

***ERITREA: SUPPORT TO DEVELOPMENT OF TECHNICAL, VOCATIONAL
EDUCATION AND TRAINING PROJECT (STVET)***

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

(P-ER-IAE-001)

The project is classified as Category II. Mitigation measures have been prescribed for the effects of the rehabilitation and extension of the 3 new technical schools. The three institutions will have their learning environment improved through the provision of laboratories, workshops, classrooms, a library and sanitation facilities. Moreover, there will be no displacement of people by the project. The activities supported by the project will be taking place in existing institutions. The project environmental issues and management/ mitigation measures are provided in the Environmental and Social Management Plan (ESMP) summary below.

Brief description of the project and key environmental and social components:

The operation is an investment project. It will assist in financing the implementation of selected elements of agreed reforms to increase access and quality of TVET delivery in Eritrea. The project has three components and has a national coverage. The key environmental and social components of the project include; Expanding Equitable Access and quality of TVET; Building Human and Institutional Capacity for TVET and project management.

The key environmental and social components are:

- **Expanding Equitable Access and quality of TVET. This component supports increased access to Technical, Vocational Education and Training (TVET) at the intermediate level.** It will help improve the learning environment in 3 existing Government technical schools (Asmara, Winna and Mia Habar technical schools) and equip 3 existing private technical schools. Expansion of facilities in the schools will include the construction and expansion of workshops, sanitary facilities and external works including access roads, drains and walkways.
- **Building Human and Institutional Capacity for TVET. This component will assist in efforts to improve the quality of teaching and learning in the project schools by training and upgrading 180 instructors in relevant trades.** To enhance school management, 20 school Directors will also be trained. The project will support the Ministry of Health with an HIV school programme implementation. The component will also support analytical studies i.e. labour market and tracer studies.

Major environmental and social impacts

The main environmental and social impacts anticipated include the following:

Positive Impacts:

The Positive environmental and social impacts will include;

- (i) Increased capacity for the teaching of TVET and policy development.
- (ii) Improved sanitation facilities through the provision of toilets at three education institutions.
- (iii) Improved school environment through tree planting and provision of walk ways.
- (iv) Better opportunity for female and students from under served areas to access TVET.
- (v) Increased opportunity for female instructors to upgrading their skills.
- (vi) Employment opportunities during construction for the population surrounding the construction of the three institutions.
- (vii) Anticipated increased earnings to the students who succeed in completing TVET training.

Potential Negative Impacts

The Potential negative environmental impacts include:

- (i) Risk of soil disturbance, de-vegetation and erosion during construction.
- (ii) Degradation of land as result of harvesting of construction materials such as sand and stones.
- (iii) Dust and noise from construction activities.
- (iv) Occupational hazards to construction workers.
- (v) Risks of pollution and accidents from workshop wastes.

Enhancement and mitigation program

The enhancement and mitigation program to address environmental issues was discussed and agreed. The project team visited one of the three sites where the construction will take place and thoroughly reviewed with the technical officers of the PMU and the Directorate of TVET the preliminary designs of the buildings and provided advice as appropriate on environmental issues. Government submitted information on the likely environmental impacts of the works and the mitigation measures that will be put in place.

The following mitigation measures represent the main outlines of the EMSP and will form an integral part of the project:

- (i) Impact from construction activities is limited since the scope of construction is limited to simple buildings on fairly level pieces of land and thus, during

construction, land cut and filled is to be reduced to minimum. In addition, steep slopes will be grassed or lined; top soil will be preserved and affected areas re-vegetated; movement of construction trucks and equipment will be limited; use of sand and crushed stones will be regulated; and the construction site will be boarded.

- (ii) To prevent any hazard from laboratory or workshop waste, incinerators and septic tanks shall be built for the disposal of laboratory waste; safety rules will also be enforced to minimize safety risks and pollution from workshops or laboratories; sanitization facilities will be provided at all the technical schools to be constructed to ensure an acceptable level of cleanliness and hygiene for students and staff.
- (iii) Efforts will be made to train and sensitize staff, school directors and students on environmental health hazards associated with infected water and poor drainage;
- (iv) Existing trees on all sites will be preserved and students will be sensitized on the importance of tree planting and protection.
- (v) To mitigate diverse effects of the project activities on the climate, the facilities to be constructed by the project are designed to be low energy consumers in cooling and lighting. Cross ventilation and natural lighting are used in most spaces except where mechanical ventilation is necessary. The infrastructure also includes provisions for appropriate drainage in flood prone areas. In addition, landscaping, grass and trees planting will be required within the schools as a means of contributing to ground cover. Rainwater will be harvested and used for appropriate cleaning and gardening. Solar energy is being proposed as the energy source for heating of water and lighting for selected facilities. Beyond that, the revised curriculum for TVET has incorporated climate change aspects like energy conservation, the design of buildings that are energy efficient, use of building materials that has less impact on climate change, water conservation and renewable energy education for all TVET trades.
- (vi) As part of the project, laboratory and workshop facilities will be fitted with emergency response facilities/equipment in case of accidents. This will include installations of fire extinguishers, and laboratory design to allow emergency evacuation.

Monitoring program and complementary initiatives

During the construction period, monthly site meetings will be held. These meetings will monitor the implementation of the environmental mitigation plans. The management of the institutions will lead the environmental monitoring activities and will provide

regular reporting to project management and the PMU. In addition, Bank supervision missions will follow up on the implementation of the ESMP.

Institutional arrangements and capacity building requirements

The MoE will supervise the implementation of the ESMP. As the executing agency, the overall responsibility for the implementation of the project ESMP will rest with the MoE. In addition, environmental education will be provided by the institutions as part of the regular curriculum.

Public consultations and disclosure requirements

The project is designed to operate in a participatory manner. All activities will be implemented in close collaboration with the beneficiary institution and the district and regional governments to increase their sense of ownership of the improved facilities to be introduced under the project.

Estimated costs: Project environmental components

The main environmental improvement falls under the civil works for construction of facilities with a budget of UA 3.31 million. Notably, waste management will be improved through the provision of toilets and septic tanks as part of the provision of the facilities.

Implementation schedule and reporting

The environmental management and monitoring will be implemented following the same project schedule as all activities were mainstreamed in the project design. Achievements and problems will be reported in the project quarterly progress reports and will be timely addressed by the project management and the Bank.

Gender Analysis

Enrolment at all levels of education has increased in Eritrea in the last decade, but there is disparity in enrolments, which increases with the level of education, between female and male students. The project takes into account Government's gender policy and strategy takes cognizance of the fact that sustainable development cannot be realized without the full and equal participation of girls and children from poor households at all levels of education. The main activities of the project in this regard include; i) raising gender awareness of the communities by undertaking training and mobilization campaigns for the community and increasing the number of female teachers in schools by ensuring that at least 30% trainee instructors are female and the continuation of the guidance and counseling programmes at grade 10 level. Other measures supported by the project to improve access of girls to education include the provision of boarding facilities for girls at technical schools in regions where the participation of girls in education is

particularly low. It is noted that the implementation, of the 30% female quota at TVET level introduced in 2001 coupled with Eritrea's policy of free public education at all levels have not increased the number of girls transiting to and completing technical education to the desired levels. In order to address this issue, the project will support government to design and pilot an innovative incentive scheme under the project that targets families who accept to release their girl children to attend TVET and guardians who accept to foster female students while attending TVET training. This scheme is intended to address the negative impact of the inherent/characteristic cultural negative attitude towards girl children attending TVET education away from home.

Social Analysis

The project will contribute to the government efforts to develop the country's human resource base. The project, through its support for improvements in the capacity of technical education institutions for teaching and especially in trade related skills such as construction, mining and agriculture will facilitate the building of middle level skills in the country. These skills are needed for promoting sustained economic growth and social development. The project will specifically open up opportunities for the poorer sections of the Eritrean population by increasing the spaces available for transiting to TVET. As consequence, at the household level, the increased individual productivity, resulting from the improved quality of education, through regular training, night and make-up courses in the technical schools can lead to increased earnings and improved quality of life.