



REPORT ON THE ENVIRONMENTAL IMPACTS OF CHINA MOLYBDENUM COMPANY (CMOC) MINING ACTIVITIES ON THE COMMUNITY OF KABOMBWA

Kinshasa, 22 February 2022

1. Introduction: SARW responds to the Fungurume Communities' Appeal

In 2021, SARW was approached by the people of the villages of Kabombwa, Lukotola, Kioni, Mwanga Kakunta and Panga Ntadi, in the rural commune of Fungurume, Lualaba province (DRC), who complained about the drying up or depletion of rivers, air and water pollution caused by the lime plant built by Tenke Fungurume Mining (TFM), owned by the multinational China Molybdenum Co, Ltd (CMOC).

In June 2021, SARW, some members of civil society organisations (CSOs) and a delegate from the Lualaba Provincial Ministry of Mines met with TFM and together they visited the communities of four villages mentioned above to hear their concerns. TFM took part in the visit and attended all the meetings that the SARW delegation held with the communities.

According to the community members, water and air pollution was causing serious problems to their environment and health.

2. An Environmental Audit of TFM's activities was necessary



Following this visit, a report containing all the issues raised by the communities was shared with the company. In this report, SARW proposed that an environmental audit of some of the villages within the TFM concession should be organised in the near future. This recommendation was accepted by TFM2.

In order to remove any ambiguity about the results of the environmental audit, four consultancies or laboratories were selected. These are:

- Laboratory of the Polytechnic Faculty of the University of Lubumbashi (Environmental Laboratory);
- Dermatology Department of the University Clinics of Lubumbashi;
- The Congolese Control Office (OCC), and
- Agricultural and Food Research Centre (CRAA).

The selection of these four structures was made with the support of the Mayor of the Commune of Fungurume.

Indeed, the objective of the expertise requested from these four structures was to establish the link (cause and effect) between the lime factory and the pollution of water, soil and air, as well as to assess the impact of this lime factory and its quarry on the environment and the health of the populations living in the villages of Kabombwa, Kinyama and Panga Ntadi. In other words, we wanted to know if the pollution reported by the people of these villages was real and could be caused by the activities of the TFM lime factory.

This was a transparent and participatory process aimed at seeking evidence or proof in order to find a definitive and sustainable solution to the recurrent complaints of the people of these villages.

3. Sampling at the various sites



In September 2021, the four laboratories collected samples (of water, soil, air and leaves) at different sites upstream and downstream of the lime plant, in the rivers and water wells drilled by TFM in the middle of Kabombwa village.

4. Results of the Laboratory Analyses

As a result of the analyses carried out separately by the four above-mentioned structures and after harmonisation of the respective results, the following conclusions were reached:

- The air quality analyses reveal PM10 concentrations of between 53 and 56 $\mu\text{g}/\text{m}^3$. This concentration level is well above the World Health Organisation (WHO) threshold of 50 $\mu\text{g}/\text{m}^3$;
- The dust collected from the leaves of the banana trees shows very high concentrations of Calcium reaching up to 27%;
- The results of the sediment analyses show that their pH is alkaline (basic) and varies between 7.99 and 9.05 with an average of 8.53. The calcium content of all samples is relatively high.

5. Potential Impact on the Environment and Community Health



The laboratory results show direct impacts of the lime plant activities on both the health of the population and the environment of Kabombwa village, mainly due to the high calcium content.

mainly due to the high calcium content. Indeed, calcium is the major element in lime. Lime has a negative impact on plants and humans. It reacts strongly to water or high humidity in the air or soil. During this reaction, heat is generated which can actually burn plants. It is therefore clear that lime deposited on crops is the cause of leaf dryness.

In humans, lime is very irritating to the skin, mucous membranes and eyes. It should not be inhaled under any circumstances. When the effects are related to short-term exposure, the substance is corrosive to the eyes, skin and respiratory tract. The effects may be

delayed. Medical supervision is always advisable. When the effects are related to prolonged or repeated exposure with the skin, it may cause dermatitis.

Repeated or prolonged inhalation of dust particles may have effects on the lungs and may cause nasal ulceration. This may lead to perforation of the nasal septum.

Furthermore, the high calcium content in the sediments collected downstream of the lime production plant is believed to be due to the drainage of lime-laden wastewater into the aquatic environment without prior treatment.

The situation in the village of Kabombwa therefore remains a concern in light of the laboratory results described above.

laboratory results as described above. There is therefore a direct link between the activities of the lime plant and the impacts felt by the population, given that before the establishment of this plant, the populations of this village were not exposed to these diseases or to the ills deplored today.

Recommendations: CMOOC (TFM) to act immediately



The statements made by the population of Kabombwa both in front of the SARW delegation and on social networks are to be taken seriously and a solution must be found immediately.

The results of the audits show that there is evidence to support the complaints of the people of Kabombwa village.

The conclusions of the experts show that there are environmental problems caused by the high level of calcium coming from the TFM lime factory, which can have a negative impact on the health of the surrounding communities. SARW is concerned that the environmental and health situation of the inhabitants is dangerous

To this end, SARW recommends:

- **The immediate medical care** des cas of people suffering from diseases caused by the pollution of the TFM lime factory and that a general screening campaign be organised in this village in order to determine the health status of this population in the face of this pollution;
- **The relocation** of Kabombwa village by TFM;
- **A new investigation by health specialists** to shed light on the other cases of disease, not revealed or confirmed by this first investigation in the village of Kabombwa;
- **CMOC should put in place a policy of permanent monitoring** of water and air quality in order to prevent these kinds of impacts on the environment and on the health of the population, following the example of Freeport, its predecessor;
- **CMOC should update its environmental impact assessment** for the lime plant to take into account the impacts that are being decried;
- **Finally, CMOC should review its policy on social responsibility** towards community members.

For more information on SARW, please visit their website:

2 www.sarwatch.co.za



THANK YOU

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