



PPC Barnet Cement Project, DRC

Preliminary Findings of the Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESPM)

Non-Technical Summary

March 2014



For public comment by 18 April 2014

PPC BARNET CEMENT PROJECT

Cimenterie de Zamba (CIMZA)

PPC in association with the Barnet Group S.P.R.L. plans to develop the Songololo Cement Project in Cataractes District Bas-Congo Province, Democratic Republic of the Congo (DRC).

A pre-feasibility Environmental Impact Statement (EIS) and an Environmental Management Plan for the Project (EMPP) was completed by a Congolese consultancy and approved by the DRC government. This report was revised to comply with DRC Regulations and approved in October 2013 .

PPC seeks funding from lenders who require an Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP) according to international standards and principles.

PPC appointed SRK Consulting to upgrade the existing EIS and EMPP. A preliminary ESIA & ESMP Report was approved for the lenders, and the Executive Summary of this report is now available for public comment.

Who is PPC?



PPC Ltd is a leading supplier of cement in Southern Africa, with 9 cement manufacturing facilities and 3 milling facilities in South Africa, Botswana, Zimbabwe and Rwanda. PPC aims to expand its footprint into other parts of Africa.

PPC's operations are guided by international good practice which addresses issues such as stakeholder engagement and environmental management.

Who is the Barnet Group?



The Barnet Group is a private DRC Company based in Kinshasa who has been granted a concession to mine limestone in the Kimpese area of the Bas-Congo Province (this project).

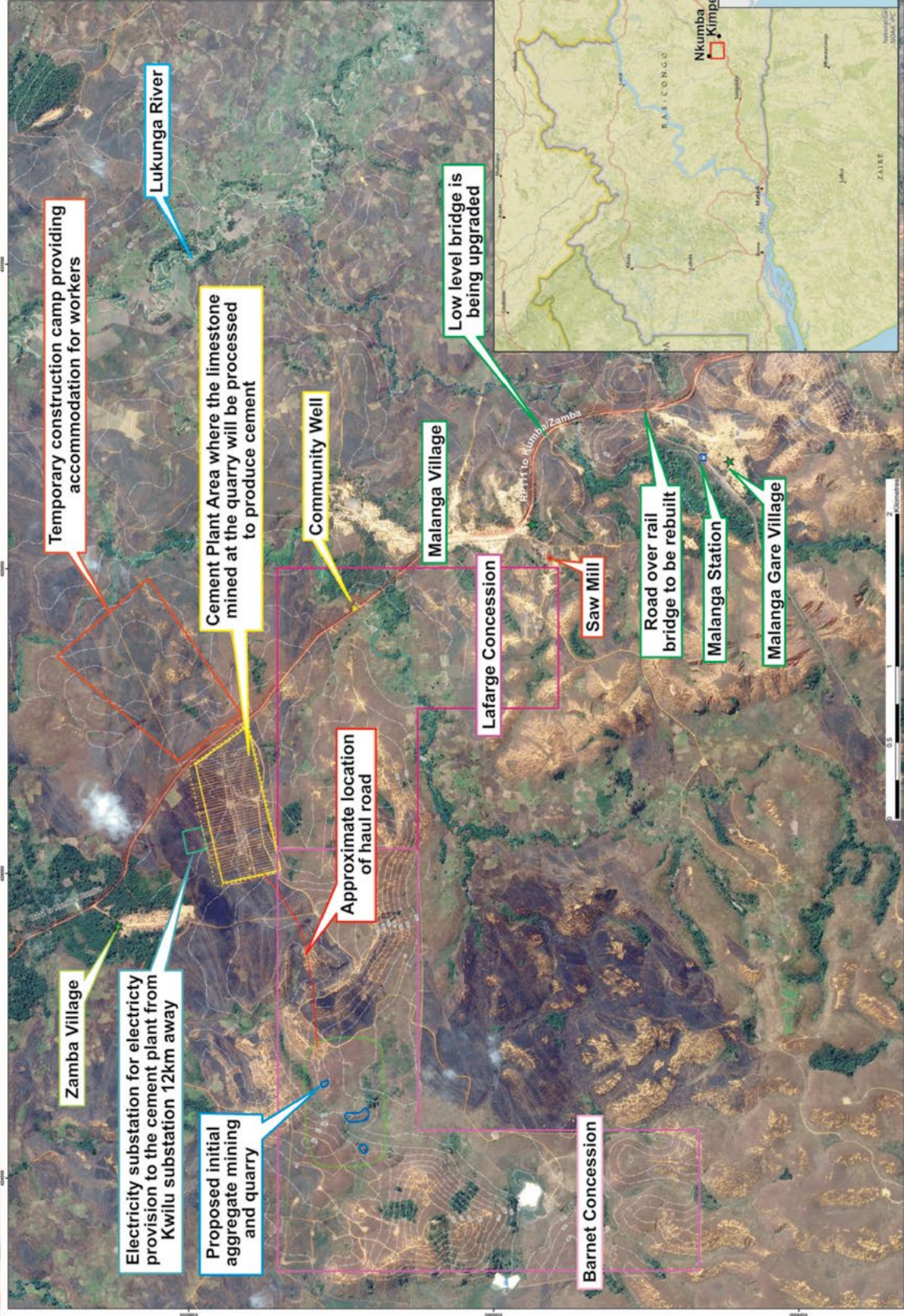
Who is SRK Consulting?



SRK Consulting is an independent international engineering & science consulting company with over 40 offices globally, including the DRC.

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Project Description: Stages of the Cement Production Process

Open-cast Clay and Limestone quarry mined to $\pm 70\text{m}$ depth



Crushing Plant for crushing of limestone



Raw mill where limestone mixed with clay, laterite and sand is dried and finely ground

Coal-fired rotary kiln plant in which the finely ground mix of raw materials is converted to clinker



Storage of clinker



Ball mill for the grinding of clinker with the addition of gypsum and limestone to produce cement



Storage and packaging of cement



Cement transported to Kinshasa for markets (100 trucks per day)



The cement plant will produce 3000 tons of cement/day for a working life of at least 30 years

Construction started in December 2013

Cement production is expected to start in the first half of 2016

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Project Description

Component	Detail
Drilling and blasting	Drilling and blasting will be required approximately every two weeks to produce limestone for further processing in the crushing plant.
Transportation of materials	Limestone will be transported from the quarry via haul trucks (35 – 50 tons) to the crushing plant.
Waste produced	The quarry and cement factory will operate their own waste disposal site to handle waste generated on the quarry and plant sites. Entrained dust collected in dust collection units will be returned to the process. No dust will be discarded as waste.
Power Supply	A 220kV powerline will supply power to the plant from Kwilu substation on the Inga-Kinshasa line. A 380V powerline will be constructed to supply power from the plant to the quarry for dewatering and lighting.
Water Supply	The total water requirement for the project is up to 1200m ³ /day. It has recently been decided by PPC that water will be sourced from the Lukunga River and will initially be transported by bowsers, whereafter a pipeline will be constructed linking the Lukunga River to the plant.
Accommodation	A temporary construction camp will be provided for 1200 construction employees. A permanent village will house skilled employees and other members of the operation workforce.
Employment	During construction, it is estimated that 1200 contractors will be employed, of which approximately 60 will be sourced locally. During operation, approximately 259 permanent employees will be on site. Approximately 254 DRC citizens will eventually be employed, the majority of whom will be recruited locally.
Other quarry infrastructure	Other quarry infrastructure for the project includes: • Access and haul roads, fuel truck and fuelling station • Mine offices and vehicle garage • Sewage packaged plant
Stormwater management	Provision will be made for on-site stormwater drainage. Run-off water from the coal stockpile will be stored so that any coal can be separated out before water is released.



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ESIA and ESMP process

SCOPING

Round 1A (October 2013)

- Introductory Round of Engagement (October 2013)
- Specialist Studies Commence (October 2013)

Round 1B (November 2013)

- Follow up round of engagement meetings

WE
ARE
HERE

PRELIMINARY IMPACT

ASSESSMENT & MANAGEMENT PLAN

(October 2013 - March 2014)

- Specialist Studies Continue
- Initial impact assessment is undertaken
- **Second Round** of engagement meetings (March 2014)

COMPREHENSIVE IMPACT

ASSESSMENT & MANAGEMENT PLAN

(October 2013 - December 2014)

- Specialist Studies Continue
- Detailed impact assessment is undertaken
- Impact mitigation measures and management plans
- **Third round** of engagement meetings (October 2014)

SPECIALIST STUDIES

High level overview and desktop:

Surface and groundwater

Bio-diversity

Social environment

Climate and air quality

Soils and land capability

Land use rehabilitation

Visual

Preparation for project closure

Noise and traffic

Greenhouse gas emissions; and

Cultural heritage

DETAILED STUDIES:

Air quality

Surface and groundwater

Socio-economic

PURPOSE OF THE SECOND ROUND OF MEETINGS

- Present preliminary findings of ESIA and ESMP to stakeholders for comment;
- Introduce the establishment of stakeholder liaison committees; and
- Gather stakeholder inputs for the Sustainable Development Plan (SDP) and Framework Land Acquisition and Compensation Plan (FLACP)



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Environmental and Social Management Plans

The following plans and procedures contain specific management and mitigation measures to manage and reduce negative impacts, and enhance positive impacts of the project:

Plans in process of being developed

- Environmental and Social Management System Framework
- Environmental Awareness Plan
- Construction Control Plan
- Traffic Management Plan
- Emergency Preparedness and Response Plan
- Greenhouse Gases Management Plan
- Cultural Heritage Management Plan and Chance Find Procedure
- Stakeholder Engagement Plan (including grievance mechanism)
- Influx Management Plan
- Contractor Management Plan
- Employment and Capacity Plan
- Draft Land Acquisition, Livelihood Restoration and Compensation Framework
- Preliminary Closure and Rehabilitation Plan

Plans to be developed as part of the Comprehensive ESIA and ESMP

- Sustainable Development Plan
- Community Health and Safety Plan (CHSP)
- A Framework Land Acquisition, Livelihood Restoration and Compensation Plan (FLARCP).
- Water quality and quantity
- Air quality management plan
- Resource efficiency
- Biodiversity plan
- Waste management plan
- Labour and human resources
- Occupational health and safety (an OHSP).

**WHO TO CONTACT
IF YOU WANT TO COMMENT
ON THE FRAMEWORK
ESIA AND ESMP**

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Potential Environmental and Social Impacts

Aspect	Potential negative and positive impacts identified	Rating of impact (pre-mitigation)
Air Quality	Increase in PM ₁₀ emissions (Pm ₁₀ refers to very fine dust) and gas emissions at the quarry, cement plant during construction	Medium Negative
	Increase in PM ₁₀ emissions along the RP111 road during operation	High Negative
Greenhouse Gases	Greenhouse gas emissions during operation	Medium Negative
Biodiversity	Loss of plants and protected plants as a result of construction activities	Medium Negative
	Reduced wetland areas due to dewatering	High Negative
	Increased erosion during operation	High Negative
Surface and groundwater resources	Reduced surface water flow and springs due to dewatering Stormwater inflows into the quarry Reduced water availability to other users due to abstraction Risk of flooding	Medium Negative
	Safety and structural instability as a result of sagging of soil from dewatering	High Negative
Soils and land capability and land use impacts	Loss of soil resource and change in land capability Soil contamination by spillage of diesel fuel	Medium Negative
Noise and vibrations	Noise in Malanga (night and day) from access road during construction Noise in Zamba during construction working hours	High Negative
	Occasional noise impact on Zamba village from blasting at the quarry during operation (once every 2 weeks)	High Negative
Visual character	Loss of sense of place due to site clearing and lighting	Medium Negative
Traffic and transport	Repairs to the R111 road and upgrade of bridges (planned as part of the project – but may therefore be considered as “mitigation”)	High Negative
	Safety impact on existing pedestrians and cyclists Damage to roads as a result of traffic during construction and operation	Medium Negative
Economic development	Stimulation of local development	Medium Positive
Social impacts	Increased social tensions Health and social impacts associated with influx of migrant workers Impact on community health services due to the project Economic displacement of Zamba and Malanga residents due to the project Impact on ecosystems services (benefits or services people gain from the environment)	High Negative
	Local investment in infrastructure and skills training	Medium Positive
Identified cumulative impacts	For example air quality, surface and groundwater quality and availability, noise, economic displacement, traffic, employment and economic investment	Not Rated

Employment Estimates

Construction Phase: Approximately 1200 employees, of which 60 employees will be sourced locally.

Operational Phase: Approximately 259 permanent employees, of which approximately 254 DRC citizens will eventually be employed, the majority of whom will be recruited locally.

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Establishment of Community Engagement Forums

In order to ensure proper implementation of Environmental and Social Management Plans and to encourage timeous and open engagement with affected communities, PPC proposes to establish the Environmental Stakeholder Forum (ESF), and the Environmental Management Committee (EMC). The activities of these committees should be independent from the ESIA and ESMP, but should assist in the implementation of the management plans, as well as providing a platform for addressing community issues and ongoing engagement of communities by PPC Barnett.

Since construction activities for the project have already commenced, it is important for these committees to be established immediately.



Environmental Stakeholder Forum (ESF)	Environmental Management Committee (EMC)
Responsibilities	
○ To formalise the engagement strategy with stakeholders and identify members to serve on the forum; ○ To drive capacity development; ○ To manage community expectations in a transparent manner; and ○ Strengthen relationships between PPC and communities.	○ Compile minutes of all meetings; ○ Prioritise actions to meet the objectives of the ESF; ○ Report progress with prioritized actions identified at meetings; ○ Plan future activities/ events; ○ Meet on ad hoc basis as deemed necessary, but at least twice a year; and ○ Report back regularly to the ESF
Proposed Membership	
○ Representative from PPC management; ○ PPC CLO and CLO team members; ○ Relevant government departments; ○ Representative from local Traditional Leaders for Zamba, Malanga and Nkumba; ○ One or two elected community members from Zamba, Malanga and Nkumba; and ○ Representatives from local the relevant NGOs and CBOs	○ Chairperson and secretary of the ESF; ○ Representative from business; ○ Representative from government; and ○ Representative from Traditional Authorities (Zamba, Malanga and Nkumba)