## REPUBLIC OF RWANDA



## NGOMA DISTRICT

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

FOR CONSTRUCTION OF 120 CLASSROOMS AND 150 LATRINES UNDER QUALITY BASIC EDUCATION FOR HUMAN CAPITAL DEVELOPMENT (QBEHCD) PROJECT IN NGOMA DISTRICT

Final Report

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## 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 |

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## 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 Ngoma District of Eastern Province, those include 120 classrooms and 150 latrines among others.

Ngoma 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 Ngoma District

The District of Ngoma is one of the beneficiaries of QBEHCD project. It is one of seven districts that make up the Eastern Province. It is subdivided into fourteen (14) sectors, sixty-four (64) cells and four hundred and seventy-three (473) villages (Imidugudu). The district covers an area of eight hundred
sixty-seven point seventy-four square kilometers ( $867.74 \mathrm{Km}^{2}$ ). It is limited by Rwamagana District in the North-West, by Kayonza District in the North-East, by the District of Bugesera in the West, by the District of Kirehe in the East and by the Republic of Burundi in the South. The total population of Ngoma District is 338,562 inhabitants among which 162,388 are males and 176,174 are females (NISR, 2012).

NGOMA DISTRICT ADMINISTRATIVE MAP


## Figure 1: Ngoma District Administrative Map

The District of Ngoma is part of lowlands of the East, a region essentially dominated by hills with low slopes, with an average altitude between 1400 m and 1700 m above sea level. The original relief is a plateau strongly dissected by tectonic movements of the quaternary that were progressively gullied by the erosion creating valleys and swamps.

The climate is temperate especially in low altitudes. The annual average temperature is around 20 C . Ngoma like other regions of the country enjoys four seasons of which two are rainy and other two are dry: a short rainy season which extends from October to December, a short dry season which runs from

January to February, and a long rainy season from mid-February to mid-May and a long dry season from mid-May to Early October. Generally, the dry season begins earlier and ends later compared to other regions of the country. The resulting pluviometric deficit impacts adversely agricultural and pastoral production. The volume of annual precipitations on the whole of the district lies between 900 and 1400 mm oaf rains.

As regard to soil and hydrography, Ngoma soil is favorable for agricultural activities due to the presence of little sandy-clay soil mixture. The District of Ngoma has three lakes namly Bilira, Mugesera and Sake which provides the region with a beautiful landscape that may attract tourists if developed and advocated for.

In terms of flora and fauna, the natural vegetation of the district of Ngoma is dominated by savanna landscapes. It is a typical vegetation of the east African basin, with vast lands of grass with scattered shrubs of the natural vegetation dominated by savanna landscapes. The western part of the district is made up of vast wetlands constituted by depressions of fluvio-lakes of the Akagera that offers a typical landscape of lakes and swamps.

Like any elsewhere in Rwanda, Ngoma's economy and the livelihoods of its people are dependent on natural resources such as water, land, air, plants and animals. These natural resources are increasingly under pressure from unsustainable use resulting in environmental degradation. The challenge is to utilize natural resources to develop the economy while at the same time conserving the environment to avoid the adverse impacts of pollution, soil erosion, deforestation and general degradation.

In 2013, the net primary school enrolment rate in Ngoma District was $86.7 \%$, gross secondary school enrolment is $37.9 \%$ and literacy rate for persons aged $15-24$ years is $84.5 \%$. This is somehow different from the national achievements which are at: $91.7 \%$ for net primary school enrolment rate, $40.9 \%$ for gross secondary school enrolment and $83.7 \%$ for literacy rate for persons aged 15-24 years. The adult literacy rate is at $70.5 \%$ in Ngoma District against $69.7 \%$ of the total Rwandan population. Among the youth, $56.7 \%$ did not complete their primary school and (79.9\%) among young males and (86.5\%) among females are literate. Among other educational issues are insufficient qualified and motivated teachers as the teacher-pupil ratio is 66 while the national target is 45 . The dropout rate is still high (14\%) and requires a lot of energy to fully eradicate it.

### 1.3 Description of sub-projects activities

The project will finance 32 sub-projects which consists of 120 classrooms and 150 latrines located in thirteen (13) sectors of Ngoma District namely: Gashanda, Jarama, Karembo, Kazo, Kibungo, Mugesera, Murama, Mutenderi, Remera, Rukira, Rukumberi, Rurenge, and Zaza sectors in which overcrowding and long distances to schools have been noticed as major factors that inhibit learning in Ngoma 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 Ngoma 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: Sub-projects proposed to be implemented under QBE - HCD Project

| No | Sub Project names | School Name | Location |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | Sector | Cell | Village |  |
| 1 | Construction of 3 <br> Classrooms | EP BITARE | GASHANDA | CYERWA | MIZIBIRI |
| 2 | Construction of 2 <br> Classrooms | EP MUNEGE | GASHANDA | MUNEGE | KANEGE |
| 3 | Construction of 2 <br> Classrooms | GS JARAMA | JARAMA | JARAMA | UBUMWE |
| 4 | Construction of 3 <br> classrooms and 10 <br> latrines | E.P. NGARA | KAREMBO | AKAZIBA | NGARA |
| 5 | Construction of 7 <br> Classrooms and 4 <br> latrines | E.P KABIRIZI B | KAREMBO | KARABA | RUSUMBAN |
| 6 | Construction of 4 <br> classrooms and 10 <br> latrines | G.S. KABIRIZI A | KAREMBO | NYAMIRAM <br> BO | KARIBU |
| 7 | Construction of 5 <br> Classrooms and 12 <br> latrines | G.S. KAZO | KAZO | UMUKAMBA | KAZO |
| 8 | Construction of 7 <br> Classrooms and 20 <br> latrines | GS GAHURIRE | KAZO | KARAMA | MPANDU |
| 9 | Construction of 3 <br> Classrooms and 6 <br> latrines | EP TUNDUTI | KAZO | KINYONZO | RUGARAMA |


| 10 | Construction of 4 Classrooms | G.S.GAHIMA | KIBUNGO | GAHIMA | NYAMIGIN <br> A |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | Construction of 4 Classrooms | G.S. GATARE | MUGESERA | AKABUNGO | RUGARAMA |
| 12 | Construction of 5 Classrooms and 18 latrines | E.P. KAGASI | MUGESERA | MUGATARE | KAMPARA |
| 13 | Construction of 5 Classrooms and 8 latrines | G.S. NYANGE | MUGESERA | NYANGE | RUSAVE |
| 14 | Construction of 4 Classrooms and 6 latrines | E.P.KIBALE I | MUGESERA | NYAMUGALI | $\begin{aligned} & \text { NYAMABU } \\ & \text { YE } \end{aligned}$ |
| 15 | Construction of 4 Classrooms | E.P.RUKIRA | MURAMA | KIGABIRO | KIGABIRO |
| 16 | Construction of 2 Classrooms | E.P.RURENGE Catholique | MURAMA | RURENGE | KAZIBA |
| 17 | Construction of 5 Classrooms | G.S.BARE | $\begin{array}{\|l} \hline \text { MUTENDER } \\ \text { I } \end{array}$ | MUTENDERI | AKARIMBU |
| 18 | Construction of 4 Classrooms and 6 latrines | E.P. KIBARE II | MUTENDER I | KIBARE | MUKURA |
| 19 | Construction of 4 Classrooms | G.S. NDEKWE | REMERA | NDEKWE | RWAMUTA BAZI |
| 20 | Construction of 4 Classrooms | $\begin{array}{\|l} \text { G.S. } \\ \text { NYAMUGALI } \end{array}$ | REMERA | NYAMUGALI | NYAKABIN GO |
| 21 | Construction of 3 classrooms and 10 latrines | EP KABARE I | REMERA | NYAMAGAN A | KABUYE |
| 22 | Construction of 3 Classrooms | G.S. KIBAYA | RUKIRA | NYARUVUM U | GATARE |
| 23 | Construction of 4 Classrooms and 12 latrines | G.S. GITUKU | RUKIRA | KIBATSI | RUTUKU |
| 24 | Construction of 3 Classrooms and 6 latrines | E.P. BULIBA | RUKIRA | BULIBA | KANZENZE |
| 25 | Construction of 5 Classrooms | E.P <br> RUGARAGARA | RUKIRA | NYINYA | KIBIMBA |


| 26 | Construction of 3 <br> Classrooms | E.P RUBAGO | RUKUMBER <br> I | RUBONA | RUGENDA |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 27 | Construction of 3 <br> Classrooms | E.P.NTOVI | RUKUMBER <br> I | NTOVI | IYANTENDE |
| 28 | Construction of 3 <br> Classrooms | E.P KIGARAMA | RURENGE | RWIKUBO | RUHUHA |
| 29 | Construction of 2 <br> Classrooms | G.S.MUSYA | RURENGE | MUSYA | AKABIMBA |
| 30 | Construction of 5 <br> Classrooms and 12 <br> latrines | E.P.ZAZA B | ZAZA | RUHEMBE | KABEZA |
| 31 | Construction of 2 <br> Classrooms and 6 <br> latrines | G.S. ZAZA | ZAZA | RUHEMBE | KABEZA |
| 32 | Construction of 2 <br> Classrooms and 6 <br> latrines | E.P. SHWA | ZAZA | NYAGASOZI | KIYOVU |

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 $\mathrm{N}^{\circ} 290 / 03$ 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 Ngoma 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.)

### 3.2 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 2: Identified potential impacts and mitigation measures

| Potential Impacts/issues | Management/Mitigation Measures |
| :--- | :--- |
| Acquisition of non-governmental land <br> for construction/extension of schools that <br> belong to religious organizations. | Sign consent form by religious organizations as per <br> Prime Minister's order n${ }^{\circ} 290 / 03$ of 13/11/2015 |
| Loss of vegetation cover | •Clear only the area designed for classrooms and <br> latrines construction |


|  | Preserve (or stockpile) excavated topsoil for future <br> site restoration procedures; |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
|  | - | Greening by grasses |  |  |  |


| Risk of insecurity at the sub project site | - Ensure only authorized personnel get to site <br> - 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) | - 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. <br> - Voluntary testing to determine HIV status; counselling at existing medical facilities; <br> - Enforce and sensitize code of conducts |
| Poor hygiene and sanitation | - Provide means for handling waste generated by construction workers <br> - Avail handwashing facilities <br> - Always keep clean toilets <br> - Install toilets away from rivers or areas with shallow groundwater <br> - Sensitize workers about handwashing culture |
| Risk of exhaust emissions (e.g. Sulphur, Carbon, Nitrogen, chlorofluorocarbons,...) from truck movements | - Before hiring a supplier, make sure that his/her vehicle has a valid vehicle technical control certificate <br> - 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 | - 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; <br> - Limit civil work activities to daytime hours to the extent feasible; <br> - Sensitize vehicle drivers to switch off engines when the vehicle is parked; <br> - 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 and wearing dust mask <br> - Watering while soil works and construction are being executed and where dust is emitted; <br> - Reduce vehicle speed in working area |


| Soil erosion due to the runoff | - Installation of rain water harvesting system (Water tanks and waterways) <br> - Plantation of ornamental trees and grasses on exposed slopes |
| :---: | :---: |
| Generation of solid waste in the form of construction spoils | - Implement 3R principles (Reducing, reusing, recycling) wastes; <br> - Avail solid waste bins and sort garbage according different categories (e-wastes, chemicals, plastics, metals, glasses papers/wood and biodegradable wastes); <br> - Dispose of solid waste to existing dumpsite |
| Fire outbreak due to welding activities | - Avail sand and water on site for fire fighting <br> - Employ skilled people in welding activities <br> - 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. <br> - Disposal of waste from paint in existing toxic liquid waste pit <br> - Company certified in collected waste will be hired in collecting the produced waste wherever possible <br> - Work closely with the district hospital in handling hazardous waste <br> - 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 and response plan, 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 ten (10) sites (E.P BITARE, G.S GATARE, G.S GAHURIRE, E.P MUNEGE, E.P NGARA, G.S KABIRIZI B, G.S GAHIMA, E.P KAGASHI, E.P RUKIRA, and E.P NTOVI). For the rest subprojects sites which are mostly owned by religious institutions mainly the Catholic Church (G.S ZAZA A, G.S KIBAYA, E.P KIBARE I, G.S NYANGE, G.S KAZO, G.S JARAMA, E.P RURENGE, E.P KIBARE II, G.S BARE, E.P KIBARE I, G.S NDEKWE, G.S GITUKU, E.P BULIBA, E.P RUBAGO, G.S MUSYA, G.S KIGARAMA, E.P SHYWA, E.P ZAZA B, EP TUNDUTI), EAR (G.S KABIRIZI A), EPR (EP RUGARAGARA), and ADEPR (GS NYAMUGARI), a Consent form will be signed in the regards of the existing Prime Minister's order $n^{\circ} 290 / 03$ 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: Environmental and Social Management Plan for generic impacts for construction classrooms and latrines in Ngoma District
$\left.\begin{array}{|l|l|l|l|l|l|l|}\hline \begin{array}{l}\text { Sub-Project } \\ \text { Phase }\end{array} & \begin{array}{l}\text { Sub-Project } \\ \text { Activity }\end{array} & \begin{array}{l}\text { Potential } \\ \text { Impacts/issues }\end{array} & \begin{array}{l}\text { Management/Mitigation } \\ \text { Measures }\end{array} & \begin{array}{l}\text { Implementation } \\ \text { responsibility }\end{array} & \text { Time Frame } & \begin{array}{l}\text { Estimated } \\ \text { Cost (Frw) }\end{array} \\ \hline \begin{array}{l}\text { Pre- } \\ \text { phase } \\ \text { phase }\end{array} & \begin{array}{l}\text { Avail land for 22 } \\ \text { sub-project sites } \\ \text { from religious } \\ \text { organizations } \\ \text { (G.S ZAZA A, }\end{array} & \begin{array}{l}\text { Religious Land } \\ \text { use for 22 sub- } \\ \text { projects for } \\ \text { classrooms and } \\ \text { latrines } \\ \text { construction }\end{array} & \begin{array}{l}\text { Sign consent form by } \\ \text { religious organizations as per } \\ \text { Prime Minister's order } \\ n^{\circ} 290 / 03 \text { of 13/11/2015 } \\ \text { E.P KIBARE I, }\end{array} & \begin{array}{l}\text { Religious Legal } \\ \text { Representative, } \\ \text { Government of } \\ \text { Rwanda }\end{array} & \begin{array}{l}\text { Before } \\ \text { commencing } \\ \text { civil works }\end{array} & \text { No cost }\end{array}\right\}$

|  | EP <br> RUGARAGAR <br> A) for <br> classrooms and latrines construction Site clearing | Loss of vegetation cover | - Clear only the area designed for classrooms and latrines construction <br> - Preserve (or stockpile) excavated topsoil for future site restoration procedures; <br> - Greening by grasses | Foreman, School Head Teacher | During site clearance | 3,360,000 (of <br> which 28,000 <br> per one <br> Classroom) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Construction phase | Extraction and transportation of materials | Potential risks of wasting raw materials | - Accurate estimate of needed materials <br> - Get supply of rawmaterials (such as sand, stones, bricks, etc.) from authorized suppliers and sites | Foreman, <br> School construction officer | During construction period | No cost |
|  |  | Access roads | - Locate access roads in consultation with local community and officials | Foreman, <br> School construction officer, | During construction period | No cost |


|  |  |  |  | Suppliers with local community |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 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 | Suppliers | During implementati on of the sub project activities | No cost |
|  |  |  | - 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, <br> School <br> construction officer | Prior to \& during excavation | 6,400, 000 (of which 200,000 per site) |
|  |  | Accidental injuries | - Checking daily if the materials are in good conditions before starting the activities, <br> - Equip all site workers with Individual | Foreman, School Head Teacher | During the timeframe of the implementati on of the project | No cost |


|  |  |  | protective equipment (such as boots, helmets, and high visibility jackets) <br> - Avail first aid kit on-site, <br> - Ensure that all workers have medical insurance such as "Mutuelle de sante'", RAMA or any other recognized medical insurance <br> - Ensure provision of regular briefing on occupational health and safety to workers <br> - Having distance between workers |  |  | 14,745,600 <br> (460,800 per <br> site) <br> 768,000 <br> (24,000 per <br> 1kit per site) <br> No cost <br> No cost <br> No cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | of workers' <br> health and <br> child right <br> violation | - The site will be provided with clean drinking water <br> - Construction workers should be given break to go for lunch; <br> - Child labor should be avoided at all stages of | School Head <br> Teacher, <br> Foreman, <br> Safeguards Team | During subproject implementati on | 576, 000 (of <br> which 18,000 <br> per site) <br> No cost <br> No cost |


|  |  |  |  |  | construction (child under <br> 18years old) <br> Fair treatment of workers <br> and provision of safe and <br> health working condition <br> Respect of working hours |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | No cost


|  |  | harassment and abuse, GBV (gender based violation) | negative effects from social\& multicultural inclusion at the area. <br> - Voluntary testing to determine HIV status; counselling at existing medical facilities; <br> - Enforce and sensitize code of conducts |  | on of the project | No cost <br> No cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Poor hygiene and sanitation | - Provide means for handling waste generated by construction workers <br> - Avail handwashing facilities <br> - Always keep clean toilets <br> - Install toilets away from rivers or areas with shallow groundwater <br> - Sensitize workers about handwashing culture | Social affairs at sector level, School head teacher, Foreman | During the timeframe of the implementati on of the sub-project | $\begin{aligned} & 2,880,000 \text { (of } \\ & \text { which } 90,000 \\ & \text { per site) } \end{aligned}$ |
|  |  | Risk of exhaust emissions (e.g. Sulphur , Carbon, | - Before hiring a supplier, make sure that his/her vehicle has a valid | Foreman, <br> National police | During implementati | No cost |


|  |  | Nitrogen, chlorofluorocar bons,...) from truck movements | vehicle technical control certificate <br> - Sensitize drivers to avoid unnecessary racing of vehicle engines at loading/offloading points and parking areas; | District Environmental officer <br> Environmental and Social Safeguards Officer | on of the activities |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Risk of noise and/or <br> vibration pollution of civil works/heavy trucks to the school environment and local people | - 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; <br> - Limit civil work activities to daytime hours to the extent feasible; <br> - Sensitize vehicle drivers to switch off engines when the vehicle is parked; | Foreman | During implementati on of the activities | No cost |


|  |  |  |  |  | Perform welding and <br> other noise producing <br> activities during weekend <br> in order to minimize <br> noise pollution during <br> school days |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 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; <br> - Avail solid waste bins and sort garbage according different categories (e-wastes, chemicals, plastics, metals, glasses papers/wood and biodegradable wastes); <br> - Dispose of solid waste to existing dumpsite | District Environmental Officer, School head teacher, Foreman | During the timeframe of the implementati on of the project | No cost <br> 160,000 (of which 5,000 per site) <br> No cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fire outbreak due to welding activities | - Avail sand and water on site for fire fighting <br> - Employ skilled people in welding activities <br> - 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 <br> No cost <br> No cost |
|  | Painting | Soil pollution due to toxic or hazardous chemical from | - Hazardous/toxic materials shall be stored in appropriate containers/stores with | District Environmental officer, School | During the timeframe of the implementati | No cost |


|  |  | paints or solvents | clearly visible labels; \& regularly inspect for signs of leaks. <br> - Disposal of waste from paint in existing toxic liquid waste pit <br> - Company certified in collected waste will be hired in collecting the produced waste wherever possible <br> - Work closely with the district hospital in handling hazardous waste <br> - Provide training on management of all hazardous chemicals/materials and wastes for workers including use of PPEs | head teacher, Foreman | on of the sub-projects | No cost <br> No cost <br> No cost <br> 3,200,000 ( of <br> which <br> 100,000 per <br> site) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Operation | Use of toilet | Soil and groundwater pollution due to infiltration | Proper construction of foundation and walls for pit by cementing | School construction officer and specialist | During pit cementing and foundation works | 16,000,000 <br> (of which 106,665 per Latrine) |

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|  |  | of microbes <br> from faeces |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Total <br> estimated <br> budget |  |  |  |  | $109,817,600$ |  |

### 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 Ngoma 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: Environmental and Social Monitoring Plan for construction of classrooms and latrines in Ngoma District
$\left.\begin{array}{|l|l|l|l|l|l|l|}\hline \begin{array}{l}\text { Sub- } \\ \text { project } \\ \text { phase }\end{array} & \text { Potential impacts } & \begin{array}{l}\text { Management/ } \\ \text { Mitigation Measures }\end{array} & \begin{array}{l}\text { Monitoring } \\ \text { indicator }\end{array} & \begin{array}{l}\text { Frequency/ } \\ \text { Time frame }\end{array} & \text { Responsible } & \begin{array}{l}\text { Estimated } \\ \text { cost (Frw) }\end{array} \\ \hline \begin{array}{l}\text { Pre- } \\ \text { constructio } \\ \text { n phase }\end{array} & \begin{array}{l}\text { Religious land use 22 } \\ \text { sub-project sites } \\ \text { (Avail land for 22 } \\ \text { sub-project sites from } \\ \text { religious } \\ \text { organizations (G.S } \\ \text { ZAZA A, G.S }\end{array} & \begin{array}{l}\text { Sign consent form by } \\ \text { religious organizations } \\ \text { as per Prime Minister's } \\ \text { order n n } 290 / 03 \text { of } \\ 13 / 11 / 2015\end{array} & \begin{array}{l}\text { Number of } \\ \text { signed } \\ \text { consent form }\end{array} & \begin{array}{l}\text { Before the } \\ \text { commenceme } \\ \text { nt of civil } \\ \text { works }\end{array} & \begin{array}{l}\text { Monitoring } \\ \text { Evaluation Specialist } \\ \text { and Social safeguards } \\ \text { Specialist/MINEDUC }\end{array} & \text { No cost }\end{array}\right\}$

|  | JARAMA, E.P <br> RURENGE, E.P <br> KIBARE II, G.S <br> BARE, E.P KABARE <br> I, G.S NDEKWE, G.S <br> GITUKU, E.P <br> BULIBA, E.P <br> RUBAGO, G.S <br> MUSYA, G.S <br> KIGARAMA, E.P <br> SHYWA, E.P ZAZA <br> B, EP TUNDUTI, G.S <br> KABIRIZI A, EP <br> RUGARAGARA) for <br> classrooms and <br> latrines construction |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |


|  |  | Greening by <br> grasses | Area greened <br> in square <br> meter | Once(after <br> construction <br> works) |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Constructio <br> n phase | Potential risks of <br> wasting raw materials | Accurate estimate <br> of needed materials <br> - Get supply of raw- <br> materials (such as <br> sand, stones, bricks, <br> etc.) from <br> authorized suppliers <br> and sites | Quantity of <br> remaining <br> materials | Monthly | Foreman | No cost |
|  | Access roads | Locate access roads <br> in consultation with <br> local community <br> and officials | Number of <br> complaints |  |  |  |


|  |  | quarries and <br> dumping sites at the <br> end of construction <br> activities | Rehabilitated <br> area in <br> square meter |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Valuable artefacts or <br> culturally valuable <br> materials | Use and follow <br> chance find <br> procedures as per <br> the ESCP | Number of <br> complains | During <br> construction <br> period | Local authority, <br> MINEDUC <br> safeguards Team | No cost |
|  |  | Checking daily if <br> the materials are in <br> good conditions <br> before starting the <br> activities, | Number of <br> Materials in <br> good <br> condition <br> Equip all site <br> workers with <br> Individual <br> protective <br> equipment (such as <br> boots, helmets and <br> high visibility <br> jackets); | Daily | Number of <br> workers with <br> personnel <br> equipment | Daily |



|  |  | stages of construction (child under 18 years old) <br> - Fair treatment of workers and provision of safe and health working condition <br> - Respect of working hours | Number of checking made on site <br> Number of complains resolved <br> Number of working hours/day | Daily <br> Daily |  | No cost <br> No cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Risk of conflict | - Local residents will be given the priority during workforce selection; <br> - Wearing uniform (jacket) <br> - Grievance Redress Mechanism | Number of local residents on work | Once, during recruitment | Local authorities, Site supervisor and MINEDUC <br> Safeguards Team | 55,000 |
|  |  |  | Number of workers with jackets | Daily |  | No cost |
|  |  |  | Number of grievances resolved | Monthly |  | 55,000 |


|  | Risk of insecurity at the sub project site | - Ensure only authorized personnel get to site, <br> - Ensure security persons are available on the site | Entry <br> Register <br> book <br> Contract of security personnel employed | Daily | Local authorities, foreman and MINEDUC Safeguards Team | No cost $55,000$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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; <br> - Voluntary testing to determine HIV status; counselling at existing medical facilities; | Minutes and attendance lists <br> Number of voluntary tested personnel <br> Number of Site supervision | Monthly <br> Quarterly <br> Weekly | Local authorities, <br> Health Centers, <br> Foreman and <br> MINEDUC <br> Safeguards Team | 55,000 <br> 55,000 <br> No cost |


|  | - Enforce and sensitize code of conducts |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Poor hygiene and sanitation | - Avail handwashing facilities; <br> - Always keep clean toilets; <br> - Install toilets away from rivers or areas with shallow groundwater; <br> - Sensitize workers about handwashing culture | Number of handwashing facilities on site <br> Cleanliness <br> Field visit report <br> Minute and attendance list | Daily <br> Daily <br> Once during project startup <br> Monthly | Local authorities, <br> Foreman, head <br> teachers and <br> MINEDUC <br> Safeguards Team | No cost <br> No cost <br> No cost <br> 220,000 |
| Risk of exhaust emissions (e.g. <br> Sulphur, Carbon, <br> Nitrogen, chlorofluorocarbons,... ) | - Before hiring a supplier, make sure that his/her vehicle has a valid vehicle technical control certificate; | Inspection report | Once at every contracting | Local authorities, traffic police, foreman and MINEDUC <br> Safeguards Team District <br> Environmental officer | $\begin{aligned} & \hline 55,000 \\ & \\ & 55,000 \end{aligned}$ |


|  |  | Sensitize drivers to <br> avoid unnecessary <br> racing of vehicle <br> engines at <br> loading/offloading <br> points and parking <br> areas; | Minute and <br> attendance <br> lists |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |


|  | switch off engines when the vehicle is parked; <br> - Perform welding and other noise producing activities during weekend in order to minimize noise pollution during school days |  | During work implementatio n plan |  | No cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Degradation of air quality due to the dust emissions; | - Manual compaction of unstable soil ; <br> - Watering while soil works and construction are being executed and where dust is emitted; <br> - Reduce vehicle speed in working area | Area of compacted soil in square meter | During excavation and foundation works | Local authorities, <br> Fore man and <br> MINEDUC <br> Safeguards Team | $55,000$ <br> No cost |
| Soil erosion due to the runoff | - Installation of rain water harvesting system (Water | Number of installed water tanks | Monthly | Local authorities, Foreman and | 55,000 |


|  |  | tanks and waterways). <br> - Plantation of ornamental trees and grasses on exposed slopes | Number of planted ornamental trees |  | MINEDUC <br> Safeguards Team |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Generation of solid waste in the form of construction spoils | - Implement 3R principles (Reducing, reusing, recycling) wastes; <br> - Avail solid waste bins and sort garbage according different categories (e-wastes, chemicals, plastics, metals, glasses papers/wood and biodegradable wastes); <br> - Dispose of solid waste to existing dumpsite | Awareness provided for workers on 3R principles Number of solid waste bins and garbage on site <br> Amount of solid waste disposed at existing dumpsite | Twice a week <br> Daily <br> Weekly | District <br> Environmental <br> Officer, Local authorities, Site <br> Foreman and <br> MINEDUC <br> Safeguards Team | 55,000 <br> No cost <br> 55,000 |

\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \& Fire outbreak due to welding activities \& \begin{tabular}{l}
- Avail sand and water on site for fire fighting \\
- Employ of skilled people in welding activities' \\
- Ensure a quick contact to concerned security institution in case of strong fire outbreak
\end{tabular} \& Quantity of sand and water in cubic meter \& \begin{tabular}{l}
Daily \\
Once at contracting \\
Instantly
\end{tabular} \& \begin{tabular}{l}
Local authorities, Site supervisor and \\
MINEDUC \\
Safeguards Team
\end{tabular} \& \begin{tabular}{l}
No cost \\
55,000 \\
No cost
\end{tabular} \\
\hline \& Soil pollution due to toxic or hazardous chemical from paints or solvents \& \begin{tabular}{l}
- 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;
\end{tabular} \& Quantity of waste disposed in existing toxic \& \begin{tabular}{l}
Monthly \\
Once during and after painting works
\end{tabular} \& Local authorities, foreman and MINEDUC Safeguards Team \& 55,000

55,000 <br>
\hline
\end{tabular}

|  |  | - Company certified in collected waste will be hired in collecting the produced waste wherever possible; <br> - Work closely with the district hospital in handling hazardous waste <br> - Provide training on management of all hazardous chemicals/materials and wastes for workers including use of Personal Protective Equipment. | liquid waste pit. <br> Number of personnel protective equipment | Monthly |  | No cost $55,000$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Operation | Soil and groundwater pollution due to infiltration of microbes from toilets | - Cementing the walls of pit | Inspection report | Once after completion | Local authorities, foreman and MINEDUC Safeguards Team | 55,000 |


| Total <br> estimated <br> budget |  |  |  |  | $3,912,000$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

### 4.2.1 Monitoring roles

Table 5: Monitoring roles and responsibility

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


| Community | $\bullet$Execute ESMP guidelines and report any <br> Environmental and Social issue occurred on the site <br> to local authorities | Community | and |
| :--- | :--- | :--- | :--- | :--- |
|  | $\bullet$ 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. $\mathrm{He} /$ 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

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 Ngoma 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 Ngoma 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
$\left.\begin{array}{|l|l|l|}\hline \text { Potential Risk } & \text { Mitigation Measures } & \text { Responsible } \\ \hline \begin{array}{l}\text { The influx of new workers } \\ \text { from outside areas to the } \\ \text { project area will increase } \\ \text { demand on existing health } \\ \text { services }\end{array} & \begin{array}{l}\text { Health services of the new } \\ \text { workers shall be provided } \\ \text { especially the medical insurance } \\ \text { "Mutuelle de sante" }\end{array} & \begin{array}{l}\text { District in } \\ \text { collaboration with } \\ \text { RSSB }\end{array} \\ \hline \begin{array}{l}\text { The influx of new workers to } \\ \text { the area could bring with it } \\ \text { an increase of communicable } \\ \text { diseases. }\end{array} & >\begin{array}{l}\text { Awareness campaigns on hygiene } \\ \text { and sanitation and how these } \\ \text { diseases spread. }\end{array} & \begin{array}{l}\text { Sectors } \\ \text { Districts }\end{array} \\ \hline \begin{array}{l}\text { Dust from transport and } \\ \text { vehicles and machineries on } \\ \text { roads }\end{array} & \begin{array}{l}>\text { Control speed limits; } \\ >\end{array} & \begin{array}{l}\text { Haul truck transporting volatile } \\ \text { construction materials }\end{array} \\ > & \begin{array}{l}\text { Ensure haul trucks are not } \\ \text { overloaded and are covered where }\end{array} & \begin{array}{l}\text { Site construction } \\ \text { environmental } \\ \text { and social officers }\end{array} \\ \text { necessary; } \\ \text { engineers }\end{array}\right\}$

| Potential Risk | Mitigation Measures | Responsible |
| :---: | :---: | :---: |
|  | Water monitoring will be conducted. |  |
| Noise will be significant during construction. | Monitoring will be conducted; Operating hours of the open pit activities only during the daily hours; <br> Speed restrictions on site traffic; | Environmental and social officer <br> District environmental officer |
| Gas emissions from project vehicles, trucks and construction machineries | Constant preventative emission control; <br> Ensure all project vehicles and trucks have valid vehicle inspection certificates, | Environmental and social <br> District environmental officer |
| Dust from construction activities including quarries and borrow pits | $>$ Sprays water to avoid lift of dust; <br> $>$ Workers provided with appropriate PPE. | Environmental and social officer <br> District environmental officer |
| Interaction between learns and project workers | 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; <br> Learners plays and interactions between themselves must be from construction sites <br> Increase security awareness among learners and restrict them from crossing danger/warning tape. |  |
| Site intrusion, theft, and other insecurity at construction site | 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

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

## TEMPLATE FOR CONSOLIDATED REPORT OF GRCs ACTIVITIES

| N | Names, <br> o | Area of <br> residenc <br> e and ID <br> of <br> complai <br> nant | Date <br> for <br> grieva <br> nce <br> recepti <br> on | Means <br> of <br> grieva <br> nce <br> recepti <br> on <br> (SMS, <br> Phone <br> call, <br> letter, | Type of <br> issue <br> raised <br> (Grieva <br> nce, <br> Concern <br> request, | Summari <br> zed <br> descripti <br> on of the <br> complain <br> t |  | Action <br> underta <br> ken | Dat <br> e of <br> acti |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| on |  |  |  |  |  |  |  |  |  | | Level |
| :--- |
| of |
| GRC |
| that |
| took |
| action |
| on |
| grieva |
| nce | | Status <br> of <br> grieva <br> nce <br> during <br> the <br> reporti <br> ng <br> time |
| :--- |

## Annex 5: 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 <br> predicted | Proposed <br> mitigation <br> measures | Indicator <br> (Parameter <br> to be <br> measured) | Color <br> coding | Sub- <br> project | Findings/Remarks <br> (Describe status of <br> completion, Does <br> this measure seem <br> effective? suggest <br> solutions where <br> problems are <br> encountered) |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| District ESSO |  |  | Date/Name of reviewer: |  |  |

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; <br> - Conducts regular audits of the workplace; <br> - 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 | - Checklist, <br> - Audit Checklist, |
| Employees training | Unprofessional behavior at work place and lack of basic ergonomics | - Employee/Workers, volunteers, and visitors will be oriented to the Emergency Response Plan and notified of any updates; <br> - Employee will undertake regular drills in order to be prepared in the event of a real emergency; <br> - Employees meetings will regularly address potential emergency concerns and responses. | ESSO, SCFO, DSCE, DDMO and Foreman | Banners, Pull up, Sample PPE |
| 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. <br> - The emergency telephone number of police and ambulance, will be displayed and clearly seen by everyone on sign post at work area/site | Foreman | Folder <br> Printed announcement with emergency contact numbers |

\(\left.$$
\begin{array}{|l|l|ll|l|l|}\hline \begin{array}{l}\text { Warning } \\
\text { systems }\end{array} & & \begin{array}{l}\text { The foreman will blow a whistle to alert The } \\
\text { construction site workers in case of emergency that }\end{array}
$$ \& Foreman, <br>

requires attention, evacuation, etc.\end{array}\right]\)| Whistle |
| :--- |
| cease fire |


|  |  | of conduct, contracts of workers, log books/registers, card stock, etc. |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Emergency situations | Non-life threatening situations (power failure, technical failures) | - Discuss response plan with the construction engineer, environmental officer and Foreman; <br> - Ensure that all project Employees/workers are informed about the response plan; <br> - If need be, contact employees through emergency contact information provided by each Employee | SCFO, DSCE, ESSO, DEO, DDMO and Foreman | Employee emergency contact, <br> Emergency preparedness plan |
|  | Advanced warning including severe and potentially hazardous weather conditions (e.g. storms, fire), Infectious disease outbreak | - Discuss response plan with the construction engineer, environmental officer and Foreman or refer to previously assigned response plan; <br> - Ensure that all project Employees/workers are informed about the response, anticipated timeline for return to work, offsite meeting space, etc. <br> - Contact Employees through emergency contact information provided by each Employee | ESSO,DEO, DDMO SCFO, Foreman | Employee emergency contact, |
|  | 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; <br> - Ensure that the individual's emergency contacts are informed unless otherwise requested by the individual; <br> - Complete an accident report and send it to MINEDUC | Foreman, ESSOs and SCFO | Telephone First aid kit |
|  | Spontaneous dangerous events; this include <br> On site fire, bomb threat, explosions, intruder threat, workplace violence, | - Immediately initiate appropriate response action (see Response Actions) <br> - See specific procedures | Foreman, RNP, RDF, Local Authority, DDMO and ESSOs | Telephone |


|  | hazardous materials, suspicious packages etc.; Off-site terrorist attack, hazardous materials within vicinity etc. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Procedures | Evacuation | When the Foreman as Emergency Coordinator (EC) alerts Employees and visitors to evacuate the project site; everyone: <br> - Stop working immediately and listen to the EC's instructions; <br> - Leave your workstation or office immediately - do not stay behind to finish work; <br> - If possible secure confidential information, valuables and appropriate clothing when evacuating but do not hesitate; <br> - Close office door as you leave; <br> - Congregate at the assembly area (to be determined); <br> - If you are not in your regular work area, do not attempt to return to it; <br> - Emergency Coordinator or Foreman will make of a head count (including visitors, consultants) is done at that time at site; <br> - Assist visitors and others who require assistance (physical, language, etc.); <br> After evacuation the Emergency Coordinator or foreman will | Foreman, Local Authority, SCFO, DEO, DDMO and ESSOs | First aid kit, whistle |


|  |  | - Conduct an immediate risk assessment and send report to MINEDUC; <br> - Vocally alert Employees of the emergency response (i.e. evacuation procedures); <br> - Take basic Emergency Kit; <br> - Delegate searchers to site and to take head counts and ensure all have vacated the site or office; <br> - 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; <br> - Evacuate the building if you hear continuous whistle sounds; <br> - Remain calm, if possible secure confidential information, valuables when evacuating but do not hesitate; <br> - Congregate at the assembly area; <br> - If you are not in your work area/site, do not attempt to return to it | Foreman, SCFO, ESSOs, DEO and DDMO | First aid kit, whistle |
|  | Suspicious Package | - If you see a suspicious package, do not touch the package; <br> - Clear the immediate area where the package was found; <br> - 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; <br> - If ordered to evacuate follow evacuation instructions | Foreman, RDF, RNP, ESSOs, Local Authority | PPEs, Telephone, |
|  | 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 | Foreman, ESSOs, DDMO and SCFOs | Register form |


|  |  | and Social Safeguard Officer, and construction officer; |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Storm | 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; <br> - Keep calm and avoid panic; <br> - Assemble everyone in the emergency shelter specially equipped for this situation; <br> - 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; <br> - If caught by the storm whilst outside or in a vehicle, leave the vehicle and seek refuge in the nearest building; <br> - During a thunderstorm protect yourself from lightning by keeping away from metal objects, switching off the electricity supply, and telephone; <br> - Avoid standing up in an elevated area or sheltering under a tree. | Foreman, ESSOs, $\quad$ DEO, DDMO, SCFOs, and Authority | PPEs, Telephone |
|  | After a storm | - Keep calm and do not panic; <br> - Stay inside the building in which you have sheltered. Do not use vehicles because of traffic problems and danger from damaged buildings and roads; <br> - Follow the radio, television, website, and authorities' instructions; <br> - Only use the telephone in an emergency; <br> - Check to see if there are people nearby which are wounded or in difficulty and assist them; <br> - Do not go near, touch or use damaged electrical installations, cables and wires and alert the relevant | Foreman, ESSOs, $\quad$ DEO, DDMO, SCFOs, and Authority | Telephone, PPEs |


|  | authorities of the damage. The same applies to ruptured water or sewers; |  |  |
| :---: | :---: | :---: | :---: |
| During <br> Thunderstorm | - Do not be or stand next to - tallest object in the area; <br> - Do not stand near wire fences or other metal objects that could conduct electricity; <br> - Do not stand in or near water; <br> - Do not seek shelter in open areas; <br> - Avoid touching any metal; <br> - Avoid using the telephone or any electrical appliances; | Foreman,ESSOs, <br> DDMO SEO, <br> Authority | Announcement with instructions, PPEs |

## Annex 6: Employee's Emergency contact information form

## Employee's information

First name: last name: $\qquad$

Title (mason, aid, store keeper, etc.): $\qquad$

Identification number: $\qquad$

Home address: Cell: $\qquad$ Sector: $\qquad$ District: $\qquad$

Any disability or chronic disease (specify): $\qquad$

Insurance information: Mutuelle de santéOther (specify) $\qquad$

## Emergency contact name

Primary contact name $\qquad$

Relationship to employee $\qquad$ .Telephone: $\qquad$

Home address: Cell: $\qquad$ Sector: $\qquad$ District: $\qquad$
$\square$ Same address/phone as employee

Emergency contact name

Primary contact name. $\qquad$

Relationship to employee $\qquad$ Telephone: $\qquad$

Home address: Cell: $\qquad$ Sector: $\qquad$ District: $\qquad$

## Comment

$\square$
$\qquad$

