

REPUBLIC OF RWANDA



KAMONYI DISTRICT

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

**FOR CONSTRUCTION OF 82 CLASSROOMS AND 96 LATRINES UNDER
QUALITY BASIC EDUCATION FOR HUMAN CAPITAL DEVELOPMENT (QBE-
HCD) PROJECT IN KAMONYI DISTRICT**

Final Report

December, 2019

TABLE OF CONTENTS

LIST OF TABLES	iv
LIST OF FIGURES.....	v
CHAPTER I. INTRODUCTION	1
1.1 Project background	1
1.2 Overview of Kamonyi District	2
1.3 Description of sub-projects activities	3
1.4 Purpose of the ESMP.....	6
CHAPTER II: POLICY, LEGISLATIVE AND INSTITUTIONAL FRAMEWORK.....	7
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
3.2 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	26
4.2.1 Monitoring roles.....	37
CHAPTER V. REPORTING AND DOCUMENTATION.....	38
CHAPTER VI.CONCLUSIONS AND RECOMMENDATIONS	38
6.1 Conclusion	38
ANNEXES:	39
Annex 1: Occupational Health and Safety Plan	39
Annex 2: Chance Finds Procedure	41
Annex 3: Grievance Redress Mechanism Log Frame Template	42
Annex 4: Reporting format of the ESMP implementation progress	43
Annex 5:Emergency preparedness and response plan.....	44
Annex 6: Employee’s Emergency contact information form.....	52

LIST OF ABBREVIATIONS AND ACRONYMS

AIDS:	Acquired Immune Deficiency Syndrome
EDPRS:	Economic Development and Poverty Reduction Strategy
EIA:	Environmental Impact Assessment
EMP:	Environmental Management Plan
ESIA:	Environmental and Social Impact Assessment
ESMP:	Environmental 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	3
Table 3. 2: Identified potential impacts and mitigation measures.....	10
Table 4. 3: Environmental and Social Management Plan for generic impacts for construction classrooms and latrines in Kamonyi District.....	14
Table 4. 4: Environmental and Social Monitoring Plan for construction of classrooms and latrines in Kamonyi District	26
Table 4. 5: Monitoring roles and responsibility	37
Table 6: Occupational Health, Safety and Security Management Plan	39

LIST OF FIGURES

Figure 1. 1. Administrative Map of Kamonyi 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 Kamonyi District of Southern Province, those include 82 classrooms and 96 latrines among others.

Kamonyi 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 Kamonyi District

Kamonyi District is one of the eight Districts that make up the Southern Province. It is located in the central region of the country. It is composed of 12 Sectors ,59 Cells and 317 Villages (imidugudu). The District of Kamonyi shares its borders with Ruhango District in the South, Muhanga District in the West, Bugesera and Nyarugenge Districts in the East, Gakenke and Rulindo Districts in the North.

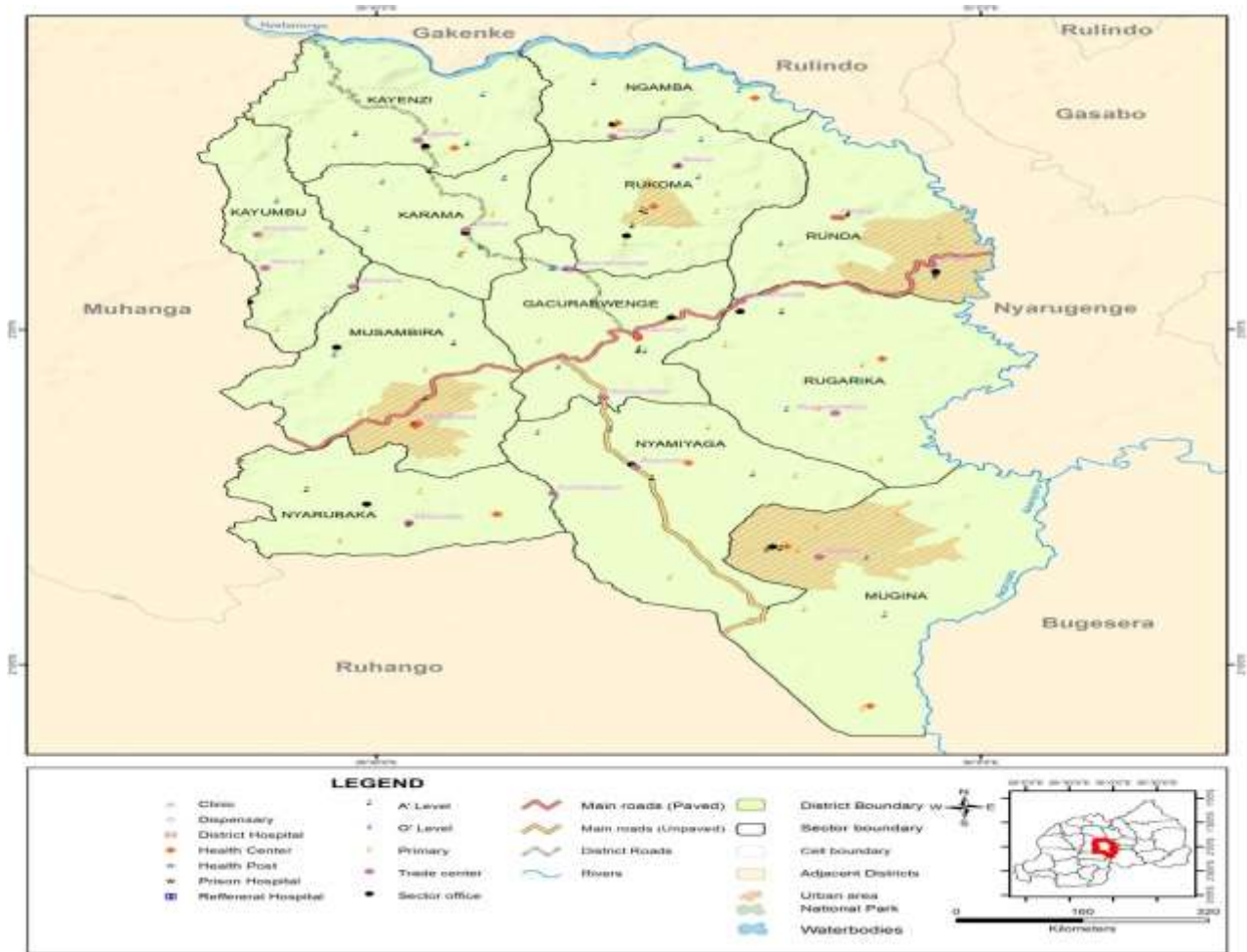


Figure 1.1. Administrative Map of Kamonyi District

The total population of the District of Kamonyi is 342,792 inhabitants spread over 12 administrative Sectors and surface area of 655.5 square kilometers with an average density of 523/km².

Its general relief is made of low lying plateau. The District of Kamonyi is placed between 1.500 and 2.000 m of altitude. The Eastern and Northern part of the District are occupied by the large valley of Nyabarongo. The high land peaks of the District are the following: Ijuru rya Kamonyi and “Cubi na Marenga”. Mukunguri and Kona ka Mashyuza are the lowest points. The District of Kamonyi enjoys a moderate climate. The frequency of rainfall is rather sufficient and varies between 1.200 and 1.400 mm. The average temperature is 20°C.

The soil of Kamonyi District is largely humus, permeable and fertile. The agricultural productivity increases year by year due to modern techniques of land use management. However, the District is facing soil erosion and overexploitation due to demographic pressure. Parts of the District are occupied by a granite ridge and a sandy loam.

Kamonyi District is drained by the great river Nyabarongo along the east and north of the District and Akanyaru River which border the District in north and eastern part. There are also a number of small water courses, such as Kayumbu, Bakokwe, Gikoro, Mukunguri, Nyabuvomo, Bishenyi, Gatimbazi and Ruvubu. The District has approximately 843 water sources.

As for education, the MINEDUC education statistical yearbook (2016) provided 75 pre-primary schools, 93 primary schools, 55 secondary schools in Kamonyi District with students amounting to 2,631 males and 2,758 females in pre- primary, 41,689 males and 41,534 females in primary school and 8,034 males and 10,456 in secondary school.

1.3 Description of sub-projects activities

The project will finance 18 sub-projects which consist of construction of 82 classrooms and 96 latrines in 9 sectors namely Nyamiyaga, Mugina, Musambira, Kayenzi, Karama, Runda, Rukoma, Ngamba and Gacurabwenge sectors in which overcrowding and long distances to schools have been noticed as major factors that inhibit learning in Kamonyi 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 learners' homes and schools in Kamonyi 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.

Table 1. 1: Sub-projects proposed to be implemented under QBE – HCD Project

No	Sub Project names	School Name	Location		
			Sector	Cell	Village
1	Construction of 11 classrooms and 12 latrines at EP BYENENE	EP BYENENE	NYAMIYAGA	BIBUNGO	NYAMURASA

2	Construction of 5 classrooms and 6 latrines at EP INGENZI MBATI	EP INGENZI MBATI	MUGINA	MBATI	MBATI
3	Construction of 3 classrooms and 6 latrines at EP JEAN DE PAPE	EP JEAN DE PAPE	MUSAMBIRA	KARENTERA	NYARUSANGE
4	Construction of 6 classrooms and 6 latrines at EP JENDA	EP JENDA	MUGINA	JENDA	MUNINI
5	Construction of 4 classrooms and 6 latrines at EP KAYONZA	EP KAYONZA	KAYENZI	KAYONZA	KIGWENE
6	Construction of 4 classrooms and 6 latrines at EP NGOMA	EP NGOMA	NYAMIYAGA	NGOMA	KIVUGIZA
7	Construction of 4 classrooms and 6 latrines at EP RWISHWIMA	EP RWISHWIMA	KARAMA	MUGANZA	NYARUTEJA
8	Construction of 4 classrooms and 6 latrines at EP WIMANA	EP WIMANA	MUSAMBIRA	KIVUMU	WIMANA
9	Construction of 5 classrooms and 0 latrines at GS BUYE	GS BUYE	NYAMIYAGA	KABASHUMBA	BUYE
10	Construction of 3 Classrooms at GS GASHARARA	GS GASHARARA	RUNDA	KAGINA	GASHARARA
11	Construction of 3 classrooms and 6 latrines at GS MUGANZA I	GS MUGANZA I	KARAMA	MUGANZA	NYAMITANGA
12	Construction of 5	GS	RUNDA	MUGANZA	KIGABIRO

	classrooms and 6 latrines at GS MUGANZA II	MUGANZA II			
13	Construction of 5 classrooms and 6 latrines at GS NYAMIYAGA	GS NYAMIYAGA	NYAMIYAGA	KIDAHO	NYAMIYAGA
14	Construction of 5 classrooms and 6 latrines at GS NYARUSAVE	GS NYARUSAVE	RUKOMA	MWIRUTE	RUGARAMA
15	Construction of 5 classrooms and 6 latrines at GS ST FRANCOIS D'ASSISE MPUSHI	GS ST FRANCOIS D'ASSISE MPUSHI	MUSAMBIRA	MPUSHI	GITWIKO
16	Construction of 2 classrooms and 6 latrines at GS KABASARE	GS KABASARE	NGAMBA	KABUGA	MUSENYI
17	Construction of 6 classrooms and 6 latrines at GS JEAN BOSCO KAMONYI	GS JEAN BOSCO KAMONYI	GACURABWE NGE	NKINGO	KAMONYI
18	Construction of 2 classrooms at GS MATABA	GS MATABA	NYAMIYAGA	NGOMA	BUHORU

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;
- ii. 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 Kamonyi 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:

Table 3. 2: Identified potential impacts and mitigation measures

Potential Impacts/issues	Management/Mitigation Measures
Acquisition of non-governmental land for construction/extension of schools that belong to religious organizations.	<ul style="list-style-type: none"> • Sign consent form by religious organizations as per Prime Minister’s order n°290/03 of 13/11/2015
Loss of vegetation cover	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Accurate estimate of needed materials • Get supply of raw-materials (such as sand, stones, bricks, etc.) from authorized suppliers and sites
Access roads	<ul style="list-style-type: none"> • Locate access roads in consultation with local community and officials
Risk of loss of landscape scenic value and associated effects on ecosystem	<ul style="list-style-type: none"> • Hold top soils and vegetation matter near quarries, borrow pits and dumping sites
	<ul style="list-style-type: none"> • Rehabilitate (green landscaping) the borrow pits, quarries and dumping sites at the end of construction activities
Valuable artefacts or culturally valuable materials	<ul style="list-style-type: none"> • Use and follow chance find procedures as per the ESCP
Accidental injuries	<ul style="list-style-type: none"> • 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 occupational health and safety to workers • Having distance between workers
Deterioration of workers' health and child right violation	<ul style="list-style-type: none"> • 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)

	<ul style="list-style-type: none"> • Fair treatment of workers and provision of safe and health working condition • Respect of working hours
Risk of conflict	<ul style="list-style-type: none"> • Local residents will be given the priority during workforce selection; • Wearing uniform (jacket) • Grievance redress mechanism
Risk of insecurity at the sub project site	<ul style="list-style-type: none"> • Ensure only authorized personnel get to site • Ensure security persons are available on the site
Risk of contamination by HIV/AIDS and other STDs, Sexual harassment and abuse, GBV (gender based violation)	<ul style="list-style-type: none"> • 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
Poor hygiene and sanitation	<ul style="list-style-type: none"> • 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, Carbon, Nitrogen, chlorofluorocarbons,...) from truck movements	<ul style="list-style-type: none"> • 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;
Risk of noise and/or vibration pollution of civil works/heavy trucks to the school environment and local people	<ul style="list-style-type: none"> • Notify and coordinate with local people adjacent to sub-project sites and school 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;	<ul style="list-style-type: none"> • 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
Soil erosion due to the runoff	<ul style="list-style-type: none"> • Installation of rain water harvesting system (Water tanks and waterways) • Plantation of ornamental trees and grasses on exposed slopes
Generation of solid waste in the form of construction spoils	<ul style="list-style-type: none"> • 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); • Dispose of solid waste to existing dumpsite
Fire outbreak due to welding activities	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 Occupational Health and Safety Plan to deal 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 three sites (EP Byenene, EP Jean de Pape, and EP Wimana). For the rest sub-projects sites which are mostly owned by religious organizations (EP Ingenzi Mbatu, EP Jenda, EP Kayonza, EP Ngoma, EP Rwishwima, GS Buye, GS Gasharara, GS Muganza I, GS Muganza II, GS Nyamiyaga, GS Nyarusave, GS Saint Francois d'Assise Mpushi, GS Kabasare, GS Jean Bosco Kamonyi and GS Mataba), 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 4. 3: Environmental and Social Management Plan for generic impacts for construction classrooms and latrines in Kamonyi District

Sub-Project Phase	Sub-Project Activity	Potential Impacts/issues	Management/Mitigation Measures	Implementation responsibilities	Time Frame	Estimated Cost (Frw)
Pre-construction phase	Avail land for 15 sub project sites from Religious Organizations (EP Ingenzi Mbat, EP Jenda, EP Kayonza, EP Ngoma, EP Rwishwima, GS Buye, GS Gasharara , GS Muganza I, GS Muganza II, GS Nyamiyaga, GS Nyarusave, GS Saint Francois d'Assise Mpushi, GS Kabasare, GS Jean Bosco Kamonyi and GS Mataba)	Religious Land use for 15 subprojects 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	<ul style="list-style-type: none"> Clear only the area designed for classrooms and latrines construction 	Foreman, School Construction officer	During site clearance activities	No cost
			<ul style="list-style-type: none"> Preserve (or stockpile) excavated topsoil for future site restoration procedures; 	Foreman, School Construction officer	During site clearance activities	No cost
			<ul style="list-style-type: none"> Greening by grasses 	Foreman, School Construction officer	At the end of construction activities	2,296,000
Construction Phase	Extraction and transportation of materials	Potential risks of wasting raw materials	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Hold top soils and 	Suppliers	During	No cost

		landscape scenic value and associated effects on ecosystem	vegetation matter near quarries, borrow pits and dumping sites		implementation of the sub project activities	
			<ul style="list-style-type: none"> 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, Foundation works Elevation of walls, roof trusses, roof covering, Fixing windows and doors, internal and external finishing and pavement.		Valuable artefacts or culturally valuable materials	<ul style="list-style-type: none"> Use and follow chance find procedures as per the Environmental and Social Commitment Plan 	Foreman, School construction officer	Prior to and during excavation	3,600,000
		Accidental injuries	<ul style="list-style-type: none"> Checking daily if the materials are in good conditions before starting the activities, 	Foreman, School construction officer	During the timeframe of the implementation of the subproject	No cost
			<ul style="list-style-type: none"> Equip all site workers with Individual protective equipments (such as boots, helmets, overalls, leather gloves, high visibility jackets) 	Foreman, School construction officer	During the timeframe of the implementation of the subproject	8,294,400

			<ul style="list-style-type: none"> • Avail first aid kit on-site, 	Foreman, School construction officer	During the timeframe of the implementation of the subproject	432,000
			<ul style="list-style-type: none"> • Ensure that all workers have medical insurance such as “Mutuelle de santé”, RAMA or any other recognized medical insurance 	Foreman, School construction officer	During the timeframe of the implementation of the subproject	No cost
			<ul style="list-style-type: none"> • Ensure provision of regular briefing on occupational health and safety to workers 	Foreman, School construction officer	During the implementation of the subproject	No cost
			<ul style="list-style-type: none"> • having distance between workers 	Foreman, School construction officer	During the implementation of the subproject	No cost
		Deterioration of workers' health and child right violation	<ul style="list-style-type: none"> • The site will be provided with clean drinking water 	Foreman, School construction officer and safeguards team	During the sub-project implementation	594,000

			<ul style="list-style-type: none"> • Construction workers should be given break to go for lunch; 	Foreman, School construction officer and safeguards team	During the sub-project implementation	No cost
			<ul style="list-style-type: none"> • Child labor should be avoided at all stages of construction (child under 18years old) 	Foreman, School construction officer and safeguards team	During the sub-project implementation	No cost
			<ul style="list-style-type: none"> • Fair treatment of workers and provision of safe and health working condition • Respect of working hours 	Foreman, School construction officer and safeguards team	During the sub-project implementation	No cost
		Risk of conflict	<ul style="list-style-type: none"> • Local residents will be given the priority during workforce selection; • Wearing uniform (jacket) • Grievance redress mechanism 	Foreman, School Head Teacher and Social Safeguard Team	During the implementation of the sub project	No cost No cost

	Risk of insecurity at the sub project site	<ul style="list-style-type: none"> Ensure only authorized personnel get to site 	Foreman, Local Authorities and school construction officer	During the implementation of the sub project	No cost
		<ul style="list-style-type: none"> Ensure security persons are available on the site 	Foreman, Local Authorities and school construction officer	During the implementation of the sub project	5,400,000
	Risk of contamination by HIV/AIDS and other STDs, Sexual harassment and abuse, GBV (gender based violation)	<ul style="list-style-type: none"> Sensitize site workers on HIV/AIDS, Sexual harassment and abuse, GBV (gender based violation) to avoid negative effects from social& 	Foreman ,Health Centers, Local Authorities	During the implementation of the subproject	No cost
		<ul style="list-style-type: none"> Multicultural inclusion at the area. 	Foreman ,Health Centers, Local Authorities	During the implementation of the subproject	No cost
		<ul style="list-style-type: none"> Voluntary testing to determine HIV status; counselling at existing medical facilities; 	Foreman ,Health Centers, Local Authorities	During the implementation of the subproject	No cost

			<ul style="list-style-type: none"> Enforce and sensitize code of conducts 	Foreman ,Health Centers, Local Authorities	During the implementation of the subproject	No cost
		Poor hygiene and sanitation	<ul style="list-style-type: none"> Provide means for handling waste generated by construction workers 	Social affairs at sector level, School construction officer, Foreman	During the implementation of the subproject	No cost
			<ul style="list-style-type: none"> Avail handwashing facilities 	Social affairs at sector level, School construction officer, Foreman	During the implementation of the subproject	540, 000
			<ul style="list-style-type: none"> Always keep clean toilets 	Social affairs at sector level, School construction officer, Foreman	During the implementation of the subproject	No cost
			<ul style="list-style-type: none"> Install toilets away from rivers or areas with shallow groundwater 	Social affairs at sector level, School construction officer, Foreman	During the implementation of the subproject	No cost

			<ul style="list-style-type: none"> Sensitize workers about handwashing culture 	Social affairs at sector level, School construction officer, Foreman	During the implementation of the subproject	No cost
		Risk of exhaust emissions (e.g. sulphur, Carbon, Nitrogen, chlorofluorocarbons,...) from truck movements	<ul style="list-style-type: none"> 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; 	Foreman, Rwanda National police District Environmental officer Environmental and Social Safeguards Officer	During implementation of the activities	No cost
		Risk of noise and/or vibration pollution of civil work/heavy trucks to the school environment and local people	<ul style="list-style-type: none"> Sensitize vehicle drivers, to switch off engines not being used; Notify and coordinate with local people adjacent to subproject sites and school administration to inform them of the 	Foreman	During implementation of the activities	No cost

			possibility of temporary noise disruption and related issues, and how to report complaints if any			
			<ul style="list-style-type: none"> Limit civil work activities to daytime hours to the extent feasible 	Foreman	During implementation of the activities	No cost
			<ul style="list-style-type: none"> Perform welding and other noise producing activities during weekend in order to minimize noise pollution during school days 	Foreman	During implementation of the activities	No cost
		Degradation of air quality due to the dust emissions;	<ul style="list-style-type: none"> Manual compaction of unstable soil and wearing dust mask 	Foreman, Drivers, Traffic Police and Safeguards team	During implementation of the sub project activities	No cost
			<ul style="list-style-type: none"> Watering while soil works and construction are being executed and where dust is emitted; 	Foreman, Drivers, Traffic Police and Safeguards team	During implementation of the sub project activities	1,800,000

			<ul style="list-style-type: none"> Reduce vehicle speed in working area 	Foreman, Drivers, Traffic Police and Safeguards team	During implementation of the sub project activities	No cost
		Soil erosion due to the runoff	<ul style="list-style-type: none"> Installation of rain water harvesting system (Water tanks and waterways). One water tank of 10 cubic meter per three classrooms 	MINEDUC in collaboration with MINEMA, Ministry of Environment, FONERWA, Districts, School head teacher, Foreman	During the implementation of the subproject	33,600,000
			<ul style="list-style-type: none"> Plantation of ornamental trees and grasses on exposed slopes 	Foreman and school construction officer	During the implementation of the subproject	492,000
		Generation of solid waste in the form of construction spoils	<ul style="list-style-type: none"> Implement 3R principles (Reducing, reusing, recycling) wastes; 	District Environmental Officer, School head teacher, Foreman	During the timeframe of the implementation of the project	No cost

			<ul style="list-style-type: none"> • Avail solid waste bins and sort garbage according different categories (e-wastes, chemicals, plastics, metals, glasses papers/wood and biodegradable wastes); 	District Environmental Officer, School construction officer, Foreman	During the timeframe of the implementation of the subproject	900,000
			<ul style="list-style-type: none"> • Dispose of solid waste to existing dumpsite 	District Environmental Officer, School construction officer, Foreman	During the implementation of the subproject	No cost
		Fire outbreak due to welding activities	<ul style="list-style-type: none"> • Avail sand and water on site for fire fighting 	School construction officer, foreman and police fire bridge	During welding activities	1,800,000
			<ul style="list-style-type: none"> • Employ of skilled people in welding activities 	Foreman and school construction officer	During welding activities	No cost

			<ul style="list-style-type: none"> Ensure a quick contact to concerned security institution in case of strong fire outbreak 	Foreman and school construction officer	During welding activities	No cost
	Painting	Soil pollution due to toxic or hazardous chemical from paints or solvents	<ul style="list-style-type: none"> Hazardous/toxic materials shall be stored in appropriate containers/stores with clearly visible labels and regularly inspect for signs of leaks 	District Environmental officer, School construction officer, Foreman	During the implementation of the sub project	No cost
			<ul style="list-style-type: none"> Provide training on management of all hazardous chemicals/materials and wastes for workers including use of Personnel Protective Equipment (Gloves and Masks) 	District Environmental officer, School construction officer, Foreman	During the implementation of the sub project	No cost
			<ul style="list-style-type: none"> Work closely with District Hospitals in handling hazardous wastes or Authorized company wherever possible 	District Environmental officer, School construction officer, Foreman	During Painting activities	2,160,000
Operation	Use of toilet	Soil pollution due to infiltration of	Proper construction of foundation and walls for	School construction	During pit cementing and	17,520,000

		microbes from faeces Ground water pollution due to infiltration of faeces	pit by cementing	officer and specialist	foundation works	
TOTAL ESTIMATED BUDGET						78,888,400

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 Kamonyi District. As stated above, for sub-projects owned by religious institutions; they shall sign consent forms with the government prior the construction works.

Table 4. 4: Environmental and Social Monitoring Plan for construction of classrooms and latrines in Kamonyi District

Sub-Project Phase	Potential Impacts	Management/Mitigation Measures	Monitoring indicator	Time Frame/Frequency	Responsible	Estimated Cost (Frw)
Pre-construction phase	Religious land use for 5 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	Number of signed consent form	Before the commencement of civil works	Monitoring and Evaluation specialist and social safeguards specialist/MINE DUC	No cost

	Loss of vegetation cover	<ul style="list-style-type: none"> • Clear only the area designed for classrooms and latrines construction • Preserve (or stockpile) excavated topsoil for future site restoration procedures; • Greening by grasses 	<p>Area cleared in square meter</p> <p>Quantity of excavated soil in cubic meter</p> <p>Area greened in square meter</p>	<p>Once</p> <p>Once</p> <p>Once (after construction works)</p>	Local authorities, Foreman and MINEDUC Safeguards Team	2,592,000
Construction phase	Potential risks of wasting raw materials	<ul style="list-style-type: none"> • 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	Daily	Local authorities, Foreman and MINEDUC Safeguards Team School construction officer	216,000
	Access roads	<ul style="list-style-type: none"> • Locate access roads in consultation with local community and officials 		Daily	Local authorities, Foreman and MINEDUC Safeguards Team School construction officer	No cost

	Risk of loss of landscape scenic value and associated effects on ecosystem	<ul style="list-style-type: none"> • Hold top soils and vegetation matter near quarries, borrow pits and dumping sites • Rehabilitate (green landscaping) the borrow pits, quarries and dumping sites at the end of construction activities 		Daily	Local authorities, Foreman and MINEDUC Safeguards Team School construction officer	No cost
Pre-construction and construction phase	Valuable artefacts or culturally valuable materials	<ul style="list-style-type: none"> • Use and follow chance find procedures as per the Environmental and Social Commitment Plan 	Number of complaints	During construction period	Local authorities, Foreman and MINEDUC Safeguards Team	No cost
	Accidental injuries	<ul style="list-style-type: none"> • 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 	<p>Number of Materials in good condition</p> <p>Number of workers with personnel protective equipment</p>	<p>Daily</p> <p>Daily</p> <p>Daily</p>	Local authorities, Foreman and MINEDUC Safeguards Team	594,000

		<p>jackets)</p> <ul style="list-style-type: none"> • 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 occupational health and safety to workers • Having distance between workers 	<p>Number of first aid kit on site</p> <p>Number of workers with medical Insurance</p> <p>Distance in meter</p>			
	Deterioration of workers' health and child right violation	<ul style="list-style-type: none"> • 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 	<p>Quantity of drinking water in jerican</p> <p>Number of hours for break</p> <p>Number of children on site</p>	<p>Daily</p> <p>Daily</p> <p>Daily</p> <p>Daily</p>	<p>Local authorities, Foreman and MINEDUC Safeguards Team</p>	<p>1,980,000</p>

		<p>under 18years old)</p> <ul style="list-style-type: none"> Fair treatment of workers and provision of safe and health working condition Respect of working hours 	<p>Number of complains raised</p> <p>Number of working hours/day</p>	Daily		
	Risk of conflict	<ul style="list-style-type: none"> Local residents will be given the priority during workforce selection; Wearing uniform (jacket) Grievance redress mechanism 	<p>Number of local residents on work</p> <p>Number of workers with jackets</p>	Daily	Local authorities, Foreman and MINEDUC Safeguards Team	180,000
	Risk of insecurity at the sub project site	<ul style="list-style-type: none"> Ensure only authorized personnel get to site Ensure security persons are available on the site 	<p>Entry Register book</p> <p>Contract of security personnel employed</p>	Daily	Local authorities, Foreman and MINEDUC Safeguards Team	720,000
	Risk of contamination by HIV/AIDS and other	<ul style="list-style-type: none"> Sensitize site workers on HIV/AIDS, Sexual harassment and abuse, GBV (gender based 	<p>Minutes and attendance lists</p>	Monthly	Local authorities, Foreman and MINEDUC	2,736,000

<p>STDs, Sexual harassment and abuse, GBV (gender based violation)</p>	<p>violation) to avoid negative effects from social & multicultural inclusion at the area.</p> <ul style="list-style-type: none"> • Voluntary testing to determine HIV status; counselling at existing medical facilities; • Enforce and sensitize code of conducts 	<p>Number of voluntary tested personnel Minute and attendance list</p>	<p>Monthly Weekly</p>	<p>Safeguards Team</p>	
<p>Poor hygiene and sanitation</p>	<ul style="list-style-type: none"> • 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 	<p>Number of handwashing facilities on site Field visit report Minute and attendance list</p>	<p>Daily Weekly</p>	<p>Local authorities, Foreman and MINEDUC Safeguards Team</p>	<p>1,980,000</p>

	Risk of exhaust emissions (e.g. sulphur, Carbon, Nitrogen, chlorofluorocarbons,...) from truck movements	<ul style="list-style-type: none"> • 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; 	<p>Inspection report</p> <p>Minute and attendance lists</p>	<p>Daily</p> <p>Daily</p>	<p>Local authorities, Site Foreman and MINEDUC Safeguards Team District Environmental officer</p>	3,600,000
	Risk of noise and vibration pollution of machinery/heavy trucks to the school environment and local people	<ul style="list-style-type: none"> • Notify and coordinate with local people adjacent to sub-project sites and school 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; 	Number of complaints raised about noise and vibration	Daily	Local authorities, Foreman and MINEDUC Safeguards Team	1,980,000

		<ul style="list-style-type: none"> • 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;	<ul style="list-style-type: none"> • Manual compaction of unstable soil • Watering while soil works and construction are being executed and where dust is emitted; • Reduce vehicle speed in working area 	Area of compacted soil in square meter	Daily	Local authorities, Foreman, and MINEDUC Safeguards Team	684,000
	Soil erosion due to the runoff	<ul style="list-style-type: none"> • Installation of rain water harvesting system (Water tanks and waterways) 	Number of installed water tanks Number of planted ornamental trees	Monthly	Local authorities, Foreman and MINEDUC Safeguards	432,000

		<ul style="list-style-type: none"> Plantation of ornamental trees and grasses on exposed slopes 			Team	
	Generation of solid waste in the form of construction spoils	<ul style="list-style-type: none"> 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); Dispose of solid waste to existing dumpsite 	<p>Awareness provided for workers on 3R principles</p> <p>Number of solid waste bins and garbage on site</p> <p>Amount of solid waste disposed at existing dumpsite</p>	<p>Weekly</p> <p>Daily</p> <p>Weekly</p>	District Environmental Officer, Local authorities, Foreman and MINEDUC Safeguards Team	324,000
	Fire outbreak due to welding activities	<ul style="list-style-type: none"> 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 	Quantity of sand and water in cubic meter	Daily	Local authorities, Foreman and MINEDUC Safeguards Team	216,000

		strong fire outbreak				
	Soil pollution due to toxic or hazardous chemical from paints or solvents	<ul style="list-style-type: none"> • 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 	Number of personnel protective equipment	Monthly	Local authorities, Site Foreman and MINEDUC Safeguards Team	216,000

		including use of PPEs				
Operati on	Soil and groundwater pollution due to infiltration of microbes from toilets	Proper construction of foundation and walls for pit by cementing	Inspection report	Once after completion	Local authorities, foreman and MINEDUC Safeguards Team	456,000
TOTAL ESTIMATED BUDGET						18,906,000

4.2.1 Monitoring roles

Table 4. 5: Monitoring roles and responsibility

Institution	Roles	Responsible department/person
WORLD BANK	<ul style="list-style-type: none"> 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 	WB Safeguards Team
RDB	<ul style="list-style-type: none"> Issuance of the clearance certificate for the projects 	EIA Department
MININFRA	<ul style="list-style-type: none"> Technical support to classrooms and latrines construction activities 	Staff in charge of construction
MINEDUC	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> MINEDUC Safeguard Team
Districts	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Environmental officer Schools Construction Engineer Director of Education unit
Sector and Cells	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Sector land officer Sector Social Protection Officer Executive secretary of concerned Cells Sector agronomist

Community	<ul style="list-style-type: none"> • Execute ESMP guidelines and report any Environmental and Social issue occurred on the site to local authorities • Election of grievance committee’s members 	Community and Workers
------------------	--	-----------------------

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 Kamonyi 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 Kamonyi District, the proposed mitigation measures and the responsibilities. The following table summarizes the Community Health, Safety and Security Management Plan.

Table 6: Occupational 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	<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ Ditches will channel surface water runoff to the designated areas; ➤ Maximum reuse or recycle of process waste water; 	Site construction engineers

Potential Risk	Mitigation Measures	Responsible
suspended solids or pollutants	<ul style="list-style-type: none"> ➤ Water monitoring will be conducted. 	
Noise will be significant during construction.	<ul style="list-style-type: none"> ➤ Monitoring will be conducted; ➤ Operating hours of the open pit activities only during the daily hours; ➤ Speed restrictions on site traffic; 	<p>Environmental and social officer</p> <p>District environmental officer</p>
Gas emissions from project vehicles, trucks and construction machineries	<ul style="list-style-type: none"> ➤ Constant preventative emission control; ➤ Ensure all project vehicles and trucks have valid vehicle inspection certificates, 	<p>Environmental and social</p> <p>District environmental officer</p>
Dust from construction activities including quarries and borrow pits	<ul style="list-style-type: none"> ➤ Sprays water to avoid lift of dust; ➤ Workers provided with appropriate PPE. 	<p>Environmental and social officer</p> <p>District environmental officer</p>
Interaction between learners and project workers	<ul style="list-style-type: none"> ➤ Head teacher, foreman, 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 insecurity at construction site	<ul style="list-style-type: none"> ➤ Put in place warning tape across 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

The log form to be filled by grievance redress committees

Grievance Reference Number	Names and ID of complainant	Date for grievance reception	Means of grievance reception (SMS, Phone call, letter, email, verbal,...)	Location of grievance reception	Type of issue raised (Grievance, Concern, request, ...)	Summarized description of the complaint	Action undertaken	Date of action	Status +30 days	Status +60 days	Status +90 days

TEMPLATE FOR CONSOLIDATED REPORT OF GRCs ACTIVITIES

No	Names, Area of residence and ID of complainant	Date for grievance reception	Means of grievance reception (SMS, Phone call, letter, email, ...)	Type of issue raised (Grievance, Concern, request, ...)	Summarized description of the complaint	Action undertaken	Date of action	Level of GRC that took action on grievance	Status of grievance during the reporting time

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/Name of reviewer:	
TOBE COMPLETED BY MINEDUC Progress monitoring - main findings:				Status of ESMP <input type="checkbox"/> on schedule/completed/ahead of time <input type="checkbox"/> slightly delayed <input type="checkbox"/> 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Risk assessment Checklist, • Audit Checklist,
Employees training	Unprofessional behavior at work place and lack of basic ergonomics	<ul style="list-style-type: none"> • 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 prepared in the event of a real emergency; • Employees meetings will regularly address potential emergency concerns and responses. 	ESSO, SCFO, DSCE, DDMO and Foreman	<ul style="list-style-type: none"> • Banners, Pull-up, Sample PPE
Emergency	Lack of emergency	<ul style="list-style-type: none"> • All Employees will be asked to complete a 	Foreman	<ul style="list-style-type: none"> • Register,

Contact List	contact list	<p>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.</p> <ul style="list-style-type: none"> The emergency telephone number of police and ambulance, will be displayed and clearly seen by everyone on sign post at work area/site 		<p>logbooks</p> <ul style="list-style-type: none"> Sign post
Warning systems		<ul style="list-style-type: none"> The foreman will blow a whistle to alert The construction site workers in case of emergency that requires attention, evacuation, etc. 	Foreman,	<ul style="list-style-type: none"> Whistle
Response Equipment/ materials	Lack of facility to cease fire	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Sand and Water
	Lack of First-Aid facilities	<ul style="list-style-type: none"> 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) The school construction field officer, environmental and social safeguard officer and foreman will assign 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 	Foreman, SCFO,	<ul style="list-style-type: none"> Fully equipped First Aid Kit Two selected people from employees

		with a nearby health center.		
Essential project Documents	Damage of essential project documents	Hard Files <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Foreman 	<ul style="list-style-type: none"> Metallic box
Emergency situations	Non-life threatening situations (power failure, technical failures)	<ul style="list-style-type: none"> 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, District Environmental Officer (DEO), District Disaster Management Officer (DDMO) and Foreman	<ul style="list-style-type: none"> Employee emergency contact, Emergency preparedness plan
	Advanced warning including severe and potentially hazardous weather conditions (e.g. storms, fire), Infectious disease outbreak	<ul style="list-style-type: none"> 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 informed about the response, anticipated timeline for return to work, offsite meeting space, etc. Contact Employees through emergency contact information provided by each Employee 	ESSO,DEO, DDMO SCFO, Foreman	<ul style="list-style-type: none"> Employee emergency contact,
	Personal medical emergency;	<ul style="list-style-type: none"> Immediately ensure contact to emergency medical services (EMS) and that onsite first aid 	Foreman, ESSOs and	<ul style="list-style-type: none"> Cell phone

	examples for this situation include heart attack, stroke, anaphylactic shock, personal injury at the work place	<p>is administered until EMS Personnel/staff arrive;</p> <ul style="list-style-type: none"> • Ensure that the individual's emergency contacts are informed unless otherwise requested by the individual; • Complete an accident report and send it to MINEDUC 	SCFO	<ul style="list-style-type: none"> • First aid kit
	Spontaneous dangerous events; this include On site fire, bomb threat, explosions, intruder threat, workplace violence, hazardous materials, suspicious packages etc.; Off-site terrorist attack, hazardous materials within vicinity etc.	<ul style="list-style-type: none"> • Immediately initiate appropriate response action (see Response Actions) • See specific procedures 	Foreman, RNP, RDF, Local Authority, DDMO and ESSOs	<ul style="list-style-type: none"> • Cell phone
	Evacuation	<p>When the Foreman as Emergency Coordinator (EC) alerts Employees and visitors to evacuate the project site; everyone:</p> <ul style="list-style-type: none"> • Stop working immediately and listen to the 	Foreman, Local Authority, SCFO, DEO, DDMO and ESSOs	

<p>Procedures</p>		<p>EC's instructions;</p> <ul style="list-style-type: none"> • 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; • 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.); <p>After evacuation the Emergency Coordinator or foreman will</p> <ul style="list-style-type: none"> • 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; 		
--------------------------	--	--	--	--

		<ul style="list-style-type: none"> • Delegate support for visitors or individuals requiring assistance 		
	Fire	<ul style="list-style-type: none"> • 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; • 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 	Foreman, SCFO, ESSOs, DEO and DDMO	<ul style="list-style-type: none"> • Sand and water • First aid kit, whistle
	Suspicious Package	<ul style="list-style-type: none"> • If you see a suspicious package, do not touch the package; • Clear the immediate area where the package was found; • Employee/workers move away from package and notify Foreman and tell them where the suspicious package was discovered, what the suspicious package looks like, employee/worker's name and telephone number; • If ordered to evacuate follow evacuation instructions 	Foreman, RDF, RNP, ESSOs, Local Authority	<ul style="list-style-type: none"> • PPEs • Cell phone,
	Persons with disability	<ul style="list-style-type: none"> • Individuals who are unable to reasonably exit the site on their own during an emergency are asked to fill out a form notifying Foreman, 	Foreman, ESSOs, DDMO and SCFOs	<ul style="list-style-type: none"> • Employee emergency information

		Environmental and Social Safeguard Officer, and construction officer;		form
Storm	Before a storm	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • National Risk Atlas of Rwanda
	When the storm is imminent	<ul style="list-style-type: none"> • 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 equipped for this situation; • 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. 	Foreman, ESSOs, DEO, DDMO, SCFOs, and Local Authority	<ul style="list-style-type: none"> • PPEs, • Cell phone
	After a storm	<ul style="list-style-type: none"> • 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 	Foreman, ESSOs, DEO, DDMO, SCFOs, and Local Authority	<ul style="list-style-type: none"> • Cell phone, • PPEs

		<p>and roads;</p> <ul style="list-style-type: none"> • 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; 		
	<p>During Thunderstorm</p> <p>a</p>	<ul style="list-style-type: none"> • Do not be or stand next to - tallest object in the area; • Do not stand near wire fences or other metal objects that could conduct electricity; • Do not stand in or near water; • Do not seek shelter in open areas; • Avoid touching any metal; • Avoid using the telephone or any electrical appliances; 	<p>Foreman, ESSOs, DEO, DDMO SCFOs and Local Authority</p>	<ul style="list-style-type: none"> • Sign posts with printed instructions • PPEs

