></td>
</tr>
<tr>
<td>Air Quality</td>
<td>• Dust during construction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special attention to drainage; prevention of erosion; consideration of alternative alignments; retention ponds; proper disposal of oil and other hazardous materials</td>
<td></td>
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<tr>
<td></td>
<td>Siting of Latrines at safe distances from wells and using closed systems for sewage drainage.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dust control by water or other means.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ensure designs incorporate large windows covered by</td>
<td></td>
</tr>
</tbody>
</table>
• Poor air circulation/quality in classrooms.

Acoustic Environment
• Noise disturbance

Bio-physical Environment
Natural Habitats
• Disturbance of natural habitats
• Disturbance to protected areas

Fauna and Flora
• Disruption or destruction of wildlife
• Threats to rare and endangered species

Social Environment
Aesthetics and Landscape
• Marred landscapes
• Debris

Historical/Cultural Sites
• Degradation of sites
• Disturbance to structures

Human Health
• Transport of hazardous substances
• Traffic accidents
• Pedestrian accidents
• Personal hygiene of students and teachers.

Human Communities
• Involuntary resettlement
• Loss of crops, buildings, property, or economic livelihood

long overhanging roofs. Position windows for natural cross ventilation. Use appropriate roofing materials with suitable insulation.
Restrict construction to certain hours

Refer to Annex 4.0 for summary of safeguard policies.
Consideration of alternative alignments or sites (especially for new schools)

Minimize loss of natural vegetation during construction; alternative sites; various special measures for sensitive species

Refer to Annex 4.0 for summary of safeguard policies.
Restoration of vegetation; cleanup of construction sites

Alternative alignments and/or sites
Special measures to protect cultural heritage sites

Regulation of transport of materials
Safety designs (signage)
Ensure availability of clean potable water for use in latrines, canteens and for drinking.
Use of appropriate building materials. No asbestos etc.

Prepare Resettlement and Compensation Plans consistent with disclosed RPF as per OP 4.12
Annex 3.0
World Bank Environmental and Social Safeguard Policies
Summary

- **Environmental Assessment (OP 4.01).** Outlines Bank policy and procedure for the environmental assessment of Bank lending operations. The Bank undertakes environmental screening of each proposed project to determine the appropriate extent and type of EA process. This environmental screening process will apply to all sub-projects to be funded by ESIP.

- **Natural Habitats (OP 4.04).** The conservation of natural habitats, like other measures that protect and enhance the environment, is essential for long-term sustainable development. The Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs. If the environmental assessment indicates that a project would significantly convert or degrade natural habitats, the project includes mitigation measures acceptable to the Bank. Such mitigation measures include, as appropriate, minimizing habitat loss (e.g. strategic habitat retention and post-development restoration) and establishing and maintaining an ecologically similar protected area. The Bank accepts other forms of mitigation measures only when they are technically justified. Should the sub-project-specific EAs indicate that natural habitats might be affected negatively by the proposed sub-project activities, such sub-projects will not be funded under the ESIP.

- **Pest Management (OP 4.09).** The policy supports safe, affective, and environmentally sound pest management. It promotes the use of biological and environmental control methods. An assessment is made of the capacity of the country's regulatory framework and institutions to promote and support safe, effective, and environmentally sound pest management. This policy will most likely not apply to ESIP.

- **Involuntary Resettlement (OP 4.12).** This policy covers direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by (a) the involuntary taking of land resulting in (i) relocation or loss of shelter; (ii) loss of assets or access to assets, or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or (b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons. The ESMF report discusses the applicability of this policy in detail.

- **Indigenous Peoples (OD 4.20).** This directive provides guidance to ensure that indigenous peoples benefit from development projects, and to avoid or mitigate adverse effects of Bank-financed development projects on indigenous peoples. Measures to address issues pertaining to indigenous peoples must be based on the informed participation of the indigenous people themselves. Sub-projects that would have negative impacts on indigenous people will not be funded under ESIP.

- **Forests (OP 4.36).** This policy applies to the following types of Bank-financed investment projects: (a) projects that have or may have impacts on the health and quality of forests; (b) projects that affect the rights and welfare of people and their level of dependence upon or interaction with forests; and (c) projects that aim to bring about changes in the management, protection, or utilization of natural forests or plantations, whether they are publicly, privately, or communally owned. The Bank does not finance projects that, in its opinion, would involve significant conversion or
The Government of Eritrea

Environmental and Social Management Framework (ESMF)

Education Sector Improvement Project (ESIP)

degradation of critical forest areas or related critical habitats. If a project involves the significant conversion or degradation of natural forests or related natural habitats that the Bank determines are not critical, and the Bank determines that there are no feasible alternatives to the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs, the Bank may finance the project provided that it incorporates appropriate mitigation measures. Sub-projects that are likely to have negative impacts on forests will not be funded under ESIP.

- **Cultural Property (OPN 11.03).** The term “cultural property” includes sites having archeological (prehistoric), paleontological, historical, religious, and unique natural values. The Bank’s general policy regarding cultural property is to assist in their preservation, and to seek to avoid their elimination. Specifically, the Bank (i) normally declines to finance projects that will significantly damage non-replicable cultural property, and will assist only those projects that are sited or designed so as to prevent such damage; and (ii) will assist in the protection and enhancement of cultural properties encountered in Bank-financed projects, rather than leaving that protection to chance. The management of cultural property of a country is the responsibility of the government. The government’s attention should be drawn specifically to what is known about the cultural property aspects of the proposed project site and appropriate agencies, NGOs, or university departments should be consulted; if there are any questions concerning cultural property in the area, a brief reconnaissance survey should be undertaken in the field by a specialist. ESIP will not fund sub-projects that will have negative impacts on cultural property.

- **Safety of Dams (OP 4.37).** For the life of any dam, the owner is responsible for ensuring that appropriate measures are taken and sufficient resources provided for the safety to the dam, irrespective of its funding sources or construction status. The Bank distinguishes between small and large dams. Small dams are normally less than 15 m in height; this category includes, for example, farm ponds, local silt retention dams, and low embankment tanks. For small dams, generic dam safety measures designed by qualified engineers are usually adequate. This policy will most likely not apply to ESIP.

- **Projects on International Waterways (O 7.50).** The Bank recognizes that the cooperation and good will of riparians is essential for the efficient utilization and protection of international waterways and attaches great importance to riparians making appropriate agreements or arrangement for the entire waterway or any part thereof. Projects that trigger this policy include hydroelectric, irrigation, flood control, navigation, drainage, water and sewerage, industrial, and similar projects that involve the use or potential pollution of international waterways. This policy most likely will not apply to ESIP.

**Disputed Areas (OP/BP/GP 7.60).** Project in disputed areas may occur the Bank and its member countries as well as between the borrower and one or more neighbouring countries. Any dispute over an area in which a proposed project is located requires formal procedures at the earliest possible stage. The Bank attempts to acquire assurance that it may proceed with a project in a disputed area if the governments concerned agree that, pending the settlement of the dispute, the project proposed can go forward without prejudice to the claims of the country having a dispute. This policy is not expected to be triggered by sub-projects. This policy is unlikely to be triggered by sub-projects to be funded by ESIP.
## Annex 4.0

### Environmental Mitigation Plan for ESIP

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<td>TBD</td>
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**Total Costs** $60,500