

**OPIC Response to
Comments Submitted by Environmental NGOs
Tenke Fungurume Mining Project
Democratic Republic of the Congo
July 2007**

- 1. Biological resources could be significantly compromised if the project proceeds as planned.**
 - a. Impacts on flora have not been sufficiently considered and mitigation plans are inadequate for the impacted endangered flora communities.**

OPIC Response:

There are limited records of occurrence of certain species in the copper-cobalt plant communities outside of project area. Although this may be due to the lack of scientific surveys in the area, the project and OPIC have adopted a more precautionary approach and are *assuming* that at least one of the plant species may only be found at the mine site. Based on this assumption, OPIC required the project to develop a detailed Biodiversity Action Plan to mitigate impacts on the copper-cobalt plant communities. Key provisions within this plan include the following:

- An extensive scientific survey to identify other species of concern and to map the occurrence of all species of concern within the concession area.
- Establishment of conservation areas within the concession and transplantation of critical habitat and critical plant material to suitable locations within the conservation areas.
- Other, more standard mitigation approaches including avoidance of disturbance to the extent practicable and *ex situ* preservation of plant material in seed banks and botanical gardens.

The scientific survey is in progress and will be one of the most extensive and comprehensive surveys of these plant communities ever undertaken in the Congolese Copper Belt. The survey and implementation of the Biodiversity Action Plan are being performed under the direct supervision of Dr. Francois Malaisse of Gembloux Agricultural University of Belgium. Dr. Malaisse is widely regarded as one of the world's leading experts in copper-cobalt plant communities.

Since the public disclosure of the ESIA in March 2007, Dr. Malaisse has identified two locations within the concession that represent suitable habitat for the transplantation of the plant communities. These areas have the required soil concentrations of copper and cobalt, and other physical conditions (temperature, sunlight and soil moisture) believed necessary to sustain the growth of these plant

communities. Statements made in the disclosed ESIA such as “candidate areas suitable for transplanting are not readily evident with the LSA” were made before Dr. Malaisse identified these suitable habitats. The Project Company has committed to preserving and maintaining these locations.

In April 2007 the project transplanted copper-cobalt rich habitats that would be immediately impacted by project development (e.g., boulders, substrate and soil) with the associated plant communities to one of these conservation areas. OPIC staff inspected the conservation area in May 2007 and, at that time, the transplanted plants appeared healthy. However, it is important to note that the ultimate success of this initial transplant effort can only be assessed after a complete cycle of dry and wet seasons. The transplant effort will be monitored and adjustments made, if necessary, including adjustments in environmental conditions (e.g., orientation) and an increase in the number and diversity of host sites.

Regarding impacts on gallery forest, one hectare of gallery forest will be cleared (out of a total of 2370 ha required for the mine and processing plant). This represents 2.7 percent of the total area of gallery forest located within the concession area. Most of the original gallery forest in the concession area has been cut down by local residents. The remaining gallery forest (37 ha) is all located outside of the area that could be potentially impacted by elevated SO₂ concentrations.

b. Additional analysis may be warranted regarding impacts to local fauna.

OPIC Response:

OPIC agrees with the commenter that the base line survey was unusually short. This was acceptable because the field survey was conducted during a period when all migratory birds were expected to be in the area. Internationally-protected species identified within the ESIA are those that could be present based on their natural distribution range, provided adequate habitat exists in the area.

Within the project concession area, more than 68 percent of the natural habitat has been converted to agriculture use and the remaining natural habitat shows a high degree of man made disturbance. More than 90 percent of the natural miombo woodland (the predominant habitat type in this part of the Congo) no longer exists. In addition to the lack of natural habitat, bird and mammal species are aggressively hunted in the area for food. Lack of habitat and pressure from hunting have led to a significant reduction in bird and mammal populations in the area.

Although there is a very low probability that internationally protected bird and mammal species would be impacted by project activities, OPIC will request that the Biodiversity Action Plan be amended to identify mitigation measures that

would be put in place if these species are ever detected in the area of project activities.

OPIC agrees with the commenter that the baseline fish survey was unusually short. However, previous fish surveys in the area during the period 1997-1998 confirm that fish abundance and diversity are low in the area. The project has agreed to conduct a supplemental fish survey employing a statistically valid sample design to strengthen contaminant metal testing done during the initial survey work. This supplemental survey will also add to the knowledge base regarding species occurrence in the area.

2. Soil quality could be substantially compromised, resulting in significant impacts to local communities in addition to plant and animal species.

a. In addition to impacting water quality, runoff and leachate from mining activities can have additional adverse impact upon soil quality.

OPIC Response:

The project has been designed to be as near a zero discharge facility as is practically feasible. The project's storm water management system provides for the diversion and containment of all storm water that comes in contact with ore and waste rock stockpiles. These contained waters primarily will be put to productive use in the mine's process circuit, thus preventing their discharge to the environment. In addition all contained waters will be regularly tested for water quality. The contained waters may be discharged periodically from the project site provided the following conditions are met: (a) the water cannot be used in the process circuit; and (b) the water quality meets internationally-accepted standards applicable to such discharges. A detailed Confirmatory Mine Waste Characterization Study was prepared by Golder Associates. This study, included in the project's ESIA, was prepared to address specific geochemistry and water impact gaps that were identified during project due diligence.

The storm water management system has been designed to spill no more than once every 10 years on average, which is consistent with US EPA guidelines for storm water management from such facilities. A primary goal of the operations management program is the protection of the existing uses of water by the local population through implementation of best management practices and a robust surface water, groundwater and sediment quality monitoring program. The project has committed to maintaining water quality downstream to preserve its current utility, to replace water supplies that might be lost due to lowering of the water table, and to remediate impacts to water and sediments if their utility is compromised.

Geochemical modeling of predicted water quality within the open pit lake does indicate that there may be elevated concentrations of contaminants. Additionally, groundwater flows away from the pit location and eventually surfaces as springs

which augment the base flow of water courses in the project area. However, detailed geochemical modeling also predicts that most of the contaminants that emanate from the open pit lake will be chemically attenuated, or halted in their progress, within a short distance of the pit lake, thereby preventing their migration off site. Details of this modeling can be found in the ESIA, Appendix B2.3-I (Confirmatory Mine Waste Characterization Study).

Regarding the stability of the TMF, the facility has been designed by Golder Associates, a globally recognized leader in the design and engineering of such facilities. Additionally, Golder has teamed with another globally-recognized engineering consulting group, MWH, to provide another layer of review and engineering proficiency in the project design, construction and operation.

The project is located in a relatively stable geologic area and the TMF has been designed to withstand a maximum credible earthquake for the project area. Extensive geotechnical investigations are currently being conducted to verify the project design and a recent TMF Dam Break Assessment performed by an outside consulting agency (Miniproc) concluded that the risk of dam embankment failure is negligible.

b. Compromised soil quality could adversely impact agriculture, which constitutes the core activity supporting the livelihood of all local communities.

OPIC Response:

The Project anticipates and realizes the significance of the loss of agricultural and pasture lands. Residents of Amoni and Kiboto villages will retain access to their existing fields. Residents of Mulumbu village will be provided with replacement lands readily accessible from their relocation villages. Potentially suitable replacement fields have been identified by the project and these locations were selected after extensive consultation with the population of Mulumbu. Prior to hand-over to the affected population, soil testing will be conducted and the project will complete all necessary soil preparation work (e.g., deep plowing, initial fertilization if necessary). Other mitigation measures include full compensation of all current crops lost due to project activities, additional livelihood restoration measures and establishment of a grievance mechanism to address any complaints that may arise after resettlement. The project also plans to monitor and assess all implemented resettlement and livelihood mitigation measures to ensure their efficacy.

3. Local impacts to affected populations are significant and the community development plan is incomplete.

a. Relocation concerns persist.

OPIC Response:

At the time the initial socioeconomic survey was conducted (November 2005 and February 2006) it was not anticipated that the three villages would need to be resettled, because the villages are located outside of the areas required for the mine and the processing plant. The socioeconomic baseline report contained within the ESIA (Appendix B4.1-1) reflects the initial plan that no resettlement would be necessary. During the course of ESIA preparation it was determined that all three villages periodically could be subject to elevated ground level concentrations of SO₂ from the processing plant. It was also determined that physical proximity to the plant could reduce the quality of life of residents in the three villages. Therefore, a decision was made that it was in the best interest of the members of the three villages if a resettlement site could be identified by the project that would be acceptable to the impacted communities.

The census of affected people and affected assets was completed on July 15, 2006. All assets including structures and fields that were surveyed in the project-affected area as of the census completion date are eligible for compensation.

In April 2007 OPIC held community meetings at all three villages to be resettled by the project during the due diligence site visit. Community members were all aware of the resettlement plans and OPIC was able to verify that community members have in fact been active participants in the evaluation and determination of an adequate resettlement location, lot sizes for the new community and housing construction details.

b. Current community development efforts are insufficient to mitigate adverse social impacts associated with the project.

OPIC Response:

As noted above, the socioeconomic baseline report (Appendix B4.1-1) in the ESIA does not reflect current project plans. Replacement homes, replacement water supplies and additional water supplies will be provided by the project.

The issue of lost access to schools and limited medical facilities was raised by impacted villagers during the OPIC due diligence site visit. The project has subsequently committed to the establishment of two primary schools and two medical posts.

Other development benefits will result from the implementation of a formal Community Development Plan (CDP). Although the CDP is in an evolutionary stage the project has developed a detailed organizational structure and operating model for the CDP and the project is making every effort to engage numerous stakeholders to identify local priorities and concerns. The project plans to enlist the participation of local governments, civil society groups and NGOs to ensure coordinated implementation of community development measures.

A Social Development Fund will be established by the Project Company using proceeds derived from net metal sales. Realizing their limitations and lack of local experience in managing such issues, the Project Company is contracting with a local NGO with extensive community development and humanitarian experience in the region. The scope of work for this contract will include actions to address the community development priorities identified during the baseline study (e.g., Community Basic Needs, Income Generation and Livelihoods, Infrastructure and Good Governance). The CDP scope will also focus heavily on capacity-building for local institutions so as to create a structure that will allow the effective and transparent local management of the Social Development Fund. Prior to the actual implementation of the CDP, the project has completed several community activities on their own including drilling water wells, financing small business start-ups and funding agricultural extension and skill training programs.

The project has implemented a transparent hiring policy that assigns priority for employment to employable, locally impacted people. The project has registered all local residents desiring employment and is undertaking skill testing to match applicants with potential jobs. In addition the project is providing financial support to small businesses and training in the area to increase secondary employment opportunities available to local residents. The project has been careful to make sure that employment opportunities are equitably distributed across all project affected communities.

c. The community development plan is incomplete, which would seem to indicate that it is premature to approve the project.

OPIC Response:

Negative effects associated with artisanal mining, including child labor, are not anticipated to occur in a commercial mining operation such as TFM. The DRC is a country that has experienced decades of civil war and is an environment where very little opportunity exists. In general, during the site visit it was apparent that the project enjoys broad local support from both governmental representatives and local populations. There is the sense that overall quality of life will improve with community development actions that will be developed and implemented in the near future. The project has already begun to implement some community development activities including installation of water wells, support for the development of small businesses and other activities designed to develop skills that can lead to long term employment opportunities.

The project is committed to a long-term presence in the region and continuing community dialogue and is making every effort to have an overall positive impact.

4. OPIC should defer consideration of the Tenke Project until the Ministry of Mines Commission has made recommendations regarding 60 mining contracts, including Tenke.

OPIC Response:

OPIC carefully considered the procedures and environment for awarding mining contracts in the D.R.C. in its evaluation of the project. The agency's due diligence, conducted in conjunction with local and international counsel, concluded that the Tenke project's contracts were executed and amended in accordance with law.

In considering approval for this project, OPIC has been mindful that the D.R.C.'s Ministry of Mines established a Commission in April 2007 to review certain past mining agreements. Specifically, the Commission is reviewing the amended and restated shareholder agreements among the project owners. Importantly, the project's concession that grants the project the right to mine and refine copper is *not* listed for review by the Commission.

Extension of the OPIC financing and insurance does not intend to influence or prejudice the outcome of the Commission's review. OPIC welcomed the formation and purpose of the Commission and will work, as necessary, with appropriate host-country stakeholders with respect to the Commission's recommendations to the D.R.C. government.