REPUBLIC OF RWANDA



RWAMAGANA DISTRICT

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

FOR CONSTRUCTION OF 98 CLASSROOMS AND 120 LATRINES UNDER QUALITY BASIC EDUCATION FOR HUMAN CAPITAL DEVELOPMENT (QBE-HCD) PROJECT IN RWAMAGANA DISTRICT

Final Report

December, 2019

TABLE OF CONTENTS

| LIST OF ABBREVIATIONS AND ACRONYMS | v |
|---|-----|
| LIST OF TABLES | vi |
| LIST OF FIGURES | vii |
| CHAPTER I. INTRODUCTION | 1 |
| 1.1 Project background | 1 |
| 1.2 Overview of Rwamagana District | 2 |
| 1.3 Description of sub-projects activities | 3 |
| 1.4 Purpose of the ESMP | 6 |
| CHAPTER II: POLICY, LEGISLATIVE AND INSTITUTIONAL FRAMEWORK | 6 |
| 2.1 Institutional Framework | 7 |
| 2.2 National Policy Framework | 7 |
| 2.3 National Legislative Framework | 7 |
| 2.4 International legislative framework | 8 |
| 2.5 World Bank Environmental and Social Standards applied | 8 |
| CHAPTER III: POTENTIAL IMPACTS AND MITIGATION MEASURES | 9 |
| 3.1 Potential positive impacts | 9 |
| 2.2 Potential negative impacts | 9 |
| CHAPTER IV: ENVIRONMENTAL AND SOCIAL MANAGEMENT/MONITORING PLAN | 13 |
| 4.1 Environmental and Social Management Plan | 13 |
| 4.2 Environmental and Social Monitoring Plan | 24 |
| 4.2.1 Monitoring roles | |
| CHAPTER V. REPORTING AND DOCUMENTATION | |
| CHAPTER VI.CONCLUSIONS AND RECOMMENDATIONS | |
| 6.1 Conclusion | |
| ANNEXES: | 40 |
| Annex 1: Occupational Health and Safety Plan | 40 |
| Annex 2: Chance Finds Procedure | 42 |
| Annex 3: Grievance Redress Mechanism Log Frame Template | 43 |
| Annex 4: Reporting format of the ESMP implementation progress | 44 |

| Annex 5: Emergency preparedness and response plan | . 45 |
|--|------|
| Annex 6: Employee's Emergency contact information form | . 54 |

LIST OF ABBREVIATIONS AND ACRONYMS

| AIDS: | Acquired Immune Deficiency Syndrome |
|----------------|---|
| EDPRS : | Economic Development and Poverty Reduction Strategy |
| EIA: | Environnemental Impact Assessment |
| EMP: | Environnemental Management Plan |
| ESIA: | Environmental and Social Impact Assessment |
| ESMP : | Environnemental and Social Management Plan |
| GOR: | Government of Rwanda |
| HIV: | Human Immunodeficiency Virus Infection |
| MININFRA: | Ministry of Infrastructure |
| NST1: | National Strategy for Transformation |
| RAPs: | Resettlement Action Plans |
| RDB: | Rwanda Development Board |
| REMA: | Rwanda Environmental Management Authority |
| RHA: | Rwanda Housing Authority |
| RLMUA: | Rwanda Land Management and Use Authority |
| | |

LIST OF TABLES

| Table 1.1: Sub-projects proposed to be implemented under QBE – HCD Project | 4 |
|--|------|
| Table 2.3: Identified potential impacts and mitigation measures | . 10 |
| Table 3.4: Environmental and Social Management Plan for generic impacts for construction | |
| classrooms and latrines in Rwamagana District | . 14 |
| Table 4.4: Environmental and Social Monitoring Plan for construction of classrooms and latrines in | n |
| Rwamagana District | . 24 |
| Table 5.5: Monitoring roles and responsibility | . 37 |
| Table 6: Occupational Health, Safety and Security Management Plan | . 40 |

LIST OF FIGURES

| Figure 1.1: Administrative map of Rwamagana District | 2 |
|--|---|
|--|---|

CHAPTER I. INTRODUCTION

1.1 Project background

The Government of Rwanda (GoR) is increasingly emphasizing human capital development to support the socioeconomic transformation of the country thus is among twenty-eight early adopter countries of the Human Capital Projects of the World Bank. With support from the Bank, the GoR is implementing the Quality Basic Education for Human Capital Development (QBE-HCD) project with intention to improve teacher competency and student retention and learning in basic education. The project governance is led by Ministry of Education (MINEDUC) that coordinates and implement the project's activities at National level. At local level, the QBE-HCD project is implemented by all thirty district governments.

The project seeks to supports the ongoing government's program to phase out double-shifting, and reduce class overcrowding, which is currently the highest national priority as set out in the National Strategy for Transformation (NST1, 2017-2024). In addition, it will replace existing overage substandard primary classrooms, kitchens and sanitation facilities and expand access to pre-primary education (pre-school classrooms) to improve pupil's school readiness. The QBE-HCD project is implemented countrywide through the Rwanda's Home-Grown School Construction Approach (HGSCA), and is denoted construction program B, to make the distinction from the parallel government-funded school construction program A, which is the continuation of past program. The project has the following three main components: (i) Enhancing teacher effectiveness for improved student learning, (ii) Improving the school environment to support student learning and (iii) Developing institutional capacity to strengthen teaching and learning

Under component 2, the project will finance the construction of 11,000 furnished classrooms and approximately 14.680 latrines, amongst other investments, so as to reduce overcrowding in classrooms and distance to schools from learns' home. As the project will be implemented across Rwanda, part of sub-projects will be constructed in Rwamagana District of Eastern Province, those include 98 classrooms and 120 latrines among others.

Rwamagana District acknowledges its corporate responsibility towards the protection of environment, social set up, health and safety of its workers and surrounding communities and accordingly, is committed to the elimination, reduction and control of potential negative environmental and social impacts associated with project activities through implementation of measures contained in this ESMP.

1.2 Overview of Rwamagana District

Rwamagana District is one of the seven Districts of the Eastern Province. It is bordered by Gicumbi and Gatsibo Districts in the North, Kayonza District in the East, Bugesera and Ngoma Districts in the South, Kicukiro and Gasabo Districts in the West. It is composed of 14 Sectors with a total surface area of 691.9 km².

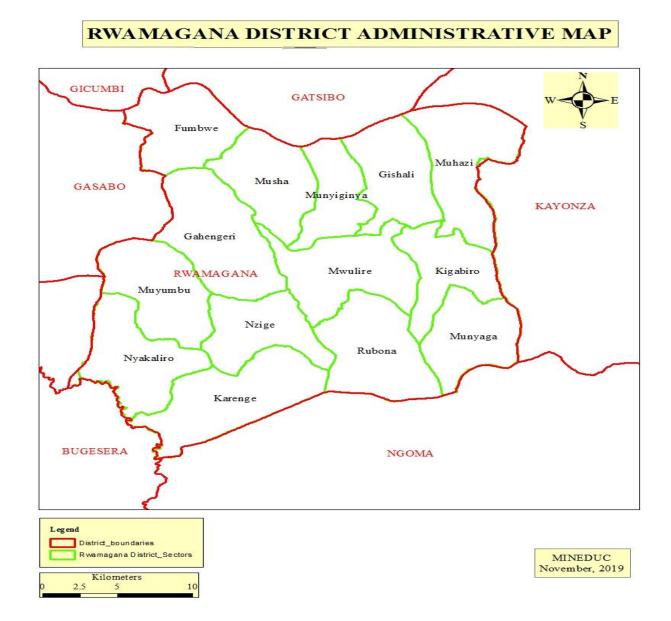


Figure 1.1: Administrative map of Rwamagana District

Rwamagana district population is predominantly rural. Ninety-one point four percent (91.4%) of the resident population (313,461inhabitants) lives in rural areas whereas only 8.6% lives in urban areas. Kigabiro is the most urbanized sector of Rwamagana district with 55% of its population residing in urban areas. It is followed by Karenge (22.2%) and Gishari (7.7%). The population of Rwamagana is mostly young. Sixty-five (65%) of the resident population of Rwamagana is under 25 years old.

The climate is a moderate tropical climate with four seasons (two dry and two wet seasons), with a tendency to aridity. The rainfall increases during the months of April-May and October-December of every year. Average annual precipitation is 1000mm while the average temperature ranges between 19° C and 30° C with the minimum of 13°C and maximum of 30°C sometimes exceeding, and less variability throughout the year.

According to the 2012 mapping a total of 5,459ha (on public and private lands) of Rwamagana District were described as forested. This comprises 2.19% natural forests, 96.83% *Eucalyptus* forests and the rest was a mixture of a variety of plantation species including *Pinus patula, Callistris robusta, Grevillea robusta* and *Cuppressus lusitanica*. The topography of the District of Rwamagana is characterized, in general, by lowly undulating hills separated by valleys, some of which are swampy and boggy. It is located in what is called "eastern plateau" and is between 1400-1700 m a.m. The District is classified as a medium altitude District which lies at about 1° 57' 9" South, 30° 26' 16" East. The highest point is Mount Nyirafumbwe at 1825 m in Fumbwe Sector, North-East of the District. Most of the soils are loamy and few others are sandy with loam mixture. Clay soils are found in some boggy areas

Rwamagana district has over 138 pre-primary schools established with 7764 pupils (3780 boys and 3984 girls) according to District education statistics report for 2017. None of the pre-primary school has adaptive infrastructures and materials for pupil with the disability. In Primary education, the district has 77 schools (23 publics, 30 government aided and 24 private schools). Pupils Classroom ratio is 82, while pupil per desk is 6. The total number of primary pupils was 77340 (38559 boys and 38781 girls). According to EICV 5- 2017 report, the net attendance rate in primary 88.1% (84.9% for boys and 91.3% for girls) promotion rate in primary is 77% (74.3% for boys and 80.9% for girls). Repetition rate is at 20.2% (21.1% for boys and 19.3% for girls.

1.3 Description of sub-projects activities

The project will finance 11 sub-projects which consist of construction of 98 classrooms and 120 latrines in 6 sectors namely Mwulire, Gishari, Nzige, Muhazi, Muyumbu, Musha sectors in which overcrowding and long distances to schools have been noticed as major factors that inhibit learning in Rwamagana District.

This was decided following public consultations conducted by District authority with all concerned and interested parties, whereby a quite number of sub-projects were identified as priorities during 2019/2020 fiscal year under this program to address overcrowding in classrooms and long distance between learns' homes and schools in Rwamagana District.

During construction of classrooms and latrines the following activities will be carried out: Site clearing, land preparation for classrooms and latrines, extraction of construction materials, excavation works, foundation works, concrete works, elevation of walls, roof trusses, roof covering, fixing windows and doors, internal and external finishing, painting, pavement.

| No | Sub Project names | School Name | Location | | | |
|----|---------------------|-------------|----------|----------|-----------|--|
| | | Sector Cell | | Village | | |
| 1 | Construction of 9 | GS CYIMBAZI | MWULIRE | NTUNGA | CYAMBAZI | |
| | classrooms at GS | | | | | |
| | CYIMBAZI | | | | | |
| 2 | Construction of 8 | GS GATI | GISHARI | GATI | UMUNANIRA | |
| | classrooms and 12 | | | | | |
| | latrines at GS GATI | | | | | |
| 3 | Construction of 9 | EP KIGARAMA | NZIGE | KIGARAM | MIKONI | |
| | classrooms and 12 | | | А | | |
| | latrines at EP | | | | | |
| | KIGARAMA | | | | | |
| 4 | Construction of 10 | GS GISHARI | GISHARI | BWISANGA | AKANOGO | |
| | classrooms and 12 | | | | | |
| | latrines at GS | | | | | |
| | GISHARI | | | | | |
| 5 | Construction of 7 | GS | MUHAZI | NTEBE | URUGERO | |
| | classrooms and 12 | KITAZIGURW | | | | |
| | latrines at GS | A | | | | |
| | KITAZIGURWA | | | | | |
| 6 | Construction of 9 | GS MURAMA | MUYUMBU | MUREHE | KAJORORO | |
| | classrooms and 12 | | | | | |
| | latrines at GS | | | | | |
| | MURAMA | | | | | |
| 7 | Construction of 9 | GS MURAMBI | MUHAZI | KARAMBI | KAYENZI | |
| | classrooms and 10 | | | | | |
| | latrines at GS | | | | | |

Table 1.1: Sub-projects proposed to be implemented under QBE – HCD Project

| | MURAMBI | | | | |
|----|--------------------|------------|---------|---------|------------|
| 8 | Construction of 8 | GS MUYUMBU | MUYUMBU | NTEBE | KANYINYA |
| | classrooms and 24 | SATELLITE | | | |
| | latrines at GS | | | | |
| | Muyumbu Satellite | | | | |
| 9 | Construction of 7 | GS | NZIGE | RUGARAM | BITEGA |
| | classrooms and 12 | RUGARAMA | | А | |
| | latrines at GS | | | | |
| | RUGARAMA | | | | |
| 10 | Construction of 10 | GS RUHUNDA | GISHARI | BINUNGA | RURINDIMUR |
| | Classrooms and 12 | | | | А |
| | latrines at GS | | | | |
| | RUHUNDA | | | | |
| 11 | Construction of 12 | GS RUTOMA | MUSHA | NYAKABA | RUHITO |
| | classrooms at GS | | | NDA | |
| | RUTOMA | | | | |

During the implementation of these sub-projects, the possession of health insurance and Personal Protective Equipment (PPEs) will be a must for all workers at all sites during their daily activities. However, for an individual who do not have a personal medical insurance, an agreement should be reached at the recruitment that the individual's first payment will be used to pay for the individual medical insurance. The local people will be the first to be employed in order to reduce risk that may be resulted from the labor influx.

The classrooms and latrines construction activities in year 1 will not disturb the local people because during the sites selection, the priority has been accorded to sites that will not involve land acquisition, restriction on the use of the land/assets and involuntary resettlement. Impact from the noise caused by construction activities at the sub-project sites will be minor as the sub-project activities will not involve machines and will be mitigated by not working during the night.

The QBE – HCD Project is of Impact Level two (IL-2) according to the national project environmental impact classification and as Substantial Risk projects following World Bank environmental and social risk classification, hence QBE – HCD sub-project will be implemented in accordance with National Law and any requirement of the Environmental and Social Standards that the Bank deems relevant to such sub-project.

1.4 Purpose of the ESMP

The purpose of this Environmental and Social Management Plan (ESMP) is to provide a consolidated summary of all the Environmental and Social (E&S) commitments relevant for the Construction of classrooms and latrines sub-projects planning and implementation. The measure focuses on environmental (such as sanitation and waste management problems, dust emission, noise pollution, soil erosion, natural resources extraction such as sand gravels, etc., chemical wastes related to paints, biodiversity and environmental contamination, including surface water and groundwater) and social aspects (such as protection of human rights, communication with local stakeholders, labor influx, spread of sexually transmitted diseases and HIV/ AIDS, safety of workers and communities).

For Year 1, the implementation of Rwanda QBE - HCD Project will not involve land acquisition because the targeted land is the property of the Government and Religious organizations who will avail their land voluntarily as they will sign consent Form in the regards of the existing `Prime Minister's order N°290/03 of 13/11/2015 determining special regulations governing government subsidized schools.

This ESMP also gives an overview about the Environmental Management that must be implemented to ensure systematic and effective execution of these commitments, including roles and responsibilities between the District, sector and community.

Prior to the commencement of any sub-project or individual activity, it is required to understand the nature of the tasks involved and any hazards that may be associated with it in order to ensure that all potential hazards are identified and suitably controlled or mitigated. As part of this, the ESMP is being prepared in parallel with the sub-projects' design works with intention to include environmental and social considerations in the design works at the earliest appropriate stage and tiers of decision making or prior to their final approval. Also, an update of ESMP by the sub-project management shall complete a review of the ESMP periodically to assess its on-going effectiveness, adequacy and suitability.

CHAPTER II: POLICY, LEGISLATIVE AND INSTITUTIONAL FRAMEWORK

This ESMP has been prepared to fully comply with environmental legislations and procedures in Rwanda and the World Bank environmental and social framework. The Project implementation will comply with national laws, international regulations and different conventions ratified by GoR as well as world bank environmental and social standards.

2.1 Institutional Framework

The institution to which this project will have to consult and relate to include:

- i. Ministry of Education;
- ii. Ministry of Finance (MINECOFIN);
- iii. Rwanda Education Board (REB);
- iv. Ministry of Local Government (MINALOC);
- v. Ministry of Infrastructure (MININFRA);
- vi. Rwanda Information Security Authority (RISA);
- vii. Rwanda Housing Authority (RHA);
- viii. University of Rwanda (UR);
- ix. National Early Childhood Development Program (NECP);
- x. Rwanda Development Board (RDB);
- xi. Rwanda Environmental Management Authority (REMA);
- xii. Rwanda development Board (RDB)
- xiii. Rwanda Social Security Board (RSSB)

2.2 National Policy Framework

The Policy frameworks that will guide the project include

- i. Environmental Policy, 2004
- ii. National Land policy, 2004
- iii. Water and Sanitation Policy, 2010
- iv. Vision, 2020
- v. National Strategy for transformation (NST1)

2.3 National Legislative Framework

Amongst the laws that will have a bearing to the project this site includes:

- i. The Constitution of the Republic of Rwanda, 2003 as revised in 2015
- ii. Law on Environment, 2018
- iii. National Land Law, 2013
- iv. Law on Mining and Quarry Operations, 2014
- v. Law Regulating Labor in Rwanda, 2009
- vi. Law governing the preservation of air quality and prevention of air pollution in Rwanda, 2016
- vii. Ministerial order relating to the requirements and procedure for environmental impact Assessment (EIA), 2018

- viii. Ministerial Order establishing the list of projects that must undergo environmental impact assessment, instructions, requirements and procedures to conduct environmental impact assessment, 2019
- ix. Ministerial Order determining modalities of establishing and functioning of occupational health and safety committees, 2012
- x. Ministerial Order determining conditions for occupational health and safety, 2012
- xi. Rwanda building control regulation, 2012
- xii. Sector guidelines for EIA for Roads development projects in Rwanda, 2009

2.4 International legislative framework

Rwanda is a signatory to a number of conventions on sustainable development and is member of various bilateral and multilateral organizations amongst those that have an impact to this project include:

- i. The international Convention on Biological Diversity (CBD) and its habitat signed in Rio de Janeiro in Brazil on 5 June 1992, as approved by Presidential Order no 017/01 of 18 March 1995;
- The United Nations Framework Convention on Climate Change, signed in Rio de Janeiro in Brazil on 5 June 1992, as approved by Presidential Order no 021/01 of 30 May 1995
- iii. The Kyoto Protocol to the framework on climate change adopted at Kyoto on March 6, 1998 as authorized to be ratified by Law no 36/2003 of December 2003;
- iv. The Ramsar International Convention of February 2, 1971 on Wetlands of International importance, especially as water flows habitats as authorized to be ratified by Law No 37/2003 of 29 December 2003;
- v. Paris Agreement/Paris Climate Agreement or COP21 of December 2015 on reduction of the emission of gases that contribute to global warming. This agreement was signed by Rwanda on 22/04/2016 and ratified on 06/10/2016;

2.5 World Bank Environmental and Social Standards applied

The Rwanda QBE – HCD Project is financed by the World Bank that has in place environmental and social framework with ten (10) environmental and social standards (ESS) that are designed to avoid, minimize, and/or mitigate adverse environmental and social impacts of projects supported by the Bank. The World Bank Environmental and Social Standards applied to the sub-projects to be implemented in Rwamagana District are following:

- i. ESS1: Assessment and Management of Environmental and Social Risks and Impacts
- ii. ESS2: Labor and Working Conditions
- iii. ESS3: Resource Efficiency and Pollution Prevention and Management
- iv. ESS4: Community Health and Safety
- v. ESS8: Cultural Heritage
- vi. ESS10: Stakeholder Engagement and Information Disclosure

CHAPTER III: POTENTIAL IMPACTS AND MITIGATION MEASURES

The construction of classrooms and latrines at all stages of sub-projects will involve a number of activities associated with potential risks and impacts on biophysical environment (air, water, aquatic and terrestrial ecology, soil), and socioeconomic environment (land use, finance, employment, hazard and health, security, safety of graveyards, etc.). An impact is any change to the existing condition of the environment caused by human activity or an external influence. Impacts therefore may be positive/beneficial or negative/adverse.

3.1 Potential positive impacts

The positive impacts are beneficial and will thus not require any mitigation. The following are considered as major positive impacts:

- i. Overcrowding in schools will be reduced after completion of construction activities,
- ii. The distance covered by learners from their homes to schools will be reduced,
- iii. Creation of employment to local people during construction,
- iv. There will be income generation to local entrepreneurs through procurement or supply of construction materials,
- v. Improve quality and aesthetics of schools' infrastructure,
- vi. Generation of revenue to Government and the District,
- vii. Increased value and efficient use of government land,
- viii. Improved resilience to climate shocks (destruction of schools, heat, flooding, etc.)

2.2 Potential negative impacts

In terms of environmental degradation, the project is likely to lead to very minimal negative impacts, which shall be easily taken care of in the proactive design and the proposed mitigation measures suggested in this project brief. The negative impacts can be divided into those that will directly come from the constructional and operational activities and those that will be due to socio-economic issues. This can be summarised as follows:

| Potential Impacts/issues | Management/Mitigation Measures |
|---|---|
| Acquisition of non-governmental land | • Sign consent form by religious organizations as per |
| for construction/extension of schools | Prime Minister's order n°290/03 of 13/11/2015 |
| that belong to religious organizations. | |
| Loss of vegetation cover | Clear only the area designed for classrooms and |
| | latrines construction |
| | • Preserve (or stockpile) excavated topsoil for future |
| | site restoration procedures; |
| | Greening by grasses |
| Potential risks of wasting raw materials | Accurate estimate of needed materials |
| | • Get supply of raw-materials (such as sand, stones, |
| | bricks, etc.) from authorized suppliers and sites |
| Access roads | Locate access roads in consultation with local |
| | community and officials |
| Risk of loss of landscape scenic value | • Hold top soils and vegetation matter near quarries, |
| and associated effects on ecosystem | borrow pits and dumping sites |
| | • Rehabilitate (green landscaping) the borrow pits, |
| | quarries and dumping sites at the end of |
| | construction activities |
| Valuable artefacts or culturally valuable | • Use and follow chance find procedures as per the |
| materials | ESCP |
| Accidental injuries | • Checking daily if the materials are in good |
| | conditions before starting the activities, |
| | • Equip all site workers with Individual protective |
| | equipment (such as boots, helmets, and high |
| | visibility jackets) |
| | Avail first aid kit on-site, |
| | • Ensure that all workers have medical insurance |
| | such as "Mutuelle de santé", RAMA or any other |
| | recognized medical insurance |
| | Ensure provision of regular briefing on accurational health and safety to workers |
| | occupational health and safety to workers |
| Deterioration of workers' health and | Having distance between workersThe site will be provided with clean drinking water |
| | |
| child right violation | Construction workers should be given break to go for lunch; |
| | Child labor should be avoided at all stages of |
| | - China labor should be avoided at all stages of |

Table 2.3: Identified potential impacts and mitigation measures

| | construction (child under 18years old) |
|--|---|
| | - |
| | i un areaunent er worners und provision er sure und |
| | health working conditionRespect of working hours |
| | Respect of working hours |
| Risk of conflict | • Local residents will be given the priority during |
| | workforce selection; |
| | • Wearing uniform (jacket) |
| | Grievance redress mechanism |
| Risk of insecurity at the sub project site | • Ensure only authorized personnel get to site |
| | • Ensure security persons are available on the site |
| Risk of contamination by HIV/AIDS | • Sensitize site workers on HIV/AIDS, Sexual |
| and other STDs, Sexual harassment and | harassment and abuse, GBV (gender based |
| abuse, GBV (gender based violation) | violation) to avoid negative effects from social& |
| | multicultural inclusion at the area. |
| | • Voluntary testing to determine HIV status; |
| | counselling at existing medical facilities; |
| | Enforce and sensitize code of conducts |
| Poor hygiene and sanitation | Provide means for handling waste generated by |
| | construction workers |
| | Avail handwashing facilities |
| | Always keep clean toilets |
| | • Install toilets away from rivers or areas with |
| | shallow groundwater |
| | Sensitize workers about handwashing culture |
| Risk of exhaust emissions (e.g. Sulphur, | • Before hiring a supplier, make sure that his/her |
| Carbon, Nitrogen, | vehicle has a valid vehicle technical control |
| chlorofluorocarbons,) from truck | certificate |
| movements | • Sensitize drivers to avoid unnecessary racing of |
| | vehicle engines at loading/offloading points and |
| | parking areas; |
| Risk of noise and/or vibration pollution | • Notify and coordinate with local people adjacent to |
| of civil works/heavy trucks to the school | sub-project sites and school administration to |
| environment and local people | inform them of the possibility of temporary noise |
| | disruption & related issues, and how to report |
| | complaints if any; |
| | Limit civil work activities to daytime hours to the |
| | extent feasible; |
| | Sensitize vehicle drivers to switch off engines when |
| | the vehicle is parked; |
| | |

| Degradation of air quality due to the dust emissions; Soil erosion due to the runoff | Perform welding and other noise producing activities during weekend in order to minimize noise pollution during school days Manual compaction of unstable soil and wearing dust mask Watering while soil works and construction are being executed and where dust is emitted; Reduce vehicle speed in working area Installation of rain water harvesting system (Water tanks and waterways) |
|--|---|
| Generation of solid waste in the form of | Plantation of ornamental trees and grasses on exposed slopes Implement 3R principles (Reducing, reusing, |
| construction spoils | Implement Sit principles (reducing, redshig, recycling) wastes; Avail solid waste bins and sort garbage according different categories (e-wastes, chemicals, plastics, metals, glasses papers/wood and biodegradable wastes); Dispose of solid waste to existing dumpsite |
| Fire outbreak due to welding activities | Avail sand and water on site for fire fighting Employ skilled people in welding activities Ensure a quick contact to concerned security institution in case of strong fire outbreak |
| Soil pollution due to toxic or hazardous chemical from paints or solvents | Hazardous/toxic materials shall be stored in appropriate containers/stores with clearly visible labels; & regularly inspect for signs of leaks. Disposal of waste from paint in existing toxic liquid waste pit Company certified in collected waste will be hired in collecting the produced waste wherever possible Work closely with the district hospital in handling hazardous waste Provide training on management of all hazardous chemicals/materials and wastes for workers including use of Personal Protective Equipment |
| Soil pollution due to infiltration of microbes from faeces Ground water pollution due to infiltration of faeces | Proper construction of foundation and walls for pit by cementing |

In order to put these measures into practice, an Environmental and Social Management Plan (ESMP) needs to be developed and elaborated. The EMP is developed to guide all activities of the project concerning the protection of the environment. This plan specifies the nature of the negative impacts, the proposed mitigation measures for these impacts, the indicators in the execution of these mitigation measures, the time period, the responsibilities and the follow-up needed from concerned authorities. Other plans and procedures are developed as part of this ESMP, those include Emergency Preparedness Plan and Response Measure in case of accidents or fire, Occupational Health and Safety Plan to deals with occupational health and traffic, Chance Find Procedure to provide appropriate protocol in case a valuable artefacts or culturally valuable materials is found during civil works.

CHAPTER IV: ENVIRONMENTAL AND SOCIAL MANAGEMENT/MONITORING PLAN

4.1 Environmental and Social Management Plan

Referring to data collected during Environmental and Social screening, all the sites have almost similar environmental and social impacts; hence only one table combining all the possible impacts was developed. However, the government owns land at only five sites (EP Kigarama, GS Cyimbazi, GS Murama, GS Muyumbu Satellite, GS Rutoma). For the rest sub-projects sites which are mostly owned by religious organizations (GS Gati, GS Gishari, GS Kitazigurwa, GS Murambi, GS Rugarama, GS Ruhunda), a Consent form will be signed in the regards of the existing Prime Minister's order n°290/03 of 13/11/2015 determining special regulations governing government subsidized schools.

It is important to note that during the course of the project new environmental aspects and impacts may be identified, this ESMP will be revised every time once new impact is identified. Environmental and social safeguard officers will have the responsibility to report on the progress of implementation of this ESMP. The budget of ESMP will be managed by MINEDUC and Districts, the rainwater harvesting tanks will be acquired by MINEDUC.

During the implementation of Environmental and social management plan, there is a well-planned way of managing the cost of ESMP according to the project phase and project activity. There are some mitigation measures to be implemented at the national level, district level and others at site level according to the respective implementing responsibility.

The purchase and supply of rainwater harvesting tanks will be conducted at National procurement level as well as the supply of Personnel protective equipment. Other mitigation measures will be conducted in respect to the implementing responsibility.

Table 3.4: Environmental and Social Management Plan for generic impacts for construction classrooms and latrines inRwamagana District

| Sub-Project Phase | Sub-Project Activity | Potential Impacts/issues | Management/Mitigation Measures | Implementation responsibility | Time Frame | Estimated Cost (Frw) |
|-------------------------------|---|--|---|---|-------------------------------------|-------------------------|
| Pre- construction phase | Avail land for 6 sub-project sites from religious organizations (GS Gati, GS Gishari, GS Kitazigurwa, GS Murambi, GS Rugarama, GS Ruhunda) | Religious Land use for 6 sub- projects for classrooms and latrines construction | Sign consent form by religious organizations as per Prime Minister's order n°290/03 of 13/11/2015 | Religious Legal Representative, Government of Rwanda | Before commencing civil works | No cost |
| | Site clearing | Loss of vegetation cover | Clear only the area designed for classrooms and latrines construction Preserve (or stockpile) excavated topsoil for future site restoration procedures; Greening by grasses | Foreman, School Head Teacher | During site clearance | 2,744,000 |

| Construction phase | Extraction and transportation of materials | Potential risks of wasting raw materials | Accurate estimate of needed materials Get supply of raw-materials (such as sand, stones, bricks, etc.) from authorized suppliers and sites | Foreman, School construction officer | During construction period | No cost |
|--------------------|--|--|---|---|--|---------|
| | | Access roads | • Locate access roads in consultation with local community and officials | Foreman, School construction officer, Suppliers with local community | During construction period | No cost |
| | | Risk of loss of landscape scenic value and associated | • Hold top soils and vegetation matter near quarries, borrow pits and dumping sites | Suppliers | During implementati on of the sub project activities | No cost |
| | | effects on ecosystem | • Rehabilitate (green landscaping) the borrow pits, quarries and dumping sites at the end of construction activities | Suppliers | At the end of construction activities | No cost |

| All activities: Excavation and foundation, elevation of walls, ceilings, roof works. | Valuable artefacts or culturally valuable materials | • Use and follow chance find procedures as per the ESCP | Foreman, School construction officer | Prior to & during excavation | 220,000 frw |
|---|---|--|---|---|---|
| | Accidental injuries | Checking daily if the materials are in good conditions before starting the activities, Equip all site workers with Individual protective equipment (such as boots, helmets, and high visibility jackets) Avail first aid kit on-site, Ensure that all workers have medical insurance such as "Mutuelle de santé", RAMA or any other recognized medical insurance Ensure provision of regular briefing on | Foreman, School Head Teacher | During the timeframe of the implementati on of the project | No cost Workers will be provided Personal Protective Equipment 5,068,800 frw No cost |

| | | occupational health and safety to workersHaving distance between workers | | | No cost |
|-----------------------|--|---|---|---|-------------|
| of w heal child | vorkers' lth and d right lation | The site will be provided with clean drinking water Construction workers should be given break to go for lunch; Child labor should be avoided at all stages of construction (child under 18years old) Fair treatment of workers and provision of safe and health working condition Respect of working hours | School Head Teacher, Foreman, Safeguards Team | During sub- project implementati on | 198,000 Frw |
| Risk | | Local residents will be given the priority during workforce selection; Wearing uniform (jacket) Grievance redress | Foreman, School Head Teacher and Social Safeguard Team | During the timeframe of the implementati on of the project | No cost |

| | mechanism | | | |
|---|---|--|---|--------------------------|
| Risk of insecurity at the sub project site | Ensure only authorized personnel get to site Ensure security persons are available on the site | Foreman ,Local Authorities | During the timeframe of the implementati on of the project | No cost 3,300,000 frw |
| Risk of contamination by HIV/AIDS and other STDs, Sexual harassment and abuse, GBV (gender based violation) | Sensitize site workers on HIV/AIDS, Sexual harassment and abuse, GBV (gender based violation) to avoid negative effects from social& multicultural inclusion at the area. Voluntary testing to determine HIV status; counselling at existing medical facilities; Enforce and sensitize code of conducts | School Head Teacher, Foreman ,Health Centers, Local Authorities | During the timeframe of the implementati on of the project | No cost |
| Poor hygiene and sanitation | • Provide means for handling waste generated | Social affairs at sector level, School head | During the timeframe of the | 990,000 frw |

| Risk of exhaust emissions (e.g. Sulphur , Carbon, Nitrogen, chlorofluorocar bons,) from truck movements | make sure that his/her vehicle has a valid vehicle technical control certificate Sensitize drivers to avoid unnecessary racing of vehicle engines at loading/offloading points and parking points | teacher, Foreman kaional police District Environmental officer Environmental and Social Safeguards Officer | implementati on of the sub-project | No cost |
|---|--|--|---|---------|
| Risk of noise and/or vibration pollution of | Notify and coordinate with local people adjacent to sub-project sites and school | Foreman | During implementati on of the activities | No cost |

| civil works/heavy trucks to the school environment and local people | administration to inform them of the possibility of temporary noise disruption & related issues, and how to report complaints if any; Limit civil work activities to daytime hours to the extent feasible; Sensitize vehicle drivers to switch off engines when the vehicle is parked; Perform welding and other noise producing activities during weekend in order to minimize noise pollution during school days | | | |
|---|---|---|--|---------|
| Degradation of air quality due to the dust emissions; | Manual compaction of unstable soil Watering while soil works and construction are being executed and | Foreman, drivers, Traffic Police, safeguards team | During implementati on of the sub project activities | No cost |

| | | | where dust is emitted;Reduce vehicle speed in working area | | | 264,000frw |
|--------------|--|--|---|--|---|---------------------------------|
| | | Soil erosion due to the runoff | Installation of rain water harvesting system (Water tanks and waterways) Plantation of ornamental trees and grasses on exposed slopes | MINEDUC in collaboration with, FONERWA, MINEMA, Ministry of Environment, Districts, School head teacher, | During the timeframe of the implementati on of the sub-project | 39,200,000 frw 318,000frw |
| Construction | Elevation of walls, roof trusses, roof covering, Fixing windows and doors, internal and external finishing and pavement. | Generation of solid waste in the form of construction spoils | Implement 3R principles (Reducing, Reusing, Recycling) wastes, Avail solid waste bins and sort garbage according different categories (e-wastes, chemicals, plastics, metals, glasses papers/wood and biodegradable wastes); | Foreman District Environmental Officer, School head teacher, Foreman | During the timeframe of the implementati on of the project | No cost |

| | | | Dispose of solid waste to existing dumpsite | | | |
|-----|--|---|--|--|--|---------------|
| | | • | Avail sand and water on site for fire fighting Employ skilled people in welding activities Ensure a quick contact to concerned security institution in case of strong fire outbreak | School head teacher, foreman and police fire brigade | During welding activities | No cost |
| Pai | Soil pollution due to toxic or hazardous chemical from paints or solvents | | Hazardous/toxic materials shall be stored in appropriate containers/stores with clearly visible labels; & regularly inspect for signs of leaks. | District Environmental officer, School head teacher, Foreman | During the timeframe of the implementati on of the sub-projects | No cost |
| | | | Disposal of waste from paint in existing toxic liquid waste pit | | | |
| | | | Company certified in collected waste will be hired in collecting the produced waste wherever | | | 1,100,000 frw |

| Operation | Use of toilet | Soil and groundwater pollution due to infiltration of microbes from faeces | possible Work closely with the district hospital in handling hazardous waste Provide training on management of all hazardous chemicals/materials and wastes for workers including use of PPEs Proper construction of foundation and walls for pit by cementing | School construction officer and specialist | During pit cementing and foundation works | 12,799,920 frw |
|------------------------------|---------------|---|---|---|---|-------------------|
| Total estimated budget | | | | | | 66,202,720 frw |

4.2 Environmental and Social Monitoring Plan

The below monitoring plan is applicable to all impact summarized in the above table and it is common to all sites within Rwamagana District. As stated above, for sub-projects owned by religious institutions; they shall sign consent forms with the government prior the construction works.

| Sub- | Potential impacts | | Monitoring | Frequency/ | Responsible | Estimated |
|-------------|-----------------------|-------------------------|--------------|-------------|-----------------------|------------|
| project | | Management/ | indicator | Time frame | | cost (Frw) |
| phase | | Mitigation Measures | | | | |
| Pre- | Religious land use 6 | Sign consent form by | Number of | Before the | Monitoring and | No cost |
| constructio | sub-project sites (GS | religious organizations | signed | commenceme | Evaluation Specialist | |
| n phase | Gati, GS Gishari, GS | as per Prime Minister's | consent form | nt of civil | and Social safeguards | |
| | Kitazigurwa, GS | order n°290/03 of | | works | Specialist/MINEDUC | |
| | Murambi, GS | 13/11/2015 | | | | |
| | Rugarama, GS | | | | | |
| | Ruhunda)) for | | | | | |
| | classrooms and | | | | | |
| | latrines construction | | | | | |
| | | | | | | |

| | Loss of vegetation cover | • | Clear only the area designed for classrooms and latrines construction Preserve (or stockpile) excavated topsoil for future site restoration procedures; Greening by grasses | Area cleared in square meter Quantity of excavated soil in cubic meter Area greened in square meter | Once Once Once(after construction works) | Local authorities, Foreman and MINEDUC Safeguards Team | 891,000 |
|------------------------|---|---|---|--|--|---|---------|
| Constructio n phase | Potential risks of wasting raw materials | • | Accurate estimate of needed materials Get supply of raw- materials (such as sand, stones, bricks, etc.) from authorized suppliers and sites | Quantity of remaining materials Number of | Monthly | Foreman | No cost |
| | Access roads | • | Locate access roads in consultation with local community | Number of complaints | | | |

| | | and officials | | | | |
|---|---|--|---|-------------------------------------|---|-----------|
| Risk of loss of landscape scenic value and associated effects on ecosystem | • | Hold top soils and vegetation matter near quarries, borrow pits and dumping sites; | All accumulated top soils and vegetation matter used for rehabilitation | Once after construction works | Local authorities, Foreman, Suppliers and MINEDUC Safeguards Team | 1,100,000 |
| | • | Rehabilitate (green landscaping) the borrow pits, quarries and dumping sites at the end of construction activities | of sites; Rehabilitated area in square meter | | | |
| Valuable artefacts or culturally valuable materials | • | Use and follow chance find procedures as per the ESCP | Number of complains | During construction period | Local authority , MINEDUC safeguards Team | No cost |
| Accidental injuries | • | Checking daily if the materials are in good conditions before starting the activities, Equip all site | Number of Materials in good condition | Daily | Local authorities, Foreman, schools' construction Engineers, and MINEDUC Safeguards Team | no cost |

| workers with | Number of | Daily |
|-----------------------|------------------|-------|
| Individual | workers with | |
| protective | personnel | |
| equipment (such as | protective | |
| boots, helmets and | equipment | |
| high visibility | equipment | |
| | | |
| jackets); | | Daily |
| A | Number of | |
| • Avail first aid kit | first aid kit | |
| on-site, | on site | Daily |
| • Ensure that all | Number of | |
| workers have | workers with | |
| medical insurance | medical | |
| such as "Mutuelle | Insurance | |
| de santé", RAMA | Insurance | |
| or any other | | |
| recognized medical | | |
| insurance | | |
| msurance | Nie welten en ef | Daily |
| • Ensure provision of | Number of | |
| | briefings on | |
| regular briefing on | safety to | |
| occupational health | workers | |
| and safety to | provided | |
| workers | | Daily |
| | | Dairy |
| | Distance in | |
| | | |

| Deterioration of workers' health and child right violation | • | Having distance between workers The site will be provided with clean drinking water | meter Quantity of drinking water in jericans | Daily | Local authorities, Foreman and MINEDUC | 244,062.5 FRW |
|--|---|---|--|----------------|--|------------------|
| child right violation | • | Construction workers should be given break to go for lunch; | Number of hours for break | Daily | Safeguards Team | |
| | • | Child labor should be avoided at all stages of construction (child under 18years old) | Number of checking made on site | Daily | | |
| | • | Fair treatment of workers and provision of safe and health working condition | Number of complains resolved | Daily Daily | | |
| | • | Respect of working hours | Number of working hours/day | | | |

| Risk of conflict | • | Local residents will be given the priority during workforce selection; | Number of local residents on work | Once, during recruitment | Local authorities, Site supervisor and MINEDUC Safeguards Team | No cost |
|--|---|--|--|-----------------------------|---|------------------|
| | • | Wearing uniform (jacket) | Number of workers with jackets | Daily | | |
| | • | Grievance Redress Mechanism | Number of grievances resolved | Daily | | |
| Risk of insecurity at the sub project site | • | Ensure only authorized personnel get to site, | Entry Register book | Daily | Local authorities, foreman and MINEDUC Safeguards Team | 3,300,000 FRW |
| | • | Ensure security persons are available on the site | Contract of security personnel employed | | | |
| Risk of contamination by HIV/AIDS and other STDs, Sexual harassment and abuse, GBV (gender based | • | Sensitize site workers on HIV/AIDS, Sexual harassment and abuse, GBV | Minutes and attendance lists | Monthly | Local authorities, Health Centers, Foreman and MINEDUC | 1,650,000F RW |

| violation) | (gender based violation) to avoid negative effects from social& multicultural inclusion at the | | Monthly | Safeguards Team | |
|--------------------------------|---|--|-----------------------------|---|-----------------|
| | Voluntary testing to determine HIV status; counselling at existing medical facilities; | Number of voluntary tested personnel | | | |
| | • Enforce and sensitize code of conducts | Number of Site supervision | | | |
| Poor hygiene and sanitation | Avail handwashing facilities; Always keep clean toilets; | Number of handwashing facilities on site Cleanliness | Daily Daily | Local authorities, Foreman, head teachers and MINEDUC Safeguards Team | 330, 000 FRW |
| | • Install toilets away from rivers or areas | Field visit report | Once during project startup | | |

| | • | with shallow groundwater; Sensitize workers about handwashing culture | Minute and attendance list | Monthly | | |
|--|---|--|---|---------|--|------------------|
| Risk of exhaust emissions (e.g. Sulphur, Carbon, Nitrogen, chlorofluorocarbons,) | • | Before hiring a supplier, make sure that his/her vehicle has a valid vehicle technical control certificate; Sensitize drivers to avoid unnecessary racing of vehicle engines at loading/offloading points and parking areas; | Inspection report Minute and attendance lists | Daily | Local authorities, traffic police, foreman and MINEDUC Safeguards Team District Environmental officer | 3,300,000F RW |
| Risk of noise and vibration pollution of heavy trucks to the school environment and local people | • | Notify and coordinate with local people adjacent to sub- project sites and school administration to | Number of complaints raised and resolved about noise and vibration | Daily | Local authorities, Foreman and MINEDUC Safeguards Team | 82,500 FRW |

| | | inform them of the | | | | |
|--------------------|---|-----------------------|-----------|-------|--------------------|-----------|
| | | possibility of | | | | |
| | | temporary noise | | | | |
| | | disruption & related | | | | |
| | | issues, and how to | | | | |
| | | report complaints if | | | | |
| | | any; | | | | |
| | • | Limit civil work | | | | |
| | | activities to | | | | |
| | | daytime hours to | | | | |
| | | the extent feasible; | | | | |
| | | | | | | |
| | • | Sensitize vehicle | | | | |
| | | drivers, operators to | | | | |
| | | switch off engines | | | | |
| | | when the vehicle is | | | | |
| | | parked; | | | | |
| | | | | | | |
| | • | Perform welding | | | | |
| | | and other noise | | | | |
| | | producing activities | | | | |
| | | during weekend in | | | | |
| | | order to minimize | | | | |
| | | noise pollution | | | | |
| | | during school days | | | | |
| Degradation of air | • | Manual compaction | Area of | Daily | Local authorities, | 825,000FR |
| | | | compacted | | | , |

| quality due to the dust | | of unstable soil ; | soil in square | | Fore man and | W |
|--|---|---|---|--------------|---|----------------|
| emissions; | • | Watering while soil works and construction are being executed and where dust is emitted; | meter | | MINEDUC Safeguards Team | |
| | • | Reduce vehicle speed in working area | | | | |
| Soil erosion due to the runoff | • | Installation of rain water harvesting system (Water tanks and waterways). | Number of installed water tanks | Monthly | Local authorities, Foreman and MINEDUC Safeguards Team | 82,500FR W |
| | • | Plantation of ornamental trees and grasses on exposed slopes | Number of planted ornamental trees | | | |
| Generation of solid waste in the form of construction spoils | • | Implement 3R principles (Reducing, reusing, recycling) wastes; | Awareness provided for workers on 3R principles Number of | Twice a week | District Environmental Officer, Local authorities, Site Foreman and | 137,500 FRW |

| | Avail solid waste | solid waste | | MINEDUC | |
|--|---|---|--------|---|--------|
| | bins and sort garbage according different categories | bins and garbage on site | Daily | Safeguards Team | |
| | (e-wastes, chemicals, plastics, metals, glasses papers/wood and biodegradable wastes); | | | | |
| | Dispose of solid waste to existing dumpsite | Amount of solid waste disposed at existing dumpsite | Weekly | | |
| Fire outbreak due to welding activities | Avail sand and water on site for fire fighting Employ of skilled people in welding activities' | Quantity of sand and water in cubic meter | Daily | Local authorities, Site supervisor and MINEDUC Safeguards Team | 77,000 |
| | • Ensure a quick contact to concerned security institution in case of strong fire | | | | |

| | | | outbreak | | | | |
|----------|--|---|--|---|---------|---|----------------|
| to ch | oil pollution due to oxic or hazardous hemical from paints r solvents | • | Hazardous/toxic materials shall be stored in appropriate containers/stores with clearly visible labels; & regularly inspect for signs of leaks. Disposal of waste from paint in existing toxic liquid waste pit; | Quantity of waste disposed in existing toxic liquid waste pit. | Monthly | Local authorities, foreman and MINEDUC Safeguards Team | 154,000FR W |
| | | • | Company certified in collected waste will be hired in collecting the produced waste wherever possible; Work closely with the district hospital in handling hazardous waste | | Monthly | | |

| Operation | Soil and groundwater pollution due to infiltration of microbes from toilets | • | Provide training on management of all hazardous chemicals/materials and wastes for workers including use of Personal Protective Equipment. Cementing the walls of pit | Number of personnel protective equipment Inspection report | Once after completion | Local authorities, foreman and MINEDUC Safeguards Team | 77,000 FRW |
|------------------------------|--|---|---|---|--------------------------|---|----------------------|
| Total estimated budget | | | | | | | 11,359,562 .5 FRW |

4.2.1 Monitoring roles

| Institution | Roles | Responsible department/person |
|----------------------|---|---|
| WORLD BANK RDB | Responsible for issuing no objection before the project implementation Monitoring of the implementation of ESMP Capacity building of MINEDUC safeguards Team and social protection unit Staff on ESMP Issuance of the clearance certificate for the projects | WB Safeguards Team EIA Department |
| MININFRA | Technical support to classrooms and latrines construction activities | Staff in charge of construction |
| MINEDUC | Review the ESMP from District and submit it to WB for no objection Address the comments from WB and submit it to RDB for clearance Monitoring of ESMP implementation Training of District staff on ESMP Report the implementation of ESMP to WB | MINEDUC Safeguard Team |
| Districts | Preparation of ESMP and submit it to MINEDUC to be reviewed and submitted to WB and RDB Training of stakeholders at Sector level and technicians on ESMP Monitoring of ESMP implementation and report to MINEDUC Supervise the implementation of Mitigation Plan Supervision of putting in place and operationalization of grievance committees | Environmental officer Schools Construction Engineer Director of Education unit |
| Sector and Cells | Training of stakeholders at Sector level and technicians on ESMP Monitoring of ESMP implementation and report to District Supervise the implementation of Mitigation Plan Supervision of putting in place and operationalization of grievance committees | Sector land officer Sector Social Protection Officer Executive secretary of concerned Cells Sector |

Table 5.5: Monitoring roles and responsibility

| | | agronomist | | | | | | | |
|-----------|--|---------------|--|--|--|--|--|--|--|
| | • Execute ESMP guidelines and report any | Community and | | | | | | | |
| Community | Environmental and Social issue occurred on the site to | Workers | | | | | | | |
| | local authorities | | | | | | | | |
| | • Election of grievance committee's members | | | | | | | | |

CHAPTER V. REPORTING AND DOCUMENTATION

The Environmental and Social Safeguards Officers (ESSO) at District level; in close collaboration with District Environmental Officer; will ensure if monthly and quarterly reports of the implementation and monitoring of the ESMP are provided timely to the Ministry which shall consolidate and submit all the reports to the World Bank as agreed in the commitment plan. The ESSO shall ensure the documentation of all designed mitigation measures in this plan. He/ She shall notify within 24 hours any incident or accident related to the project implementation or that has impact on it, and that has or could have a significant adverse effect on the environment, the affected communities, the public, or the workers included, for example, occupational accidents and electrocution.

CHAPTER VI.CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

Prior to the commencement of any sub-project or individual activity, it is required to understand the nature of the tasks involved and any hazards that may be associated with it. To ensure that all potential hazards are identified and suitably controlled or mitigated, there are 5 key process elements to be continually implemented as follows: identify the hazards; assess who may be harmed and how; evaluate the risks and decide on appropriate control measures; record the findings and implement the controls; periodically review the assessments and update as required.

Plans and procedures that describe the actions to be taken and control measures to be applied, in order to reduce risk to health and welfare of sub-project personnel and other stakeholders, resulting from construction activities to all levels, are developed and reviewed as necessary, to meet both legal and employer contract specific ESMP requirements.

Given the nature and location of the project development activities, the conclusion is that the potential impacts associated with the proposed development are of a nature and extent that can be avoided, reduced, and eliminated by the application of the proposed appropriate mitigation

measures suggested; hence the construction of 106 classrooms and 120 latrines sub-projects under Quality Basic Education for Human Capital Development (QBE-HCD) Project in Rwamagana District shall be successfully implemented.

ANNEXES:

Annex 1: Occupational Health and Safety Plan

This plan provides remedies for potential community health, safety and a security risk associated with the implementation of Rwanda QBE – HCD sub-projects and helps to provide guidance that respond and mitigate the identified risks. Under this plan all applicable laws and standards stated in legal and institutional framework shall apply. The table below shows the potential risks of sub-projects activities under QBE – HCD Project in Rwamagana District, the proposed mitigation measures and the responsibilities. The following table summarizes the Community Health, Safety and Security Management Plan.

| Potential Risk | Mitigation Measures | Responsible |
|--|---|---|
| The influx of new workers from outside areas to the project area will increase demand on existing health services | Health services of the new workers shall be provided especially the medical insurance "Mutuelle de santé" | District in collaboration with RSSB |
| The influx of new workers to the area could bring with it an increase of communicable diseases. | Awareness campaigns on hygiene and sanitation and how these diseases spread. | Sectors Districts |
| Dust from transport and vehicles and machineries on roads | Control speed limits; Haul truck transporting volatile construction materials Ensure haul trucks are not overloaded and are covered where necessary; | Site environmental and social officers Site construction engineers District environmental officer |
| Road accidents | Restrict speed limits 20km/hour; Erect speed control signs post; Community awareness on proper use of roads. | Traffic policy |
| Diffuse run-off from roads, construction areas and other disturbed areas may contain elevated concentrations of suspended solids or pollutants | Ditches will channel surface water runoff to the designated areas; Maximum reuse or recycle of process waste water; Water monitoring will be conducted. | Site construction engineers |

Table 6: Occupational Health, Safety and Security Management Plan

| Potential Risk | Mitigation Measures | Responsible |
|----------------------------------|--|---------------------------|
| Noise will be significant | Monitoring will be conducted; | Environmental and |
| during construction. | Operating hours of the open pit | social officer |
| | activities only during the daily | |
| | hours; | District |
| | Speed restrictions on site traffic; | environmental |
| | | officer |
| Gas emissions from project | Constant preventative emission | Environmental and |
| vehicles, trucks and | control; | social |
| construction machineries | Ensure all project vehicles and trucks have valid vehicle inspection | District |
| | trucks have valid vehicle inspection | District environmental |
| | certificates, | officer |
| Dust from construction | Sprays water to avoid lift of dust; | Environmental and |
| activities including quarries | Sprays water to avoid fift of dust, Workers provided with appropriate | social officer |
| and borrow pits | PPE. | social officer |
| 1 I | | District |
| | | environmental |
| | | officer |
| Interaction between learns and | Head teacher, foreman, | |
| project workers | environmental and social officer to | |
| | prevent any interactions between | |
| | learners and project workers by | |
| | keeping learners far from | |
| | construction sites and enforcing | |
| | strict security measures; | |
| | Learners plays and interactions between themselves must be from | |
| | construction sites | |
| | Increase security awareness among | |
| | learners and restrict them from | |
| | crossing danger/warning tape. | |
| Site intrusion, theft, and other | Put in place warning tape across | |
| insecurity at construction site | construction perimeter | |
| - | Ensure security of construction site | |
| | by appointing security staffs 24/7 | |
| | till completion of construction | |

Annex 2: Chance Finds Procedure

Institute of National Museums of Rwanda (INMR) is responsible for recovering these items. Chance find procedures will be used as follows:

- i. Stop the construction activities in the area of the chance find;
- ii. Delineate the discovered site or area;
- iii. Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible local authorities and the equivalent take over;
- iv. Notify the supervisory Engineer who in turn will notify the responsible local authorities and the General Authority of Antiquities immediately (within 24 hours or less);
- v. Responsible local authorities and the General Authority of Antiquities would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archeologists of the General Authority of Antiquities (within 72 hours). The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values;
- vi. Decisions on how to handle the finding shall be taken by the responsible authorities and the General Authority of Antiquities. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage;
- vii. Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the General Authority of Antiquities; and
- viii. Construction work could resume only after permission is given from the responsible local authorities and the General Authority of Antiquities concerning safeguard of the heritage.

These procedures must be referred to as standard provisions in construction contracts, when applicable, during project supervision, the Site Engineer shall monitor the above regulations relating to the treatment of any chance find encountered are observed.

Annex 3: Grievance Redress Mechanism Log Frame Template

| Griev | Nam | Date | Means of | Loc | Type of | Sum | Action | Dat | Statu | Status | Statu |
|-------|------|-------|---------------|------|----------|-------|--------|------|-------|--------|-------|
| ance | es | for | grievance | atio | issue | mari | undert | e of | s+30 | +60 | s+90 |
| Refer | and | griev | reception | n of | raised | zed | aken | acti | days | days | days |
| ence | ID | ance | (SMS, | grie | (Grieva | desc | | on | | | |
| Num | of | rece | Phone | van | nce, | ripti | | | | | |
| ber | com | ption | call, letter, | ce | Concer | on of | | | | | |
| | plai | | email, | rece | n, | the | | | | | |
| | nant | | verbal,) | ptio | request, | com | | | | | |
| | | | | n |) | plain | | | | | |
| | | | | | | t | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

The log form to be filled by grievance redress committees

TEMPLATE FOR CONSOLIDATED REPORT OF GRCs ACTIVITIES

| Ν | Names, | Date | Means | Type of | Summari | Action | Date | Level | Status |
|---|-----------|---------|---------|----------|------------|----------|-------|---------|---------|
| 0 | Area of | for | of | issue | zed | undertak | of | of | of |
| | residence | grievan | grievan | raised | descriptio | en | actio | GRC | grievan |
| | and ID of | ce | ce | (Grievan | n of the | | n | that | ce |
| | complain | recepti | recepti | ce, | complaint | | | took | during |
| | ant | on | on | Concern, | | | | action | the |
| | | | (SMS, | request, | | | | on | reporti |
| | | | Phone |) | | | | grievan | ng time |
| | | | call, | | | | | ce | |
| | | | letter, | | | | | | |
| | | | email, | | | | | | |
| | | |) | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Annex 4: Reporting format of the ESMP implementation progress

- 1. Sub/projects background (locations' description etc.,)
- 2. Actual impacts including unforeseen effects of the project
- 3. Level of staff awareness on operational issues relating to environmental performance
- 4. Overall status of environmental performance
 - List all challenges encountered so far during project implementation & lessons & learnt
 - Provide photos and pictures that illustrate the changes onsite before intervention and after intervention)
- 5. Recommendation for continual improvement

| Impact predicted | Proposed mitigation measures | Indicator (Parameter to be measured) | Color coding | Sub- project | Findings/Remarks (Describe status of completion, Does this measure seem effective? suggest solutions where problems are encountered) |
|---|------------------------------------|---|-----------------------------|---|--|
| | | | | | |
| District ESSO | | | | Date/Nam | e of reviewer: |
| TOBE COMPLETED BY MINEDUC Progress monitoring - main findings: | | | <mark>of t</mark> □ slig | ESMP schedule/completed/ahead ime htly delayed htly delayed | |

Note: The progress of implementing mitigation measures should be color-coded in column 4: *Green* = On Schedule/ Ahead of Schedule/ Completed, *yellow* = Slightly Delayed, *Red* = Delayed

Annex 5: Emergency preparedness and response plan

| Item | Scenario requiring emergency preparedness | Emergency actions/response | Responsible person | Resources Required (Equipment, materials, Personnel, etc.) |
|-----------------------|--|--|--|--|
| Hazard and risks | Potential hazards and risks at site/workplace | Identifying existing or potential hazards and ensuring that these risks are removed; Conducts regular audits of the workplace; Employees may bring forward health and safety concerns to the site supervisor/Forman or to Employee meetings through the Employees' supervisor/Forman | Environmental and Social Safeguard Officers (ESSO), School Construction Field Office (SCFO), District School Construction Engineer (DSCE), District Environment Officer (DEO), District Disaster Management Officer (DDMO) and Foreman | Risk assessment Checklist, Audit Checklist, |
| Employees training | Unprofessional behavior at work place and lack of basic | Employee/Workers, volunteers, and visitors will be oriented to the Emergency Response Plan and notified of any updates; Employee will undertake regular drills in order to be | ESSO, SCFO, | • Banners, Pull-up, Sample PPE |

| | ergonomics | prepared in the event of a real emergency; | DSCE, DDMO and | |
|------------------------------|--------------------------------------|---|-------------------|---|
| | | • Employees meetings will regularly address potential emergency concerns and responses. | Foreman | |
| Emergency Contact List | Lack of emergency contact list | All Employees will be asked to complete a confidential emergency contact information form. The form will be kept secure and confidential by the site Foreman and used only in the event of an emergency. The emergency telephone number of police and ambulance, will be displayed and clearly seen by everyone on sign post at work area/site | Foreman | Register, logbooks Sign post |
| Warning systems | | • The foreman will blow a whistle to alert The construction site workers in case of emergency that requires attention, evacuation, etc. | Foreman, | • Whistle |
| | Lack of facility to cease fire | Avail enough sands and water to be used in case of fire accidents; Proper collaboration with Police department of fire brigade in case of emergency response that is beyond site capacity to cease fire | Foreman | • Sand and Water |
| | | • First aid kits to be kept onsite all the time and checked on regular basis. The kits shall be equipped with all recommended content (cotton, ointment, scissors, bandage, alcohol, antibiotics, disposable gloves, disposable mask, painkiller, Band-Aid/sticking plaster) | Foreman, SCFO, | • Fully equipped First Aid Kit |
| Response Equipment/ | | • The school construction field officer, environmental and social safeguard officer and foreman will assign | | |

| materials | Lack of First- Aid facilities | two people among employees/workers for each site to take the responsibility to use the first aid kit. The team will ensure the kit users are equipped with basic knowledge to use the kit through collaboration with a nearby health center. | | • Two selected people from employees |
|-----------------------------------|--|---|---|--|
| Essential project Documents | Damage of essential project documents | Hard Files All essential project documents will be stored and kept in safe place. These documents would be considered essential to the project operations and would cause considerable inconvenience if lost or damaged. These include: drawing designs, safeguard documents, construction manuals, code of conduct, contracts of workers, log books/registers, card stock, etc. | • Foreman | • Metallic box |
| | Non-life threatening situations (power failure, technical failures) | Discuss response plan with the construction engineer, environmental officer and Foreman; Ensure that all project Employees/workers are informed about the response plan; If need be, contact employees through emergency contact information provided by each Employee | SCFO,DSCE,ESSO,DistrictEnvironmentalOfficerOfficer(DEO),DistrictDisasterManagementOfficer(DDMO)andForeman | Employee emergency contact, Emergency preparedness plan |
| Emergency situations | Advanced warning including severe and | Discuss response plan with the construction engineer, environmental officer and Foreman or refer to previously assigned response plan; Ensure that all project Employees/workers are | ESSO,DEO, DDMO SCFO, Foreman | • Employee emergency contact, |

| potentially hazardous weather conditions (e.g. storms, fire), Infectious disease outbreak | informed about the response, anticipated timeline for return to work, offsite meeting space, etc. Contact Employees through emergency contact information provided by each Employee | | |
|--|--|--|--|
| Personal medical emergency; examples for this situation include heart attack, stroke, anaphylactic shock, personal injury at the work place | Immediately ensure contact to emergency medical services (EMS) and that onsite first aid is administered until EMS Personnel/staff arrive; Ensure that the individual's emergency contacts are informed unless otherwise requested by the individual; Complete an accident report and send it to MINEDUC | Foreman, ESSOs and SCFO | Cell phoneFirst aid kit |
| Spontaneous dangerous events; this include On site fire, | Immediately initiate appropriate response action (see Response Actions) See specific procedures | Foreman, RDF,RNP, LocalAuthority, and ESSOsDDMO | Cell phone |

| bomb threat | | | |
|-----------------|--|---|--|
| , | | | |
| - | | | |
| , | | | |
| - | | | |
| | | | |
| | | | |
| | | | |
| - | | | |
| | | | |
| | | | |
| hazardous | | | |
| materials | | | |
| within vicinity | | | |
| etc. | | | |
| | | | |
| Evacuation | | | |
| | | Authority, | |
| | everyone: | SCEO DEO | |
| | | | |
| | | DDWO and L5505 | |
| | • Stop working immediately and listen to the EC's | | |
| | instructions; | | |
| | • Leave your workstation or office immediately – do not | | |
| | stay behind to finish work; | | |
| | • If possible secure confidential information, valuables | | |
| | and appropriate clothing when evacuating but do not | | |
| | hesitate; | | |
| | Off-site terrorist attack, hazardous materials within vicinity | explosions, intruder threat, workplace violence, hazardous materials, materials, suspicious packages etc.; Off-site terrorist attack, hazardous materials within vicinity etc. Evacuation When the Foreman as Emergency Coordinator (EC) alerts Employees and visitors to evacuate the project site; everyone: • Stop working immediately and listen to the EC's instructions; • Leave your workstation or office immediately – do not stay behind to finish work; • If possible secure confidential information, valuables and appropriate clothing when evacuating but do not | explosions, intruder threat, workplace violence, hazardous materials, suspicious packages etc.;Image: Construction of the second of |

| Procedures | | Close office door as you leave; Congregate at the assembly area (to be determined); If you are not in your regular work area, do not attempt to return to it; Emergency Coordinator or Foreman will make of a head count (including visitors, consultants) is done at that time at site; Assist visitors and others who require assistance (physical, language, etc.); | | |
|------------|------|--|--|--|
| | | will Conduct an immediate risk assessment and send report to MINEDUC; Vocally alert Employees of the emergency response (i.e. evacuation procedures); Take basic Emergency Kit; Delegate searchers to site and to take head counts and ensure all have vacated the site or office; Delegate support for visitors or individuals requiring assistance | | |
| | Fire | If local fire is detected in the workplace the Foreman shall alert and evacuate Employees/workers immediately; Evacuate the building if you hear continuous whistle sounds; | Foreman, SCFO, ESSOs, DEO and DDMO | Sand and water First aid kit, whistle |

| | Remain calm, if possible secure confidential information, valuables when evacuating but do not hesitate; Congregate at the assembly area; If you are not in your work area/site, do not attempt to return to it | | |
|----------------------------------|---|---|---|
| Suspicious Package | • If you see a suspicious package, do not touch the package; | Foreman, RDF, RNP, | • PPEs |
| | Clear the immediate area where the package was found; Employee/workers move away from package and notify Foreman and tell them where the suspicious | ESSOs, Local Authority | • Cell phone, |
| | package was discovered, what the suspicious package looks like, employee/worker's name and telephone number; If ordered to evacuate follow evacuation instructions | | |
| Persons with disability | • Individuals who are unable to reasonably exit the site on their own during an emergency are asked to fill out a form notifying Foreman, Environmental and Social Safeguard Officer, and construction officer; | Foreman, ESSOs, DDMO and SCFOs | • Employee emergency information form |
| Before a storm | • Seek information on the risk of storms in the area where you are staying and on the established protective and rescue measures; | Foreman, ESSOs, DEO, DDMO and SCFOs | National Risk Atlas of Rwanda |
| When the storm is imminent | Move inside all furniture and other objects likely to be swept away by the wind or water; Keep calm and avoid panic; Assemble everyone in the emergency shelter specially | Foreman, ESSOs, DEO, DDMO, SCFOs, and Local | PPEs, Cell phone |

| | | equipped for this situation; | Authority | |
|-------|---------------|--|--|---|
| Storm | After a storm | Follow the instructions given by the authorities and by the intervening bodies, especially as regards the evacuation of people. If it is necessary to evacuate, cut off water and electricity supplies; If caught by the storm whilst outside or in a vehicle, leave the vehicle and seek refuge in the nearest building; During a thunderstorm protect yourself from lightning by keeping away from metal objects, switching off the electricity supply, and telephone; Avoid standing up in an elevated area or sheltering under a tree. Keep calm and do not panic; Stay inside the building in which you have sheltered. Do not use vehicles because of traffic problems and danger from damaged buildings and roads; Follow the radio, television, website, and authorities' instructions; Only use the telephone in an emergency; Check to see if there are people nearby which are wounded or in difficulty and assist them; Do not go near, touch or use damaged electrical installations, cables and wires and alert the relevant authorities of the damage. The same applies to ruptured water or sewers; | Foreman, ESSOs, DEO, DDMO, SCFOs, and Local Authority | Cell phone, PPEs |
| | During a | • Do not be or stand next to - tallest object in the area; | Foreman, ESSOs, | • Sign posts |

| Thunderstorm | • Do not stand near wire fences or other metal objects | DEO, | DDMC | with printed |
|--------------|---|-----------|---------|--------------|
| | that could conduct electricity; | SCFOs | an Loca | instructions |
| | • Do not stand in or near water; | Authority | T | |
| | • Do not seek shelter in open areas; | | | • PPEs |
| | • Avoid touching any metal; | | | • PPES |
| | • Avoid using the telephone or any electrical appliances; | | | |

Annex 6: Employee's Emergency contact information form

Employ information

| First name: | | last name: | |
|--|---------------|------------|-----------|
| Title (mason, aid, store keeper, etc.): | | | |
| Identification number: | | | |
| Home address: Cell: | Sector: | | District: |
| Any disability or chronic disease (specify | ·): | | |
| Insurance information: Mutuelle de sant | té 🗆 Other (s | pecify) | |
| Emergency contact name | | | |
| Primary contact name | | | |
| Relationship to employee | | Telephone: | |
| Home address: Cell: | Sector: | | District: |
| \Box Same address/phone as employee | | | |
| Emergency contact name | | | |
| Primary contact name | | | |
| Relationship to employee | | Telephone: | |
| Home address: Cell: | Sector: | | District: |
| \Box Same address/phone as employee | | | |
| Comment | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Employee's name

Signature