

**National Climate Change and Environment Fund (FONERWA)**  
**Full Project Document (PD)**  
**COVER SHEET**

(Attach this sheet to the front of your submission. *Please do not exceed one A4 side of paper.*)

<b>Project Title</b>	RUSHASHI ENVIRONMENTAL FRIENDLY MINING PROJECT (REFMP)
<b>Project Summary</b> <i>(In 75 words or less please summarise what your project intends to achieve and how)</i>	The STANDARD MINING COMPANY LTD is determined to be a model mining company complying with all the mining best practices. It is with this framework that our company is applying for Innovation Grant to sustainably develop and improve the mine infrastructures to serve as case study and improve mining production.
<b>Anticipated Start Date</b> <i>(DD/MM/YYYY)</i>	1 <sup>st</sup> October 2016
<b>Project Duration</b> <i>(in months)</i>	12 months
<b>Funding Requested</b> <i>(RWF)</i>	92,750,000
<b>Name of Lead Organisation</b>	STANDARD MINING COMPANY LTD
<b>Type of Organisation, which best describes the Lead Organisation</b> <i>(please select only one box)</i>	<input type="checkbox"/> Government Institution
	<input type="checkbox"/> Non-Governmental Organisation (NGO)
	<input checked="" type="checkbox"/> Private Sector Enterprise
	<input type="checkbox"/> Academic Institution
	<input type="checkbox"/> Other <i>(please specify)</i>
<b>Partner Institutions</b>	Rwanda Mining Association( RMA)
<b>Full Office Address</b>	Nyarugenge District, Muhima sector P.O. Box: 2493 Kigali
<b>Website Address</b> <i>(if applicable)</i>	http://www.standardminingcompany.com
<b>Contact Person</b> <i>(the person who will have ultimate responsibility and be accountable for delivering this project)</i>	<b>Name:</b> NYIRANZIRORERA Immaculée <b>Position:</b> Managing Director <b>Email:</b> standardminingc@gmail.com <b>Tel:</b> 0788748677/ 0788543504
<b>Is this a resubmission of an earlier submitted PD</b> <i>(if so please provide details)</i>	Yes, see on attachment the requested clarification.

**For Internal Purposes Only: To be Completed by the Fund Manager**

Date Received: \_\_\_\_\_

PD Code: \_\_\_\_\_

Date Comments Sent: \_\_\_\_\_

Feasibility Study? (Y/N) \_\_\_\_\_

PPD Code: \_\_\_\_\_

Thematic Financing Window: \_\_\_\_\_

FONERWA Entry Point: \_\_\_\_\_

Technical Appraisal Score: \_\_\_\_\_ Rank: \_\_\_\_\_

## National Climate Change and Environment Fund (FONERWA) Full Project Document (PD)

(Please provide a complete answer to each question, even if the answer is duplicated elsewhere. This PD should not exceed 35 sides of A4 size paper.)

### SECTION 1: INFORMATION ABOUT THE APPLICANT

**Q 1.1** **What** is the Lead organisation's total number of full-time employees?

The Company has 41 full time employees.

**Q 1.2** **What** is your organisation's experience of managing similar projects or activities (*please explain why you think your organisation and partners are capable of managing the project*)?

The Company has the relevant management team, coordination and technical capability to undertake this project. It has over 5 years' experience in mining activities in Gakenke district and it has been ranked by the Ministry of natural resources among the best companies in northern province. The company has a team made of managing director; Finance manager, operations manager and support staff. The company intends to recruit also the Geologist technician and environmental management Officer to strengthen the operational team.

The company has conducted an environmental impact assessment study and a geological study to determine the minerals reserve estimation. The mining and exploration has started in different site of concession aimed at knowing the quantity and quality of available minerals.

The company has introduced the new way of washing up hill assisted by motor for pumping water up hill and therefore preventing river pollution.

**Q 1.3** **List** the name, position, and email of key personnel involved in the project, such as the project executive, project manager, and core technical staff. (Provide a CV for each of the key personnel as an attachment to this PD)

Name	Position in the project	Tel and e-mail
NYIRANZIRORERA Immaculee	CEO	0788748677, standardminingc@gmail.com
RUHIGIRA BIDA	Project manager	0788406448, <a href="mailto:abida11@yahoo.com">abida11@yahoo.com</a>
MUCYO Faustin	Finance manager	0788582757

The role and responsibilities of key project team are the followings:

**CEO, Chief Executive Officer**, is in charge of overall management of the company, liaising with stakeholders and private sector to pursue production and the growth of the company. She is responsible of all day today administration work of the company.

**Project manager**, is in charge of all activities of the company that relates to the production and procurement of project materials and equipment. He is in charge of work plan preparation, implementation and reporting.

**Finance Manager**, is in charge of finance and day today activities of the company. He works with both the operation and administration departments. He is in charge of all the administration, marketing and human resources management.

Environmentalist and M&E **officer** is in charge monitoring and evaluation and oversee the engineering and

mechanization activities within the company and will be recruited.

Please find CVs of key staff on attachment.

**Q 1.4** **Lead Organisational Finances. Provide a copy of these** from the most recent audited annual accounts (income and expenditure statement & balance sheet in RWF, as well as the main sources of funding) as an attachment to this PD.

Please find them on attachment.

## SECTION 2: INFORMATION ABOUT THE PROJECT

**Q 2.1** **Why** the project is needed (*clearly state the problem this project will address and the evidence base for its justification. Where possible, refer to international, national and/or sectoral strategies.*) ?

According to the International Council of Mining and Metals: ICMM (2012), "Mining has provided the building blocks to human development"; and in the Rwandan context, the industry is at least 80 years old and for a large part of this time mining contributed at least 20% of the export earnings. For the last several years it has been the biggest export earner, contributing up to 40% of the exports in 2013. In EDPRSII "Mining is targeted to contribute at least 400MUS\$ in export earnings and to employ 60000 people by 2018" (EDPRSII). Since privatisation, which began in 2006, there has been a big growth in the number of investors in the sector, the majority of them being in the artisan and small (ASMs) scale category, accounting for at least 70% of the minerals export earnings. Currently, there are more than 6000 registered mineral Licenses for Exploration and Mining.

Although the artisanal and small scale miners (ASM's) in Rwanda are relatively more organized including a national federation for mining cooperatives and Rwanda Mining Association (RMA) catering for the interests of all miners and exporters, and though the proliferation of mining activities has raised production significantly it has also created a variety of negative environmental impacts like (i) water pollution, (ii) encroachment on restricted areas, (iii) raise in the number of mine accidents at unsafe mine sites; The sector also suffers from (i) unproductive and un-safe mining methods, and (ii) large losses of unprocessed minerals in waste soils and waters when cleaning using the traditional methods of panning and ground sluicing. It is now clear that with mines getting deeper and licensing areas decreasing, if the status quo of current methods is not transformed, production would flatten out and subsequently begins to decline and incidences of accidents and environment degradation would increase.

Based on the concept of model mine (or model mining) arose from the need to mine efficient, safe and sustainable mining sites that are profitable i.e. "green and efficient mine sites"; Standard Mining Company Ltd have decided to go in this line of model mining practices to comply with both National and international environment and mining requirements. Due to financial constraints to meet the above requirements, Standard Mining Company Ltd (SMC) has decided to approach FONERWA for financial support which would help to meet the mentioned requirements. It is in this line we designed this project requesting for funding to develop Gitongo mine site. The requested funds shall be used mainly to develop the following; overburden and Mine wastes management site, Waste water management system, slope stabilization and erosion control, tree planting and revegetation focusing on the trees species adaptive to the nature of mountainous environment, Health and safety of mine workers, Mineral recovery and efficiency and continue exploration works for further reserve estimations.

The proposed project of Rushashi Environmental Friendly Mining Project (REFMP), is very much in line with the government objectives of ensuring that natural resources are sustainably managed and mining production is increased and done in an environmental friendly manner (EDPRS II). The project is also in line with the model mining concept of MINIRENA. The project activities are also in line with Gakenke DDP 2013-2018 about doing mining in environmental manner and protection of rivers. Vision 2020 has identified mining as one of the key priority sectors that should be developed to trigger the economic growth (Rwanda mining policy, 2010). The project also intends to ensure that the mined –out areas are properly rehabilitated and covered with forests which in later can be harvested for timber, or other economic purpose. The slope shall be protected against erosion, provision of employment and skills to local community, compliance with the mining law and standards, environmental regulations, taxes and royalties.

The above already existing practices are well in line with environment and natural resources strategic plan (ENR:

2014-2018 Vision 2020), EDPRS II and Rwanda Mining Policy.

This project aligns also with GGCRS especially into climate compatible mining program of action, as mining is likely to contribute significantly to energy use, GHG emissions and water use in Rwanda.

It aligns also with Rwanda Mining Policy in strategic pillars that support the growth of the mining industry. These include low carbon, climate resilient development to reduce GHG emissions and improve energy security and water security and reducing vulnerability to floods and landslides.

In this strategy, the government committed to support the mining industry to :

- Implement energy efficiency at operations
- Utilize electricity from renewable energy sources, either from the national grid or on-site generation;
- Employ good water management practices on operations, including water efficiency and flood management.

This project aligns with District DDP 2013-2018, environment and natural resources strategic plan (ENR: 2014-2018 Vision 2020), EDPRS II and Rwanda Mining Policy as described project activities will contribute to protect river banks, preventing river pollution, tree plantation and rehabilitation of mine and contributing to the job creation.

The project is in line with mining policy in the area of improving sector knowledge, skills and use of best practices; Raise productivity and establish news mines; Facilitate diversification and value addition.

As the project is also aligned with Gakenke DDP 2013-2018 in priority area of enhancing partnership with private sector with strong focus in mining sector of existing minerals of coltan, wolfram and cassiterite); The company is applying for grant to implement this project because the climate compatible mining requires more inputs which cannot be met by company and allow the company to realize benefits.

**Q 2.2**

**What** change is this project intended to achieve (*state specific objectives, expected results/impact and long-term legacy. To address the core environment and climate change objectives of the project, it would be helpful to refer to national and sectoral climate change and environment objectives. Provide measurable indicators, within a log-frame matrix. In addition, make a note of the expected impacts on employment and poverty reduction, as well knowledge and technological transfer.*)?

Based on the concept of model mine arose from the need to mine efficient, safe and sustainable mining sites that are profitable i.e. "green and efficient mine sites"; Standard Mining Company Ltd have decided to go in this line of model mining practices to comply with both National and international environment and mining requirements.

The overall project aim is an increased mineral production with a preserved environment and a continuous ecosystem service provision in the mining site and around.

The specific objectives of the project are:

1. Tunnel protected, Water pollution prevented and water resources used efficiently in the mining operations
2. Plant connected to the grid for mining operations and utilizing solar energy;
3. Mined-out area rehabilitated and converted into other economical land uses.
4. Project efficiently managed and coordinated.

The solar energy will be used for lighting both outside and inside tunnels. The water pump will use electricity power from the grid. Hence, solar and electricity from grid will substitute heavy power consuming from uses of diesel.

Implementing such mining best practices at an early stage helps to cut the cost of mine closure and management of post mining challenges. During these developments, there is no doubt that jobs shall be created and a big

number of local people shall be employed.

The results of this project fall under the following output of FONERWA's M&E framework:

Output1: Conservation and management of natural resources strengthened and sustained

Output indicator 1.1: Area (ha) of mined-out areas converted into other economic land use.

Output indicator 1.2: One model mine piloted.

The project intends to mitigate mining impacts through proper mine waste and tailing management and controlled overburden and waste rock in selected and managed site and use of improved mineral recovery techniques which will lead to increased production and good settling cemented ponds shall be developed. Starting mine rehabilitation at this level will help to minimize the post mining impacts and associated costs.

To comply with safety and security standards, the company will train workers on safety and security measures on site and handling of new modern equipments to facilitate work and reduce risks. This will go with an installation of metal pillars that protect against tunnel collapse to replace the current wood based pillars as the tunnel collapsing cases were observed during heavy rains of last April 2016.

In line with "conflict free mineral"; the project will be partnering with WORL WIDE MINERAL SUPPLY LTD a company that verify the origin of minerals and provide Tags that help in mineral origin identification.

In planned activities, the drainage system will be developed on mine access road; around 300m shall be protected against erosion and water way will convey water to the river without causing siltation.

The proposed project of Rushashi Environmental Friendly Mining Project (REFMP), is very much in line with the government objectives of ensuring that natural resources are sustainably managed and mining production is increased and done in an environmental friendly manner and will result in the model mine complying with model mining concept.

The requested funds/ grant shall develop Gitongo mine site mainly in the following: overburden and Mine wastes management site, Waste water management system, slope stabilization and erosion control, tree planting and revegetation focusing on the trees species adaptive to the nature of mountainous environment, Health and safety of mine workers, Mineral recovery and efficiency and continue exploration works for further reserve estimations.

This funding will come as an additionality on what the company is doing to keep the project more environmental which include extension of washing ponds, Purchasing water pumps( to pump water from river up to hillside for hilly washing purpose, Develop a drainage system on the mine access road of 300m for to prevent erosion on site and downhill and connection to the grid for using clean energy instead of diesel.

<b>Q 2.3</b>	<b>How</b> will the project objectives be achieved ( <i>include a detailed Work Plan as an appendix highlighting key deliverables and activities and responsibilities. Clearly describe the approach and methodology to be followed and the sequence of activities planned.</i> )?
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The project area is practiced in mountainous that do not benefit agriculture practice and settlement. The existing activities/ feature include invented trees plantation and plantation of other local trees contributing to the stabilization of the slope. Lightening of tunnels/ gallery will increase mining productivity and safety of the workers. Strong underground mine pillars shall continue to be developed to enforce security of mine workers and good working environment. The adopted underground mining practices will help to minimize the surface environmental damages. Overburdens and waste soils from the mining developments and works shall be managed in identified sites and later used to refill the mined sites and trees planting shall be enforced. A plan to purchase modern mining equipment will increase productivity and proper mine development.

The following methodology and approach will be used:

1. Recruitment of skilled and experienced staff,
2. Purchasing modern equipment, materials and safety facilities,

3. Setting up a steering committee made of the management of the company and representatives of project stakeholders for efficient project management,
4. Improve the corporate social responsibility by facilitating neighbouring households to have an access to water and mobilize local communities about environment protection and safeguarding of project infrastructures,
5. Prevent river pollution by pumping water from the river to the constructed uphill washing site,
6. Protection of Nyamabuye River by protecting restricted zone by bamboo and trees along the concession.
7. Rehabilitation and convert the mined out areas into other economic land use (agriculture and forestry),

The project key activities which includes;

1. Develop and manage soil waste disposal site,
2. Purchasing of project equipment,
3. Install erosion control structures,
4. Setting up drainage system for mine access road on 300m,
5. Production and plantation of fruits and native tree species adaptive to the nature of the area,
6. Avail good health and safety facilities for mine workers,
7. Rehabilitation and extension of cemented ponds for washing purpose and waste water recycling( reuse);
8. Electricity connection to grid,
9. Install solar panels for lighting concession and tunnels,
10. Protection of tunnels for security and easy mining operations

**Q 2.4** **How** does the project address cross-cutting issues such as gender and youth?

The standard mining company is changing the habit that mining has been traditionally a male dominated industry, and continue to change for the better in terms of integrating women into the mining industry and making it a more attractive industry for women to work in, it appears that they are still under represented in this industry.

As the company is owned and managed by a woman will continue to encourage and give an equal opportunity to both women and men. The company has been using both women and men in mining operations and a big number of women is observed in washing. Among 41 full time employees, 16 are women, while the remaining 25 are men.

The company will cope with government vision of integrating and encouraging youth and women in entrepreneurship. As many youths are unemployed and disillusioned, our objective is to foster youth participation in the mining sector through job creation and employment and ensure opportunities that can have a positive impact to women & youth and their economic and social development.

During the project implementation, the project will continue to create green job opportunities both for youth and women and knowledge transfer through training on effective mining and environmental management matter. Both male, female and youth will have an equal opportunity to be employed and aspect of gender equality will continue be integrated in all company's operations including training of all mine workers and other local people which will increase the company performance and productivity.

The company will also pay the employees via Umurenge SACCO and this will increase their access to finance and facilitate workers to have saving skills so that they can develop other income generating activities at home place.

The payment through UMURENGE SACCO is new model of increasing access to finance in local communities recommended by government in line with poverty reduction through inclusive financial services. This also increase transparency in payment and facilitate verification.

There is a relationship between financial performance and the presence of gender diversity in the company. The company believes that the inclusion of women will play a good role to innovate for new solutions.

**Q 2.5** **Who** are the stakeholders affected by the problem, and who are the stakeholders influential in solving the problem? How have they been incorporated and involved in project design and delivery?

The increased mining activities have negatively impact on environment, through water pollution and soil degradation as well as destruction of vegetation cover and putting the life of workers under danger even death.

The RNRA-GMD, RMA, MINIRENA and REMA are key stakeholders as institutions of regulation. They are affected by the problem as well as local community and workers. The consultations have been made with them through meeting and discussion to seek for sustainable solution for the problem and they are committed to provide contribution at different level.

The key stakeholders are local communities, Rushashi sector authorities, authorities of Gakenke district, REMA, RNRA and Rwanda and Mining association. The local communities especially youth and women cooperatives, local authorities were consulted and engaged in the project implementation during the need assessment; while REMA, RNRA committed to provide technical support during discussion with Rwanda Mining Association (RMA). The project activities will be owned by and implemented by the company with strong collaboration with above mentioned government institutions, local community and local leaders. Activity plan will also be approved in the consultation with local authorities and local community. The recommendation letters from district and RMA were provided on attachment.

**Q 2.6** **How** will the benefits of the project be sustained after FONERWA funding comes to an end?

The activities undertaken during this 12 months of project will transform the mining site into modern site with mining best practices as highlighted. The mining method will fully be underground and this will minimize the surface environmental damages; defining accessibility of ore reserves which is an indicator of sustainability of mining project as minerals reserve will be pre estimated. Installation of lightening and proper development of the supported tunnels to easily access the ore will help to increase mineral production and it is an indicator of security and sustainability for a long term mining operations. Since the basic infrastructure shall be in place and ore is accessible, the company is confident that shall be used properly to develop the mine and thereafter the mine shall be self-sustained due to ore identification and developed access. The practice of mine rehabilitation and revegetation shall continue under the support of generated income.

**Q 2.7** **What** is the scope for income generation from the project?

This project will generate much income from ore recovery to mineral recovery. The cost of energy and water will be reduced and company will be generating money from maximizing mineral production through an improved technology in use. The exploitation of rehabilitated mined out areas will also be profitable, planted trees will produce timber and bamboo planted in river buffer zone will generate income. The project will rehabilitate existing mining site and develop the best practices which will transform these site into a modern and environmental friendly mining site, with safety conditions that allow employees to maximise the mineral production. During the project implementation, the project will continue to create green job opportunities both for youth and women and knowledge transfer through training on effective mining and environmental management matter. Both male, female and youth will have an equal opportunity to be employed and aspect of gender equality will continue be integrated in all company's operations including training of all mine workers and other local people which will increase the company performance and productivity. The company will also pay the employees via Umurenge SACCO and this will increase their access to finance and facilitate workers to have saving skills so that they can develop other income generating activities at home place

**Q 2.8** **Preparation:** Has a feasibility or pre-feasibility study been conducted (*If yes, then please attach a copy to this PD*)?

No, only the exploration of ore and mineral reserve estimation was conducted by the company. Please find the report on attachment

**Q 2.9** **Preparation:** Are there any outstanding regulatory or legal requirements that need to be met before the project can proceed (*access to land, planning consent, use of new technologies*)?

No; the Standard mining ltd has acquired 50 Hectares of Land and legal documentation for ownership; it has also the mining licence for exploitation of this area.

**Q 2.10** **Preparation:** Has an Environmental Impact Assessment been conducted for the project (*If yes, then please attach a copy to this PD*)?

Yes, the EIA has been conducted and the copy is attached to this PD.

**Q 2.11** **How** will the performance of the project be monitored and evaluated (*both during and after the project*)? Explain the monitoring system below and then fill in the budgeted M&E Plan (in the table below – example activities listed for information purposes only).

The monitoring and Evaluation (M&E) of the project will be based on the logical framework. The Logical Framework Matrix will provide performance and impact indicators of the project implementation. The M&E activities will take place at different stages of the project implementation.

During the project implementation, there will be daily, weekly, monthly and the quarterly monitoring and evaluations to assess the performance of different measures and change or adjust them if necessary. The monitoring and evaluation schedule will facilitate and explain the need and clarify how it will be undertaken immediately during project implementation and after the funding. A significant part of monitoring and evaluation will be to assess progress of implementation of the highlighted activities to be implanted by the project.

M&E Activity	Responsible person	Timeframe	Budget
Field visit and record keeping	M&E Officer	monthly	2,225,000
Steering committee meeting	Project manager	Quarterly	600,000
Monthly progress report	Project manager	monthly	240,000
Progress reports	Project manager	Quarterly	150,000
Annual review meeting	Project Manager	Annually	1,300,000

**Q 2.12** **How** will you involve the beneficiaries and other stakeholders in monitoring and evaluation?

The monitoring and Evaluation (M&E) of the project will be inclusive (include representative of stakeholders) and based on the logical framework. The Logical Framework Matrix will provide performance and impact indicators of the project implementation and will be approved by project stakeholders. The monitoring and evaluation schedule will be also agreed on with these stakeholders.

The steering committee will be made of representative of stakeholders and will have the authority to approve report and action plan and making recommendations when necessary for a proper project management. Activity plan will also be approved in the consultation with local authorities and communities as primary stakeholders of project.

**Q 2.13** **Which** Output from the FONERWA's overarching M&E framework will be contributed to in the project's M&E Framework (*if possible choose an indicator from FONERWA's M&E framework*)?

The results of this project fall under the following output of FONERWA's M&E framework:  
 Output1: Conservation and management of natural resources strengthened and sustained.  
 Output indicator 1.1: Area (ha) of mined-out areas converted into other economic land use.  
 Output indicator 1.2: One model mine piloted.

The project intends to come up with a model mine with good environmental practices. The project intends to mitigate mining impacts through proper mine waste and tailing management and controlled overburden and waste rock in selected and managed site and use of improved mineral recovery techniques which will lead to increased mining production.

**Q 2.14** **Duplication** of project with other funding sources - all relevant potentially overlapping projects need to be identified and the areas of overlap and complementarity identified, drawing lessons and establishing a framework for coordination during implementation. Please provide a summary of recently concluded, ongoing, and pipeline projects that are relevant to the proposed project in the table below.

Project	Description	Timing and geographical coverage	Potential duplication and synergies
Rwanda mining policy	The mining policy seeks to comprehensively cover all aspects of the regulation,	Country, 2009	The synergy of the proposed project and the mining policy is to establish a model mine on which other miners can refer to improve mining



	institutional and investment framework for the mining industry as well as providing a clear plan of action to Support the sector's growth.		sector for sustainable production in environmental friendly manner.
Model mine Concept/ MINIRENA	Compliance with the legal framework and contract obligation	Country, 2016	The synergy is to develop mines with technologies and solutions that are not only economically competitive but also environmentally sensitive.  This project is built on the concept of model mine as presented by MINIRENA with ultimate goal of being economically competitive but also environmentally sensitive.

**Q 2.15** **Lesson Learning:** Please explain how the learning from this project will be disseminated and shared during (and at the end) of the project, and to whom this information will target (*e.g. Project stakeholders and others outside the project*)

Standard Mining company LTD during and after the project implementation, will seek to partner with relevant institutions especially RNRA-GMD, REMA and RMA for information sharing. This partnership will remain during the whole project implementation for long term sustainability.  
The learning from the project will also be disseminated during meeting with stakeholders and during end project workshop and tour visits on site  
The report and documentation of best practices will be shared with FONERWA, GMD and RMA to be freely accessed by public especially miners.

**Q 2.16** **Risk Management:** Please outline the main risks to the successful delivery of this project indicating whether they are high, medium or low. If the risks are outside your direct control, how will the project be designed to address them?

Risk description	Category (political, operational, financial, environmental)	Risk level (low, medium high)	Mitigation
Lack of funding	Financial	medium	PD well prepared
Delays in Disbursement of funds,	Financial	Low	Timely reporting and requesting
Low willing of partners	political	Low	Early consultations

**Q 2.17** **Risk Management:** What specific risks, if any, does your project pose to the environment, people or institutions affected by the project and how will these be managed and mitigated?

Risk	Risk level (low, medium high)	Mitigation
Pollution of river	high	Waste water re-use, pumping water uphill to the washing site
Pollution of air by fossil fuel	high	Use of clean energy/ hydro and solar energy.
Risk to the workers	high	Protection of tunnels, use of Modern equipment and use of safety facilities
The risk associated with conflict mineral certificate	Medium	The risk associated with conflict mineral certificate may arise at exporters level. At mine level, this risk is mitigated by putting tag

		which indicates the source of minerals being supplied to licensed exporters.
Inefficiency Water Use and Quality	Medium	The project will develop a Sustainable Water Supply Management Plan to minimize impact to natural systems by managing water use, avoiding depletion of aquifers, reuse, recycling and treatment of used water.
Management of storm water	Medium	Separation of clean and dirty water, minimizing runoff, avoiding erosion of exposed ground surfaces, avoiding sedimentation of drainage systems and minimizing exposure of polluted areas to storm water. For this project, recommended storm water management strategies have been broadly categorized into phases of operation (although several measures span more than one phase including the decommissioning and closure phase). From construction onwards, recommended management strategies include: Establishing riparian zones; Timely implementation of an appropriate combination of contouring techniques, terracing, slope reduction/minimization, runoff velocity limitation and appropriate drainage installations to reduce erosion in both active and inactive areas.
Environmental Management of Waste Mines	Low	Management of Waste Mines generate large volumes of waste structures such as waste dumps, tailing impoundments/dams, and containment facilities should be planned, designed, and operated such that geotechnical risks and environmental impacts are appropriately assessed and managed throughout the entire project cycle.
Dust emissions and dust management	Medium	Dust suppression techniques (e.g. wetting down, use of all-weather surfaces) for roads and work areas, optimization of traffic patterns, and reduction of travel speeds; Exposed soils and other erodible materials should be re-vegetated or covered promptly;

### SECTION 3: PROJECT BUDGET AND VALUE FOR MONEY

**Q 3.1** What is the total cost of the project (RWF; provide total cost for each year of the project disaggregated by capital and recurrent expenditure)?

The overall cost of the project is approximately Frw 143,010,000  
Year 1: 143,010,000 Frw

**Q 3.2** What is the total amount requested from FONERWA (RWF; provide financing needs for each year of the project)?

The amount requested from FONERWA is Rwf 92,750,000 equivalent to 65 % of total project cost during 12 months of project duration.  
Year 1: 92,750,000 Rwf

**Q 3.3** List all other sources of funding. Note whether the status of other funding sources (i.e. Whether the money has been approved or is awaiting authorisation)

35% of total project cost equivalent to 50,260,000 frw will be the contribution of Standard mining company Ltd, while the expected grant from FONERWA is 92,750,000 frw equivalent to 65% of total project cost.

**Q 3.4** **Additionality:** Explain why the project cannot be fully financed by other sources than FONERWA?

The project cannot be fully financed by other sources of funding than FONERWA because their interest rate is too high regardless environmental issues that the project is contributing for.  
Due to financial constraints to meet the above requirements especially environmental aspect, funding is being sought from FONERWA. The company doesn't have enough financial capacity to implement this project and the project objectives are very much in line with mining national program and especially with FONERWA's objectives which include supporting sustainable mining and quarrying.

**Q 3.5** **What** non-financial support is needed to implement the project? What is the best way for FONERWA to deliver this support?

The non-financial support needed is technical assistance during project implementation. The best way for FONERWA to deliver this support is to conduct field visits and regular monitoring of the project.

**Q 3.6** **Value for Money (Economy):**

- i) Briefly describe how the required inputs have been identified and how the GoR procurement procedures will be used to ensure they are obtained cost effectively
- ii) Provide identified unit cost measures or selected project outputs? (Please see VfM guidelines on how to determine these. Further guidance from the FONERWA Secretariat is available)

i) SMC mining company pursues the principles of economy, Value for money, transparency and competition in sourcing goods, works and services. The company has an internal Bids Committee (IBC) that ensures adherence to the above principles. The same competitive methods will be followed in sourcing inputs and services for this project.

During the project implementation, inputs and services will be procured using tendering and competitive methods to ensure quality, cost and effectiveness in line with FONERWA procurement procedures. The company tendering committee will be expected to ensure the process during the project lifetime.

iii) The following are the unit cost measures/output unit costs;

SN	Project outputs	Estimated cost (in Rwf)
1	Tunnels protected, water pollution prevented and water resources used efficiently in the mining operations;	50,950,000
2	Plant connected to the grid for mining operations and utilizing solar energy.	21,050,000
3	Mined-out area rehabilitated and converted into other economical land uses.	42,800,000
4	Project efficiently managed and coordinated.	28,210,000

**Q 3.7** **Value for Money (Efficiency):**

- i) Briefly explain how the provision and operation of project inputs produce the expected outputs
- ii) What is the Net Present Value (NPV) and benefit cost ratio for this project (Please see VfM guidelines on how to determine these measures? Further guidance from the FONERWA Secretariat is available)?

Basing on a logical framework approach, activities and inputs were planned to achieve the project outputs. This process is supported by company's experience in the business of mining.

In order to make sure that inputs are identified in a realistic manner, the detailed budget (units, unit costs and quantity) has been prepared and discussed at different levels and M&E indicators were established to be able to measure the project expected results as detailed in budget.

The NPV: **284,799,621**

BCR: **2.1**

Q 3.8

**Value for Money (Effectiveness):**

How does your project demonstrate effectiveness?

- How will it show the outputs meet the project objectives?
- Which indicators will you measure to demonstrate effectiveness?

The overall project aim is to come up with a mechanized small scale model mine to optimize mineral resource extraction and processing through environmental friendly practices and improved technology.

The specific objectives of the project are:

- Tunnels protected, Water pollution prevented and water resources used efficiently in the mining operations
- Plant connected to the grid for mining operations and utilizing solar energy for lighting
- Mined-out area rehabilitated and converted into other economical land uses.
- Project efficiently managed and coordinated.

To demonstrate the effectiveness, the following indicators will be measured:

1. Percentage of increase in mineral production
2. Quantity of clean energy produced and used;
3. Number of ha of mined out area rehabilitated and converted to other land use.

**ATTACH ANNEXES HERE TO THE PD APPLICATION** – *these can be accepted as separate files but clearly organise and identify the annexes so they are easy to refer to.*